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Rural Industrialization: From Township and Village Enterprises to Taobao Villages

Rural industry has been an important part of China's economy for centuries, but it played an especially important role during the golden age of township and village enterprises (TVEs), from 1978 through 1996. During this period TVEs played the catalytic role in transforming the Chinese economy from a command economy to a market economy. Springing up in the rural areas, which were much less rigidly controlled than the cities, the entry of TVEs provided competition to state-run industrial enterprises and drove the process of marketization forward in the entire economy. TVEs increased rural incomes, absorbed rural labor released from farms, and helped narrow the urban–rural gap. TVEs had a special distinction during this period because of their unusual ownership and corporate governance setup. Originating under the rural communes, initially most TVEs were collectively owned. TVEs thus presented the unusual spectacle of publicly owned enterprises growing rapidly and providing the competitive challenge that dissolved the monopoly previously held by a different set of publicly owned (state-run) enterprises. A diverse set of TVE models adapted to a range of different conditions emerged and ended up fundamentally changing nearly every part of the Chinese economy.

Rural enterprises have been a locus of institutional experimentation, and since 1949 have experienced four successive transformations:

- When agriculture was collectivized in the 1950s, traditional rural businesses were swept away. The collectives were told to focus on growing grain, and supply and marketing cooperatives took over remaining nonagricultural activities. During the Cultural Revolution (1966–1976) the government supported "commune and brigade industries" that would "serve agriculture" instead of the market.
- After 1978, during the golden age, rural enterprises were set free to respond to market demand and make money. Commune and brigade enterprises were rebranded as TVEs, and they transformed the Chinese rural economy and, eventually, China.
- During the 1990s, TVEs privatized themselves. Facing more intense competition

and a level playing field, and with a more permissive ideological environment, nearly all collectively owned TVEs became private firms.

• Since 2000, TVEs have developed organically into new forms exemplified by industrial clusters. These clusters usually involved a few large firms cooperating with hundreds or even thousands of tiny household-based enterprises. After the arrival of the Internet in the Chinese countryside around 2009, hundreds of these villages began to use it to reach a national and even global market.

The flexibility and institutional creativity of China’s rural entrepreneurs continues to find new forms.

13.1 Origins of the TVEs

As described in chapter 3, the preponderance of small household-based rural businesses led China’s traditional economy to be called “bottom heavy.” Rural households spun and wove cotton, raised silkworms, and reeled silk thread; they made noodles and mud bricks, carted goods to market, and ran shops and businesses. The most important nonagricultural undertakings were handicraft operations processing agricultural goods and converting them into market goods.

The organic link between growing and processing agricultural products in the countryside was broken under the command economy. When the state established its monopoly control over agricultural goods during the 1950s, as described in chapter 4, rural processing businesses were inevitably cut off from their supplies. Grain, cotton, silk, peanuts, and soybeans—the staple supplies of nonagricultural businesses—were taken by the state immediately after the harvest. During the 1950s, the countryside became deindustrialized. As the rural population was organized into agricultural collectives, nonagricultural production declined, and the state took over virtually all manufacturing production (Fei Xiaotong 1957 [1989]). These policies were an integral part of the creation of the command-economy system, but the harmful effects were soon evident. Household income declined in commercialized rural areas where a high proportion of income previously had come from sideline activities. Some formerly prosperous, densely populated regions found it difficult to support their large populations on the tiny amount of agricultural land available per capita. Many specialized handicrafts fell into decay as state factories moved into mass production.

One among the many strands of policy during the Great Leap Forward (GLF, 1958–1960) was an effort to change the overwhelming dependence on agriculture in rural areas by creating communes and encouraging them to start construction teams and run factories, including the notorious “backyard steel mills.” However, as described in chapter 4, the drain of manpower from agriculture proved to be disastrous, and the GLF collapsed. Virtually all these commune-sponsored enterprises were shut down during the terrible post-GLF crisis in 1961–1962.

A second attempt to develop rural industry occurred during the Cultural Revolution era. After 1970, during the Maoist “new leap forward,” the government encouraged a new wave of state-sponsored rural industrialization under the rubric of “commune and brigade enterprises.”[1] This time, care was taken to avoid the problems that crippled the GLF. Movement of workers out of agriculture was carefully controlled, rural industries were tied to the agricultural collectives, and rural industries were constantly exhorted to “serve agriculture.” Rural industry began to revive rapidly during the

1970s under Cultural Revolution era policies.

This 1970s rural industrialization was very different from traditional rural industry, which had primarily processed agricultural products. The new exhortation to “serve agriculture” was interpreted narrowly to mean supplying producers’ goods to agriculture. Policy during the 1970s stressed the rural “Five Small Industries” that included iron and steel, cement, chemical fertilizer, hydroelectric power, and farm implements. Rural industries were expected to replicate the heavy-industry-based Big Push development strategy: the factories were small relative to urban factories, but compared with the traditional rural handicrafts or rural workshops in most countries, they were large and capital intensive (Wong 1982). They did not generate much employment per unit of investment or in the aggregate. By 1978, only 6% of the total rural labor force worked in commune and brigade enterprises (today’s township and village enterprises), and another 2% of the labor force was engaged in nonagricultural activities (perhaps petty trading or hauling) outside commune or brigade enterprises. (Usually, these were “team enterprises,” run collectively under the village, but occasionally they were run by private individuals.) Some sectors required government subsidies to survive. Rural industries in the 1970s were a peculiar offshoot of the command economy. Since they were mainly small firms serving local customers, it was impractical to incorporate them into central planning. Instead, they were integrated into the existing collective organization of the countryside. Profits from commune and brigade industries went to the collective, which used them for community infrastructure and welfare programs and also to raise the value of work points for all the collective workers. Sometimes workers in brigade industries were paid in work points (Wong 1988, 18–21). In a sense, rural collectives were being made junior partners in the state’s monopoly over industry and shared some of the revenue created. Maoist China was well known for its promotion of rural industry, but the type of industry fostered was a poor substitute for the dense network of small-scale, nonagricultural activities that had been suppressed in the 1950s.

