12 Rural Industrialization: From Township and Village Enterprises to *Taobao* Villages

Rural industry 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, Township and Village Enterprises (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. This was the "golden age" of TVEs.

During this golden age, TVEs displayed an additional remarkable characteristic: many TVEs were collectively-owned and (since these were the largest firms) most TVE workers were employed by collectively-owned firms through the first decade of this golden age (1979-1989). 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.

In fact, rural enterprises have been a locus of institutional experimentation and innovation on many occasions. Rural enterprises had been important for centuries, but since 1949 they have experienced at least four significant transformations:

- Under the planned economy, rural enterprises became the target of an experiment in social engineering: the original rural businesses were swept away, and the government sponsored "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 re-branded 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.

- After 2000, TVEs 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. This extraordinarily flexible and low-cost organization established significant global market positions in specific products for a number of Chinese townships.

In 2009, observers first noticed a new phenomenon in China's countryside: the *Taobao* village. These were villages in which multiple households were engaged primarily in e-commerce, specializing in producing and selling a particular commodity on *Taobao* (China's version of E-bay). Since 2009, this phenomenon has spread rapidly, and although it is still too small to be labeled a significant transformation, it shows that the institutional creativity of China's rural entrepreneurs continues to find new forms.

12.1 ORIGINS OF THE TVEs

As described in Chapter 2, rural household businesses were very important in China's traditional economy, leading it to be called "bottom heavy" because of the preponderance of small, household-based, flexible, and market-oriented production units. Rural households spun and wove cotton, raised silkworms, and reeled silk thread; they cured tobacco, milled grain, and made noodles. Households made mud bricks and hewed timber, carted goods to market, and ran shops and businesses. Most of China's rural areas were knit into a dense web of markets and sideline occupations. 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 product 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 3—rural processing businesses were inevitably cut off from their supplies. Grain, cotton, silk, peanuts, and soybeans—the staple sup- plies of nonagricultural businesses—were taken by the state immediately after the harvest. In fact, during the 1950s the countryside became deindustrialized. As the rural population was organized into agricultural collectives, nonagricultural production declined, and the state itself took over virtually all manufacturing production (Fei Hsiao-t'ung 1989). Of course, these policies were an integral part of the creation of the command-economy system.

The harmful effects of this policy on the rural areas were soon evident. Household income declined in commercialized rural areas where a high pro- portion of income previously came from sideline activities. Some formerly prosperous, densely populated regions found they had difficulty supporting 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. During the Great Leap Forward (GLF: 1958-60), one among the many strands of policy adopted was to create Communes and encourage them to run factories—including the notorious “backyard steel mills” and engage in a wide range of nonagricultural production activities. However, as described in Chapter 3, 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-Leap crisis in 1961–1962. After the Cultural Revolution began, Maoist policy-makers made a new attempt to develop rural industry. After 1970, 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.” The communes and brigades that had been organized during the GLF served as platforms for industrial development, and 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. The rural “Five Small Industries” comprised 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 large compared to the traditional rural handicrafts or rural workshops in most countries. The Five Small Industries were all capital-intensive industries usually thought to be characterized by significant economies of scale (Wong 1982). They did not generate much employment per unit of investment or in the aggregate. In 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 non-agricultural 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 private individuals.) Some sectors required government subsidies to survive. Rural industries in the 1970s were a peculiar off-shoot of the command economy. Since they were mainly low-tech firms serving primarily local customers, it was not practical to incorporate them into central planning. Instead, they were deeply integrated into the

1. As described in Chapter 10, 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.

existing collective organization of the countryside, as their very name—commune and brigade enterprises—indicates. 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 got paid in work points themselves (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.

12.2 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" (System Reform Commission 1984, 97–104). TVEs, since they were collective firms, 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, notwithstanding the fact that GDP itself was growing very rapidly as well. The growth of nonagricultural income raised rural incomes and made a contribution to shrinking the urban–rural gap. Not only has TVE growth been rapid, but that growth has also played an important role in the transformation of the Chinese economy, as TVEs have created competition for existing SOEs and 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 competed away 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 the foreign trade area 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.

