

# Singapore Management University Institutional Knowledge at Singapore Management University

---

Research Collection School of Social Sciences

School of Social Sciences

---


7-2010

## Reforming China's State-Owned Farms: State Farms in Agrarian Transition

Qian Forrest ZHANG

*Singapore Management University*, [forrestzhang@smu.edu.sg](mailto:forrestzhang@smu.edu.sg)

Follow this and additional works at: [https://ink.library.smu.edu.sg/sooss\\_research](https://ink.library.smu.edu.sg/sooss_research)

 Part of the [Agribusiness Commons](#), [Asian Studies Commons](#), and the [Economic Policy Commons](#)

---

### Citation

ZHANG, Qian Forrest.(2010). *Reforming China's State-Owned Farms: State Farms in Agrarian Transition*. Paper presented at the Asian Rural Sociology Association International Conference, Legazpi City, Philippines:.

**Available at:** [https://ink.library.smu.edu.sg/sooss\\_research/1089](https://ink.library.smu.edu.sg/sooss_research/1089)

This Conference Paper is brought to you for free and open access by the School of Social Sciences at Institutional Knowledge at Singapore Management University. It has been accepted for inclusion in Research Collection School of Social Sciences by an authorized administrator of Institutional Knowledge at Singapore Management University. For more information, please email [libIR@smu.edu.sg](mailto:libIR@smu.edu.sg).

## Reforming China's State-Owned Farms: State Farms in Agrarian Transition

Q. Forrest Zhang

School of Social Sciences  
Singapore Management University

### *Abstract*

*China's 2000 strong state-owned farms are experiencing a dual transition in the country's economic reforms: the market transition (from state-owned enterprises embedded in the redistributive system to independent enterprises in the new market economy) and agrarian transition (from small-scale, household-based agriculture to large-scale, capitalist forms of agriculture that rely on market exchanges of land, labor and products). This paper highlights the results of a comparative analysis of the state farms and rural farming households in the agrarian transition to address the theoretical debate about agrarian transition. Using field research data from state farms in Heilongjiang Province and drawing extensively from secondary sources in Chinese, this paper examines the process of agricultural modernization in state farms' reform experience. This paper argues that the state farms followed a path distinct from that in the rest of rural China.*

*Keywords: state-owned farms, state-owned enterprises, market transition, agrarian transition, Chinese capitalism.*

### **Instruction**

China's state-owned farm system was established since the People's Republic was founded. The state-owned farming system today has expanded considerably—a sharp contrast to the decline of state-owned enterprises in the urban sector. These farms are operating in 30 provinces (including municipalities and autonomous regions), occupying 39 million hectares of land (4% of China's total land area, of which 4.7 million is arable farm land), employing over 3.5 million people and supporting a total population of 12.4 Million, and contributing to 3.4% of the country's total rural output (Jia, 2004).

The state-owned farms (used interchangeably here with “state farms”) are an important part of China's agricultural system. They are also a key force in transforming China's natural landscape, especially in the frontier regions. Furthermore, tens of millions of veterans and sent-down youths devoted parts of their lives to the building of this system, and tens of millions of people still live their entire lives within this system. Yet, to date, China's state-owned farms have largely stayed off the radar screen in English-language social science literature.

This paper highlights the history of the state-owned farm systems, and the analysis of the major transformations of this farming system since the beginning of the Reform Era. Through this discussion, I want to address two theoretically motivated questions.

Created as state-owned and bureaucratically (sometimes even militarily) organized entities operating in agriculture and in rural areas, for better or worse, the state-owned farms share characteristics with both the urban state-owned enterprises (SOEs) and the farming households in rural areas. From the start of the Reform until now, the state-owned farm system has gone through waves of reforms, adopting – and sometimes pioneering – measures that are also found in either the SOE sector or in the household-based rural sector. By comparing the state-owned farms with the urban SOEs on one hand, and rural farming households on the other, I attempted to address the following two questions.