13.2 The Golden Age of TVE Development

During 1979, the central government dramatically shifted its policy toward rural enterprises. The broad liberalization of rural economic policy included a relaxation of the state monopoly on purchase of agricultural products, allowing more to remain on rural markets and thus available to rural enterprises for processing. The new policy was "Whenever it is economically rational for agricultural products to be processed in rural areas, rural enterprises should gradually take over the processing work" (SRC 1984, 97–104). Since TVEs were collective firms, they were still ideologically safe. Once the monopoly on farm procurement was broken and rural industries were allowed to perform agricultural processing, they were essentially free to engage in any profitable activity. Urban firms were also encouraged to subcontract work to TVEs. Of course, state firms and state procurement monopolies fought to maintain their monopolies, and there were policy twists and turns and slow progress in the sensitive areas. Nevertheless, local-government officials quickly recognized the economic implications of TVE development and became vigorous advocates and defenders of TVEs. A new form of close government cooperation with TVEs, sometimes called "local-government corporatism," emerged in the countryside (Oi 1992). Indeed, for many localities, TVEs were the only available path out of poverty.

TVEs responded with explosive growth. Between 1978 and the mid-1990s, TVEs were clearly the most dynamic part of the Chinese economy. TVE employment grew from 28 million in 1978 to a peak of 135 million in 1996, a 9% annual growth rate. TVE value added, which accounted for less than 6% of GDP in 1978, increased to 26% of GDP in 1996, despite the fact that GDP was growing very rapidly as well. The growth of nonagricultural income raised rural incomes and contributed to shrinking the urban-rural gap. Not only has TVE growth been rapid, but also that growth has played an important role in the transformation of the Chinese economy because TVEs have created competition for existing state-owned enterprises (SOEs) and have served as a "motor" for the entire transition process. In industry, TVEs presented mounting competition for SOEs throughout the 1980s and early 1990s. SOE monopoly profits were eroded as aggressive TVEs drove price relationships into line with underlying costs. SOEs had to implement new incentive programs and improve efficiency in order to survive in the face of the TVE competitive onslaught. In foreign trade, TVEs provided opportunities for Chinese exporters to move into new labor-intensive manufactures. In the end, TVEs transformed virtually every aspect of the Chinese economy.

13.3 Causes of Rapid Growth

Why were rural industries able to grow so rapidly? There is no single answer; rather, a confluence of five favorable factors contributed to rural industrial success: favorable fundamentals, ability to tap into monopoly rents, a favorable institutional environment, revival of traditional locational patterns, and organizational flexibility.

1. TVEs faced factor-price ratios that reflected China's true factor endowment. China's basic economic endowment in 1978 was that it possessed abundant labor, limited land, and scarce capital. One of the greatest irrationalities of the Big Push strategy was that it gave priority to capital-intensive industries. Urban factories faced highly distorted prices: labor was expensive since total worker compensation was quite generous (chapters 6 and 9), while capital was cheap because it was often allocated without charge or provided at highly subsidized interest rates. TVEs, by contrast, faced factor prices much more in line with China's real factor endowment. Through the 1980s, rural-enterprise worker salaries were less than 60% of those of state-enterprise workers, and total compensation was much less than half that of urban workers. Once TVEs were cut loose from the Maoist Five Small Industries straitjacket, they adapted quickly to the underlying availability of production factors. TVEs rarely had access to subsidized capital. The bulk of TVE capital was provided at near-market interest rates or came from internally generated funds with a high opportunity cost. As a result, the ratio of labor to fixed capital in TVEs was nine times that in state-run industries. Figure 13.1 shows that TVEs (in this case, village firms) specialized in sectors with low capital-labor ratios, where the competitive advantage of their low wages was biggest. Facing realistic factor-price relationships, TVEs had the right incentives to find lines of profitable business that were most appropriate in the Chinese economy and that, over the long run, gave them an advantageous competitive position. Economic fundamentals were on the side of the TVEs.

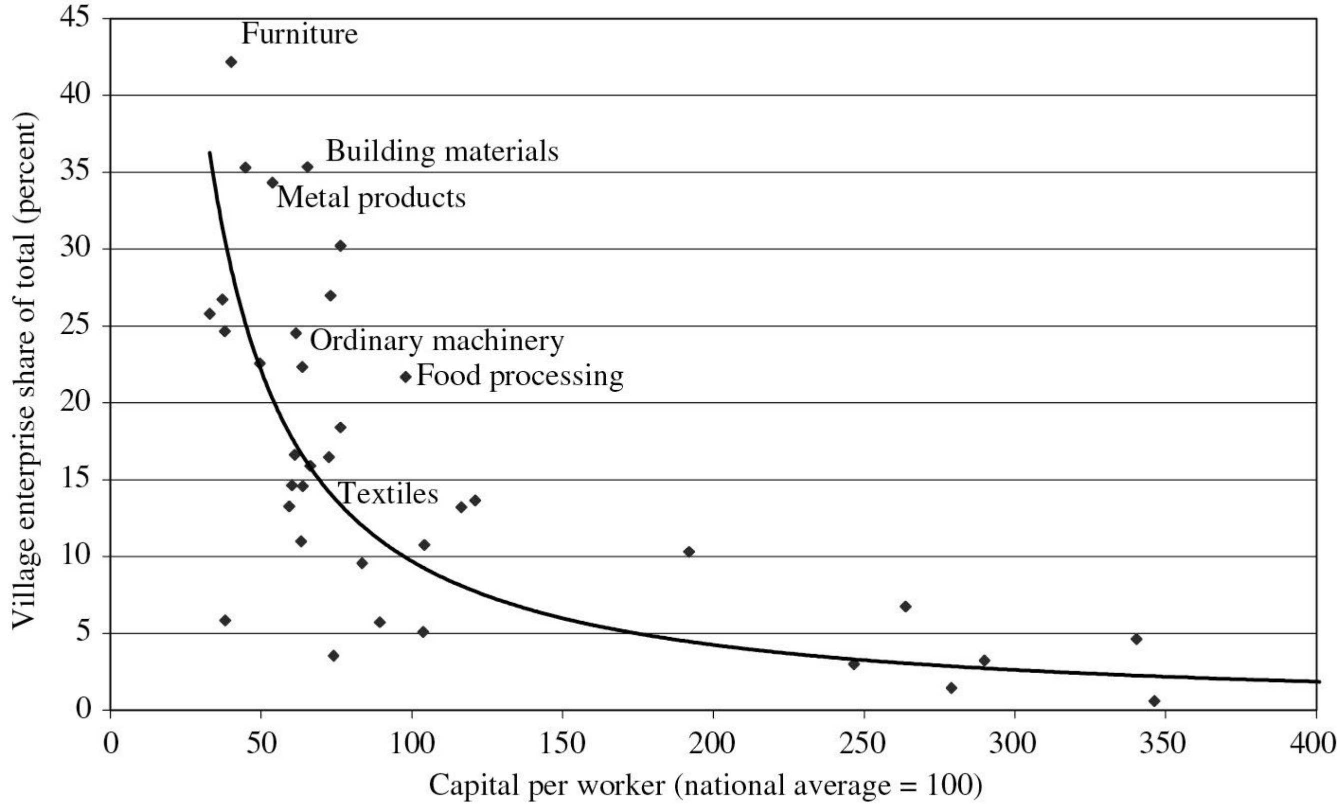

Figure 13.1
Village-enterprise share of total output × capital intensity, 1995.
Source: Third Census Office (1997, 5, 46–197, 198–233) provides village-level and total national capital and labor, respectively.

