

The Nature of the Township-Village Enterprise¹

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The township-village enterprise (TVE) in China is owned by local citizens and controlled by the township-village government (TVG). The TVE's residual benefits are shared among citizens and TVG officials. This ownership structure can be viewed as the solution to the central government's problem of improving citizens' welfare subject to the constraints that the current political system be preserved and that local agents be provided with incentives. The control right is given to the TVG because ordinary citizens cannot provide security and access to resources that are critical for the success of the TVE. Nominal ownership is given to the citizens to guarantee that most benefits will be retained locally. To prevent the TVG from abusing its power, explicit distributional rules are made by the center. *J. Comp. Econom.*, December 1994, 19(3), pp. 434-452. Department of Finance and Industrial Relations Center, Carlson School of Management, University of Minnesota—Twin Cities, Minneapolis, Minnesota 55455. © 1994 Academic Press, Inc.

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I. INTRODUCTION

In the past 15 years, the total output of the township-village enterprises (TVEs) in China has grown at an average rate of 30% per annum. In 1993,

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TVEs produced about 40% of the nation's total industrial product and provided employment to 112 million people.² Questions have been raised regarding the nature of township-village enterprises: Are they private firms or state-owned enterprises disguised under nominal collective ownership? How do they differ from producer cooperatives? What explains their ownership structure?³

In this paper we follow Grossman and Hart (1986) and study the ownership structure of the TVE along two dimensions: the residual control right and the residual benefit right. We conclude that the TVE is controlled by the township-village government (TVG), not by its nominal owners, the local citizens. Moreover, with explicit rules specified by the center regarding profit distribution, residual benefits of the TVE are shared between the local citizens and the TVG. This ownership structure of the TVE is compared to that of four other more familiar types of enterprises, producer cooperatives (PCs), state-owned enterprises (SOEs), Japanese firms (J-firms), and large American corporations (A-firms), to demonstrate the uniqueness of the ownership structure in the TVE.

We argue that the rationale for assigning the control right to the TVG reflects the costs and benefits of giving control to various parties. For example, under the existing Chinese system of highly concentrated political powers, private citizens may find it difficult to obtain key resources that are critical for the success of the TVE.⁴ Giving control to the citizens thus leads to a less promising future for the TVE. The more difficult question is why local citizens, rather than the state or the TVG, should be the nominal owners of the TVE. We view the citizens' nominal ownership as a means by which the center makes a commitment to policies and rules that guarantee to local agents, the TVG and local citizens, the main benefits from the operation of the TVE. This commitment provides local agents with strong incentives to make sure that the TVE succeeds. Finally, to prevent the TVG from appropriating excessive benefits, the center makes some explicit rules as to how the profit of the TVE should be distributed.

The TVG's control distinguishes the TVE from genuine private enterprises and workers' cooperatives. Local ownership and its distributional effect distinguish the TVE from SOEs and explain differences in their performance.⁵ Consequently, it seems natural and useful to view the ownership

² See *People's Daily* (Overseas Edition, Jan. 8, 1994, p. 1).

³ The main results of some earlier efforts to address these questions are included in a publication edited by Byrd and Lin (1990). Recently, Weitzman and Xu (1994) examined why township-village enterprises can be so successful without clearly defined property rights.

⁴ Ruttan (1991) emphasizes the need to consider the interactions between political and economic developments.

⁵ Besides its distributional effect, local ownership also makes the state less obligated to bail a TVE out when it is losing money.

structure of the TVE as the center's solution to a design problem in which the objective is to improve the welfare of local citizens subject to two constraints. One is that the present political system in China must be preserved.⁶ The other is that local agents must be provided with economic incentives. The first constraint explains why the government prefers the TVE to a genuine private sector. The second constraint explains why the TVE is locally, not nationally, owned, as are the SOEs.

Two points should be clarified immediately. First, to say that the center wants to improve the citizens' welfare does not have to mean that the center is caring and benevolent. It is perfectly logical to think of a self-interested center caring about the citizens' welfare because the center views improving citizens' welfare as part of its effort to sustain and strengthen its political power.⁷ Second, to say that the TVE is the center's solution to a design problem does not mean that the center had a well-calculated plan before it developed TVEs. In fact, for a long time the center focused largely on improving the SOEs' efficiency, but this task proved very difficult, to say the least. Meanwhile, genuine private enterprises and foreign-owned firms have played relatively unimportant roles in Chinese economic growth until recently. In contrast, the TVEs, growing at an average annual rate of about 30% since 1978, demonstrated powerful dynamics from the very beginning. There is little doubt that the enthusiasm and initiatives of the TVGs and local citizens were among the major reasons for the impressive performances of the TVEs. The success of the TVEs forced the center to pay more attention to them, to rely upon them for development, and also to formulate systematic policies regarding them. In spite of this rather passive role of the center, it is important to keep in mind that the center has the ultimate power to veto initiatives from below and to force TVEs in directions of its choice. It follows that the policies regarding the TVEs must have reflected the center's preferences. It is in this passive sense that we say the center designed the TVE.

