

## Agricultural reform

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China's reform began in agriculture. To be precise, it began in farming, where reform has universally been acclaimed a success. In the first seven years of reform (1978–84), grain output increased by 5 per cent per annum, 1.5 percentage points higher than for the pre-reform period, 1949–78. Even more rapid than the growth of grain output was the growth in the output of other agricultural commodities. During the pre-reform period the growth of grain output had been at the expense of these commodities. Over the longer period of reform from 1978 to 1996, gross agricultural output grew at 5.5 per cent per annum in real terms.

The most remarkable aspect of China's agricultural reform was its 'spillover' effect. Non-agricultural activities in rural China sprung up immediately after the reforms began. According to official statistics, the gross output value of township and village enterprises (TVEs) grew at 24 per cent per annum from 1978 to 1995 and employment grew at 9 per cent per annum (SSB 1996).<sup>1</sup> Chinese farmers benefited enormously from the rapid growth of TVEs. In the earlier years of reform, the main source of farm income growth was the combination of increased grain output and the price increases instituted by the government. Per capita net farm income grew by 20 per cent per annum from 1978 to 1984. This was clearly unsustainable. In the years following 1984, per capita income grew by 4 per cent per annum. TVEs have contributed to much of this growth. Rural poverty has been reduced dramatically. According to the UNDP (1996), the number of people in poverty fell from 250 million in 1978 to 80 million in 1995.

## The impact of agricultural reforms

These achievements are unprecedented in Chinese history. What has made agricultural reform so successful? And why has the success of urban reform not matched it, judging by the financial difficulties currently being experienced by state-owned enterprises (SOEs)?

To understand the success of agricultural reform requires an examination of the pre-reform era and the reasons for the failure of the commune system. The commune system was premised on two propositions. First, if farmers collectively own and manage their land, and if income is distributed according to labour contribution, they must have greater incentives to work than existed under the old landlord-tenant system. The communist mentality was that public ownership would unleash the enormous 'enthusiasm and creativity' of the people. Second, the communes would be able to achieve economies of scale in farming.

The first condition in the first proposition was fulfilled, but the second failed miserably. Income was never distributed according to labour contribution; it would never have been possible under the commune system. The enthusiasm and creativity of the people thus never emerged. In a commune of a few thousand people, there was the inevitable problem that one could never accurately assess how much a member of the commune had contributed to the collective effort. A rigorous supervision system may have helped, but farmers often worked individually on different tasks at different times. No efficient supervision system was thus possible. Economic incentives were not allowed; only rewards of political nature (such as 'model farmers') were possible and they were few. In a commune, it was even difficult to identify the principals from the agents. Commune cadres might be regarded as the principals and the farmers as the agents. These cadres had few incentives to maximise profits as the most senior ones were paid by the state and their promotion depended more on their relationships with county officials than on their performance.

The principal-agent problem created a free-rider problem. The earnings of a commune member did not depend on how much he or she contributed. He could benefit from other members' efforts. Rational behaviour for an individual farmer who could not control output outcomes would be to minimise work input. In the end, it was a negative-sum game—a result of the prisoners' dilemma. Everyone was made worse off by free-riding.

The problem was made much worse by the political situation. Mao's 'utopianism' dictated that the contribution of farmers to their communes should not be assessed only by their work contribution, but also by their 'revolutionary' spirit. Thus one could make no economic contribution to his commune, but was still rewarded with income, perhaps more than those who were not so 'revolutionary'. The son of a former landlord who was forced to work long hours would earn much less than a 'revolutionary' farmer would. To make the situation even worse, the communists decided at the beginning of rural collectivisation that the leaders of the communes must be 'poor and lower-middle peasants'. Those who seized power in the communes tended to have little experience in farming and management.