2. TVEs were able to share in the monopoly rents created for state firms, and so were extremely profitable. In 1978, the average rate of profit on capital was 32%. If we include taxes—because TVEs were often created by local governments that could claim a share of the tax revenues generated—the total rate of profit and tax per unit of capital was 40% (capital is here defined as the value of depreciated fixed capital plus all inventories). The high rate of profitability was not merely the result of better and more realistic use of production factors and consequent lower costs, described in the previous paragraph. Indeed, in subsequent years, even as TVEs grew, achieved economies of scale, and developed a broader network of supporting services, profitability declined steadily and steeply.

What can explain this pattern of rapid growth combined with steadily declining profitability? Early TVEs were in a position to benefit from the protected market created for state-run factories. By easing the state monopoly over industry, the Chinese government allowed TVEs to enter this previously protected market and share in a portion of the monopoly profits. First-mover advantages were large enough to reward early entrants with windfall profits. State firms scarcely noticed the competition at first because they were protected by a cushion of high profits. As long as they could gain access to low-price raw materials, they were indifferent to a few TVEs producing similar products. But gradually, as entry continued, competition among TVEs and between TVEs and state firms began to erode monopoly profits and profit margins.

TVEs sprang up to provide goods in empty market niches. These empty niches existed for two reasons. The inefficient command economy had simply not provided certain commodities, particularly miscellaneous consumer goods, and TVEs jumped in to meet needs that until then had largely been unmet. The early success of Wenzhou businesses came from small-scale firms specialized in such items as buttons, ribbons, and elastic bands in a variety of colors and specifications; producing these items for a market of one billion people led to explosive growth. In addition, the sudden growth of rural incomes and the relaxation of rural economic policy created a whole series of new markets. For example, rural housing construction took off, and new rural industries developed to supply building materials to this new market. In both situations, early entrants could to reap windfall profits, and the presence of potential windfalls naturally induced extremely rapid entry. Gradually entrants create competition that eroded the early exceptional profits.

3. The institutional framework surrounding TVEs was favorable to development. Local governments became enthusiastic partisans of TVE development. Indeed, the distinctive political economy described in section 5.6 first emerged alongside TVE growth. Initially, local governments were also owners of many TVEs. Although TVEs were classified as "collectives," this did not mean that the firm was a worker-owned cooperative, but rather that it belonged to the rural collective or village as a whole, which in practice was usually represented by the local village or township government. Later, from the 1980s onward, the ownership of TVEs diversified to include many private firms, but local officials still had powerful incentives to develop TVEs. TVEs provided employment and money to local economies and were often the only realistic source of both. Local-government support contributed to the formation of a favorable environment for TVEs in at least three ways:

a. Formal taxes were low on rural industry, so money stayed local. Rural enterprises enjoyed very low tax rates in general and particularly low tax rates on profits. By contrast, state-run industrial firms benefited from government price policy, but they also paid the price in a very high tax rate—sometimes 100%—on profits. Rural enterprises enjoyed the benefits of price policy without the corresponding high tax burden. The average rate of profit tax collected from TVEs was only 6% in 1980, and only gradually climbed to around 20% by 1986, before stabilizing. Firms at the township and village levels paid about 30% of their total profits to local governments to support agriculture or local social services. Local governments welcomed these funds because they were classified as "extrabudgetary" and therefore did not have to be shared with higher-level governments. In turn, most local governments recycled this money into new and expanded TVEs, since they perceived a high return for their funds in these investments.

b. Local governments acted as guarantors for TVEs, so bank capital was available. Local-government sponsorship of China's TVEs greatly enhanced access of these new businesses to capital. By contrast, the experience of other transforming socialist economies has been that new start-up businesses proliferate, but that these businesses have difficulty getting access to capital and as a result remain small and undercapitalized. Local-government officials in China acted as intermediaries and guarantors, reassuring local agents of the banking system that their loans would ultimately be repaid.

Despite local-government actions supporting and serving as guarantors of TVEs, those TVEs had mostly, but not completely, hard budget constraints. That is, government sponsorship served to spread the risks incurred by these new start-ups, essentially by having the entire local community absorb the cost of failure. Soft budget constraints—implying no responsibility for failed or misguided investments—would have been disastrous in China's rural economy. But it is unlikely that perfectly hard budget constraints for start-up businesses would have been optimal either; a certain amount of "insurance" provided to start-ups by local governments almost certainly enhanced welfare. By underwriting a portion of the risk of entry, local governments enabled start-up firms to enter production with a larger size, to start with some mechanization, and to exploit the economies of scale that came from moving away from the smallest form of household production.

c. Existing credit institutions were easily adapted to support TVEs. With local governments facilitating the flow of capital to rural enterprises, those firms were able to take advantage of China's relatively abundant household saving. Chinese traditional credit clubs and other forms of informal credit markets were put to good use. As Chinese rural household saving skyrocketed during the 1980s, the supply of funds to the local rural credit cooperatives (RCCs) expanded quickly. The RCCs, nominally independent, locally controlled financial co-ops, had in fact been used before reform primarily to transfer the modest rural savings to urban uses. With the onset of reform, the RCCs had more money, and also were allowed to lend a much greater proportion of it locally. The result was that the RCCs emerged as the main source of financial resources for the TVEs. Local money stayed local, and those areas that enjoyed successful TVE development early, when profits were high, were able to plow money back into production and snowball rapidly.

