

Electoral Accountability and the Provision of Public Goods in Rural China

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Abstract

This article examines the impact of electoral accountability on the level of public goods provision in Chinese villages. By conducting a nation-wide village-level survey and estimating two simultaneous equations, we find that in villages where elections are implemented more in line with the rules and procedures stipulated in the 1998 Organic Law of Villagers' Committees *and* where the elected villagers' committee and/or its chair is conferred with more authority to manage and allocate village public funds, the levels of village investment in public goods provision are higher. Our findings also pinpoint the tension in reconciling the empowered participatory local governance with state control.

JEL Classification Codes: D02, D71, H41, P35.

Key Words: Village elections; structure of power; public goods provision; rural China.

1. Introduction

International experience indicates that public services often fail to work for those with fewer private resources. *World Development Report 2004*, entitled *Marking Services Work for Poor People*, adopts an analytical framework of actors and accountability and identifies the key interactive relationships of power and accountability between four groups of actors – citizens/clients, politicians/policymakers, organizational providers, and frontline professionals. In the ideal situation, citizens participate in political processes that define collective objectives and direct public/political actions in accomplishing those objectives; policymakers can effectively convey their policy decisions to service delivery organizations and monitor their performance; organizations effectively manage frontline providers; and clients are sufficiently motivated and feel able to provide feedbacks on the performance of service delivery (World Bank, 2004).

With its authoritarian political system, China should score badly against the above expectations. However, it is widely acknowledged that rural China has among the best social indicators in comparison with its peers in the developing world. Two factors have been attributed to China's relative success. First, the strong socialist state can launch and sustain vertical programmes of logistical delivery of those services that are less discretionary and less quality-sensitive. Second, China's villages, despite not being a formal level of the Party-state apparatus, are responsible for financing and providing a substantial share of public goods within their boundaries, where the vast majority of the rural population lives. This feature of China's villages is not present in many other developing countries today, where the national and sub-national governments are the major driving forces (Zhang et al., 2006).

The role of public goods provision and the election of local officials at the village level make it possible to examine the interactive relationship of power and accountability between villagers/voters/clients, village officials and the Party-state apparatus. A number of publications have emerged with this attempt and two lines can be distinguished. One strand of the work indicates that the introduction of direct elections for villagers' committee (VC), since the late 1980s and especially after the late 1990s, has exerted a largely positive impact on village's investment in public goods. Electoral institutions seem to provide elected VC members with strong political incentives to be responsive to their constituencies' demands and this mechanism appears to increase the transparency and efficiency with which village public funds are managed and allocated. This strand

suggests that, despite the authoritarian nature of the macro-political environment, there can be accountability *through* democracy in Chinese villages (Zhang et al., 2004; Luo et al., 2007; Wang and Yao, 2007). The other strand points out that it is the (re-)emergence of “encompassing” and “embedding” solidary groups with shared moral obligations and ethical standards – such as local temples and village-wide lineages – in the post-Mao period that has enhanced village officials’ responsiveness to their fellow villagers in the delivery of public goods (Tsai, 2007a, 2007b).¹ Thus, the positive relationship suggested in the first strand above might be driven by such informal institutions of accountability and could be a reflection of “accountability *without* democracy”.

Such discrepancy suggests that focusing on “access to power” alone may oversimplify the local configuration in “exercise of power” and turn village governance into much less than it is (O’Brien and Han, 2009). In fact, the majority of existing works do not examine the quality of electoral processes and, most importantly, do not analyze the post-election distribution of power between the VC, whose members are more or less directly elected by villagers, and the village Party branch, whose officials are appointed by the Party committee at the township level.

In this paper, we examine the relationship between VC elections and village’s investment on public goods provision by taking into account both the procedural quality of elections and the post-election actual ability of the VC in exercising the power to allocate village public funds. We also pay attention to the impact of the “VC responsibility targets” imposed to the VC by the township government on the quality of electoral procedures and the political power structure at the village level, and control for an array of social forces. We specify and estimate two simultaneous equations based on a unique dataset from a national survey conducted in 2005, which covers 115 villages, 58 townships and 30 counties across 6 provinces in China. Our econometric estimations indicate that in villages where elections are implemented in accordance with the rules and procedures stipulated in the 1998 Organic Law of Villagers’ Committees *and* where the elected VC and/or its chair, rather than the village Party branch and/or its appointed secretary, is conferred with the

¹ These groups differ in the extent to which they “encompass” the whole village population and to which they “embed” village cadres. For example, village temples and churches both tend to be “encompassing”, including everyone in the village as members. However, village temples might embed local officials, while churches do not, given that Party members and local officials are prohibited from participating in religious activities. Lineage groups, in turn, tend to be “embedding”, for they include local officials as members, but may or may not encompass the whole village population.

authority to manage and allocate village public funds, there are higher levels of village's investment in and maintaining expenditure on local public goods and services. While the target responsibility system does not show a positive or negative influence on public good provision, it does exert a negative impact on the development of electoral accountability. In terms of social forces, while lineage encompassment enhances both public goods provision and electoral accountability, tension and conflict between clans play the opposite role. These results are robust to major control variables which represent economic, geographic, and other social feature of individual villages.

This research aims to enrich the literature on electoral accountability and local government performance in two ways. First, as has been noted, local elections have been either overlooked as an explanatory factor for the performance of local governments in developing countries, or treated as a simple dummy variable denoting whether they have been held or not (Zhang et al., 2004, Luo et al., 2007; Packel, 2008). In contrast, we treat election variables as primarily-important explanatory factors and examine their quality content in terms of both the "access to power" and the "exercise of power". Tsai (2007b) and Wang and Yao (2007) suggest that more democratic or enhanced access to power (i.e., higher-quality election procedures) alone is insufficient in leading elected village officials to carry out higher levels of village spending on public projects. Hence, we suggest that a more democratic access to power needs to be kept up with a more democratic exercise of power, in order to provide village officials with positive incentives for enhancing public goods provision. Second, we do not treat elections as an independent or exogenous factor but instead examine their endogenous nature, because elections alone have not done away with several constraints. In fact, the township government, the village Party branch, and an array of social forces constitute the local power configuration in which VCs are embedded.