The second proposition, concerning economies of scale, was right in principle, but there were probably few economies of scale in Chinese farming at the time and if they did exist it was not as a result of the communist regime. Wan and Cheng (1999) show that even in today's Chinese agriculture, there is little evidence of economies of scale. There were probably economies of scale and externalities in rural infrastructure projects, such as irrigation and pest control, but the enormous losses resulting from the poor planning and implementation of such projects overwhelmed these potential gains. Poor planning and implementation were inevitable under the commune system. Inexperience in management was partly to blame, but the fundamental problem was that no one took responsibility for the success or failure of projects—a situation that is not uncommon in SOEs today. Numerous reservoirs and dams were built in the pre-reform period, but many of them were a complete waste of money.<sup>2</sup>

By the late 1950s, the weaknesses of the commune system had already become apparent. For example, the restaurants run by the commune wasted an enormous amount of food as food was essentially free.<sup>3</sup> Work incentives were already lacking in many collectives. Unfortunately, the spectacular failure of the Great Leap Forward diverted attention away from the fundamental problems in the commune system, as official propaganda sought to blame the Soviet Union (for its demand of debt payments) and natural disasters for the failure. The problems of the commune system seemed to have been recognised by some Chinese leaders, especially then President Liu Shaoqi and his followers. In the early 1960s, the so-called *sanzi yibao* was introduced. Under this policy, free trade fairs—small plots of arable land for household

farming—were allowed. The communes were encouraged to be responsible for their own profits and losses. The communes could contract farm output to households and households were allowed to retain output that exceeded the contracted amount. Under this policy, agricultural production recovered rapidly from the devastation inflicted by the Great Leap Forward in the period 1962–65. Unfortunately, the Cultural Revolution occurred in 1966; the commune system was kept alive until late 1983, when it was formally abolished.

The failure of the commune system had become obvious by the mid 1970s. Even though national grain output had increased since the Communists took power in 1949, starvation and malnutrition were widespread, especially in poor provinces such as Sichuan and Anhui. The communes crumbled. Chinese farmers knew what should be done. They first reduced the size of their communes, production brigades and production teams<sup>4</sup> and introduced piece-work points wherever possible.<sup>5</sup> Towards the late 1970s they introduced the production responsibility system. Its form varied from place to place, but its essence was to link work points earned to work outcomes. In practice, this meant that various farm tasks or plots of land were contracted to individuals, or groups of farmers. Based on their attainment of specified outcomes, farmers would be rewarded with a certain number of work points. Although it was a major step forward, the production responsibility system had a high transaction cost in terms of contract enforcement, and farmers' contributions to the communes were difficult to assess due to variations in the nature of different farm tasks. So farmers eventually divided up the land and introduced the household responsibility system, which quickly spread throughout the country. Under this household-based system, earnings (rather than the workpoints, whose worth still depended on the efforts of all commune members, even under the production responsibility system) were directly linked to the overall performance of the farm household.

The household responsibility system (HRS) largely solved the principal-agent and free-rider problems which had afflicted the communes. It was this system that unleashed the enormous enthusiasm and creativity of Chinese farmers. Under it, farmers took full responsibility for their farming activities and were profit-driven. Resources began to be used more efficiently. Fertilizer was no longer dumped in the fields and farm machinery no longer allowed to rust during winter. Leaking ditches were repaired. Urban workers were no longer needed to support

their 'younger brother peasants' in busy seasons and school children did not have to leave their classes to help in the fields. As a result, there was an enormous increase in farm productivity in the earlier years of reform. Many studies have attributed this increase to institutional change (McMillan *et al.* 1989; Fan 1991; Lin 1992). Indeed, these productivity gains stemmed from the progressive changes in 'production relationships' within the commune (to use Marxist terminology), and culminated with the abolition of the commune system.

Agricultural reforms had extensive ramifications for the whole rural economy. As farmers were now allowed to retain their excess output (after satisfying their quota), there arose a need for markets. Rural trade fairs were restored across the country. This gave farmers room for specialisation in production, and productivity further increased. Agricultural commodities were not the only goods that entered the rural trade fairs. Farm inputs, handcrafted products, building materials and other goods needed by rural households became available. The success of rural reforms should not be assessed only by the increases in grain output or farm incomes. Freedom of choice and enriched lifestyles were also part of the achievement and represented a substantial improvement in living standards in rural China.

Perhaps the most far-reaching spillover effect of the agricultural reforms was the development of TVEs.<sup>6</sup> As labour productivity increased under the household responsibility system, surplus farm labour became available for non-agricultural activities. The rise in productivity meant that even in busy seasons labour shortages basically disappeared. Farmers already had some experience in the production of non-agricultural commodities as the commune system had forced them to be self-sufficient in many industrial products and farm tools. Further, rapid increases in farm incomes as a result of agricultural reform also enabled farmers to invest in non-agricultural activities. With the tremendous development of township and village enterprises, rural incomes increased much more rapidly than otherwise would have been possible.<sup>7</sup>

The timing of agricultural reforms was also fortunate for the rural people. While the agricultural sector was booming, urban reforms had just begun, albeit hesitantly. In the late 1970s and early 1980s, there were widespread shortages of consumer goods, and the SOE-dominated urban economy was slow to respond. TVEs seized upon this opportunity by expanding rapidly (Huang 1998a). An enormous amount of human capital and skills migrated from urban to rural areas.