4. Revival of traditional economic ties meant that proximity to urban areas fostered rural industry growth. The growth of China's rural industries occurred first in regions that might more properly be termed suburban. Rural industries were highly concentrated regionally, with a disproportionate share in coastal areas. In 1988, three coastal provinces—Jiangsu, Zhejiang, and Shandong—accounted for 17% of China's rural population but 43% of total rural industry and exactly half of all township- and village-level industrial output. This geographic concentration was entirely natural. These areas were better located to begin with, having more of the locational assets required for city growth. In turn, because cities had developed, they could also provide transport networks, communications, markets, technology, and other conditions that boost productivity throughout the cities' hinterlands, as well as in the cities themselves. Therefore, it is not surprising to find that "rural" enterprises thrived in regions where they benefited from the spillover effects of the urban economies.

Rather, what is striking is that these organic linkages between city and countryside had been so thoroughly cut off during the command economy. As a result, even a modest recovery of urban-rural linkages, beginning in the 1970s, resulted in rapid growth of suburban industry, given the low base from which it was starting. The growth of rural enterprises in periurban areas was facilitated by direct cooperation between urban state-run firms and rural factories, primarily in the form of subcontracting. In the three province-level municipalities of Beijing, Shanghai, and Tianjin, an estimated 60%–80% of rural industrial output was produced by firms subcontracting with large urban factories. The proportions were only slightly lower in nearby provinces: linkages with Shanghai firms "played a decisive role in the development of TVEs in southern Jiangsu" (Tao Youzhi 1988, 100). Such arrangements were facilitated by family relations; rural people who had migrated to the cities and urban youth sent from Shanghai to the countryside during the Cultural Revolution helped rural firms get started. Later on, rural firms purchased talent from the cities, especially by paying high salaries to technicians and retired urban workers. Urban SOEs were willing to cooperate: as state firms gained a greater interest in profit, they sought to reduce costs, and subcontracting operations to rural enterprises became increasingly attractive, particularly in the garment industry. Such relationships also allowed urban firms to escape from some of the tight constraints of the state-run industrial system. By entering into relations with rural firms, state firms could gain access to land and labor at low cost, and operate with more flexibility than in the rigidly controlled state sector.

5. Organizational diversity accommodated growth. A simple but important aspect of TVE development was that there was no single organizational model that TVEs had to follow. TVEs were sometimes government run, but often and increasingly they were private. TVEs were sometimes bureaucratic but often were highly adaptable. In this respect, they were very different from SOEs, which were compelled to adopt a uniform organizational form. As a result of this flexibility, TVEs were able to adapt to a broad range of opportunities. As we will see in section 13.4, a variety of different regional models of rural industrialization grew up, each plausibly suited to a different set of economic conditions.

A steadily increasing share of TVEs were privately run. During the 1980s, entrepreneurs started new small-scale firms, and many firms started under collective auspices became de facto private firms. Sometimes these firms continued to register enterprises as collectives because this practice was safe politically. Local officials formed alliances with entrepreneurs—sometimes for mutual benefit, sometimes more predatory—as rural industrialization spread. After the late 1990s, as the stigma on private business dissipated, TVEs became predominantly private. In all periods, because TVEs were not constrained to a single organizational form, localities were able to adapt as the advantages and disadvantages of various options became evident.

Conclusion: Causes of rapid growth. Rural enterprises grew up in the interstices of the command-economy system. It should be clear that their successful growth cannot be understood in isolation from that system. The command economy, having destroyed the traditional diversified rural economy in the 1950s, then created the distinctive conditions for the emergence of a new diversified rural economy during the 1980s. The influence of the command economy is particularly clear in the profitability of early rural enterprises, the differential tax treatment accorded rural enterprises, and the close links between emerging rural enterprises and the existing state-run urban economy. Moreover, the unique semipublic character of rural enterprises assisted in the supply of capital to these firms. These “artificial” conditions were the most powerful proximate causes of the explosive growth of rural industry in the 1980s.

Yet rural-enterprise growth would not have taken root had it not been favored by additional, more fundamental considerations. Of these, the basic fit between rural enterprises and China’s underlying factor endowment is the most important. China’s huge size played a crucial role. The simple fact that China has some 2,000 counties, and more than a million villages was crucial to the success of rural industry. Even when a township tried to operate a miniature command economy, it was ultimately subject to competition from thousands of other townships and villages. When firms could not make money, there was no one from outside the village to bail them out, and they had little choice but to go bankrupt. In this fundamentally competitive environment, each township or village found that it faced a relatively hard budget constraint and had to make its own enterprise economically successful. Rural enterprises created competition for state firms, but they themselves were shaped by the competitive process as well. Ultimately, this competitive climate may have been adequate to overcome some of the disadvantages under which rural enterprises labored due to local-government control and the distortions of the economic system as a whole.

13.4 Diverse Regional Models of TVE Development

Responding to different regional conditions, TVEs developed in different patterns in different parts of China.

13.4.1 The Southern Jiangsu (Sunan) Model

Southern Jiangsu, or “Sunan” for short, is the prosperous and developed area of the Yangtze delta around Shanghai, for centuries among the most economically advanced regions of China. Here the dominant model of TVE development was one in which the township and village governments maintained the leading role. TVEs here flourished early, beginning in the early 1970s, while the collective system was still firmly in place in the countryside. Subcontracting and technical-assistance ties with urban SOEs were often important. Because of the longer history and greater capital resources in these areas, TVEs tended to be much bigger, more capital intensive, and more technologically sophisticated than TVEs in other parts of the country. Moreover, as TVEs expanded, the village governments maintained control and retained “collective” ownership, even when private businesses were springing up elsewhere.

Elements of the southern Jiangsu model appeared wherever TVEs grew up early, close to cities. Suburban areas with locational advantages and entrepreneurial village leaderships developed TVEs early under the collectives, and village leaders subsequently had the resources to maintain control for a decade or more. These villages tended to develop a kind of “corporate village” in which village leaders ran an entire business complex. At the same time, these corporate villages maintained government social services and continued to provide public goods formerly provided by collectives. These corporate villages did not usually welcome outsiders, since they wished to protect the lucrative jobs, benefits, and opportunities of locals.

13.4.2 The Wenzhou Model

The town of Wenzhou is only about 300 kilometers south of southern Jiangsu, on the coast of the neighboring province of Zhejiang, but it has a very different geographic setting and evolved a very different model of TVE development. Rugged and fairly remote despite its coastal location, Wenzhou was quite removed from the urban influences so important in southern Jiangsu. From the beginning of its explosive growth, Wenzhou's economy has been based on private ownership. Firms in Wenzhou were initially tiny, based on individual households, and specialized in modest articles of daily use. Wenzhou businesses first flourished by selling buttons, ribbons, plastic ID-card holders, and other ordinary items. Wenzhou peddlers then took these items throughout China, filling a market need for diverse, inexpensive items that state firms had filled either very poorly or not at all.