First, while urban SOEs have declined drastically in number, state-owned farms have been much more resilient and largely held its ground during the market reform. What makes state farms seemingly more adaptable to the market transition than urban SOEs? Is it because they have successfully transformed themselves, or is it because political considerations allowed them to be kept alive for long?

Second, China's agriculture has entered a new phase of development—"agricultural modernization." This new phase, which has been called by the central government as the "second leap" in China's rural development, is in effect characterized by the spread of capitalist forms of production in agriculture, and thus, can be understood as China's transition capitalist agriculture. With large-scale, specialized and market-oriented production as its goals, agricultural modernization provides state farms an opportunity to become market leaders and a new ground for its growth. But how do state farms respond to this new wave of change? More specifically, do state farms' organizational form and ownership structure as state-owned enterprises aid or hinder their progress in agricultural modernization?

Studying state farms in China's transition to capitalist agriculture and answering the two questions above will speak to a theoretical question that goes beyond the specific Chinese case. In the penetration of capitalism into agricultural production, what roles do pre-existing non-capitalist organizational forms and ownership structures play?

This question is connected with two important theoretical debates. First, in the debate on agrarian transition, much of the existing literature has focused on whether agriculture, compared to industries, poses some natural obstacles to the penetration of capitalism. What is less discussed is that agricultural production did not operate in an institutional vacuum before the arrival of capitalism. Compared to the natural characteristics of agriculture, the pre-existing ownership structure and organizational forms in agricultural production may play a stronger role in determining the extent to which capitalist forms and relations of production can penetrate into agriculture. The study on Chinese state farms and the comparison of state farms with farming households in rural China will help identify the interaction between pre-existing organizational forms and the introduction of capitalist forms and relations of production.

Second, this question is parallel to another question that has received a lot of attention in the social-science literature: in the transition to capitalist market economy (in China as well as other post-Socialist countries), how have the pre-existing property relations and redistributive organization system in the urban sector constrained or shaped the rise of new capitalist economic institutions and market outcomes? Existing studies on this question, however, are limited to the urban sector. This study, on the other hand, extends its investigation into the agricultural sector and examines how emerging market institutions and outcomes are shaped by pre-existing redistributive institutions.

To answer these research questions, I drew extensively from the secondary sources in Chinese publications. But more importantly, I conducted field research and collected first-hand data in state farms in Heilongjiang Province in northeast China. While the primary data collection is limited to Heilongjiang Province, literature review shows that, despite regional variations, the main patterns observed in Heilongjiang are also found elsewhere.

## **China's State Farms: History and Reforms**

### *A History of China's State Farms*

The prototype of state-owned farms emerged before the founding of the People's Republic, during the Chinese Communist Party's (CCP) Yan'an Era (1935-1948). During this period, the CCP, as a rebel group, had been chased by the Nationalist government into one of the most inhospitable regions of the country – the Loess Plateau in northwestern China. Having almost no tax base in the local economy to support its political bureaucracy and military forces, and facing an economic blockade imposed by the Nationalist government, the CCP had no choice but to secure its own grain supply through organized reclamation and agricultural projects. Hence, the military forces were mobilized into reclamation projects under what was called the “Big Production Movement” and established the first “state farms”. This model was later transplanted during the Civil War to the Northeast, where CCP had their first victory against the Nationalist government. Demobilized military units and POWs of the Nationalist army were settled into farms that were created to reclaim land and produce grains for the People's Liberation Army's (PLA) southward expedition.

After the founding of the socialist republic in 1949, this model of state farms was adopted all over the country, especially in the country's frontier regions. These state farms met three urgent needs of the new republic. First, they provided employment for demobilized military personnel, who had become redundant after the conclusion of major military campaigns. Second, many state farms along the border areas were organized as paramilitary units and stationed there to provide border security to the still fragile new regime. Third, these state farms provided supplies of food and fiber not only to feed their own employees but also to help stabilize a national economy devastated by years of wars.