The increased mobility of urban workers in response to the booming rural economy also helped the startup of TVEs.

So, what has made the agricultural reforms a success? Their success comes from following basic human instincts, allowing farmers to pursue their own interests at their own costs. Allowing market development, and reasonably stable rural institutions, enabled farmers to release their entrepreneurial skills. It must be noted that throughout the course of agricultural reform, farmers took the initiative, and the government responded by granting its consent, albeit with hesitation. Unfortunately, constraints on the further development of markets and rural institutions began to hamper the rapid growth of the rural economy.

## **What remains to be done?**

The problems facing the farming sector and the rural TVE sector differ. In the farming sector, work incentives and responsible decision-making are no longer a problem. The problems lie in rural factor market policy, the agricultural marketing system, trade policy (both for internal and external trade) and rural institutions.

### **Land tenure**

When the household-based farming system was introduced, farmers were given the right to use collectively-owned land for a specified number of years (normally 15), depending on the region and type of land (forestry land was allowed much longer leases). Now most land leases are due for renewal for another 30 years as stipulated by the government.<sup>8</sup> Thirty years of land lease is probably long enough for Chinese farmers to make long-term investment decisions, given that they have become used to uncertainty over property rights. However, there are problems. According to surveys conducted by the Ministry of Agriculture (Ding 1999; Chen 1998a), by the end of 1995 only 60 per cent of villages had extended land tenure, and of these villages, less than 20 per cent had extended land tenure for 30 years. Even though the central government proclaims land tenure policy, villages have control over the implementation of the policy as land is supposed to be collectively owned. Many villages have not extended land leases according to the official policy. In some villages, land contracts are renegotiated frequently; some don't even use contracts. There have been reports

that village cadres have unilaterally terminated contracts in an attempt to obtain the benefits of farm investments (such as matured forests).

No legal framework is yet in place to regulate land transfer and its proper use. Farmers have been left to make their own arrangements, often at high political risk and transaction cost because of uncertainty. It is not uncommon for farmers who do not wish to continue farming because of off-farm employment opportunities to make little effort to improve land productivity; other farmers are willing to put in the effort required because they face lower opportunity costs. As a result, farmland is not used efficiently. The lack of a formal land market also tends to lead to inefficient use of land for non-agricultural purposes. Collective ownership of land means that village cadres are often under pressure to provide land for non-agricultural uses (such as housing construction) at a subsidised rate.

## Grain marketing

The problems in the agricultural marketing system require more urgent attention than those in the factor markets. Reform in this area has been the least consistent and has led to volatility in agricultural production and prices (Chen 1998a). In 1985, bumper harvests in the previous years prompted the government to abolish the compulsory purchase system and effectively reduce state purchase prices for grain. But soon after, agricultural output declined and the policy was reversed. The so-called purchases contracts with farmers became *de facto* compulsory purchases under a different name. Further policy retrenchments occurred in 1988–89 when the government attempted to stabilise domestic grain prices and reduce inflation in general. After several years of slow change the government introduced more radical reforms in 1992–93, when planned rationing and procurement policies were abolished (Garnaut and Ma 1994). This period saw rapid commercialisation of grain trade and institutional reforms in the grain marketing system. The high inflation during 1994–95 prompted another round of policy retrenchment, when the so-called Provincial Governor Responsibility System was introduced. Under this regime, provinces had a primary responsibility of ensuring stable and adequate grain supply. Many provinces pursued grain self-sufficiency to fulfil their responsibility. Over time, however, controls over grain marketing have been loosened. Non-

state marketing channels have grown and grain trade has increased substantially (Rozelle *et al.* 1998).