Wenzhou is a very special place with a long cultural tradition of entrepreneurship and spectacular economic growth since the 1970s. But elements of the Wenzhou model appeared in any place where farmers were willing to seize entrepreneurial opportunities despite the lack of advantageous suburban locations. In these areas, the collectives had not developed TVEs into moneymaking propositions, so collectives were weak and often disappeared early in the reform process. Individually owned firms sprang up in response to opportunity, and they naturally tended toward labor-intensive activities oriented toward the market. Indeed, perhaps the most striking feature of development in Wenzhou itself is the intense reliance on the market to coordinate all aspects of production. The Wenzhou button industry, for example, developed around individual households that specialized in individual stages of the button-production process. Households that milled plastic blocks into button rounds sold these rounds in a specialized marketplace to households that drilled holes in the rounds and finished the buttons. In turn, a different group of households that specialized in mounting buttons on button cards would purchase the finished buttons at another specialized marketplace. Button cards would be sold to peddlers at still another market. In this fashion, production chains linked by markets sprang into existence. This pattern appeared repeatedly for different commodities. Many private businesses—even private banks—developed in the Wenzhou model.

13.4.3 The Pearl River Delta Model

In the Pearl River delta (PRD)—the region between Hong Kong and Guangzhou that is the core of the Southeast Coast macroregion—TVEs developed rapidly under the stimulus of foreign investment. This model was pioneered by Hong Kong businessmen who had grown up in the delta and returned to their home villages to start cooperative businesses. In these transactions, village leaders acted as managers of village assets, leasing land, signing contracts for export processing, and coordinating labor and social issues. As in the southern Jiangsu model, nearby urban (Hong Kong) businesses and local governments both played important roles. Production grew rapidly in large factories. In the Pearl River delta, however, factories were usually export-oriented manufacturers of light, labor-intensive products.

The big difference between the PRD model and the southern Jiangsu model is that the Pearl River delta is much more open both domestically and internationally. Of course, the prosperity of the model depends on openness to foreign trade and investment. The TVEs were often partly foreign (or Hong Kong) owned, but these villages tended to be quite open to workers from other parts of China as well. The PRD needed workers for its large, labor-intensive export factories, and it became by far the largest destination in China for migrant workers. Villagers in the Pearl River delta earned locational “rents” by being open to both foreign and domestic agents.

13.4.4 Failed or Absent TVE Development

As item 4 of section 13.3 indicated, TVE development was highly concentrated in areas with strong economic potential. Conversely, there were many areas of China where TVE development was weak or nonexistent. Large swaths of rural China have had little TVE development. In remote areas, where transportation is costly and difficult, there are few business opportunities for TVEs to exploit. Without TVEs to contribute to the local economy, incomes were much lower, village governments had few resources, and public services were weak to nonexistent. In these areas, out-migration was one of the few ways for households to increase income, and not until national policies changed after 2005 did villages have better options for community services and development.

13.5 The Transformation of TVEs in the New Century

The entire TVE sector underwent dramatic transformation after the mid-1990s. First, TVEs faced a more challenging external environment, and their overall growth rate slowed significantly. Second, faced with this external pressure, TVEs restructured and transformed into predominantly privately owned businesses. Finally, new forms of economic cooperation and competition grew up as TVEs adapted to the new challenges and opportunities.

13.5.1 The Changing Economic Environment of TVEs

During the mid-1990s, fundamental changes occurred in the economic environment in China. These changes were associated with a shift in economic reform strategy, discussed in chapter 5. National-government policy shifted toward building markets and regulatory institutions, just as macroeconomic policy shifted to a tighter, inflation-fighting stance. Bank credit was restricted and banks made more accountable. These changes created a tougher competitive environment for TVEs, and the very rapid growth of TVEs came to an abrupt end.

Figure 13.2 shows employment of all TVEs. In the 1980s and early 1990s, TVEs created millions of new jobs for rural residents, but the pace of TVE job creation dropped off abruptly after 1996. TVE employment declined for two years before resuming moderate growth. Tougher macroeconomic conditions forced both rural and urban firms to cope with a more competitive market economy, and they responded either by closing up shop or by developing more effective market strategies. These often put firms into head-to-head competition with TVEs, as consumer goods market shifted from one of chronic shortage to one in which virtually all goods were regularly available.