Our emphasis on the interplay between electoral accountability and its constraint factors is in line with the literature on electoral institutions in authoritarian regimes and emerging democracies. For example, Mozaffar and Schedler (2002) point out that the structure and processes of electoral governance, i.e., the set of related activities that involves the making, application, and adjudication of electoral rules, play an important role in determining the freedom and fairness of elections.² Koehler (2008) emphasizes the

² Elections are free when the legal barriers to entry into the political arena are low, when there is substantial freedom for candidates and supporters of different political parties to campaign and solicit votes, and when voters experience little or no coercion in exercising their electoral choices. Elections are fair when they are administered by a neutral authority not controlled by the ruling party, when that neutral authority is also able

importance of the wider political environment in which electoral institutions are embedded, because it determines the meaningfulness of elections or the extent to which they confer real decision-making authority and power on elected leaders.

The paper proceeds as follows. Section 2 develops hypotheses regarding the impacts of electoral accountability and target responsibility system. Section 3 report survey design, measurements of key variables, and estimation methodology. Section 4 presents the estimation results, and section 5 concludes.

2. Electoral Accountability and Local Governance in Rural China: Hypotheses Development

The earliest VCs emerged spontaneously in 1980-81, a time when the de-collectivization of agriculture and the establishment of the agricultural household responsibility system were taking place. They emerged to fill the administrative vacuum and provide basic local public goods and services which were withering rapidly as the commune system crumbled and resources were mainly retained by households. The 1982 Constitution of China officially sanctioned VCs as elected, mass organizations of self-government (article 111). This categorization is important in two senses. First, it keeps with the tradition of self-sufficiency of villages in the past and thus relieves the government of financial responsibilities for VCs. Second, it does not empower the VCs with the official authorities of state and permits the committees with flexibility and room to manoeuvre that the formal organs of government does not have (Choate, 1997; O'Brien and Li, 2000; He, 2007).

The drafting of the experimental 1987 Organic Law of Villagers' Committees took five years and it took another 11 years for China to formally introduce the 1998 Organic Law of Villagers' Committees. Although this long process had been characterised by sustained debate, the central vision was unchallenged and still rules the day, which is that village elections are designed to increase mass support for the Party and grassroots democracy is understood to be fully compatible with strong Party/state control. The division in the debate was between an instrumental emphasis on firm Party/state control and on curbing arbitrary and predatory behaviour by rural cadres. Given the tension that

to take various precautions to prevent fraud in the voting and vote counting, and when there are transparent and impartial procedures for resolving election complaints and disputes (see Diamond and Myers, 2001).

naturally arose in implementing unpopular and contentious policies such as birth control, tax collection, grain procurement, and other policy targets, many local administrators, township officials in particular, argued that without tight control over VCs and an ability to issue direct commands, elected VC members would be inclined to take their cues from below rather than above and tempted to ignore state interests and disregard township instructions. In contrast, central leaders in Beijing, including two important venerable Long Marchers, Peng Zhen and Bo Yibo, lament how relations between rural officials and villagers had deteriorated over the years due to that some rural officials “resorted to coercion and commandism” and not a few had become corrupt and high-handed “local emperors” (*tu huangdi*). They argued that simple top-down supervision had proven insufficient to reverse such trend and if the trend were not reversed villagers would “sooner or later attack our rural cadres with their shoulder poles” (Peng, 1987). In their view, the self-government at the village level is an effective mechanism to rejuvenate village leadership by cleaning out incompetent, corrupt and high-handed cadres, serving the purpose of consolidating the current Party/state control (O’Brien and Li, 2000).

The resultant compromising language in the Organic Law is sufficiently vague to satisfy both sides in the debate. VCs are neither formally under township governments nor under village Party branch. But the village Party branch, instead of VC, constitutes the “leadership core” of the village and VC is expected to follow general Party leadership. Moreover, VC is subject to the “guidance, support and assistance” of township government.³ Given such ambiguity in the law with regard to the respective scope of authority and division of competencies between VC, the Party branch, and township government, a practically balanced exercise of power in individual villages is subject to local conditions and different interpretations.

2.1. Election Quality

Judging by access to power alone, the Organic Law has achieved much. It entitles Chinese villagers to directly elect their VCs, comprising between three and seven members, who serve for a term of three years, with no limit on the number of terms for which they can be re-elected. VCs are legally defined as “grassroots mass organizations of

³ As Alpermann (2001) has pointed out, the difference between such terms is more than semantics, given that a “leadership relationship” would have given townships the right to issue binding orders to village committees in order to carry out certain state tasks in their villages, while in a “guidance relationship” township authorities need to work through persuasion.

self-government through which villagers manage their own affairs, educate themselves, and serve their own purposes”. VCs are responsible for the performance of key public tasks in the village, namely, managing village’s lands and collective property, providing public goods and services, mediating disputes among villagers, assisting in the maintenance of public order, communicating villagers’ opinions to township governments, publicizing state laws and policies, as well as urging villagers to both fulfil their legal obligations and to respect public property.⁴ In comparison to the trial law of 1987, the 1998 Organic Law represents a significant step forward in standardizing village elections and bringing election rules and procedures up to international standards. It incorporates basic principles of free and fair elections and, more specifically, it stipulates that village election committees must be elected by villagers, all election candidates must be directly nominated by villagers, there must be more candidates than positions, voting must be done in secret, the counting of votes must be done openly and the results must be announced immediately after the scrutiny (O’Brien and Han, 2009; Tan, 2004; Tan and Xin, 2007).