As market channels and participation in grain marketing have increased in recent years, the state grain marketing agencies have suffered large financial losses, which have become an increasing drain on the government budget. Under the central planning system, the government provided full subsidies to its grain-purchasing agencies because neither the purchase prices nor the sales prices (both for wholesaling and retailing) were market-determined. With the development of free grain markets, the non-state sector has posed strong competition to the state grain agencies. At the wholesale level, private enterprises and individuals increasingly resort to direct purchase from farmers. At the retail level, higher quality grain is becoming available on free markets. Farmers have incentives to sell lower quality grain to the state and higher quality grain on the free markets. The state grain purchasing agencies tend to give low grades to grain they purchase. This has often led to complaints by farmers. However, none of these have prevented the financial losses of the state grain agencies from increasing. Early in 1998, the government overhauled the grain marketing system in an attempt to provide a complete solution to the problems.

The new system works as follows. First, the state grain purchasing agencies have a complete monopoly over grain purchase at set prices. These prices were set to ensure a desired level of farm income. Second, to eliminate further financial losses to the grain agencies, they are allowed to sell grain at a price level that ensures full cost recovery. Third, the State Agricultural Development Bank of China provides bank loans to cover the full costs once the grain purchased is sold. The intention of this policy is twofold: it reduces the strain imposed on the state budget by the grain department, and guarantees adequate farm incomes.

Unfortunately, this policy is flawed and unlikely to achieve its objectives. Due to the development of rural markets over the past 20 years, it is now very difficult to monopolise grain purchase without extremely draconian policies. Non-state grain agencies are likely to continue to market grain and probably at a very competitive price as they tend to have lower overhead costs. With fixed state purchase prices, farmers have incentives to sell lower quality grain (such as grain that has been in storage for an excessive period of time) to the state grain

agencies. Chinese farmers hold large grain stocks due to high food security consciousness (Ke 1999). In selling low quality grain, state grain agencies face strong competition from high quality grain available on the free market. The state grain agencies are now allowed greater grade margins to differentiate grain quality. However, with little in the way of checks and balances, the grain purchase agencies may abuse their monopolistic power. This is likely to happen as many agencies also run (directly or indirectly) profit-driven businesses.

More fundamentally, the grain state agencies are not efficiently run. This is hardly surprising as grain enterprises have long been subsidised by the government and have not been under as much pressure as other SOEs to improve their performance. As a result, state grain agencies find it difficult to compete with non-state agencies. Stockpiles of grain in state agencies lead to even greater financial losses. Because the state has given up its budget responsibility for the purchase of grain, the Agricultural Development Bank of China—as the designated bank—will have to shoulder the financial losses of the agencies. Given the current relationship between state-owned banks and the government, the latter will eventually have to bear the costs. According to surveys conducted by the Centre for Chinese Agricultural Development at the Chinese Academy of Agricultural Sciences, the new grain marketing system has already shown signs of collapsing, as state grain agencies are unable to sell their procurement at cost-recovery prices.

The poor design of this new marketing system highlights the problems with decision-making in the Chinese government. It has been suggested that the policy was formulated at the Commission of Economics and Trade under the direct leadership of Premier Zhu Rongji. It was alleged that there was no prior consultation with the Chinese government departments that are affected by, or that have the responsibility for, implementing the policy. Apparently the Ministry of Foreign Trade and Economic Relations was not consulted regarding the implications of the policy. Even the Ministry of Agriculture was not consulted and was caught by surprise when it was announced. There was no public debate and no opposing views were allowed to be expressed.<sup>9</sup> Apart from its market-unfriendly nature, this policy has significant international implications. Once the domestic grain market is fully monopolised, external trade has to be restricted to support the policy. This will affect China's position on the World Trade Organization

(WTO) accession negotiations and its potential participation in future rounds of multilateral trade liberalisation in agriculture.

## Trade policy

China's agricultural trade policy itself has been subject to little rigorous debate. Many issues need to be discussed, but two stand out. The first is internal trade in agricultural commodities. Before the new grain marketing policy was introduced, the Provincial Governor Grain Responsibility System was a major concern. In 1995, in response to the sharp increases in grain prices, the central government made the governors of all provinces responsible for adequate grain supply at stable prices in their jurisdictions. As a result, each province began to pursue policies of increasing provincial production, without due consideration to regional comparative advantage in grain production. Rozelle *et al.* (1998) found that grain trade during the period 1994–95 was hampered by higher transaction costs. Given that China is a large country and regional endowments vary greatly, this policy is likely to have led to significant inefficiencies.