It is also worth pointing out that the TVEs are a complex phenomenon, and the study of them is still in an early stage. Our analysis is a simplified treatment of the TVEs with many rich elements left out. Our purpose is to emphasize the most important factors such as communist monopoly over political power and government control over key economic resources in order to see how they affect the design of the TVEs.

The remainder of the paper has two main parts, contained in Sections II and III. In Section II, we will discuss the allocation of control and benefit

⁶ Note that the center's objective and the first constraint agree well with the pronounced goal of Deng Xiaoping's reforms, economic prosperity under the political control of the Communist Party.

⁷ Technically speaking, maximizing the citizens' welfare subject to the political constraint may be considered the dual problem of maximizing the center's benefit associated with preserving the current political system subject to the constraint that citizens' welfare is not too low.

rights in the TVE. Comparisons with four other types of firms will be made in this discussion to provide a better understanding.⁸ In Section III, we will try to explain the rationale of the ownership structure in the TVE. Several testable empirical implications of our analysis are also given in this part of the paper. Section IV concludes the paper with a few additional remarks.

II. THE OWNERSHIP STRUCTURE OF THE TVE

The TVE is nominally owned by the local citizens. To understand the meaning of ownership it is important to know who has the residual right of control and who enjoys the residual benefit of the TVE (see Grossman and Hart, 1986).

1. *The Right of Control*

Most observers seem to agree that the control right of the TVE is in the hands of the TVG.⁹ As noted by Weitzman and Xu (1994, p. 132),

Many Chinese economists report that TVEs are usually controlled by local governments and typically there is no separation between the communal government and the TVEs. These reports describe a situation where many TVEs do not have genuine autonomy in business transactions; the communal government has major influence in the determination of managerial personnel and employment.¹⁰

Upon closer examination, there seem to be two ways in which the TVG can exercise control, one direct and the other indirect. In the early stages of the TVE's life, the TVG is more likely to play a direct managerial role in the TVE. It will choose or approve projects, raise or help raise funds, mobilize manpower and other resources within its jurisdiction to support the project, and supervise the construction process. This is what Song (1990, p. 396) calls a father-son relationship between the TVG and the TVE.

After the initial stages of the life of a TVE, the TVG may decide to delegate some authority to professional managers and not remain in direct control of the daily operations of the TVE. Even if a TVG delegates full operational

⁸ Song (1990) compared TVEs with local SOEs. Gelb and Svejnar (1990) compared TVEs with a wide range of different firms including local public enterprises, PCs, company towns, and Japanese and Z-style firms. The comparisons we make here benefit greatly from these, but we will focus more sharply on the ownership structures.

⁹ In some coastal areas, e.g., Wenzhou and Guangdong, private control of rural firms is relatively strong, and local government authorities do not interfere in enterprises' affairs as much as they do in the rest of China. See Section III.4. for the factors that cause variations in ownership structures in Chinese rural enterprises.

¹⁰ A referee, however, has pointed out that managers and skilled workers now have much of the control right in many TVEs. Shifting control from the TVGs to the managers and skilled workers is part of the dynamic process of change in the TVEs. Our theory makes some predictions about the dynamic process but does not fully address it.

responsibilities to management, this does not mean that the management has the control right in the TVE, independent of the control of the TVG. This is so because the TVG keeps the power to appoint managers. The managers of the TVE thus often find it in their own best interest to make major decisions in close consultation with the TVG and not to resist decisions made by the TVG.

Workers in the TVE sometimes do have the nominal right of voting to approve or disapprove the TVG's choice of a manager. For at least two obvious reasons, however, this right seems to be largely cosmetic. First, usually the TVG has to initiate a vote. If it is satisfied with a manager, the TVG is not required to initiate a vote. The manager can thus remain in office indefinitely. Second, the TVG controls many other aspects of a local citizen's life—which are discussed below—including who can work in the TVE. Workers of the TVE, therefore, would rarely want a confrontational relationship with the TVG. Hence managerial nominees of the TVG are rarely, if ever, disapproved by the workers. It is not surprising that, in a survey, Song (1990, p. 399) found that 83.3% of township-village enterprise managers believe that they were appointed by the TVG.¹¹