12.3 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, 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 is that it possesses 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 an incentive environment created by planners of the Big Push strategy: Labor was expensive, since total worker compensation was quite gen- erous (Chapters 5 and 8), while capital was cheap, because it was often allo- cated without charge or provided at highly subsidized interest rates. TVEs, by contrast, faced factor prices much more in line with China's real factor endow- ment. Through the 1980s rural-enterprise worker salaries were less than 60% 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 avail- ability 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 of state-run industry

(Findlay and Watson 1992). Figure 12.1 shows that TVEs (in this case village firms) were specialized in those sectors with low capital-labor ratios, where the competitive advantage of their low wages was biggest. Facing realistic factor- price relationships, TVEs faced 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.

2. **TVEs were able to share in the monopoly rents created for state firms; rural industries were extremely profitable.** Rural enterprises were remarkably prof- itable in 1978: the *average* rate of profit on capital was 32%. If we include tax— because TVEs were often created by local governments who 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 developed a broader network of supporting services and many TVEs began to achieve economies of scale, profitability declined steadily and precipitously.

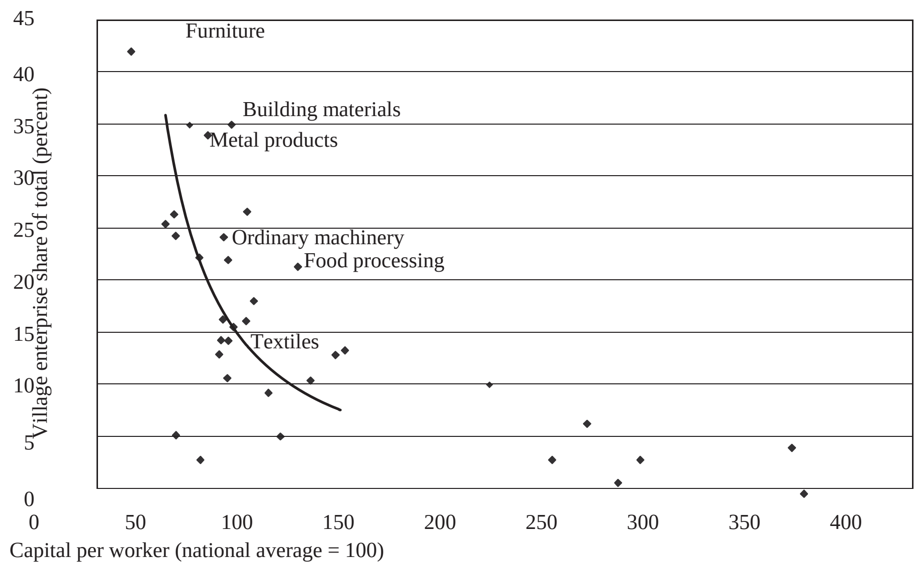

Figure 12.1
Village-enterprise share of total output · capital intensity, 1995

What can explain this pattern of rapid growth combined with steadily declining profitability? Early TVEs were in a position to benefit from the pro- tected 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—big enough to repay early entrants with windfall profits. In this situation continued entry only gradually created competition. State firms scarcely noticed the competition at first, because they were pro- tected 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 compete away monopoly profits and erode profit margins.

The existence of empty niches also contributed to this pattern of high initial profits followed by steadily declining profitability. Empty niches existed for two reasons. Certain commodities—particularly miscellaneous consumer goods—had simply not been provided by the inefficient command economy, and TVEs jumped in to meet needs until then largely unmet. For example, this response explains much of the early success of the Wenzhou region, where small-scale rural 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 led to explosive growth. In addition, a whole series of new markets were created by the sudden growth of rural incomes and the relaxation of rural economic policy. 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 expect windfall gains, and the presence of potential windfalls naturally induced extremely rapid entry. Gradually entrants created competition that eroded the exceptional profits available early on.

3. **The institutional framework surrounding TVEs was favorable to develop- ment.** Local governments became enthusiastic partisans of TVE development. At first, local governments were also the de facto owners of many TVEs. Although TVEs were nominally "collectives," it was almost never the case that the "collective" referred to was limited to the workers and managers in the TVE itself. Rather, the TVEs were owned by the rural collectivity as a whole (Chapter 5), which in practice was usually represented by the local village or township government. Later, from the 1980s onward, the ownership of TVEs diversified away from local government ownership, but local officials still had powerful incentives to develop TVEs. TVEs provided employment and money