China's fiscal system tends to reinforce the incentive for provincial self-sufficiency. Because local governments are primarily responsible for subsidising local agriculture and food consumption by urban residents, grain surplus regions try to keep grain within their jurisdictions, instead of selling it to other regions at their own budget costs. In addition, there is no legal instrument to stop regional protection. The lack of legal framework regulating internal trade tends to increase the risks associated with regional interdependency, and regional self-sufficiency becomes the preferred option for ensuring adequate food supply. Regional protection in overt or covert forms is widespread, and not only in agricultural trade. For example, Shanghai has replaced Daihatsu Charade with VW Santana for taxi transport because Charade is produced in Tianjin whereas Santana is produced locally. Peugeotts are almost exclusively used for taxicabs in Guangzhou as they are produced there.

Recently, the Chinese government banned car manufacturers from price competition because they believe excessive competition will harm the profitability of the industry and hence China's own interests. Ironically, most of China's large car manufacturers are joint ventures. There are already too many car manufacturers: over 120, and yet their combined

output is no more than that of a medium-sized company overseas (He and Yang 1998). Similar policies have been attempted in the electrical appliance and paper industries. Even though such government-created cartels may not work because of a free-rider problem, the government's actions serve to demonstrate the state of political economy in many markets, where consumer interests are completely ignored for the sake of protecting certain producer groups.

Internal trade in agriculture will become increasingly important to China as the structural changes in its economy accelerate. Coastal regions have lost much of their comparative advantage in land-intensive agricultural production. Grain production, for example, has relocated from these regions to inland and northeast regions where land is relatively abundant and labour costs lower. Policies which prevent these structural changes have far-reaching economic consequences. Most of China's grain feed is produced in the northeast and inland provinces while demand is growing most rapidly in the South (Tan and Xin 1999). Even though high transport costs at present may prevent large trade flows between the northeast and southeast of the country, the potential for trade is huge as infrastructure improves and policy impediments disappear. This will in turn have significant implications for China's feed and livestock industries and agricultural exports (see Qin and Tian 1999). China is unlikely to develop a competitive feed industry if it restricts grain imports. This in turn means that contrary to the government's intentions, China's livestock production will continue to be domestically oriented and will find it difficult to compete in the world market.

China appears to have committed itself to grain self-sufficiency, but public debate on this policy has been limited. The grain self-sufficiency policy is meant to safeguard food security and farm income, a policy objective not unlike that in many other countries. The official view takes grain security to mean grain self-sufficiency, even though China's own experience has shown that grain trade has helped China to cope with the consequences of natural disasters and policy failures, such as the Great Leap Forward. One of China's specific concerns over food security is the potential for a grain embargo by the West should China increase its grain exports in the future. However, the likelihood or consequences of such embargoes have never been rigorously assessed (Lu 1997).

On the farm income issue, some Chinese policymakers seem to have based their decisions on simplistic reasoning; since most industrial countries and industrialising East Asian economies tend to protect their

agriculture, it must be a good policy. The belief is that if China allows freer trade in agriculture, not only will it harm farm interests but also reduce China's food security. In truth, China probably offers little effective protection for agriculture at present, and hence immediate liberalisation would have little overall impact on agricultural production and farm income (Yang 1996). With increasing diversification of the rural economy, non-agricultural production has become a major (if not the main) source of rural income in many regions, especially in the coastal regions. In the longer run, it is even more unlikely that Chinese farmers would lose from agricultural liberalisation. One can hardly imagine that Chinese farmers would be able to achieve living standards comparable to those enjoyed by urban residents in the future, with 0.2 hectares of arable land per rural person. Chinese farmers have already felt the pressure and begun to industrialise the rural economy. This has been a very important factor driving the growth of the TVE sector. Given the momentum of growth in the TVE sector, China's longer-term rural policy should be about the promotion of rural industrialisation.

China must take a more broad view with its agricultural trade policy. If China wishes to join the WTO and if agricultural liberalisation is again the subject of debate in the next round of WTO trade talks, one can hardly imagine that China will be able to insulate its agriculture from international competition. Studies have shown that China would benefit substantially from membership-induced trade liberalisation (Yang 1996; Anderson 1997). China's trade partners will be more likely to impose trade restrictions on goods in which China has a comparative advantage if China restricts grain imports. China must balance its food self-sufficiency objective with the resulting economic costs—costs that not only arise from agricultural protection itself, but also from potentially reduced market access for its manufactured exports. A protectionist policy for agriculture could jeopardise China's overall process of integration with the world economy.