Since the TVE is officially owned collectively by the local citizens, control by the TVG means that there is a separation of ownership and control in the TVE. This, however, is not unusual in modern business enterprises because the separation of ownership and control is common in both capitalist firms, e.g., A- and J-firms, and SOEs. What differentiates the TVE from these other firms are the source and the completeness of the control right of a non-owner.¹² In capitalist firms, managerial control is derived from the voluntary delegation of the right by the owners through private contracting in a mutually beneficial manner. Usually when the control right is delegated, mechanisms are also designed to force the manager to give up the right should the firm consistently perform below an expected level. Managerial control in capitalist firms, therefore, may be said to be conditional or incomplete. In contrast, the control right of the center over SOEs is derived from state

¹¹ In an interview we had in June 1993, Mr. M. J. Lai, the director of the Loan Department, Changsha Municipal Branch of the Agriculture Bank, gave us some information regarding management change in his jurisdiction. According to Lai, 30% of the TVE managers in the Changsha municipal area have been changed in the past three years because of poor performance or for various other reasons, e.g., a "corruptive life" lived by a manager. In each case, the change was proposed and supervised by the TVG. At the same time, many managers have stayed in their positions since the start of the firm 10 or 15 years ago. These are cases in which the TVG has so far not proposed a change or another election. Changsha municipality consists of the city of Changsha, four rural counties, and a suburban district. In 1992 about one-third of the municipal's industrial output was produced by the TVEs, which was about the national average.

¹² The term completeness of control is used here to describe how difficult it is for the owners to take back the right after delegating control to a nonowner.

power. Unless the center chooses to give it up, there is almost no means by which citizens can take the right back from the center. Thus the control of SOEs by the center is almost unconditional and most complete. The TVG's officials are appointed by higher government authorities. Their control over the TVE is also derived from state power. This is similar to the case of SOEs but different from those of capitalist firms. Since there is no mechanism for the local citizens as the nominal owners to take control back from the TVG, the TVG's control over the TVE is more complete than managerial control of capitalist firms.

2. *Benefit Distribution*

The right to derive benefits from property is considered to be another essential dimension of ownership. The question of who are the residual benefit claimants in the TVE can be difficult to answer, especially when it is addressed from a static point of view.¹³ From a dynamic point of view, however, it seems fairly clear that the residual benefits produced by the TVE are shared between the TVG and the citizens.

Posttax profits of the TVE are divided into three parts. The center requires that the largest share, about 60% of the profit, be retained by the firm for production expansion (see Ministry of Agriculture, 1990).¹⁴ The distribution of the remaining 40% is not explicitly regulated by the center, nor can its division be found in available statistics. In many cases, however, a relatively small portion is used as bonuses for workers, while a larger portion is paid as fees to the TVG.¹⁵

The fees paid to the TVG are used for two purposes. One is for the support of communal social programs and infrastructure projects, such as education and constructions of roads and irrigation systems.¹⁶ The other supports the

¹³ Weitzman and Xu (1994, p. 133) note that "[t]here is no residual claimant in the traditional sense. The typical resident waits passively to receive or to enjoy the benefits. . . . Even for the income distributed to the residents, which accounts for less than forty percent of the after-tax profits, the residents still do not have the full rights of disposing with it as they please, since it is intended for social purposes."

¹⁴ This policy seems to have been followed well in general. In 1990, for example, the TVEs' posttax profit was 23 billion yuan, of which 12.8 billion yuan, or more than 55%, was used for "production expansion." See *A Statistical Survey of China* (Bureau of Statistics, 1991, p. 65).

¹⁵ This observation is based on personal interviews with TVE and local government officials in the Changsha municipal area. The magnitudes and forms of fee payments vary from town to town. For example, a fixed amount, instead of a fixed rate, may be paid to the TVG. An accurate breakdown of this part of TVEs' profit, however, is not crucial for the analyses that follow.

¹⁶ In fact, the center requires the TVG to undertake many of these social and agricultural projects. It also requires the TVG to use income from the TVE's profit to partially finance these projects. In 1990, nearly 2.4 billion yuan of the TVEs' total posttax profit was spent for rural welfare programs, while another slightly less than 1.5 billion yuan was spent for rural education. These two items counted for more than 16% of the TVEs' total posttax profits in that year. (See *A Statistical Survey of China* (Bureau of Statistics, 1990, p. 65).)

operation of the TVG. This often covers many benefits enjoyed by TVG officials, such as nice offices, generous travel expenses, banquets, and government vehicles for private use.¹⁷ It thus seems fair to view the fees paid to the TVG as a benefit shared between the TVG and the citizens, with a significant amount going to each party.