Although state farms were established in most parts of the country by both the central and local governments, a great number of them were concentrated in three regions, namely: Heilongjiang Province in the Northeast, Xinjiang Autonomous Region in the northwest and sub-tropical areas in Yunnan, Guangdong and Hainan (then a part of Guangdong). The Three-Rivers Plain in the Northeast of China, bordered by the Soviet Siberia along the Amur River (known in China as the Black Dragon River, *Heilongjiang*) was then still a vast area of virgin land, known as the “Great Northern Wilderness”.

The first batch of state farms was established here for a host of reasons. The landscape of this region was dominated by swamps and wetlands, which had to be drained before agricultural production could start. This kind of endeavor could only be accomplished by large-scale organized forces, a task well-suited to state farms. The flat topography of this region was also best suited for mechanized production, and thus, the farm machines provided by the Soviet Union could be used. These farms also help to settle a large number of demobilized military personnel.

The Production and Construction Corps in Xinjiang was established primarily for border security. The Corps was formed on the basis of three field armies of the PLA and some other local military troops, which total to around 110,000 soldiers and officers. The Corps established farms all over the province. These farms were organized as paramilitary units – for example, known as the 8th Agricultural Division and so on – which, besides producing food and fiber, also acted as security force that kept this predominantly Muslim region with separatist tendency under tight control. The state farms in the sub-tropical regions in southern China were established primarily to supply the much needed strategic resources, especially natural rubber, which the new Republic was not able to get from the international market.

Since its founding in the early 1950s, the state farm system went through ups and downs in the turbulent years in the 1960s and 70s much like the rest of the country. During the Great Leap Forward Era (1958-1962), state farms had a period of explosive growth (see Table 1). Then during the Cultural Revolution, state farms in the frontier regions became the destination for millions of urban youths who were sent down in Mao's movement of “up to the mountains, down to the countryside”. While most of the sent-down youths eventually were repatriated to cities by the early 1980s, some stayed behind.

Table 1. Development of the China's state farms in the last 50 years

Year	# of farms	# of employees (million)	Land area (million mu)	Total grain output (billion jin)	Total revenue (billion yuan)	Total profit/loss (million yuan)
1957	804	0.44	15.8	1.45	0.67	57.4
1962	2123	2.16	43.7	3.8	1.58	-142
1965	2062	2.60	50.0	--	3.65	460
1978	2067	1.53	64.2	12.9	8.5	-2,190
1998	2101	12.0	71.6	32.9	--	--

In the late 1970s, when the country, under Deng Xiaoping's new leadership was about to reverse its direction and start economic reforms, the state farm system was in situations as dire as other sectors of the state-run economy. Except for a short hiatus in the mid-1960s, the state farm system had been hemorrhaging financially for the majority of its 30-year existence: from 1949 to 1978, the state farm system was loss-making in 22 years (Sun 1999). By 1978, the state farm system had been making loss for 12 consecutive years despite a cumulative investment of over 4.7 billion yuan by the state into the state farm system (Liu 1999). In 1978 alone, it made an unprecedented loss of 2.19 billion yuan (Guo 1999). The state farms, as a whole, had much lower productivity and lower level of technology use than farming households in the rest of the country's rural areas (Liu 1999).

On the brink of economic reform, state farms were also run very much like state-owned enterprises in the urban sectors and, in some regards, in more extreme forms. Like urban SOEs, state farms shouldered many social functions and provided cradle-to-grave social services for their employees. However, the social functions of state farms often went beyond those shouldered by urban SOEs. Many state farms were set up on previously uninhabited land (at least uninhabited by settled agriculture). These farms were not just "running the society" as SOEs often did, but they were literally the society. Furthermore, agriculture, being land-based, these state farms were managing large territories (the largest farms can stretch for over one million mu – that is, hundreds of thousands of hectares) and all the human activities conducted on them. Thus, these state farms not only had social functions, they also had "governmental functions" and acted as the *de facto* local governments. In this sense, more than the urban SOEs, state farms were typically much more than just economic enterprises, but rather enterprise-society-government bundles.