## **Rural government**

Despite the abolition of the communes, many aspects of central planning remain, and these are increasingly hindering the development of the rural economy. In fact, the commune was simply replaced by the township government in many respects, and continues to exercise administrative and political control over village leaders, who have replaced the leaders

of the former production brigades and teams. The township is the lowest level of government and higher level (county) governments appoint all the important township cadres. Village leaders are supposed to be elected by farmers, but township governments usually have a strong influence on election results, or the final say on appointments.

One of the problems with this government structure is that township leaders report only to the county-level governments, and are rarely accountable to farmers. Leaders who do not perform well in their position can be reappointed in various townships year after year until retirement. Apart from its governing function, the township does provide some services to agricultural production through its rural extension stations, but it has been unable to provide adequate law and order and other social services. Corruption, illicit drug use and trafficking, illegal gambling and gang fighting have become increasingly serious social problems in rural China.

Many townships run their own enterprises. While many of these enterprises have been successful, their faults (not unlike those facing state enterprises) have become increasingly obvious. In most cases, especially where the enterprises are not contracted to individuals, the township appoints the directors, and nepotism is widespread. Enterprise profits have to be submitted to the township, and the directors have little incentive to maximise profits; instead, potential profits tend to be absorbed through costpadding (for example, extravagant banquets and travels) and distributed as bonuses to the workers. When enterprises make financial losses the township has to bale them out. Township officials face little political pressure in such circumstances, nor do they have strong incentive to ensure better management in the enterprises as their salaries are paid by the state. Worse still, output levels and growth are often used to assess the performance of township leaders. This creates a strong incentive to overstate the output of TVEs. It was alleged that for this reason, the State Statistical Bureau reduced its estimates of TVE output for years prior to 1997 by 20 per cent even though the Ministry of Agriculture was opposed to the revision (personal communications with China Agricultural University staff). The overstatement of TVE output has recently come under closer public scrutiny.

Many township governments are seriously overstaffed. Most of the township staff are paid through township revenues; only the salaries

of core staff are paid by the state. Some townships are compelled to impose excessive fines for illegal actions in order to maintain their staffing levels. Despite numerous decrees issued by the central government banning excessive fines, this problem has persisted. Farmers are powerless to do anything because they do not have any say in the appointment of their township leaders.

In general, township governments should provide more than they currently do. With increasing privatisation of TVEs, township governments must focus their attention on the provision of social and economic institutions, in order to improve the efficiency of TVEs. They have a much larger role to play in protecting the environment, regulating work conditions in firms, providing adequate funds for education and reducing poverty. It is hoped that the administrative reforms which have already begun at the ministerial level will be extended to township governments.

## **Prospects for further reform and growth**

Given the political economy of Chinese reform, it is unlikely that agricultural reform will proceed rapidly. In land reform, ideological constraints are significant. Policymakers have recognised the problems associated with uncertainty over land tenure. However, the 30 years land tenure policy, which was aimed at addressing the uncertainty problem, has not been properly implemented. Current collective land ownership is regarded as a cornerstone of China's socialism. It is feared that without such ownership in rural China, income disparity will deteriorate further and poverty will spread. According to official lines, this would contradict everything the Chinese Communists have fought for over the past decades. Subsequently, private ownership of land has been ruled out. Unfortunately the central government does not consider land reform to be an issue of urgency. Given that the current situation gives local officials maximum control over land, there are unlikely to be major grass-root level initiatives. Ongoing democratisation at the village level may weaken local control, but it will probably be a long time before it makes a significant difference.

In recent years, the so-called 'two farmland system' has been experimented with. Under this system, farmland in a village is divided into two categories—one for subsistence farming and the other for

commercial farming. The former is distributed free of charge according to family size, while the latter is contracted out for a fee. This experiment is designed to increase farm size in order to exploit economies of scale and reduce land fragmentation. After several years of advocating this policy, the government has recently banned the experiment. The policy reversion was prompted by reports that many farmers were opposed to the system because many villages took back land from farmers for redistribution without compensation. This again highlights the lack of property rights and the extent of power abuse by local cadres due to a lax legal system and weak law enforcement. This situation is unlikely to change without radical institutional reform in rural China.