It is important to know who benefits from the retained profit used for further development of the TVE, which accounts for 60% of the total net profit. The local citizens seem to benefit most from these retained profits through three channels. First, development of TVEs means improved job security for TVE workers. Second, it provides new job opportunities for other citizens in the township-village. Given the substantial wage differentials between agricultural and industrial labor in China, finding employment in the industrial sector for more family members is a way by which rural households can increase their incomes rapidly. For many of them, the TVE offers the most accessible and desirable industrial job opportunities.¹⁸ Finally, if the share of the TVG's expenditure for communal welfare programs remains stable, increased profit also means expanded social programs.¹⁹

Of course, the budget that the TVG officials can use for their own perk consumption will also increase because the retained profits contribute to the growth of TVEs and to greater profits in the future. TVG officials, therefore, also benefit from the retained profits of the TVEs.

Two additional factors should be considered when we think about how the TVG and the citizens share the benefits of the TVE. One is that the TVG officials have shorter time horizons than the citizens. As government offi-

¹⁷ Statistics of TVG officials' benefits are not available, but anyone who observes the extravagant lives of TVG officials in places where TVEs have been very successful cannot doubt the sizable benefits these officials receive.

¹⁸ According to a *People's Daily* report (Overseas Edition, Dec. 15, 1993, p. 1), of the Chinese rural population's income increase in 1993, 60% was due to the growth of the TVEs. The other 40% was attributable to factors such as improved agricultural productivity and incomes from employment in cities. In the past few years more and more rural people have started to seek employment in the cities. The TVEs, however, still absorb many more workers. In 1993, 70 million rural people worked in the cities, while employment at the TVEs was 112 million workers. China is estimated to still have 150 million surplus rural workers. (*People's Daily*, Overseas Edition, Dec. 16, 1993, p. 8; Jan. 8, 1994, p. 1.) Besides limited opportunities, most rural people have to work and live under harsh conditions in the cities. Their jobs in the cities are also mostly temporary and unstable.

¹⁹ Indeed the shares of the TVEs' posttax profits spent for welfare programs, rural education, and infrastructures was fairly stable over time. According to a *People's Daily* report (Overseas Edition, Dec. 15, 1993, p. 1), in the first 11 months of 1993, total revenue of the TVEs increased 55% over that from the same period of 1992. The TVEs' profit used for construction of agricultural projects in this period increased 50%. From 1985 to 1990, the total posttax profit of the TVEs increased 35.8%. During the same period TVEs' income spent for rural welfare programs increased 21.3%, that for rural education 145%, and that for township infrastructure 108%. (See *A Statistical Survey of China* (Bureau of Statistics, 1991, p. 65.))

cials, they may work in a particular township or village for a limited term, say 5 or 10 years, and then be moved to another government position. This means that they cannot enjoy the benefits that the retained profits will produce after they leave. In contrast, most local citizens and their families will live in the same township or village for their lifetimes.²⁰ They can thus benefit for their entire lives from social projects such as a better-educated population, better roads, irrigation, and other infrastructures. The jobs they obtained at the TVE are also likely to be theirs for as long as the TVE remains healthy.

The other factor has to do with the effort of TVG officials. As indicated earlier, the TVG is responsible for many social programs. To finance these programs, a typical practice is for the TVG to charge the citizens fees. The citizens, however, often find these to be excessive. Their resistance can be so severe that it sometimes becomes a major source of social unrest.²¹ Increased profits from the TVE can make this difficult part of a TVG's job much easier. As profits are paid to the TVG, the fees that need to be collected from the citizens to finance these programs are reduced accordingly. At the same time, as their incomes increase with growing employment in the TVE, citizens' resistance to these fees becomes weaker. An increase of total resources within the township-village, therefore, whether as fees to the TVG or as citizens' private incomes, can be said to improve the TVG's utility in a broader sense.

3. Ownership Structure: A Summary

Most people seem to agree that the TVE is controlled by the TVG, not its nominal owners, the local citizens. It follows that, as in modern capitalist firms and SOEs, ownership and control are separated in the TVE. It seems fair to say that the residual benefits of the TVE are shared between the TVG and the citizens, with the citizens the main beneficiaries. An important factor that guarantees this division of benefits is the center's policy that 60% of the TVE's profit must be retained within the TVE for development. Another important policy is that the TVG should spend sizable amounts of fees from the TVE's profits for rural social programs and infrastructure. Such rules are imposed by an authority that has the power to enforce them. They are also relatively simple rules to enforce.

²⁰ Only a small portion of the rural population works in the cities. Furthermore, the majority of them are only temporary workers in cities. They leave their wives, elderly parents, and children behind in their rural homes. Many of these workers also return to their rural homes for traditional holidays such as the Spring Festival and during the planting and harvest seasons to meet the peak demands for agricultural labor.

²¹ On June 5, 1993, peasants' complaints of fee burdens led to a riot in a county in China's most populous Sichuan province.