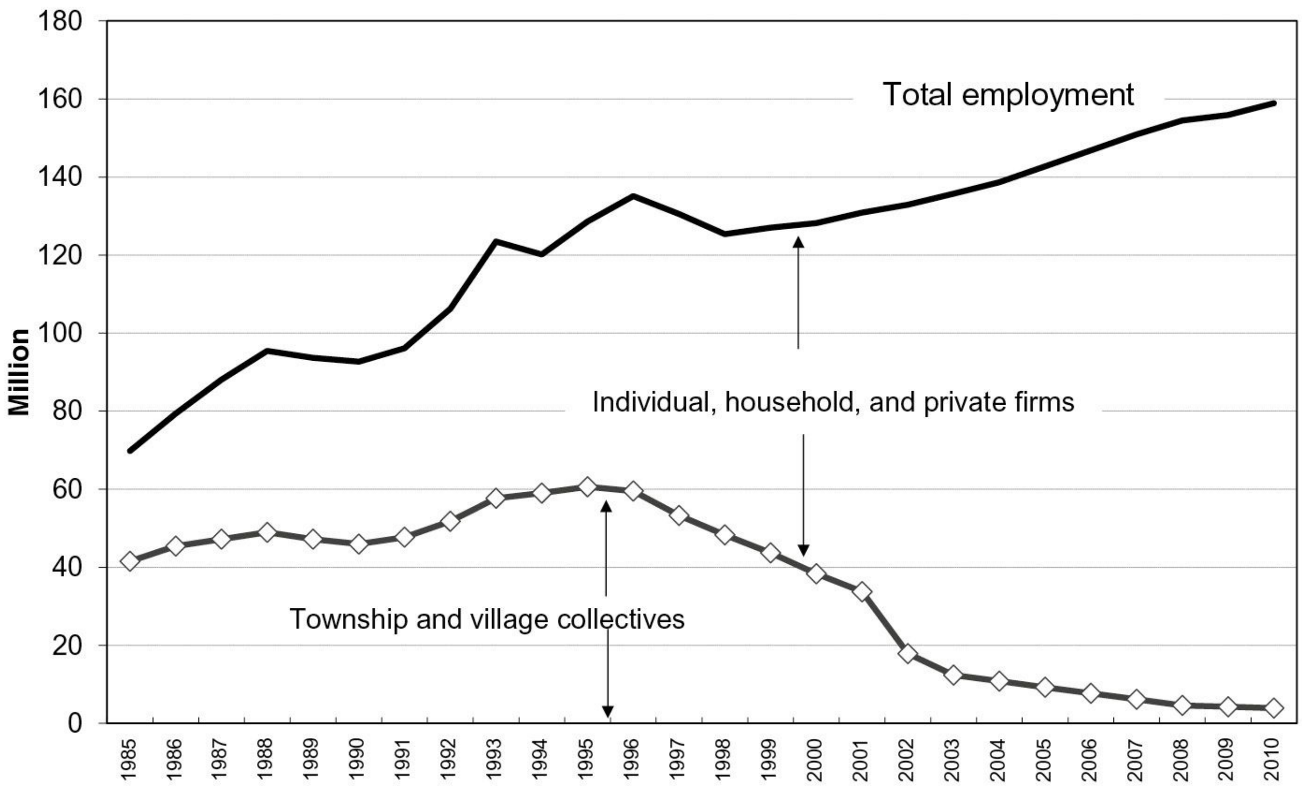

Figure 13.2
TVE employment.

Sources: TVE Bureau (2003); *TVE Yearbook* (2011).

With increased market integration and competition, TVEs lost their protected position. There were few, if any, empty niches for TVEs to exploit. Moreover, as incomes, especially urban incomes, rose, consumers increasingly demanded higher-quality products than traditional TVEs, with their outdated technologies, could provide. TVEs seemed to lose their special role in the economy. TVEs continued to grow after 1996, but at rates closer to overall GDP growth than in the past. TVEs in general became less special but also led the rest of the economy in becoming more private.

13.5.2 TVE Restructuring: The Great Privatization

Figure 13.2 shows the dramatic change in the ownership composition of TVEs. Collectively owned TVEs initially dominated the TVE sector. After the 1980s, private firms grew rapidly, but collective TVE employment increased as well through 1995, at which time collectives still accounted for almost half of TVE employment. But the situation changed dramatically in the following 10 years, and by 2005 collective firms represented a tiny proportion of total TVE employment. Ownership figures are not precise. Early on, there were private firms that operated under the polite fiction of being collectives. As national policy has accepted private businesses, these firms have come out of the closet and acknowledged their true identity. On the other hand, figures for collectively owned TVEs exclude many firms with local government minority stakes. Still, the basic picture is clear: TVEs began as an offshoot of the rural collectives, but today they are predominantly private businesses.

The unique position of TVEs as publicly owned enterprises was thus a defining characteristic of the “golden age,” from 1978 to 1996. In no other transitional economy did public enterprises play the pivotal role that TVEs played in China (not even in Vietnam, which had no publicly owned TVEs despite having a similarly large rural economy). A broad spectrum of interpretation has been put forward to explain public ownership of TVEs. At one extreme, public ownership of TVEs has been interpreted as the result of a uniquely cooperative Chinese culture, which enabled local actors to resolve incentive problems without explicit contracts (Weitzman and Xu 1994). This explanation is most plausible in the early phase of TVE development, when the absence of population mobility meant that local actors were forced to deal with each other repeatedly and face-to-face. At the other extreme, publicly owned TVEs are seen, at best, as adequate adaptations to the political constraints and insecure private property rights that the central government imposed (Chang and Wang 1994). Between these extremes, some have argued that in an environment in which many markets were missing or underdeveloped, local governments were able to leverage their access to credit, land, and relationships in the service of local economic development. Local governments could operate like diversified corporations with relatively hard budget constraints at the community level, combined with operational flexibility at the firm level. Qian and Jin (1998) explained the variation in public ownership across provinces by variations in the level of product and credit-market development. Publicly owned TVEs are sometimes also seen as striking the right balance in motivating local government officials. Public ownership protected local interests against expropriation by higher-level governments, while local-government officials were given strong incentives and hard budget constraints.

Changes in the economic environment gradually reduced the benefits of public ownership and increased its costs. As market competition and population mobility increased, the local-government owners adopted more powerful incentive systems to reward TVE managers (Chen 2000; Chang, McCall, and Wang 2003). Latent shortcomings of public ownership became more evident. As markets developed, a friendly local government official was no longer indispensable. Privatization was the increasingly widespread response of local governments to these changing conditions (Dong, Bowles, and Ho 2002; Li and Rozelle 2003). At the same time, national ideological constraints were being relaxed. Many external factors thus changed simultaneously.

13.5.2.1 National Policy and Local Control

The national government gradually lifted taboos against private businesses in the mid-1990s, and local governments were empowered to privatize their public firms at this time. While the shift in national-government policy was a necessary prerequisite, the process of TVE privatization was controlled by local governments. As a result, we can track a process of experimentation with incentive mechanisms that culminated in privatization, and we can observe a broad range of privatization outcomes and mechanisms.

13.5.2.2 Market Conditions and Privatization

In section 13.5.1, the general argument was made that an intensification of product market competition was an important driver of institutional change in the TVE sector after 1996. Heightened competition also affects factor markets with specific links to privatization:

Labor markets. Although TVEs never had the lifetime employment system that SOEs adopted, publicly owned TVEs were often pressured by local governments to keep local employment as high as possible. Moreover, publicly owned firms can find it difficult to lay off workers in times of adversity. Almost certainly, the slowing of labor absorption by TVEs was related to the transition to increased private ownership.

Moreover, as the Chinese economy became increasingly marketized, managers of TVEs saw dramatic changes in their opportunity costs. TVE managers had long enjoyed relatively high incomes and privileges, but their point of comparison had been the local community, and few managers became personally wealthy. As the private sector grew and private wealth became more conspicuous in the 1990s, managers saw lucrative opportunities outside the village. It is likely that the best managers were unwilling to settle for the moderate compensation offered by public firms, and without a privatization option, they would have left the TVE sector altogether.