Urban interest groups are the main force behind grain marketing reform and trade policy reform in general. Because of the paramount importance attached to food security and the perceived link between food security and grain self-sufficiency, the government has been extremely cautious about grain and agricultural market reform. Segments of government ministries in charge of internal and external trade have strong vested interests as they want to continue to retain their monopoly over trade. There are obvious conflicts of interests in those ministries simultaneously running businesses and regulating the market (He and Yang 1998). These ministries, together with those who are opposed to trade liberalisation, stress the importance of increasing domestic supply both as a means of stabilising the market and increasing food security and farm income. Furthermore, they regard this approach as an effective way of reducing rural-urban migration which would in turn reduce potential social unrest in cities. This goes well with the urban perception that rural migrants take urban jobs and their migration out of agriculture reduces China's food security. In the process of policymaking, political weight is clearly skewed towards urban interests. Given the massive unemployment problem arising from SOE reform in urban China, these forces are likely to remain strong.

The growth prospects for China's agriculture and rural economy depend on the growth of inputs, as well as reforms. Of course, the former also depends on the latter as, for example, land tenure policy has significant implications for farm inputs. Over the past two decades, the inefficiencies resulting from the commune system seem to have largely been eliminated. It is therefore difficult to achieve large productivity gains with current technology. Price incentives are not going

to be as strong as in the past two decades as domestic prices have approached or even passed border prices for many agricultural commodities. Even if China raises its border protection, there is a limit to the effect on domestic prices, unless China wishes to further raise domestic floor prices (Yang and Huang 1997). Given the large resource implication of higher floor prices, this policy option is unlikely to be pursued. Under such circumstances, private investment in agriculture would be expected to grow slowly. Public investment has experienced a steady decline over the past two decades. This may have partly resulted from the government's response to the increasing opportunity cost of agricultural investment as non-agricultural sectors grew rapidly, and partly from a decline in the influence of the agricultural sector in the political process. Abundant food supplies tend to reduce the attention given to agriculture and hence public investment in agriculture is not likely to grow rapidly.

The poor taxation capacity of the government means that even if greater support is given to agriculture in the future, it is more likely to take the form of border assistance. China may insist on high protection for agriculture out of fiscal considerations as well as food security and farm income. In the short run this may help agriculture, especially the grain sector. In the long run, however, labour productivity growth in agriculture is likely to be slower as more farmers stay in agriculture. Land productivity growth may also be slower as land fragmentation is likely to remain. Perhaps most importantly, there will be slower growth in the non-grain sectors, including rural industries and higher value-added agricultural sectors such as cash crops, fruits and vegetables.

The growth prospects for the rural economy also depend on urban reform. This linkage works not only in terms of resource competition between the rural and urban economies, but also in terms of the pace of urban reform affecting rural reform and the health of the rural economy. With government attention clearly focused on SOE reform, rural reforms have become somewhat less important. The more successful is urban reform, the greater the opportunity for farmers to seek urban employment. Even though the reform of SOEs will increase their competitiveness relative to rural enterprises, greater capital mobility is likely to benefit the rural economy. Widespread financial difficulties in the SOE sector have in recent years not helped rural enterprises; instead, they seem to have had a strong adverse impact on the rural economy as the debt problem has spread to TVEs.

Overall, there is not great optimism about the pace of rural reform and the growth of the rural economy. Much seems to depend on the reform of the SOE sector and the emergence of a clear vision for a long-term development strategy for the rural economy. Current political forces seem to resist rapid structural change and consistent and coherent policy formation, which is necessary to maintain the strong growth of the rural economy.

## **Lessons and implications of agricultural reform**

The key to the success of agricultural reform was its resolution of the principal-agent problem, thus reducing the free-rider problem associated with collective farming. Even though clear property rights have not yet been fully established, a direct link between work efforts and rewards has been established. This is the single most important lesson of agricultural reform that policymakers should bear in mind in reforming the SOEs, even though the issue is far more complicated in the urban context.