TABLE 1
OWNERSHIP STRUCTURE IN DIFFERENT TYPES OF FIRMS

	TVE	PC	SOE	J-firm	A-firm
1. Nominal owner	Local citizens	Workers	People of nation	Shareholders	Shareholders
2. Control right	TVG	Workers and managers	Center	Workers and managers	Managers
3. Main beneficiaries	Citizens and TVG	Workers	Center and citizens	Workers and shareholders	Shareholders

Table 1 summarizes the above discussion on the nominal ownership, control right, and distribution of benefits in the TVE. The features of four other types of firms along the same dimensions are also provided for comparison. Many writers have likened the TVE to the PCs. The table, however, seems to suggest that the ownership structure of the TVE bears a greater resemblance to that of the A-firms in many aspects. First, in both the TVE and the A-firms there is a separation of ownership and control, as seen in the fact that Row 1 and Row 2 in the table are occupied by different parties. Such a separation is not as obvious in PCs. Second, in both the TVE and A-firms, nominal owners are the main beneficiaries from improved performance of the firm. This is not true in SOEs and J-firms. The main difference between the TVE and A-firms is that, instead of professional management appointed by owners, the TVG as a government institution is in control of the TVE. Separation of ownership and control also exists in J-firms and SOEs. Workers in J-firms, however, have more control of the firm than their counterparts in the TVE or A-firms. Their compensation is also more directly related to the performance of the firm.²² We thus see more consistency between Line 2 and Line 3 for J-firms, but not between Row 1 and Row 3, as in the cases of the TVE and A-firms. A situation similar to that in J-firms is found in SOEs, where the government has the control right and also benefits the most from improved performance of SOEs. The comparison between the TVE and SOEs suggests that nominal ownership has more distributional significance in the TVE than in SOEs, as shown by the consistency between Rows 1 and 3 for the TVE but not for the SOEs.

²² According to Freeman and Weitzman (1987), bonuses based on the firm's profit account for one-quarter of Japanese workers' total incomes. Our casual observation suggests this figure is much lower in the TVEs.

III. RATIONALE FOR THE OWNERSHIP STRUCTURE IN THE TVE

This part of the paper provides a rationale for the ownership structure in the TVE. More specifically, we address why the control right is given to the TVG and why nominal ownership is given to the citizens.

1. Benefits and Costs of the TVG's Control

The gist of Grossman and Hart (1986) is that the allocation of the residual control right has incentive effects, and every ownership structure has both costs and benefits due to these effects.²³ Their theory can be used to explain why in the TVE the control right is vested in the TVG, because under the current political and economic system in China the inputs of the TVG are far more important than those of the citizens for the success of the TVE. It is, therefore, more beneficial for the TVG to control the TVE.

The TVG makes at least three critical contributions to the TVE. The first is safety. China is a country with a long tradition of authoritarian government. This tradition has been developed to an unprecedented extreme under the rule of the Communist Party. To ensure so-called comprehensive proletarian dictatorship, Mao devised a political system that gives the Communist Party the right to intervene in every aspect of a citizen's life. The TVGs in the Chinese countryside are parts of a large government institution with broad power given by the fundamentals of the political system. They can, and often do, use this power to enforce their policies.²⁴ For this reason, the full support of the TVG can provide the citizens and other stakeholders in the TVE a sense of security needed for long-term development.

The second contribution of the TVG is managerial inputs. In a society where the market has been systematically suppressed, ordinary citizens with immediately identifiable managerial talents are a scarce resource. In contrast, the TVG is the figure that is in charge, organizing major activities in its jurisdiction. Many TVG officials are well-educated and informed. Giving control to the TVG, therefore, seems very natural to most citizens. The TVG's authority, based on the broad sociopolitical power it enjoys, also gives it great managerial advantages that are not available to an ordinary

²³ See Ben-Ner and Jones (1992) and Putterman (1993) for discussions of this idea in different types of firms.

²⁴ A *People's Daily* article (Overseas Edition, Aug. 28, 1993) illustrates what broad power the party head in a model village in northern Chinese Tianjin enjoyed. He could hire or fire people from jobs in the village as he liked and could arrest and physically punish people even for personal reasons. He went so far as to order the beating of two people to death at different times. After the second person was beaten to death, the municipal government felt it necessary to intervene. The party head was arrested and sentenced to 20 years in jail. Of course this is an extreme case, but it does illustrate how far a local government official can abuse power before it becomes a problem.

citizen with managerial talents (see Murrell and Wang (1993) for a detailed discussion). For example, choosing the location of a TVE often involves conflicting interests. The noise, water, or air pollution is likely to be more severe for the nearby villages than for more distant parts of the town. Without a market or other social mechanism to compensate those who bear most of these adverse consequences, the TVG is often the only available local institution that has the authority to mediate negotiations to settle these controversies. Otherwise the land, water, or other resources needed by a TVE may not be as readily available.²⁵