The implementation of village election has improved in both terms of coverage and procedures. According to the Ministry of Civil Affairs, by the mid-2008, balloting had been carried out every three years in over 610,000 villages in all 31 provinces. Turnout rates have been high at an average level of 80%, indicating that over 500 million voters took place in the latest round of election across the countryside (*People’s Daily*, 4 August 2008). Surveys and direct observations by international monitors show that the conduct of elections has improved over time in terms of nomination procedures, competitiveness, and secret balloting. On the other hand, it is also noted that there are significant variations in election quality in terms of departure from the standard rules and procedures set by the 1998 Organic Law. Many procedure failings identified by Chinese and international observers have not been fully addressed and new problems are also emerging (He, 2007; O’Brien and Han, 2009; Tan, 2004; Tan and Xu, 2007).

Despite its limitations, it is acknowledged that VC elections represent “the” key institution in rural democratization, and are changing village governance (He, 2007). Empirical research shows that the holding of direct elections has contributed to reduce

⁴ In addition to village committees, the Law sets up village councils or assemblies, in order to enhance village leaders’ accountability and to favour villagers’ political participation. Village committees would be responsible to village councils, which would comprise all adult villagers or a representative from each household.

rent-seeking by local officials (Brandt and Turner 2003) and to increase village government spending on public goods and services (Zhang et al. 2004; Luo et al. 2007; Wang and Yao 2007). Higher levels of investment in public goods projects, in turn, have had a positive effect in reducing intra-village inequality, by enhancing the income capability of the poorer (Shen and Yao 2008). However, village election is typically regarded as a one-shot institutional change in this literature. With the accumulatively universal implementation of village elections, the variation of the dummy variable which denotes whether the election has been held or not approaches zero and thus loses explanatory power. To overcome this limitation and to re-assess the above positive relationship in the post-election era, it is necessary to pay attention to the significant variation in election quality across Chinese villages and to analyze whether electoral processes are conducted in accordance with stipulated rules and procedures. In the spirit of the existing empirical literature, it can be anticipated that a higher degree of freedom, fairness and meaningfulness of village elections would lead to better VC performance in the provision of public goods.

Wang and Yao (2007) and Tsai (2007b, Chapter 7) do pay attention to election quality and test its impact on VC performance in public goods provision. Wang and Yao focus on variations in nomination procedures and find that while holding the election (a dummy variable) has a significant positive impact on the share of public expenditure in the village budget, the competitiveness in nomination process does not. Tsai constructs an election quality index out of a battery of questions on the pre-election process, voting procedures, and villagers' representative assemblies and does not find any sizable or statistically significant impact this index may exert on village's public goods provision.

2.2. Exercise of Power

The expectation for a positive relationship between election quality and VC performance presumes a direct link between access to power and exercise of power, that is, more democratic access to power would directly lead to more democratic exercise of power via the elected VC. While this presumption might hold in advanced industrial democracies, it may not necessarily fit well with the power configuration context of Chinese villages. VC members may win their position through the election, but once they gain office they would have to compete with, or at least take into account, township governments, village Party branches, and social forces. For example, Tsai (2007b, Chapter 7) reported that in River Bridge, a wealthy suburban village located on the outskirts of the

Xiamen Special Economic Zone in Fujian province, a high quality model election was implemented under the careful direction of the township government and village Party branch. Nevertheless, the election carried no impact on the way power is exercised in the village because the Party branch remained to be the locus of power and the Party secretary was well endowed by the township authority. In some other localities, serving on the VC is regarded as a thankless and poorly paid job. As a consequence of this and/or other socio-cultural reasons, candidates often have to be searched out and “talked into” running for office by the township authority and Party secretary (Choate, 1997). Subsequently, a smooth election takes place but it does not alter the configuration of power in the village.

Surveys of grassroots cadres although show significant shift in exercise of power from the Party branch to the elected VC in many villages, they also confirm the persistent eminence of the Party branch and its secretary in many other villages. For example, a 2000 survey of 58 villages in six counties evenly distributed across Jiangsu province (Zhang et al., 2004) showed that in 17 (29.3%) villages, Party secretaries had the final say on village affairs; in 9 (15.5%) villages, both Party secretaries and VC heads made decision jointly; and in 15 (25.9%) villages, the elected VCs played the leading role in the decision-making process of their villages. In our own 2005 survey of 115 villages across 6 provinces, 46 VCs (40%) can be regarded as being more powerful than the Party branches in terms of control over their village’s public financing and other major affairs.⁵

Large number of case studies and media reports has indicated that in many villages where elections depart significantly from the standard rules and procedures set by the 1998 Organic Law, and/or there is a lack of power redistribution in favour of the elected VC, villagers’ ability to enhance VC’s performance in public goods provision has been very limited. On the other hand, in many other villages, elections have allowed villagers to vote corrupt and/or incompetent officials out and have led to a new power configuration which empowered the elected VC (He, 2007; Alpermann, 2009; among others).

Such variation in post-election power configuration would suggest that a direct link between access to power and exercise of power may not exist in those villages where there is an absence of real change in the way power is exercised. In other words, the expectation that higher quality elections would lead to better VC performance in the provision of public goods may hold only in those villages where elections do have empowered the elected VCs. This leads to our first hypothesis:

⁵ Sampling details of the survey will be presented in Section 3.

H1: *Other things being equal, high quality VC election in combination with empowered VC leads to a higher level of village's investment in public goods provision.*

2.3. Target Responsibility System

In line with the central version underpinning the design of the Organic Law, that is, village elections must not undermine strong Party/state control, village cadres have been also under the “one level down” cadre management regime implemented since the mid-1980s. Under this regime, village Party secretaries are typically appointed by the township Party committees. Both the Party secretary and the VC head were also assigned quantitative targets, similar to the formal cadre responsibility system implemented at the higher level. Since the mid-1990s, the formal cadre responsibility system has been also increasingly adopted to the village level (Hsing, 2009; Tsui and Wang, 2004). The assigned targets are ranked in importance, from highest to lowest, as “priority targets with veto power”, “hard targets” and “soft targets”. The completion of “priority targets” is critical for local officials, because the attached “veto power” implies that a failure in attaining these targets will cancel out all other work performance, however successful, in the comprehensive evaluation carried out by upper level officials at the end of the year.