Capital markets. Banks faced a new incentive environment in the 1990s, as policy-makers carried out reforms that induced them to focus on risk and profitability. Banks began to vet lending projects more carefully and discriminate among profitable and unprofitable firms instead of automatically lending to firms with government backing. Some banks even preferred to lend to private firms, which had collateral that could be seized if necessary (seizure of assets from public firms was significantly more difficult). A more "businesslike" banking sector eroded some of the benefits of public ownership and tended to push TVEs in the direction of privatization. Since TVE profitability had declined substantially from the heights in the 1980s, local governments were less likely to indiscriminately support any local government TVE.

These channels of influence through various types of markets combined with the most fundamental channel, the intensification of punishing product-market competition. Driven both by judgments about the relative efficiency of different ownership types and by market pressures, local governments increasingly voted for private ownership and converted their TVEs. It became impossible for managers to wear two or three hats and successfully run a business while also managing the village's political affairs.

13.5.2.3 Insider Privatization

Because TVE privatization was locally initiated and controlled, the forms and process varied from place to place. Still, different case studies have shown that "insider privatization" was a common form of privatization, probably the most common. That is, TVE privatization has generally ended up with incumbent managers or closely related government officials owning significant shares of the privatized firms. Table 13.1 shows the results from one careful study of three sites in Shandong and Jiangsu. The level of insider privatization evident in the TVEs is comparatively rare in government-managed privatization processes. Governments often try to discourage insider privatization and make an effort to attract outside bidders in the hopes of driving up the price of the firm. Insiders have a great deal of local knowledge about the firm and probably have a better idea about the value of the firm than the government officials who are selling it have. As a result, there is a clear moral hazard problem: privatization presents opportunities for corruption and plundering of public assets. Incumbent managers are in a position to manipulate the preprivatization performance of the firm, making the firm look worse so that it can be purchased at a lower price. Because of the difficulty in monitoring the price at which privatization takes place, insider privatization represents a clear risk to public wealth.

Table 13.1
Distribution of shares in privatized TVEs (three sites in Shandong and Jiangsu, 2000).

Shareholders	Percent
Managers	53
Other board members	25
Workers (nonmanagerial)	18
Local government	3
Others	2

Source: Dong, Bowles, and Ho (2002, 421).

Insider privatization has advantages as well. Incumbent managers are experienced, and their familiarity with the firm should help them run it after privatization. TVE managers, even under collective ownership, were often observed to have exceptionally close and enduring relationships with the firm. In some cases, they were the entrepreneurs who founded the firms under collective auspices. In those cases, managers may have a legitimate claim to own part of the privatized firm. Ironically, the fact that China has never officially embraced "privatization" as such, preferring imprecise euphemisms like "restructuring," made it impossible for the central government to give guidance to localities on the institutional framework appropriate for an open and transparent privatization process. At the same time, TVEs have always been a local phenomenon, embedded in the ongoing face-to-face relationships among members of a rural community. In that sense, TVE management and TVE privatization were everybody's business. Privatization and restructuring took place under the eyes of the local community.

13.5.2.4 Institutional Experimentation in the Privatization Process

Local control of TVE privatization has resulted in a natural laboratory of experimentation with incentive mechanisms. In general, these experiments were pathways to private ownership, which ended up as the overwhelmingly dominant form of TVE ownership (table 13.2). Many of these experiments should therefore be seen as efforts to control moral hazard and protect the communities' interest during the privatization process. Three experiments were especially noteworthy:

Table 13.2
TVE employment by ownership, 2010.

	Million	Percent
Domestic capital enterprises	149.2	93.9

Individual/family business	60.8	38.3
Private firms	56.5	35.6
Limited liability	21.0	13.2
Collective	3.9	2.5
Joint stock corporations	3.6	2.3
Shareholding cooperatives	2.5	1.6
Jointly operated	1.0	0.6
Hong Kong/Taiwan invested	5.6	3.5
Foreign invested	4.1	2.6
Total	158.9	100.0

Source: *TVE Yearbook* (2011, 137).

- Some public TVEs were converted into worker-owned joint-stock companies, usually called “shareholding cooperatives.” In the most important local program, Zhucheng in Shandong Province, workers were allocated purchase rights for shares. Allocations were not equal: managers could receive allocations as much as 20 times as large as those of ordinary workers, although the average was around 4 times. A single share cost about 5,000 RMB, roughly a worker’s annual wage, but time payment and favorable financing were available. After one year, workers could sell their shares to other workers. The objective was to enfranchise workers while also creating the unambiguous property rights structure of a joint-stock company. The Zhucheng experience was publicized nationwide as a pilot program, and in 2010, there were 2.5 million workers in joint-stock cooperatives (table 13.2).
- In many localities, the government retained a stake in the firm, essentially creating a joint venture with the new private manager. (In these cases, the local government retained a much larger stake than in the cases shown in table 13.1.) Indeed, it can be hard to determine what constitutes a privatized firm today among China’s TVEs: local governments may retain stakes ranging from 20% to 50%.
- “Privatization with a tail” was a common practice. In many places, local governments confronted incumbent managers with a choice: purchase the TVE free and clear at a “high price” (above book value) or purchase it at a “low price” (at or below book value) and agree to pay the local government a share of profits over the next 5 to 10 years. In this case, the “tail” is the future profit share. This is essentially an information-elicitation device. If managers believe that the firm will increase profits, it will be in their interest to offer a higher price today; if they are skeptical or uncertain about the firm’s future prospects, they will prefer to pay a lower price today. Such a mechanism can help overcome the problems of insider knowledge that we would expect to be severe in the Chinese context (Li and Rozelle 2003).

Privatization proceeded rapidly even in those areas, such as southern Jiangsu, where collective ownership was formerly dominant. That region is still distinctive in many ways, but it gradually lost its distinctive Sunan model of TVE development under collective ownership.

13.6 Emergence of Rural Industrial Clusters in the Twenty-First Century

After the great privatization wave of the 1990s, TVE's continued to evolve and grow, and changes in the Chinese economy have increasingly blurred the boundaries that once separated TVEs from other kinds of firms. Some TVEs have become successful private multinational corporations. For example, Wanxiang Auto has become one of the world's largest auto-parts suppliers, with $20 billion in annual revenues and large investments in the United States. Many of the seedbed areas of TVE growth have been transformed from rural regions into cities. After about 2010, it no longer makes sense to treat TVEs as a distinctive category of enterprises. Evolutionary changes continue to remake rural industries.