The third contribution of the TVG is access to outside resources such as bank loans that are critical for the development of the TVE. In an authoritarian communist system, resources are highly concentrated and tightly controlled by the government. This means that, without the approval of the government, citizens are often denied access to resources required to accomplish any major project. Establishing and operating a TVE is no exception.²⁶ For example, because private banking in China is undeveloped, the TVEs rely primarily on the state banking system for loans.²⁷ Since private citizens have almost no access to the state banking system, the role of the TVG is critical for gaining access to credit.²⁸

Compared with those of the TVG, the inputs of citizens are less critical and more easily replaceable. An important resource that citizens contribute to the TVE is their labor. Since labor is an abundant resource in China, any individual withdrawing his labor would have a very limited effect on the development of the TVE. With the low skill requirement for the kinds of products that most TVEs produce, the skills that citizens possess are unlikely to be in serious shortage. In many cases, citizens also contribute their financial resources to TVEs through *jizi*, i.e., pooling financial resources, especially at the initial stages of some TVEs. However, without the power and

²⁵ When the construction of a cement plant was being planned in Changsha, villagers living around the chosen site expressed strong objection because the water and air pollution such a plant would cause. The TVG called the leaders of all villages together to discuss the problem. They agreed that, as a form of compensation, young people in the nearby villages be given priority to work in the plant.

²⁶ We are describing here a picture that better corresponds to the situation in China before the mid-1980s. Economic reforms have significantly changed the situation but not yet fundamentally. We will discuss what reforms mean to ownership structure in Chinese rural enterprises later in this section.

²⁷ In 1978 and 1979, bank loans counted for 23 and 27%, or about one-quarter, of the TVEs' total circulating capital at the respective year ends. The corresponding figure was 37% for 1983 and has fluctuated around 50% since. Besides bank loans, retained profits are the most important sources for the TVEs' working capital. See Byrd (1990).

²⁸ Loans from the state banking system to the private sector have been negligible. See the case given by Zhou and Fang (1989) below.

reputation of the TVG, *jizi* may be difficult to organize.²⁹ Also, for sustained development of TVEs on a scale that can benefit a large portion of the local citizens in significant ways, bank loans are clearly more critical. Because citizens' resources are relatively unimportant for the development of the TVE and more easily replaceable, granting them the control right does not seem to have many significant benefits. The costs associated with the citizens' control right, however, may be large and numerous. All the benefits associated with the control by the TVG would be lost. A field study by Zhou and Fang (1989) describes the difficulties that private enterprises in Wenzhou faced. They found that after decades of government anticapitalism propaganda and efforts to eliminate the private sector altogether, the owners of private enterprises faced enormous social pressure and distrust. They bore considerable social stigma and were afraid of being labeled as selfish or exploiters. They worried about a possible reversal of the government policy that allowed them to exist. They paid taxes at a rate 250% higher than did the TVEs. They had to obtain bank loans from the government bureau in charge of the TVEs, not directly from the banks. They paid the market rate for electricity when it was available to them, while the TVEs paid the low government-regulated price. Otherwise they had to generate their own electricity at a cost twice as high as the market rate. Few rights were guaranteed to them, and their operation was hampered by all kinds of government institutions. In addition, the owner-managers of these private enterprises were not very well educated. In a sample of 50 such private enterprises, Zhou and Fang found that 42% of the owner-managers had less than six and 90% had less than nine years of education. It can be noted that although the actual discriminatory practices against private businesses vary from place to place in China, the overall situation is that they all have to overcome many great difficulties in order to survive and grow.

A third candidate who may have the control right over the TVE is a government authority higher than the TVG, e.g., the center itself. If the center has the control of the TVE, as it does in many SOEs, it will certainly be able to enjoy all the benefits that the TVG enjoys, but the costs will also be higher. One cost results from the agency problem. The center, without giving the control right to the TVG, cannot ensure the support and cooperation of a TVG so that a TVE located within its jurisdiction can perform well.³⁰ An-

²⁹ More often than not *jizi* is not voluntary. Instead, it is conducted in a manner similar to the one used by the TVG to collect fees for social programs. The TVG orders how much each household must contribute.

³⁰ A local government authority is capable of affecting the performance of any firm within its jurisdiction because of the sweeping power it has over people's lives. For example, a TVG may ask an SOE within its jurisdiction to use its resources, money, skills, or equipment to help a local project. If the executives of the SOE do not accommodate this request at least to some extent, they may find their families living in a very hostile environment.

other likely problem associated with direct control by the center is the soft-budget constraint. As the party who controls the TVE, the center will also bear the consequences of its decisions. If the TVE is not performing well financially because of a decision by the center, the center will be obliged to bail it out through additional loans or reduced taxes. Because the bank is also controlled by the center, it would be difficult for the bank to resist the center's order to extend a loan.³¹ The same is true with the tax system. As the experiences of SOEs suggest, the TVE is likely to become very inefficient once it develops an expectation of a soft-budget constraint.