For two reasons VC cadres would be well coaxed to attain priority targets, whatever the views of voters. First, fiscal reality has increased the dependence of VCs on upper level governments for financial help. The 2002 Tax-for-Fee reform forced village officials to stop fee collection and this led to dramatic falls in revenues in village balance sheets. As a consequence, constructing and repairing roads, maintaining irrigation systems, supporting the elderly and disabled, and improving school facilities all have become more difficult, especially in agricultural areas where there is a shortage of non-agricultural enterprises and funds-rich social organizations. In order to ensure the arrival of the promised fiscal transfer from the township and/or county government, which is also in the interest of villagers, VCs would typically be well-motivated in implementing the priority targets assigned from the above. Second, in many locations, the salary and bonuses of VC members are determined by township authorities and the levels are set in accord with how well important assignments are carried out (Edin 2003; O'Brien and Han, 2009; Whiting 2001).

There are researches assessing the effectiveness of the target responsibility system. It is found that the system does not have a significant impact on the provision of public

goods and services mainly because the performance contracts do not given priority to these policy areas, which have remained “soft targets” and therefore attracted insignificant attention in the performance evaluation exercises carried out by the township governments (Edin 2003; Whiting 2001; Tsai 2007b). It is also found that heavier mandates from the above lead to poorer quality in village elections because fulfilling priority policy assignments well would increase the bargaining power of the township government with upper levels for more control at the village level, thus lowering the quality of village democracy (Shan et al., 2005). In this research, we reassess the above relationships in the context of post Tax-for-Fee reform. If there is a positive link between the fulfilment of priority policy assignments and the level of fiscal fund transfer from the above, we would expect that the target responsibility system make a positive contribution to the provision of public goods and services at the village level, but a negative contribution to the quality of village democracy. This discussion leads to our second hypothesis:

H2: Other thing being equal, heavier policy mandates from the above (a) leads to a higher level of village’s investment in public goods provision, and (b) a lower level of democracy quality.

3. Data, Measurement of Variables, and Methodology

3.1. Data

The dataset is from our own national survey. The survey was conducted in the summer of 2005. Stratified sampling was used to select sample villages. First, the country was divided into six regions and one province was randomly chosen from each region. Jilin, Hebei, Shaanxi, Sichuan, Jiangsu, and Fujian were finally included in the sample. All counties in each province were ranked into five quintiles according to their per capita gross value of industrial output, and one county in each quintile was randomly selected. For each of these 30 counties, 1 township was randomly drawn from those townships with the level of per capita net income being above the median, and the other one was randomly selected from those with the income level below the median. Applying the same method, 2 villages were selected in each township, making the total number of villages in the sample 120. To ensure the presence of village cadres in the sample, cadres were separated from ordinary villagers and 2-4 cadres and 14 adult villagers from each village were randomly selected. Nevertheless, due to natural disasters and miscommunications,

the survey teams could not reach some target villages. As a result, the survey data covers 378 village cadres and 1,550 ordinary villagers in 115 villages, 58 townships.

The survey questions related to village elections, village-level financial accounting and socioeconomic statistics, such as village revenue and expenditure on public goods provision, population and migration, lineage structure, farmland distribution and the development of non-agricultural activities, were mainly discussed between the interviewers and village cadres. Financial data was collected for the period of 2000-2004. Demographic and other socioeconomic data was collected for the years of 2000 and 2004. The survey forms were filled by interviewers rather than villagers.

(Tables 1-4 are about here)

3.2. Two Dependent Variables

Our leading dependent variable is the logarithm of per capita total village expenditures for the provision and maintenance of public goods in 2003 and 2004, which includes both capital expenditures (investments) on public goods and current expenditures on the maintenance of public goods. For convenience, we call it “village public goods provision” henceforth. This variable in our sample shows significant variations across villages, counties, and provinces. As Table 1 presents, in 2003 and 2004, villages in our sample spent on average 134.85 yuan per capita on public goods provision, with a very high standard deviation at 208.45. Capital expenditures (investments) accounted for 93% of the total and current expenditures for the maintenance of public goods accounted for the remaining 7%. Inter-regional variation is large as well. Villages in Sichuan recorded the highest level of per capita expenditures in public goods at 193.21 yuan, while the average level in Hebei was only at 68.67 yuan.

The secondary dependent variable is the product of an election quality index in the last election during the period 2000-2004 and a dummy variable capturing the distribution of power between the village Party branch and the VC after the election. We name it “democracy quality index”.

As discussed in Section 2.1, from the access to power perspective, the implementation of standard rules and procedures in elections is fundamentally important because it ensures villagers’ confidence in the quality and results of elections. The election quality index that we have constructed focus on the departure in election practices from the standard rules and procedures set by the 1998 Organic Law. We consider the following

five aspects of village elections: (1) whether election committee members were elected by villagers; (2) whether villagers were involved in the nomination of candidates; (3) whether proxy ballot was prohibited; (4) whether there were fixed ballot boxes; and (5) whether there were secret polling booths. An answer of “yes” to each of these questions was given a score of “1”, and “0” otherwise. The index consists of the sum of these five scores. Thus, it ranges from “0” to “5”, where “0” represents elections violating all procedures and “5” denotes elections which were conducted in accordance with all of the procedures.