This multifaceted nature of state farms meant that, besides engaging in agricultural production, they also had to simultaneously engage in commercial services and industrial production to meet local needs. Although these social and governmental functions of the state farms put heavy financial burdens on state farms, as we shall see later, they nevertheless also provided state farms the infrastructure to diversify economically during the Reform Era.

Within the state farms, employees were organized hierarchically. The production brigades were the basic units of production. In the rest of rural China, the collectivization campaign also tried to dissolve households as units of production and turn villages into production brigades. However, those production brigades were still based on long-existing rural community and kinship ties. In contrast, many state farms were based on the rationally organized military units; kinship ties and community relations were usually absent and never the bonding force of an organizational unit.

State farms also resembled urban SOEs in their property structure and thus, their relations with the state. Unlike in the rest of rural areas, where farm land was owned by the rural collectives, in state farms, all assets, including land, buildings, machines and even farm animals, were owned by the state (Sun 1999). Like the urban SOEs, managers and workers in state farms were merely agents of the states, who were delegated by the state to manage the state's properties. This also created a status difference between state farm employees and other rural residents. The state farm workers were state employees who received standardized wages according to their rank and seniority, and were entitled to social benefits similar to those enjoyed by employees in urban SOEs. On the other hand, other rural residents had rural status and enjoyed no social benefits except for their access to collectively own the land.

Predictably, state farms behaved economically much like the urban SOEs, exhibiting the typical behaviors associated with soft budget constraints and agency problem. Direct producers did not have a stake in the profitability of the enterprises, neither did they have much of a say in production decisions. Not only state farms were inefficient and unproductive, they were also overburdened by the social and governmental functions they had to provide. In this sense, state farms were essentially SOEs that specialized in agricultural production and located in rural areas.

### ***Initial Reforms in State Farms***

Like the de-collectivization process in the rest of rural areas, reforms in state farms were started spontaneously by local initiatives. As early as in 1979, some state farms in Inner Mongolia were already experimenting with assigning production responsibilities to brigades and allowing them to keep the surplus (Liu 1999). One farm went as far as dividing the state-owned land and assigning responsibilities to employee households. Various experiments of this kind at the local level that aimed at localizing both the management of production and sharing of profits were finally sanctioned by the central government in 1984, together with the Household Responsibility System (HRS) implemented in the rest of rural areas.

Since then, state farms nationwide started to implement a system that was highly similar to the HRS, in which agricultural land of state farms was divided and then allocated on contract, to households of farm employees, who were then responsible for meeting production quotas, but were allowed to keep some surplus. This reform created a two-layered system in most state farms, where numerous small family-based farms were nested within a large state farm. The family farms gained the land use rights, which were protected by contracts, and the rights to manage farm production and keep a

share of the surplus. The state farms, on the other hand, were put in charge of providing technical and infrastructure services to family farms under them, often on a fee-for-service basis.

Similar to de-collectivization in other rural areas, this reform of creating the two-layered system dissolved the production brigades as units of production and set agricultural production in state farms on the household basis and much reduced scales. As a result, state farms came much closer to rural villages both in terms of the organization of production and scale of production. They were both aggregations of household-based farms. Employees in state farms, now working for their own family farms, no longer received the multi-tiered wages from state farms. They were transformed from dependent employees of state-owned enterprises to independent economic actors who were responsible for their own production and reproduction costs.

De-collectivization in state farms, however, did not go as far as that in other rural areas. State farms, as the agents where the state's ownership of land was rested, retained more control over how state land was used by farming households than village authorities had over collectively owned land.

Two other major reforms in state farms were introduced in a top-down manner, much like reforms in the urban SOEs. First, in 1978, the State Bureau of Agricultural Reclamation, the central government agency that oversaw the entire state farm system, decided to encourage state farms to experiment with economic diversification through establishing "integrated agricultural-industrial-commercial enterprises" (IAICE) (Guo 1999). As mentioned earlier, acting as the *de facto* local government and in charge of meeting various needs of their local communities, state farms already had sub-units engaged in commercial and industrial activities. This decision, and the subsequent authorization by the State Council in 1979, gave state farms the green light to extend their non-agricultural activities beyond meeting local needs and to develop these into market-oriented, profit-seeking businesses.