to local economies, and they 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 enter- prises enjoyed very low tax rates, and particularly low tax rates on profit. 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 correspon- ding high tax burden. This unbalanced treatment seems peculiar unless we recall that during the early phase of reform China's leaders conceived of rural enterprises primarily as a device to increase the resources available to agri- culture. The average rate of profit tax collected from TVEs remained very low: in 1978 this was only 8%, and by 1980 it had declined to 6%. It then gradu- ally climbed to around 20% by 1986, where it has remained since. While formal tax rates are low, profits paid to local government "owners" were often sub- stantial. In the early 1980s firms at the township and village levels paid about 30% of their total profits to local governments to "support agriculture" and social services, as well as additional funds for "management fees." Local gov- ernments were especially happy to have these funds because they were clas- sified as "extrabudgetary" and therefore did not have to be shared with higher-level governments (as was the case with budgetary revenues). In turn, most local governments recycled this money back 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. The sponsorship of China's TVEs by local governments greatly enhanced the access to capital of these new businesses. By contrast, the expe- rience of other transforming socialist economies has been that new start-up businesses proliferate, but that such businesses have difficulty getting access to capital and as a result remain small, undercapitalized, and dependant on informal capital markets. Local government officials acted as intermediaries and guarantors, reassuring local agents of the banking system that their loans would ultimately be repaid. Indeed, in some cases, local government officials actively pressured local branches of the banking system to provide funds to their firms.

Despite local government actions supporting and serving as guarantors to TVEs those TVEs had mostly, but not completely, hard budget constraints (see Box 13.2). 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 startups 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 mechaniza- tion, 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 drastically. 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 much more money, and they 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. Thus RCC loans to TVEs increased because RCC deposits increased, because they were allowed to lend more local deposits in the local areas, and because they increased the share of their local loans that went to TVEs. Local money stayed local, and so those areas that enjoyed successful TVE development early, when profits were high, were able to "snowball" rapidly into significant production scale.

4. **Revival of traditional economic ties meant that proximity to urban areas fostered rural industry growth.** The growth of China's rural industries has occurred primarily in regions that might more properly be termed suburban, or at least, in areas that are part of the immediate hinterland of cities. Rural industries are also highly concentrated regionally, with coastal areas containing a disproportionate share of rural industries. 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. Such geographical concentration is 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 are more likely to thrive in regions where they can benefit from the spillover effects of the urban economies.

Rather, what is striking is that these organic linkages between city and coun- tryside 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 facili- tated by direct cooperation between urban state-run firms and rural factories, primarily in the form of subcontracting. In the three province-level munici- palities 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 Rev- olution 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 enter- ing into relations with rural firms, state firms could gain access to the resources they needed (particularly land and labor) in an environment in which account- ing standards and supervision were somewhat less strict than in the state sector. TVEs gave state-firm managers a certain amount of flexibility to escape the rigid controls of the 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. In fact, TVEs were sometimes government run, but often and increasingly they were private. Over time a group of true worker cooperatives emerged, as well as employee-owned corporations. TVEs were sometimes bureaucratic, but often highly adaptable. In this respect they were very different from SOEs, which were compelled to adopt a uniform organi- zational form. As a result of this flexibility, TVEs were able to adapt to a broad range of opportunities. As we will see in section 12.4, 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 was privately run. During the course of the 1980s new small-scale firms were started by entrepreneurs, and many firms started under collective auspices became de facto private firms. Some- times these firms continued to register enterprises as collectives, because this practice was safe politically. Local officials formed alliances with entrepre- neurs—sometimes for mutual benefit, sometimes more predatory in nature— as rural industrialization spread. There was a complex mixture of costs and benefits from this interaction between public and private. After the late 1990s the stigma on private business dissipated, and TVEs became predominantly private. In all periods, because TVEs were not constrained to a single organi- zational form, localities were able to adapt as the advantages and disadvan- tages of various options became evident.