The principal-agent problem in the TVE sector has not been resolved to the same extent as in agriculture. Many TVEs face the same problem as the SOEs. The problem arises from the remains of the commune regime. Many TVEs were established using investment by the communes, and the communes' replacements, the townships, run the TVEs in the same way the central ministries run the SOEs. Reforms that are now being implemented to small and medium-sized SOEs should also apply to TVEs. Meanwhile, reform to the rural institutions needs to be pursued rigorously to complement TVE and agricultural reform.

The so-called budget hardening under the current system is unlikely to work. This is why Chinese farmers did not approve the production responsibility system as the final destination of their reform; they reverted to household-based farming. Unlike SOEs in economies where a transparent political system exists, there is little political pressure for the townships to lift the performance of their enterprises. Given the current political institutions and widespread nepotism in the appointment of enterprise directors and staff, anything short of full privatisation/leasing/contracting out of these enterprises is unlikely to alter their behaviour. This will not resolve all the problems, but it would be a critical step forward.

While it is essential that the property rights problem be resolved both in agriculture and TVEs—particularly in TVEs—China must also focus on the development of the domestic market and the integration of its rural economy into the urban economy and indeed into the world economy. In the early stages of reform, it was in the farmers' own interests to introduce fundamental changes to the way in which agricultural production was organised. It was a matter of possible starvation, and there was a desperate sense of urgency. The least successful part of China's agricultural reform seems to have been the liberalisation of internal and external trade. The newly introduced grain marketing system represents a step backward. Unlike with agricultural reform, farmers cannot simply take initiative in trade reform, as an open, integrated domestic market and a liberal external trade regime cannot be established without the cooperation of other interest groups. The government must introduce coherent policies to accomplish this reform.

The inconsistency and slow pace of market liberalisation reflect the lack of vision on the part of Chinese policymakers. Even though they desire industrialisation of the rural economy, their policies have not been consistent with this objective. To eliminate poverty and raise the living standards of the still very poor rural population, China must give priority to the development of non-agricultural sectors to absorb large amounts of surplus rural labour. This may mean lower grain self-sufficiency, but it does not necessarily lead to lower food security. Policymakers must be open-minded in exploring the options for increasing food security. Important SOE reform should not be allowed to divert attention from rural reform, especially TVE reform. Both should be parts of the overall strategy for rapid and efficient industrialisation.

## Notes

- \* The author wishes to thank Professor Weiming Tian of the China Agricultural University for his helpful comments.
- <sup>1</sup> It has been revealed recently that there has been much overstatement of the levels and possibly growth rates of TVE output. Nevertheless, the TVE sector does seem to have grown rapidly since the reform.
- <sup>2</sup> This is not to deny that China made significant progress in water conservation in the pre-reform era. Many of the water conservation projects continued to play an important role well into the reform period. The point is that there was also much waste. The reforms, however, made some of these projects much more valuable, and some of them would have become sunk costs without the reforms. One example would be that some abandoned reservoirs have been turned into fish ponds.
- <sup>3</sup> The provision of food free of charge was partly based on the wildly overstated grain yields, which even today's scientists can only dream of. Some communes reported grain yield per *mu* (1/15 hectare) of up to several hundreds of thousands of kilograms. Strangely for someone who had worked on a farm, Mao believed these overstated yield levels.
- <sup>4</sup> A typical commune consisted of several production brigades and each brigade had several production teams. A brigade was normally formed from an existing village. The reduction in the size of the production units was predictable given that in the early stages of reform the key issue was work incentives, as discussed earlier in the context of the principal-agent problem. Politically this was more defensible than more radical options, such as the subsequently introduced production responsibility system.
- <sup>5</sup> As communes only paid work points, which at the end of the year would be converted into wages according to the total revenue of the commune, piece wages had to take their form as piece-work points. It must be noted that as piece-work points could not apply to all farm tasks, this incentive mechanism had its limitations. Subsequently, the next logical step in the reforms was the production responsibility system.

- <sup>6</sup> For an extensive study of TVEs, see Findlay *et al.* (1994).
- <sup>7</sup> TVEs were not without their problems. This will be discussed later in the chapter.
- <sup>8</sup> The policy for land tenure renewal was first announced in 1993, according to Chen (1998a). The most recent reaffirmation of this policy was on 19 October 1998 in the *People's Daily*.
- <sup>9</sup> A rumour alleges that Premier Zhu sacked a deputy governor of a province at a briefing on the new policy because the deputy governor voiced the potential difficulties in implementing the policy, while other provincial leaders remained silent.