Compared to urban SOEs, state farms enjoyed a unique advantage. They had direct access to raw materials produced in the farms. By vertically integrating downwards into the industrial processing of agricultural materials and the commercial sales of the processed goods, state farms were able to add value to their agricultural products and derive much greater profit margins. The vertical expansion of state farms into industries and commerce also played a role similar to that of township-and-village enterprises (TVEs) in the rest of rural areas in leading rural industrialization and urbanization. The growth of these locally-based, non-farm enterprises led to the transfer of agricultural labor into non-agricultural employment without going through rural-to-urban migration. It also changed the local economies in state farms from a predominantly agricultural one into a diversified economy and transformed some rural communities in state farms into small urbanized areas.



The growth of these IAICEs in state farms also caused changes in agricultural production in state farms. Because of their integrated nature, these IAICEs' engagement in market-oriented, non-farm businesses required that the agricultural production also be geared toward commercial needs and market demands. Since family farms within a state farm could easily and securely sell their products to the IAICEs run by the very same farm, they found it much less risky to shift from producing for self-subsistence to producing for commercial demands. In comparison, the individual farming households in the rest of rural China usually lacked such a direct and reliable access to markets and had to rely on outside agents (such as merchants, outside firms and local governments) to act as intermediaries to provide them with market information, transportation, and production assistance. This difference meant that the commercialization of agricultural production would proceed in state farms much faster than in other rural areas.

Thanks to these two reform measures—shifting agricultural production to the sounder basis of family farms and diversifying into non-farm businesses – state farms had more success than urban SOEs in turning into profitable. In 1979, the first year of its implementation, the state farm system reversed the 12-year losing streak and turned in a 90 million yuan profit.

### ***Theoretical Background***

The above review of the historical background and reform experiences of China's state farms highlights the dual transition in China's state farms: the market transition and agrarian transition. First, as state-owned enterprises, state farms are making the transition from dependent units embedded in the central-planned, redistributive economic system to independent enterprises in the new market economy. Second, after de-collectivization created the two-layered system in state farms and set agricultural production on household basis, state farms are also making the transition from small-scale, household-based farming to large-scale, capitalist forms of farming that involved market exchanges of labor, land and products.

The dual transition of China's state farms then allows us to compare state farms with urban SOEs and rural farming households, respectively, on their transitional experiences. The different institutional settings in which state farms, urban SOEs and rural farming households are making the two transitions provide us the opportunity to use these two comparisons – state farms compared to urban SOEs in the market transition, state farms compared to rural farming households in the agrarian transition—to address two theoretical debates on market transition and agrarian transition, respectively. This paper will focus on the issue of agrarian transition

### ***Agrarian Transition***

In sociological literature, agrarian transition refers to the transition from pre-capitalist agriculture, where production relations were not commoditized and production was dominated by peasant producers and mainly for subsistence, to capitalist agriculture, in which production is organized in capitalist forms and production relations

are commoditized. In this sense, agrarian transition is the process of introducing capitalist forms and relations of production into agriculture.

Debates on agrarian transition have mainly focused on two issues. First, how social structure shapes the course of agrarian transition and its political consequences, and second, how agriculture as a natural system of production poses distinctive obstacles to the penetration of capitalism. With regard to the first question, studies have examined how different social classes acted as the leading agent in introducing capitalism into agriculture and created distinctive class relations that shaped both economic development and political regimes (De Janvry 1981; Moore 1993 [1966]).

More relevant to the study on China's state farms is the second debate on the penetration of capitalism in agriculture. One side of this debate, which originated from Lenin, argues that capitalist relations of production would spread in agriculture just as easily as in urban industries and, as a result, transforming the peasantry class into proletariats. Critics of this argument have identified various types of obstacles in agriculture that could thwart the spread of capitalism in agriculture and thus allow non-capitalist forms of production and social classes, especially the family-based small farms, to persist. These obstacles to capitalism include, among others, the immovability of land as the main means of production in agriculture (Kautsky [1899]1988), the gap between production time and labor time in agriculture (Mann and Dickinson 1978), and agriculture's reliance on biological processes of plants and animals, which often cannot be altered by capitalist forms of production (Goodman, Sorj, and Wilkinson 1987).