6. **Conclusion: Causes of rapid growth.** Rural enterprises grew up in the inter- stices of the command economy system. It should be clear that their success- ful 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 diver- sified rural economy during the 1980s. The influence of the command economy is particularly clear in the profitability of early rural enterprises, the differen- tial 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. Next in importance is the fact that the rural sector became a fertile ground for organizational experimentation in which the entrepreneur- ial energies of the Chinese population were given ample expression. Finally, China's huge size may have played a crucial role. The simple fact that China has some 2,000 counties, over 40,000 townships, and more than a million vil- lages was crucial to the success of rural industry. Even when townships tried to operate miniature command economies, the fact was that ultimately they were 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 eco- nomically successful. Rural enterprises created competition for state firms, and they were themselves shaped by the competitive process. Ultimately, this com- petitive climate may have been adequate to overcome some of the disadvan- tages under which rural enterprises labored due to local government control and the distortions of the economic system as a whole.

12.4 DIVERSE REGIONAL MODELS OF TVE DEVELOPMENT

Responding to different regional conditions, TVEs developed in different pat- terns in different parts of China. Each pattern or model provides information about the forces shaping Chinese rural development.

12.4.1 The Southern Jiangsu (Sunan) Model

Southern Jiangsu, or "Sunan" for short, is the relatively prosperous and developed area of the Yangtze Delta around Shanghai, an area that has been among the most economically advanced regions of China for centuries. Here the dominant model of TVE development was one in which the township and village governments and collective ownership maintained the leading role. This model developed in areas of southern Jiangsu where TVEs flourished early, beginning in the early 1970s. TVEs began developing while the collective system was still firmly in place in the countryside. As TVEs expanded, the collectives maintained control, even when the collective system declined elsewhere. Because of the longer history and greater capital resources in these areas, TVEs tend to be much bigger, more capital-intensive, and more technologically sophisticated than TVEs in other parts of the country.

Elements of the southern Jiangsu model appeared wherever TVEs grew up early, close to cities. "Suburban" areas with locational advantages and entre- preneurial village leaderships developed TVEs early under the collectives, and village leaders subsequently tended to maintain control for a decade or more. Subcontracting and technical assistance ties with urban SOEs were often important. Conversely, once this model developed, the collective structure remained sturdy because the TVEs generated profits that could support local government. These villages tended to develop a kind of "corporate village" in which village leaders ran an entire business complex. At the same time, such corporate villages maintained government social services and sometimes even provided welfare benefits to village residents. These "corporate villages" were sometimes suspicious of outsiders, since they wished to protect the lucrative jobs, benefits, and opportunities of locals. These localities were the most likely to directly subsidize agriculture with TVE profits, so that local farmers could join in the general prosperity.

12.4.2 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 differ- ent geographical setting, and it evolved a very different model of TVE devel- opment. 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 specializing in modest articles of daily use. Wenzhou businesses first flourished 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 entrepre- neurship and spectacular economic growth in the past 25 years. But elements of the Wenzhou model appeared in any place where farmers were willing to seize entrepreneurial opportunities but did not have advantageous suburban locations. In these areas the collectives never successfully developed TVEs into moneymaking propositions. As a result, the 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 this model 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 indi- vidual 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 this Wenzhou model.

12.4.3 The Pearl River Delta Model

In the Pearl River Delta—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 an important role. Production grew rapidly in large factories. In the Pearl River Delta, however, factories were usually export-oriented manufac- turers of light, labor-intensive products.

The big difference between the Pearl River Delta model and the southern Jiangsu model is that the Pearl River Delta model is so much more open both domestically and internationally. Of course, the prosperity of the model depends on openness to foreign trade and investment. The TVEs themselves were often partly foreign owned (Hong Kong owned). But these villages also tend to be quite open to workers from other parts of China as well. While the southern Jiangsu corporate villages tended to protect from outsiders the good jobs their own locals held, the Pearl River Delta needed workers for their large labor-intensive export factories. The Pearl River Delta 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.

12.4.4 Failed or Absent TVE Development

As item 4 of section 12.3 indicated, TVE development was highly concentrated in areas with strong economic potential. Conversely, there are many areas of China where TVE development was weak or nonexistent. A survey of the diversity of forms of TVE development must acknowledge that large swaths of rural China have little in the way of TVE development. In remote areas, where transportation is costly and difficult, there are few business opportuni- ties available to TVEs. Without TVEs to contribute to the local economy, incomes are much lower, village governments are weaker (and may even have collapsed), and there are few options available to provide essential services to residents. In these areas out-migration has become one of the few options for increasing income.

12.5 THE TRANSFORMATION OF TVEs IN THE NEW CENTURY

The entire TVE sector underwent further 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 competi- tion grew up as TVEs adapted to the new challenges and opportunities.