The dummy variable that captures the distribution of power and responsibilities between the village Party branch and the VC is constructed as follows. It takes the value “0” if the village Party secretary or Party branch is the governing authority or body concentrating all the decision-making power over public finances and key village affairs. Alternatively, it takes the value “1” if (a) the VC is the main governing body with control over public finances and key village affairs, while the Party branch provides assistance; (b) the Party branch and the VC collaborate in making major decisions and taking implementation responsibilities; (c) the VC head has control over public finances and the most important village matters, while the Party secretary plays an assistant role; or (d) both posts of the VC head and Party secretary are held by the same person.⁶

The “democracy quality index” constructed in the above way would be able to differentiate villages where changes in the exercise of power have kept up with changes in the access to power from those where there is a lack of change in the exercise of power. In this way, the index would capture, to a meaningful degree, the extent to which villagers are empowered to hold elected VC members accountable. Table 2 reports the mean values and standard deviations of both the election quality index and democracy quality index by sample provinces. It shows that variations in both indexes are large across villages within each province and across provinces. Table 3 further shows that upgrading in election quality index is not matched by an increase in number of control-power shift from the Party branch to the VC.⁷ Noticeably, at the top of the election quality rank, two villages with the score of “5” clearly resemble the case of River Bridge village presented in Section 2.2. At the bottom of the rank, although in 3 of the total 5 villages where VCs are the real governing body, elections in these 5 villages violate all procedures and as a result

⁶ In 4 villages in our sample, (d) is the case. One person holding these two top posts can be a result of either democracy or dictatorship, therefore, we run a robust test in our econometric estimation by dropping these 4 villages.

⁷ The Correlation Coefficient between election quality index and power distribution variable is 0.0263.

their democracy quality scores are zero. Between “1” and “4” of the election quality rank, there is a roughly matched trend in terms of that the absolute number and proportion of villages with “VC in control” in the same election quality rank increase, with the exception of the rank “3” cohort, in which 48.5% of villages enjoy a match between improved access to power and enhanced accountability in exercise of power.

3.3. Policy Targets Index

As discussed in Section 2.3, we need to assess quantitatively the direct effects of the target responsibility system on the provision of public goods by village officials, while simultaneously evaluating its impact on the democracy quality of village politics. For this purpose we construct a variable that measures the proportion of policy targets imposed from upper level authorities in the top five mandates performed by VCs in 2004. Table 4 reports the mean values and standard deviations of this “policy targets index” by sample province and by democracy quality index. The first observation from the table is that the proportion of policy targets is generally high. This suggests that our policy targets index may over-represent the importance of policy burdens from the above, although this proportion can be easily scaled down by increasing the denominator to six. Despite this limitation, its significant variations across villages in the same province and across provinces would serve the purpose of this research. The second observation is that there is a rough correspondence between the increase in democracy quality index and the decrease in policy burdens.

3.4. Control Variables

We control for three sets of factors which might have an effect on the provision of public goods in Chinese villages. The first set includes those variables representing the level of economic development and the structure of the local economy, such as per capita village government revenues, per capita net income, the number of collective enterprises, the number of private enterprises, the number of self-employed households in non-agricultural businesses, the share of migrants working outside the county over the total labour force of the village, and per capita farmland. To avoid possible endogeneity problems, we take year-2000 values of these economic variables.

We expect that higher levels of economic development are generally associated with higher levels of provision in public goods and services because of both higher demand and more funds available for the provision. Previous studies also find that Chinese villages

with a greater share of collective income (Wang and Yao, 2007), more collective enterprises and self-employed households (Zhang et al., 2004; Zhang et al., 2007), and higher levels of per capita income (Luo et al. 2007), tend to engage in higher levels of investment in public goods. Other features of the local economy also matters. Investment in public projects tends to be lower in agricultural villages and/or in villages with more migrants which result in a lower share of the population has economic interests in the village (Zhang et al., 2007).

The second set of variables intends to take account of the potential negative impact of social heterogeneity and divisions on public goods provision (e.g., Alesina and Baqir, 1999; Banarjee et al., 2005; Miguel and Gugerty, 2005), we control for two key social factors in the sample villages: lineage structure and inter-lineage relations. More specifically, we use village surname concentration as a proxy for village lineage structure, in line with Manion (2006), and measure it as the share of households with the three largest surnames in the village. Additionally, we include a dummy variable capturing the level of tension and conflict in inter-lineage relations in the village, which takes the value “0” if the relationship is regarded by the village elite (mainly, local officials) as harmonious and cooperative, and the value “1” if, instead, the relationship is seen as hostile or unfriendly.

The third set of control variables include those representing village demographic and geographic characteristics, such as village population, the share of flat land over total farmland, the distance between the two houses which are furthest away from each other in the village, and the distance from the village to the town. These factors might affect both the demand for public goods provision and provision costs. To control for regional differences, we also include provincial dummies in our model.

3.5. Accounting for the Endogeneity of Democracy Quality

The relationship between democracy quality and the level of village public goods provision is clearly endogenous. Higher election quality and greater electoral accountability would induce elected VC cadres to be more responsive to villagers’ demands for public goods, foreseeing the threat of being voted out of office if they underperform. On the other hand, in villages where the VC engages in higher levels of public goods investment and delivery and plays a more important role in village governance, villagers would have stronger motivation to compete and vote in village election and to monitor VC performance after the election (He, 2007). Higher levels of

electoral contestation and participation, in turn, appear to enhance the implementation quality of village elections (Hu, 2005). In addition, as Luo et al. (2007) point out, the endogeneity could also be a result of unobserved factors that affect the level of public goods provision, while being correlated with the implementation of elections in Chinese villages.

To address this endogeneity problem, we specify two simultaneous equations: one for village public goods provision and the other for democracy quality index.⁸ Several estimation procedures are available for the simultaneous equations system we have specified. The most obvious one is equation-by-equation instrumental variable (2SLS) estimation, which would yield consistent estimates but efficiency is not attained because cross-equation error-term correlations are neglected. We estimate the full system using three-stage least squares (3SLS). 3SLS combines the features of instrumental variables (IV) and general least square (GLS) estimators. It achieves consistency through appropriate instrumentation and efficiency through optimal weighting. It allows cross-equation error correlations to differ from zero and its flexibility in the error covariance matrix allows for a substantial efficiency gain relative to estimating each equation separately with 2SLS (Green, 2003, Chap. 15; Tavares and Wacziarg, 2001).