The above analyses suggest that giving the TVG the control of the TVE is an arrangement that generates more benefits at a smaller cost than does giving control to either the citizens or the center.

2. Citizens as Nominal Owners

We now explain why the local citizens should be made the nominal owners of the TVE instead of, for example, making the TVE into a local SOE controlled by the TVG but owned by the people of the whole nation.

The answer to this question would be straightforward and somewhat trivial if a change in nominal ownership would also alter the current pattern of distribution. For example, if the distribution of benefits from the TVE becomes very egalitarian among a much larger population after the TVE is changed into an SOE, it is natural to expect the kind of incentive problems typical in a partnership to emerge. A more interesting and also more challenging question is whether the TVE would perform worse if the center were to take ownership away from the local citizens but keep the distribution system exactly the same. The issue involved here is the credibility of the center's promise that the sharing rule will not be changed. The question thus becomes whether making the local citizens the owners leads to a better commitment to the distributional rule that guarantees that the local agents are the main beneficiaries of the TVE. While an entirely satisfactory answer to this question is probably still beyond the reach of economics, the prevailing social psychology and moral standard of our time are that property rights should be respected. If the center takes from the owner too much of the

³¹ We suggest thinking of a discontinuity between the influence of a TVG on a state bank's lending decisions and that of the county government immediately above it, with the influence of the TVG being much weaker. This is so because the state banks have no branches below the county level; they have only office outlets to serve private individuals. Since major lending decisions have to be made at a county or higher bank branch, it is harder for a TVG to assert its influence on banks' lending decisions than for a county or higher government authority. The concept of a soft-budget constraint was first used by Kornai (1992) to describe socialist SOEs' lack of financial responsibilities. Dewatripont and Maskin (1990) explain the phenomenon of informational asymmetry between the center and the managers.

return to a property, or forcefully changes ownership in order to gain a better share in distribution, it is likely to lead to strong resistance from the citizens. The center could also suffer a great loss of reputation. Changing a promised distributional rule for benefits produced by a government property will also lead to a loss of reputation, but probably to a lesser extent. In the history of Communist China, the center has used both methods for redistribution purposes. In 1949 and the following years, it first confiscated land from the landlords and gave it to poor peasants, and then collectivized farming. In 1956, it coerced most capitalist enterprises into joint ownership with the state and then forced the capitalist owners to accept a fixed interest payment for their share. In all these events, the social and economic shocks were enormous and their consequences were disastrous. The tax policy of the center regarding the SOEs has also changed from time to time. These changes have impacts but not nearly as great as those on occasions when property rights were directly violated.³²

A good reputation is important even for an authoritarian government because many of its policies cannot be implemented without voluntary cooperation from various other parties. At present, the Chinese government is campaigning for modernization. To achieve this goal, it wants to encourage private business and foreign investment. The incentives of domestic and foreign private investors to respond positively to this policy depend on the reputation of the Chinese government as a protector of property rights. With so many other things at stake, whatever the center may gain by violating the property rights of the TVE, it would probably lose more by scaring away many potential investors. For this reason, the center's commitment to a distributional rule based on ownership seems to be a commitment with a higher stake, and thus it is also a commitment with better credibility.

3. Ownership in the TVE as a Design Problem for the Center

We have argued that the rationale of the ownership structure in the TVE can be understood by looking at the costs and benefits of alternative arrangements. For such an analysis to be valid, the premise that the center, which has the ultimate power to determine the ownership structure in the TVE, cares about production efficiency in the TVE must be true.

³² As a recent example, the contracting and responsibility system [*chengbao zheren zhi*] that implements tax-profit sharing between the government and SOEs was introduced in the mid-1980s to replace the old hand-in-everything system. There has been discussion of whether the new system has led to improved performance of the SOEs. For example, the results of Xiao (1991) and Woo et al. (1994) tend to suggest that reforms led to very limited productivity improvement in SOEs. The work of Chen et al. (1988) shows the opposite. In contrast, when there is a widespread change in ownership, its effect on productivity is often obvious from simple statistics and hardly disputable.

Yet, if using whatever given amount of resource to produce the largest possible output is the center's objective in the design of the TVE, then it can probably better achieve it by giving most benefits to the TVG instead of the citizens. The center can achieve such a goal by making the TVG the nominal owner or by not regulating the distribution of the TVE so that the TVG with control right will automatically give itself the largest share of the benefit. However, the center did set explicit rules to guarantee that most benefits accrue to the citizens even though this may mean some loss of incentives on the part of the TVG. This seems to suggest that the center must have the citizens' welfare in mind.