12.5.1 The Changing Economic Environment of TVEs

During the mid–1990s fundamental changes occurred in the economic envi- ronment in China. These changes were associated with a shift in economic reform strategy, discussed in Chapter 4. National government policy shifted toward building markets and regulatory institutions. At the same time, macro- economic policy shifted to a more restrained stance, designed to control inflation, and an emphasis was put on greater financial independence and accountability for banks. All these changes translated into a tougher compet- itive environment for TVEs. At first many TVEs had trouble responding, and the very rapid growth of TVEs came to an abrupt end.

Figure 12.2 shows employment of all TVEs. In the 1980s and early 1990s, TVEs created millions of new jobs for rural residents. As the data presented in Figure 12.2 show, the pace of TVE job creation dropped off abruptly after 1996. TVE employment only significantly surpassed the 1996 peak of 135 million workers in 2004, when the total inched up to 139 million. This slowdown primarily reflects a change in macroeconomic conditions. Urban firms also had to cope with a more competitive market economy, and they responded either by closing up shop or by developing more effective market responses. Urban firms were forced to expand into market niches previously left empty and to develop nationwide marketing strategies, putting them into head-to-head competition with TVEs. The market for consumer goods shifted from one in which shortages were predictable parts of daily life to one in which virtually all goods were regularly available.

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. It is not coincidental that overall structural change in the economy also slowed down after 1996, as shown in Chapter 6. With TVEs less able to

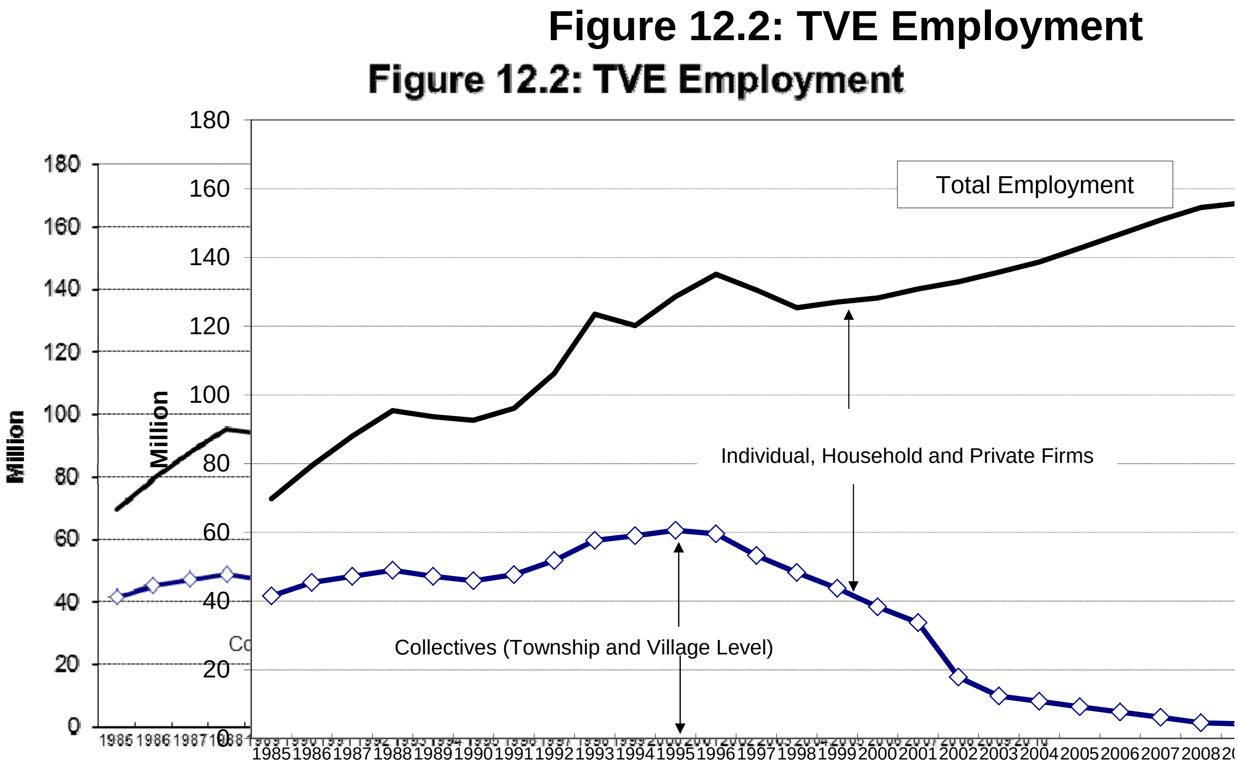

Figure 12.2
TVE employment

absorb workers from agriculture, the agricultural share of total employment stagnated for several years. It was not until well into the decade of the 2000s that structural transformation resumed and TVEs resumed absorbing labor.