To satisfy the order condition for identification in the 3SLS estimation, we identify that the variable “election quality in the penultimate elections (1998-2000)” would exert direct impact on village democracy quality (2004) but only indirect impact on village public goods provision (2003-2004) (via democracy quality variable). We further identify that “per capita village government revenue in 2000” would have direct impact on village public goods provision (2003-2004) but only indirect impact on village democracy quality (2004) (via public goods provision).⁹

The 3SLS estimator can be thought of as producing estimates from a three-step process. In the first stage, it develops instrumental variables for all endogenous variables. These instrumented values can simply be regarded as the predicted values resulting from a regression of each endogenous variable on all exogenous variables. This stage is identical to the first stage in two-stage least squares and is critical for the consistency of parameter

⁸ Please note that the introduction of the second equation is for the purpose of addressing the endogeneity problem discussed above rather than for an attempt to establish a fully-specified model which determines democracy quality.

⁹ Both the similarly unrelated regression (SUR) of the full system and the first-stage regression in the 3SLS (cf., Table 6) provide empirical support to these two choices.

estimates. In the second stage, it obtains a consistent estimate for the covariance matrix of the equation error-terms. These estimates are based on the residuals from two-stage least squares estimation of each structural equation. In the third stage, it performs a generalized least squares-type estimation using the covariance matrix estimated in the second stage and with the instrumental values in place of the right-hand-side endogenous variables.

To make the instrumental values for the democracy quality variable as similar as possible to its observed values, and to further enhance the consistency and efficiency of our estimation, we introduce an additional instrumental variable, which should have direct impact on village electoral democracy, but only indirect influence on village government investment in public goods (through the channel of village electoral democracy). This variable is the level of electoral participation in the penultimate village elections (1998-2000). According to He (2007, p.84), “villagers’ participation is one of the forces that have transformed formal democratic institutions into functioning ones”. Taking the time-lag into consideration, we introduce this variable as exogenous to the simultaneous equations system, which implies that it will only appear in the first stage of the 3SLS estimation. The results of the first-stage regression in the 3SLS (Table 6) confirm the suitability of this additional instrumental variable. The table shows that the variable has significantly positive impact on village democracy quality (2004) but do not have significant impact on village government investment in public goods (2003-2004).

(Tables 5 and 6 are about here)

4. Empirical Results

The results of the 3SLS estimation of our two-equation system are presented in Table 5. The results first confirm the presence of endogeneity: the democracy quality and village public goods provision variables exert positive effects on each other at the 5% significance level. The coefficient on democracy quality index shows that numerically, an increase by one standard deviation in democracy quality will lead to an increase by 74% in public goods investment.¹⁰ Noting that the mean, standard deviation, and the maximum of democracy quality variable are 1.02, 1.47, and 4.00, respectively, such an induced 74% increase should be regarded as being in a reasonable range. This finding confirms H1,

¹⁰ Note that $\ln(y) = kx$ implies that $\frac{\Delta y}{y} = k\Delta x$.

which hypothesizes that higher quality VC election in combination with empowered VC institution would lead to a higher level of village's investment in public goods provision.

Although the significantly positive coefficient on village public goods provision suggests that a higher level of VC investment in public goods would foster a higher score in democracy quality, a caution is needed in interpreting this simple statistical relation because of the following reason. In the complicated political and bureaucratic processes which may lead to the empowerment of the elected VC, performance in public goods provision typically plays secondary role and it is beyond the scope of this research to fully specify these political and bureaucratic processes.

The direct effect of the target responsibility system on public goods provision is not significant in both Tables 5 and 6, meaning that the empirical results do not support H2-(a). This finding is in line with that of Edin (2003), Tsai (2007b) and Whiting (2001). On the other hand, the negative and significant coefficients on policy mandates variable in the democracy quality equation in both Tables 5 and 6 confirm H2-(b). These two findings lead to a better understanding of the relationship between target responsibility system and village public goods provision than the existing literature. The results indicate that the target responsibility system exerts indirectly a negative impact on village public goods provision via its significantly negative impact on democracy quality variable. In other words, the combination of the insignificant direct impact and the significant indirect impact suggests an overall negative impact the target responsibility system has on village public goods provision.

Consistent with our expectation, our results indicate that in relatively more prosperous villages there is a better provision of public goods by the village government. Most importantly, the highly significant coefficient on per capita net income suggests a positive elasticity of 0.906, meaning that an increase by one percent in the net income will lead to almost one percent increase in public goods investment. This might reflect a greater social demand for public goods in richer villages, as well as a greater willingness and ability of villagers to contribute funds and labour for the construction and repair of local infrastructure, which has been a common practice in rural China (World Bank 2007). Like in Tsai (2007b), we find that the level of village government revenues (time-lagged) does not have a significant impact on the level of investment in public goods, possibly because of that "village officials who have sufficient funds do not necessarily have an incentive to invest them in public goods provision" (*ibid*). This once again points to the importance of electoral accountability in promoting public goods provisions in rural China.

The coefficient on “no. of self-employed households in non-agricultural businesses” is positive and significant at the 10% level in the public goods provision equation but negative and significant at the 5% level in the democracy quality equation. The former positive relation suggests that small non-agricultural businesses are more closely linked with the level of public goods provision at the local level from both perspectives of demand and funds-contribution. Nevertheless, the latter negative relation looks puzzling and might be a reflection of the fact that they have to focus on their business which faces constant tough competition and consequently pay less attention to village election in comparison with their fellow villagers in agriculture.

Regarding the influence of social factors, although the direct impact of inter-lineage tension on village public goods provision is insignificant, it exerts significantly negative impact on democracy quality index as indicated by its coefficient in both Tables 5 and 6. It is in line with the similar finding in (Pesqué-Cela et al. 2009), meaning that a higher tension between sub-village lineage groups would weaken villagers’ willingness and ability to trust their fellow villagers in other lineages and this in consequence would undermine democracy quality. This also supports the findings of He (2007), who reports that lineage conflicts in Chinese villages usually lead to (1) the postponement or delay of elections; (2) the manipulation of the electoral process; (3) rivalry campaigns that, ultimately, make it impossible to elect the village committee; and (4) the constitution of village committees whose members are so divided that they cannot carry out their governance responsibilities effectively. The coefficient on share of households in top three family names is insignificant in Table 5 but positive and significant at the 10% level in Table 6, indicating that a more concentrated lineage structure would be beneficial to democracy quality and then to village public good provision.