The most important development has been the emergence of highly competitive "industrial clusters" in rural and suburban areas. The key feature of an industrial cluster is the large number of firms that contribute to a single specialized product. Typical industrial clusters include scores—perhaps hundreds—of small firms that compete with one another but cooperate to form a link in a relatively complete industrial chain. Clusters may have three or four large firms cooperating with scores of small firms. Typical, though, is an exceptionally fine division of labor among different stages of the production process. Small, competitive firms specialize in extremely narrow activities. Relationships among firms can be quite complex, but they are generally mediated by efficient markets, in which a balance is struck between flexibility and long-term cooperation. Clusters generally produce light consumer goods. Industrial clusters emerged earliest in Zhejiang Province (with 519 distinct recognized industrial clusters by the turn of the century; Qian 2003), and we can certainly see elements of the Wenzhou model in these Zhejiang clusters. Ground zero for the Chinese industrial-cluster phenomenon today is certainly Yiwu, also in Zhejiang Province. Famous for its "Small Commodity Market," Yiwu is at the center of hundreds of specialized industrial clusters. The Commodity Market is not an industrial cluster but rather the world's largest wholesale market, the point of coordination and sales for thousands of specialized clusters to which merchants come from all over the world (Yiwu Market Guide 2017). For example, the sock industry cluster is centered in Zhuji Municipality, about an hour from Yiwu, which, along with Yiwu itself, claims to produce more than 50% of the world's socks. Other industrial clusters produce toothbrushes and Christmas ornaments, power tools and low-voltage electrical equipment, promotional items, and copies of oil paintings.

Industrial clusters are not unique to China but are emerging in many places around the world. The shoe industry in Brazil and the garment and luxury-goods industries in

Italy display many of the same characteristics. Yet we can also identify some typically Chinese elements characteristic of the traditional economy, as well as in the early Wenzhou model of TVE development. The clustering of numerous small producers, linked to a larger marketplace by a series of smaller intermediate-goods markets, is a form of industrial organization with a long tradition in China. Today, there are a number of industries where a resurgence of this type of organization has been accompanied by a surge in the competitiveness of Chinese goods on the world marketplace. Indeed, as the Yiwu example shows, TVE export orientation has remained strong. TVEs continue to change and restructure in response to market challenges and opportunities.

13.7 Epilogue: Taobao Villages

As the Internet spread across China after 2009, observers began to notice a new phenomenon: villages where many households produced similar items and the whole village was selling directly to consumers through Taobao. Taobao is a unit of the Chinese e-commerce giant Alibaba; it is a website similar to eBay in the United States, or to that part of Amazon that sells third-party merchandise. “Taobao villages” have all the characteristics of the traditional industrial cluster, combined with Internet connectivity and B2C (business-to-consumer) business models. Like other industrial clusters, Taobao villages tend to specialize in a single inexpensive product type with a mass market but with specific requirements in different market niches. The Taobao village then makes the most of its flexibility to provide specific features and variations valued in different market segments. Top products are clothing, furniture, shoes, and leather bags. Like traditional industrial clusters, a Taobao village typically specializes in a single main product that accounts for more than half of sales. They may need other specialized villages nearby to supply certain inputs: the Taobao village is the upfront B2C shop, behind which may lie a network of B2B (business-to-business) relationships. The largest cluster of Taobao villages in China—no surprise—is in Yiwu, Zhejiang. Thirty-seven Yiwu villages have reorganized around their Internet sales businesses. Besides location, households need only an Internet connection and a bit of familiarity with digital technology, which can often be provided by a returning rural-to-urban migrant.

Since 2009, Taobao villages have spread rapidly, and as of August 2016, the Ali Research Center (a subsidiary of Alibaba), had located 1,311 such villages. These villages operate over 300,000 websites, and the researchers calculate they employ about 840,000 workers full- or part-time (Ali Research Center 2017). Although this accounts for only 0.5% of China’s rural nonagricultural workforce, Taobao villages can nonetheless tell us a great deal about the present and future of China’s rural industry.

First, institutional innovation is still thriving in China’s countryside, particularly those semirural areas close to cities. Moreover, the reasons are the same as in the past: institutional flexibility built on relatively low factor costs (land and labor) combined with proximity to urban markets and infrastructure. Of course, the definition of infrastructure has changed dramatically: in the case of Taobao villages, the key piece of infrastructure is a broadband Internet connection, which is typically available only near cities. Taobao villages are extraordinarily well placed, it turns out, to benefit from the combination of low transaction costs enabled by the Internet and low production costs.

Second, while it might appear that the Internet allows Taobao villages to set up anywhere, the reality is that location still matters: the distribution of Taobao villages in 2016 was eerily similar to that of TVEs in the 1980s. Fully 97% are in six provinces: Zhejiang, Guangdong, Jiangsu, Fujian, Shandong, and Hebei (in that order), the same provinces that led the development of TVEs in the 1980s.

Taobao villages often receive vigorous support from local-government officials. As was the case for TVEs in the golden era, local officials are likely to be fiercely supportive of enterprise development, seeing it as one of the few feasible routes to bring economic development and income growth to their communities. The researchers from Alibaba highlighted 10 Taobao villages they discovered in designated “poor counties” (four of them in Pingxiang, Hebei). After the development of two Taobao villages in Daji Township in Shandong, local officials launched a campaign to persuade rural-to-urban migrants from the township to stay home after the Chinese New Year and brought fiber-optic cable to more than 1,200 homes (Ali Research Center 2016, 19–20).

China’s rural industry shows that many economic features from the past are still in effect today. It demonstrates that China’s legacy of a densely populated, commercialized countryside is still working in its favor. It shows that the unique Chinese configuration of entrepreneurial local government officials and local businesses still operates. It exemplifies the general economic principle that the benefits from economic exchange are especially great when it can take place between agents facing very different costs. Finally, it shows that China can still reap substantial economic gains as long as it permits continued institutional flexibility and the continued expansion of markets.

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Suggestions for Further Reading

The literature on TVEs is especially rich. First, there is a rich body of descriptive and case-study material that provides a good introduction to the topic. For example, Byrd and Lin (1990) assembled a team of Chinese and international scholars for mixed case-study and analytic work. Second, there is a stimulating literature on the institutional underpinnings of the TVE phenomenon. Chang and Wang (1994), Che and Qian (1998), and Weitzman and Xu (1994) are important milestones in this literature. The Yiwu Market Guide English language website is well worth a quick visit.

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Note

1. As noted in chapter 11, the communes were renamed townships in 1982, and brigades returned to being villages, so commune and brigade enterprises became township and village enterprises. For consistency, I will refer to them as township and village enterprises, or TVEs, throughout.