In fact, TVEs continued to grow after 1996, albeit at rates closer to overall GDP growth than in the past. TVE value added as a share of GDP increased from 26% in 1996 to 30% in 1999, and then leveled off through 2004. TVEs, under pressure, appear to have raised labor efficiency, producing more output without adding workers and thereby, of course, becoming less labor-intensive. TVEs in general have become less special, but they have led the rest of the economy in becoming more private.

12.5.2 TVE Restructuring: The Great Privatization

Figure 12.2 shows the dramatic change in the ownership composition of TVEs. Collectively owned TVEs at one time dominated the entire TVE sector. After the 1980s, even though private firms grew rapidly, collective TVE employment continued to increase through 1995, at which time collectives still accounted for almost half of TVE employment. But the situation has changed dramati- cally in the 10 years since, and collective firms today represent less than 10% of total TVE employment. Ownership figures are not precise. Certainly in the past there were private firms that operated under the polite fiction of being collectives. As national policy has accepted private business, these firms have come out of the closet and acknowledged their true identity. On the other hand, figures for collectively owned TVEs (see Table 12.2) include only firms 100% owned by the township or village and thus excludes firms where the local government may continue to have a significant, or even controlling, stake. Still, more precise numbers would not change the basic picture: 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 defin- ing characteristic of the "golden age," from 1978–1996. 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). Such an expla- nation 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 argued that in an environment in which many markets are missing or underdeveloped, local governments were able to leverage their access to credit, land, and rela- tionships in the service of local economic development. Local governments could operate like diversified corporations with relatively hard budget con- straints at the community level, combined with operational flexibility at the firm level. Qian and Jin (1998) explain 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 government, while local government officials were given strong incentives and hard budget constraints (Che and Qian 1998; Rozelle and Boisvert 1994).

What seems clear is that 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, public officials were not as necessary as a market replacement. Privatization was the increasingly widespread response of local governments to these changing conditions (Li and Rozelle 2003; Dong, Bowles, and Ho 2002). At the same time, national ide- ological constraints were being relaxed. Many external factors thus changed simultaneously.

12.5.2.1 National Policy and Local Models

National policy toward private ownership began to shift around 1995, and the taboos against private business were gradually lifted. Restrictions on the ability of local governments to privatize their public firms were eased at the same time. This shift in national government policy was a necessary prerequi- site to the wave of TVE privatization. However, the specific means and pace of privatization were invariably locally determined. As a result, we can track a process of experimentation with incentive mechanisms that culminates in privatization, and observe a broad range of privatization outcomes and mechanisms.

12.5.2.2 Market Conditions and Privatization

In section 12.5.1 the general argument was made that an intensification of market competition was an important driver of institutional change in the TVE sector after 1996. Specific links with privatization include the following:

Need to Restructure: Laying Off Workers Although TVEs had never had the kind of lifetime employment system that SOEs adopted, public ownership was often associated with local government efforts to keep local employment as high as possible. TVEs did not try to minimize wage costs, sometimes fol- lowing policies of “two workers for each job” in an attempt to increase local nonagricultural employment. Moreover, publicly owned firms can find it diffi- cult to lay off workers in times of adversity. Almost certainly, the slowing of labor absorption by TVEs is related to the transition to increased private owners.

Capital Availability: Changing Interests of Banks After the Asian Financial Crisis in 1997–1998, China’s leaders paid much more attention to the soundness of the Chinese banking system. Banks were given incentives to focus on risk and profitability, leading them to vet lending projects more carefully and discriminate among types of firms. At about the same time, the ability of local governments to provide credit guarantees for their local publicly owned TVEs declined. Profitability of TVEs declined steadily from the heights in the 1980s, so local governments had fewer financial resources to redistribute and weaker incentives to provide financial bailouts for loss- making firms. Under these conditions, banks no longer had such a strong preference for lending to firms backed by local governments. In fact, some banks even prefer to lend to private firms, which have collateral that can be seized if necessary (seizure of assets from public firms is 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.