The coefficient on village population size is significantly negative in the public good provision equation but significantly positive in the democracy quality equation. For the former finding, it is because in villages with a larger population the per capita cost of public goods for a given level of provision is lower as suggested in Zhang et al. (2004). For the latter, it might be due to the fact that the electoral processes in those more populous villages attract greater attention from, and can be more effectively monitored by, upper level authorities such as local Bureaus of Civil Affairs, which are formally responsible for ensuring that the 1998 Organic Law is well implemented in Chinese villages.

To check the robustness of the results, we run two parallel regressions. First, we drop those four villages in which the both posts of Party secretary and VC head are held by one person because of the possibility to code “dictatorship” as democracy. Second, we replace the democracy quality index by the election quality index to check whether the enhanced “access to power” alone can lead to higher level of village spending on public goods provision in our sample. In the first regression, all results are qualitatively indifferent to those presented in Tables 5 and 6. In the second regression, the coefficient on election quality index is not significant in both the 3SLS and the first-stage estimations. It is consistent with the findings in Tsai (2007b) and Wang and Yao (2007). These results are available from the authors upon request.

6. Concluding Remarks

The significant role played by village officials in public goods provision and the election of these officials by villagers in rural China provide a natural experiment-setting for examining the interactive relationship between electoral accountability and public goods provision at the village level. While the existing literature centres on the “access to power” dimension, we turn our attention to the real political power structure at the village level and to the central version which has underpinned the design of the Organic Law of Villagers’ Committees. We take into account both the procedural quality of village elections and the post-election decision-power distribution between the village Party branch and the elected villagers’ committee. We also incorporate the impact of “target responsibility system” imposed to village leaders by the upper level authorities.

On the basis of a nationwide village-level survey data, we specify and estimate a model of two simultaneous equations. Our major empirical findings can be summarized as follows. First, in villages where elections are implemented in accordance with the rules and procedures stipulated in the 1998 Organic Law and where the elected village committee is conferred with the authority to manage and allocate village public funds, there are higher levels of village government capital and current expenditure on public goods provision. This finding confirms our hypothesis H1. It indicates that while the holding of direct elections matters for government accountability in the provision of public goods, what matters more is the combination whether (a) the electoral processes are conducted in accordance with stipulated rules and procedures and (b) the electoral institutions confer real power on elected officials to manage and allocate village public

funds. When elections are free, fair and kept up with a more democratic exercise of power, Chinese villagers can effectively hold village officials accountable for their performance in provision of public goods, by rewarding or punishing them at the ballot box.

Second, the target responsibility system does not have direct and significant impact on the level of village government provision in public goods and services. This finding rejects our hypothesis H2-(a), by which we argue that if there is a positive link between the fulfilment of priority policy assignments and the level of fiscal fund transfer from the upper level governments, the target responsibility system should make a positive contribution to village government provision in public goods and services. This rejection suggests that the upper-level authorities may not attach sufficient priority to rural public goods provision, and/or, in some locations the institutions of bureaucratic control may lack leverage over local officials. In contrast, the target responsibility system does exert significantly negative impact on democracy quality index. This confirms our hypothesis H2-(b) and supports the argument that fulfilling priority policy assignments well would increase the bargaining power of township government with upper levels for more political and bureaucratic control at the village level (Shan et al., 2005), leading to a lower level in democracy index.

Chinese experience of village election and governance is in sharp contrast to most contemporary pro-accountability reforms in developing countries which typically exclude the “voice” of political and societal actors at the grassroots level, while putting primacy on the strengthening of bureaucratic institutions and/or the development of market mechanisms (Ackerman 2004). Our empirical evidence supports the perspective that the democratization of local political institutions and the establishment of areas of co-governance with frontline and grassroots actors may constitute a more effective way to enhance government accountability in public expenditure management and public goods provision (e.g., Besley and Burgess, 2002; Foster and Rosenzweig, 2004; Ackerman, 2004; Andrews and Shah, 2005). On the other hand, our findings also pinpoint the tension in reconciling the empowered participatory local governance with state control. Chinese leaders and the public have shown a strong intention to develop a coherent and robust “co-governance for accountability” framework in rural China, in which top-down and bottom-up institutions reinforce each other, while leading local officials to effectively promote economic, social and political development in their jurisdictions. Nevertheless, given the increasing financial reliance of villages on township and county governments since the tax-for-fee reform in 2002 (O’Brien and Han, 2009), the recent re-enforcement of this

reliance by the policy shift from “taxing to subsidizing” agriculture (Huang et al., 2009; Hansen et al., 2009), and the leading role played by township authorities in assessing village cadres’ targets responsibilities, the empowered participatory local governance can easily degenerate into participation without empowerment. In this regard, the promotion of village democracy becomes even more important than before for the development of a coherent and robust “co-governance for accountability” framework in rural China.

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Table 1. Investment and Maintaining Expenditures (per capita) in Public Goods Provision by village government in 2003 and 2004 (in Yuan)

Province	Investment per capita	Maintaining expenditure	Investment plus maintaining expenditure	
	Mean	Mean	Mean	Std. Dev.
Jiangsu	156.86	18.26	175.13	185.10
Sichuan	188.16	5.05	193.21	150.59
Shaanxi	112.61	3.93	116.55	320.26
Jilin	81.72	9.15	90.87	107.66
Hebei	66.04	2.62	68.67	111.60
Fujian	144.48	17.47	161.94	286.30
Sample	125.27	9.58	134.85	208.45

Source: Authors' village survey in 2005.