Control is given to the TVG for the benefits associated with it. These benefits exist, however, largely because, in China, the government has control rights over too many other things. At a local level, the TVG is given a very broad power over citizens' private, social, political, and economic lives as a means to preserve the authoritarian political system. The continued existence of various benefits that the TVE can derive from the TVG's control, therefore, depends negatively on the extent to which the center is willing to relax its control over other aspects of citizens' lives. We can think of a complete relaxation of these controls as being equivalent to a fundamental change of the Chinese political system. Since, at the present, this seems to be something that the center is reluctant to do, the broad and general control rights of the TVG within its jurisdiction can be viewed as a constraint on the center's problem of achieving efficiency in the TVE.

The above discussion has touched several issues related to the ownership structure in the TVE. The following model seems to most coherently summarize all these aspects. In this model, the center faces the problem of designing an ownership structure in the TVE. Its objective is to maximize local citizens' welfare. It gives the control right to the party whose inputs are the most critical for the success of the TVE, i.e., the TVG. The center also takes two measures to provide incentives for the local agents. First, it assigns nominal ownership to the township-village citizens as a commitment that most benefits produced by the TVE will be retained locally. Second, it specifies explicit sharing rules that at the same time provide the TVG officials with incentives to improve the performance of the TVE and prevent these officials from abusing their power and giving excessive benefits to themselves.

4. Some Empirical Implications

The rationale of the ownership structure in the TVE generates some empirical implications for variations and the dynamics in Chinese rural enterprises' ownership structures. It suggests that enterprises with a low capital requirement are more likely to be privately owned than those with a higher capital requirement. This is so because access to the state banking system,

and hence also the role of the TVG, is not as critical in enterprises with lower capital requirement. Also, smaller enterprises are more likely to be privately owned, while collective ownership and TVGs' control are more likely in larger enterprises. This is so because smaller enterprises need less capital, less managerial talent, and can more easily satisfy their input needs from family members, relatives, and friends. All these reduce the benefits that one can expect from giving the TVG the control right.

Many casual observations support the above predictions. Due to limited space, we cite the result of only one study here. Hu (1989, p. 303) compared the patterns of rural enterprises in southern Jiangsu province ("Sunan model," or S-model) and the Gengche area in northern Jiangsu province ("Gengche model," or G-model). He made the following observation.

S-model is based on productive power needed for producing modern machinery and electronic products. Technologies in these industries are capital intensive (in Kunshan county where the development of TVEs is at an average level, capital requirement for starting a new TVE exceeds one to two million yuan, or even tens of million yuan for larger projects). . . . Firms in G-model are mostly based on handicraft skills. They have low capital needs, are simple to manage, and do not consume too much energy. It is therefore appropriate for them to develop family-based small scale enterprises. We thus see a boom of private economy [in the Gengche area]. On the other hand, in the S-model, . . . the absolute dominance of collectively-owned enterprises at the township and village levels developed naturally.

Dynamically, our theory suggests that the historical and present government policies and the extent of reforms also matter. Private ownership is more likely in places where the center and its local representatives have a more hands-off policy or where the political system has deteriorated more quickly, because in these places citizens are likely to feel safer about their properties, face less social pressure, and find resources more readily available. The reverse is more likely to be true where government control remains strong. For the same reason, as economic reforms continue, resources become more easily available through the market instead of through bureaucratic mechanisms. Citizens are also likely to gain more confidence in the safety of their property. Therefore, more private ownership can be expected as a result of continued reforms in China. Byrd (1990, p. 195), for example, reports that, in 1985, the share of industrial output produced by private firms was 10% in Nanhai County, whereas it was only 3% in Wuxi. Both Wuxi and Nanhai belong to those areas in China where TVEs have been most successful. Nanhai, however, is in Guangdong province where reforms started the earliest and have been the most profound in China, whereas Wuxi is in southern Jiangsu province where government control has remained very tight. Byrd (1990, p. 211) also reports that, starting from zero, the share of total gross income generated by rural private enterprises increased steadily in both a sample of four counties and in China as a whole from 1978 through

to speculate that the low growth rates of labor employment in the past few years have something to do with full local employment in places where TVEs have been the most successful and with a lack of adequate growth of TVEs in

³³ See Pitt and Putterman (1992) for a study of employment and wages in TVEs.

places where TVEs have been less successful. Our intention here is not to fully address the issue; issues like this can be better addressed by theoretical modeling of the TVE's behavior and systematic empirical work. We hope that the discussion in this paper on the nature of the TVE will contribute to a more solid theoretical foundation on which future modeling of the TVE's behavior and empirical works on the TVE can be conducted.

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