Managerial Labor Markets As the Chinese economy became increasingly private and market oriented, managers of TVEs saw dramatic changes in their opportunity costs. Managers of publicly owned TVEs had typically enjoyed high incomes and significant privileges from their jobs, but the manager's point of comparison was within the local community: most managers did not become personally wealthy. Today TVE managers have abundant evidence of private managers who have become rich and powerful. Lists of the richest private businesspeople in China are a common and popular feature in the business press. 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.

These channels of influence through various types of markets combined with the most fundamental channel, through the intensification of punishing product-market competition. Driven both by judgments about the relative effi- ciency of different ownership types and by market pressures, local govern- ments have been increasingly "voting" for private ownership and converting their TVEs. Village leaders today are being asked to concentrate on govern- ment policy issues. In the new economic environment it simply is not possible for managers to wear two or three hats and successfully run a business while also managing the village's political affairs.

12.5.2.3 Insider Privatization

Because TVE privatization has been locally initiated and managed, the forms of privatization have varied from place to place. Still, one common observa- tion of many different case studies is that "insider privatization" has been a common form of privatization, probably the most common. That is, TVE pri- vatization has generally ended up with incumbent managers or closely related

Table 12.1
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

government officials owning significant shares of the privatized firms. Table 12.1 shows the results from one careful study of three sites in Shandong and Jiangsu. This level of insider privatization is unusual in government- managed privatization processes. In most such privatization processes, insider privatization is discouraged, and there is an attempt 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. They probably have a better idea about the value of the firm than the government officials who are selling it have. But incumbent managers are also in a position to manipulate the preprivatization performance of the firm and, in particular, to make 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 presents many opportunities for corruption and plundering of public assets.

Privatization to insiders certainly has advantages as well. Incumbent man- agers are experienced, and their familiarity with the firm should give them advantages in running it after privatization. TVE managers, even under col- lective ownership, were often observed to have exceptionally close and endur- ing relationships with the firm. Many managers were in fact the entrepreneurs who started the firms, under collective auspices. In those cases, managers may have a legitimate claim to own part of the privatized firm. There is a signifi- cant question, however, as to whether there has been sufficient transparency and oversight over the privatization process. Ironically, the fact that China has never officially embraced “privatization” as such, preferring imprecise euphemisms like “restructuring,” may have hindered the development of an open and transparent privatization process. At the same time, TVEs have always been a local phenomenon, embedded in the ongoing face-to-face rela- tionships among members of a rural community. In that sense, TVE manage- ment and privatization are everybody’s business. Whether or not that fact results in sufficient oversight, it has certainly led to significant local variation in the process of privatization and restructuring.

12.5.2.4 Local Variation in the Privatization Process

Local control of TVE privatization has resulted in a natural laboratory of experimentation with incentive mechanisms. Three experiments are worth mentioning.

- Some public TVEs, especially in Zhucheng, Shandong Province, were converted into worker-owned joint-stock companies, usually called joint-stock cooperatives. Workers were allocated purchase rights for shares. Allocations were not equal: managers could receive allocations as much as 20 times as large as an ordinary worker, although the average was around four 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. In 2010, there were 2.5 million workers in joint-stock cooperatives.
- 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 retains a much larger stake than in the cases shown in Table 12.1.) 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" is a common practice. In many places, local governments have 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 five to 10 years. In this case the "tail" is the future profit share. This is essentially an information-elicitation device. If managers believe the firm will increase profits, it will be in their interest to offer a higher price today; if they are genuinely skeptical about the firms future prospects, they would 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).

Despite these local variations, as shown in Figure 12.1, straightforward private ownership is now the dominant form of China's TVEs. One striking result of recent case studies is that privatization has proceeded rapidly even in those areas, such as southern Jiangsu, where collective ownership was formerly dominant. That developed region is still distinctive in many ways, but it may be losing its distinctive Sunan model of TVE development under collective ownership.