Table 2. Election Quality and Democracy Quality in the Sample Villages, by province

Province	Election quality index			Democracy quality index		
	No. of obs	Mean	Std. Dev.	No. of obs	Mean	Std. Dev.
Jiangsu	19	2.84	1.21	18	0.72	1.45
Sichuan	20	2.15	0.93	20	0.95	1.32
Shaanxi	16	2	0.89	16	0.88	1.20
Jilin	21	3.48	1.03	21	1.05	1.72
Hebei	19	2.42	1.02	18	1.06	1.51
Fujian	20	2.25	1.29	20	1.45	1.61
All Sample	115	2.55	1.17	113	1.02	1.47

Source: Authors' village survey in 2005.

Table 3: Distribution of Power between Party Branch and VC in 2004, by Election Quality Index

Election Quality Index	No. Villages	Percent	Party Branch in control	VC in control
0	5	4.35	2	3
1	18	15.65	12	6
2	30	26.09	21	9
3	35	30.43	18	17
4	25	21.74	14	11
5	2	1.74	2	0

Source: Authors' village survey in 2005.

Table 4: Policy Mandate Index by Province and by Democracy Quality Index

Province	Policy Mandate Index			Democracy Quality Index	Policy Mandate Index		
	No. Villages	Mean	Std. Deviation		No. Villages	Mean	Std. Deviation
Jiangsu	19	85.26	14.67	0	71	84.15	16.21
Sichuan	20	96	10.46	1	6	90	16.73
Shaanxi	16	75	15.49	2	9	84.44	13.33
Jilin	21	80	17.89	3	16	78.75	22.47
Hebei	19	85	13.23	4	11	74.55	22.07
Fujian	20	73	24.52	5	0		

Source: Authors' village survey in 2005.

Table 5. Results of 3SLS estimation of the full system

	Ln (VC investment p.c. in public goods in 2003-04)	Democracy quality index
Ln (VC Investments p.c. in Public Goods in 2003-04)		1.205 (2.23)**
Democracy Quality index	0.502 (2.37)**	
Priority on policy mandates from upper levels	0.010 (0.99)	-0.021 (1.85)*
Ln (per capita village government revenues in 2000)	0.081 (0.72)	
Election Procedural Quality (2000)		0.163 (1.19)
No. of collective enterprises (2000)	0.289 (0.99)	-0.401 (1.07)
No. of private enterprises (2000)	0.016 (0.57)	-0.027 (0.69)
No. of self-employed households in non-agr. (2000)	0.005 (1.66)*	-0.008 (2.14)**
Ln (per capita net income in 2000)	0.906 (2.57)***	- 1.11 (1.53)
Per capita arable land (2000)	-1.560 (0.79)	0.784 (0.25)
% of migrants in working-age population (2000)	-0.013 (1.55)	0.012 (0.84)
% of households in top three family names	0.007 (1.27)	-0.006 (0.72)
Inter-lineage tension	1.316 (1.06)	-2.768 (1.99)**
Ln (village population)	-0.971 (3.19)***	1.307 (2.11)**
Share of flat land over total farmland	-0.002 (0.35)	0.004 (0.69)
Largest distance between 2 houses	- 0.0001 (0.61)	0.0004 (1.66)*
Ln (distance to the town)	0.205 (1.07)	-0.240 (0.87)
Constant	2.70 (0.83)	-3.765 (0.83)
Provincial dummies	Yes	Yes
R-Squared	0.35	- 0.67
F test [<i>p</i> -value]	4.61 [0.000]	1.84 [0.019]
Observations	110	110

Note: Figures in parentheses are absolute value of *t*-statistics and calculated in `reg3` command with the option ‘small’ (in Stata SE 10.0), by which small sample statistics are computed and the test statistics are shifted from χ^2 and *z*-statistics to *F* and *t*-statistics. Because 2SLS and/or 3SLS estimates are no longer nested within a constant-only model of the dependent variable and the residual sum of squares is no longer constrained to be smaller than the total sum of squares, *R*-squared = 1 – RSS/TSS can take negative value. Consequently the inference should pay more attention to the overall model significance (*F* -test) and sign and significance in parameter estimates.

* indicates the significant level of 10%.

** Idem, 5%.

*** Idem, 1%.

Table 6. Results of the first-stage estimation of the full system

	Ln (VC investment p.c. in public goods in 2003-04)	Democracy quality index
Priority on policy mandates from upper levels	-0.004 (0.44)	-0.025 (3.09)***
Ln (p.c. village government revenues in 2000)	0.266 (1.92)*	0.151(1.30)
No. of collective enterprises (2000)	0.133 (0.41)	- 0.106 (0.39)
No. of private enterprises (2000)	0.016 (0.49)	- 0.007 (0.26)
No. of self-employed households in non-agr. (2000)	0.003 (0.93)	-0.003 (1.17)
Ln (per capita net income in 2000)	0.766 (1.88)*	-0.249 (0.73)
Per capita arable land (2000)	-3.725 (1.87)*	-3.112 (1.86)*
% of migrants in working-age population (2000)	-0.018 (1.99)**	-0.005 (0.73)
% of households in top three family names	0.011 (1.81)*	0.009 (1.65)*
Inter-lineage tension	-0.412 (0.33)	-3.399 (3.26)***
Ln (village population)	-0.785 (2.32)**	0.207 (0.73)
% of flat land over total farmland	0.001 (0.26)	0.005 (1.01)
Largest distance between 2 houses	0.0002 (0.94)	0.0006 (3.56)***
Ln (distance to the town)	0.231 (1.08)	0.043 (0.24)
Election Procedural Quality (2000)	-0.083 (0.58)	0.327 (2.73)***
Rate of electoral participation (2000)	0.442 (0.84)	1.425 (3.23)***
Constant	3.269 (0.89)	0.757 (0.25)
Provincial dummies	Yes	Yes
R-Squared	0.46	0.46
F-test [p-value]	3.55 [0.000]	3.63 [0.000]
Observations	110	110

Note: Figures in parentheses are absolute value of t-statistics.

* indicates the significant level of 10%.

** Idem, 5%.

*** Idem, 1%.