12.6 EMERGENCE OF RURAL INDUSTRIAL CLUSTERS IN THE TWENTY-FIRST CENTURY

What happened to TVEs after the great privatization wave at the end of the 1990s? They 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 multi-national corporations. For example, Wanxiang Auto has become one of the world's largest auto parts suppliers, with $20 billion in annual revenues and a global presence. TVE markets are increasingly interregional, and many of the seedbed areas of TVE growth have themselves been transformed from rural regions in proximity to cities, to something like cities themselves, or at least to a densely populated "urbanized countryside."

One of the most striking developments has been the emergence of highly competitive "industrial clusters" in rural and suburban areas. The key feature of a 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 each other 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 between firms can be quite complex, but they are generally mediated by efficient markets, in which a balance is struck between flexibility and long-term co-operation. Clusters generally produce light consumer goods. Zhejiang Province is the area in which industrial clusters emerged earliest (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 in fact at the center of hundreds of specialized industrial clusters. The Commodity Market is not itself 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. 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 *world's* socks. Other industrial clusters produce toothbrushes and Christmas ornaments, power tools and low-voltage electrical equipment, promotional items and oil painting copies.

Industrial clusters are not unique to China, instead 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 (Cf. Huang shoe lady, Porter 200X). Yet we can also identify in this phenomenon in China some typically Chinese elements that we observed already in the traditional Chinese 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-good 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, TVE export orientation has remained strong, and it has even increased in recent years. In this sense and many others, the "TVE sector" is again in a period of rapid change and restructuring.

12.7 EPILOGUE; *TAOBAO* VILLAGES

In 2009, a few villages in China were discovered (one near Yiwu) where industrial clusters had developed in which producers were foregoing the wholesale market and selling directly to consumers through Taobao, the Chinese website similar to E-bay in the US. Taobao villages had all the characteristics of the traditional industrial cluster, combined with Internet connectivity and B2C (Business-to-Consumer) business models. Since 2009, this model has spread rapidly, and by December 2014, the Ali Research Center [a subsidiary of Alibaba, the company that operates Taobao] had discovered 212 such villages, engaging 70,000 households and an estimated 280,000 workers. Such a phenomenon is too new and too tiny—employing 0.1% of China's rural non-agricultural workers—to classify as a serious development in itself, but it 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 semi-rural areas close to cities. Moreover, the reasons are similar: 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 only available near cities. Taobao Villages are extraordinarily well-placed, it turns out, to benefit from the low transactions costs enabled by the Internet, combining them with low production costs.

We can see that many of the key economic factors that drove TVE development in the first place are still at work in the growth of *Taobao* villages. In the first place, the distribution of Taobao villages in 2014 is eerily similar to classic TVEs in the 1980s: more than 90% are Zhejiang, Guangdong, Fujian, Hebei and Jiangsu (in that order), the very provinces that led the development of TVEs in the 1980s.

Taobao villages thus far tend to specialize in inexpensive products with mass markets, and make the most of their flexibility to respond to specific requirements. Top products are clothing, furniture, shoes, and leather bags. Like traditional industrial clusters, Taobao villages typically specialize in a single main product that accounts for more than half of sales. The key feature of these markets is thus that entry barriers are extraordinarily low: relatively low-income households can participate in these sectors, provided they have the initial prerequisites. What are those prerequisities? Besides an internet connection, they require a little bit of familiarity with digital technology (often provided by a returning rural-urban migrant). Finally, *Taobao* villages often receive vigorous support from local government officials. Like 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. After the development of two *Taobao* villages in Daji Township in Shandong, local officials launched a campaign to convince rural-urban migrants from the Township to stay home after Chinese New Year, and brought fiber optic cable to more than 1,200 homes.

China's rural industry shows that economic exchange is especially powerful when it can take place between agents facing very different costs. It shows that China's legacy of 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 is still at work. Finally, it shows that China can still reap substantial economic gains from these conditions 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) assemble 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), Weitzman and Xu (1994), and, in a somewhat different vein, Rozelle and Boisvert (1994) are important milestones in this literature.

Sources for Data and Figures

Figure 12.1: Third Census Office (1997, 5, 46–197, 198–233) provides village level and total national capital and labor, respectively.

Figure 12.2: TVE Bureau (2003); *TVE Yearbook* (2004, 102, and earlier volumes), *SAC* (2005, 44).

Table 12.1: Dong, Bowles and Ho (2002, 421).

Table 12.2: *TVE Yearbook* (2004, 102).

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