The focus of this debate on the natural obstacles in agriculture to the spread of capitalism, however, comes at a cost: scholars have paid inadequate attention to the pre-existing institutional settings in agricultural production and in rural society and how they affect the spread of capitalism in agriculture. In this regard, a comparative study of China's state farms and the rural farming households provide an ideal setting to find out whether and how capitalist forms and relations of production emerge differently in these two institutional environments during the country's agrarian transition.

China's agrarian transition is still a new topic in the literature. However, one recent study (Zhang and Donaldson 2008) has identified a variety of capitalist forms of production emerging among rural farming households in China. Other studies have also documented specific types of capitalist production such as contract farming in China's agriculture (Miyata, Minot, and Hu 2009; Guo, Jolly, and Zhu 2007). Are these forms of capitalist agriculture also emerging in China's state farms? And if so, how do the different institutional settings in state farms shape the spread of these forms?

Compared to the individualized farming households in the rest of rural China, state farms operate under at least three distinctive institutional conditions. First, the land rights system is different. All land in state farms is state owned. State farm employees do not have any entitled access to such state land. In comparison, rural land is collectively owned by villages. As members of the collective owners, villagers are entitled to the access of collective land. Second, state farms and rural farming households inherited very different organizational legacies. Production in state farms

used to be carried out within hierarchically-organized corporate structure – a characteristic typical of the large-scale, capitalist agriculture operated by agribusinesses.

Even after de-collectivization in early years of the Reform Era, the hierarchical organizational structure remained largely intact in state farms, despite changes in its functions. In comparison, prior to collectivization, farming in the rest of rural China had always been mainly done on a household-basis, without the involvement of any non-familial, bureaucratic organizations. After communes and brigades were disbanded during de-collectivization, rural households again went back to household-based farming. Third, in state farms, agricultural production is closely linked with industrial production and commerce, thanks to the establishment of IAICEs during the reform. Rural farming households, on the other hand, lack such direct links to not only non-farm economic actors, but also markets for agricultural products. On the basis of these different institutional conditions, I hypothesize:

*Due to more conducive institutional conditions, the spread of capitalist forms and relations of production in agriculture will be faster in state farms than among farming households in the rest of rural China.*

## **Results**

### ***Agricultural Modernization in State Farms***

In their study of the rise of capitalist agriculture in rural China, Zhang and Donaldson (2008) find that rural China's land rights system – collective ownership and individualized use rights – is a key factor in shaping the forms of capitalist agricultural production that is emerging. Because the collective land ownership entitles members of the collective to access of land, when agribusiness companies or individual entrepreneurs want to acquire contiguous land area to organize large-scale agricultural production, they do not only have to rent the contracted use rights of the villagers but also employ them as farm workers. With this constraint, some companies chose to open up waste land to establish their production bases.

In comparison, under state land ownership and in the absence of personal entitlement to land access, concentration of land takes a different path from the very beginning. Studies have found that during rural China's de-collectivization, collectively-owned land was divided to rural households on egalitarian basis (Kung 1995). As a result, households with varying levels of productivity had similar land holdings. In state farms, however, the initial privatization of land use rights did not face the "equal entitlement" constraint. In the farms I studied in Heilongjiang, a family's ability to rent more land from the state farm was not only constrained by the capital endowment they had to pay for land rent, but also the capital needed to buy or rent farm equipments that were indispensable to do the kind of large-scale farming typical in state farms. As a result, the land distribution in state farms was largely based on each family's capital endowment, which resulted in highly unequal holdings. I learned that usually it is the cadre families who had more capital endowment and rented more land.

The issue of equality aside, unequal land holdings, however, are conducive to the rise of large-scale, modernized agriculture.

In later years, some farms in Heilongjiang introduced competitive bidding into land contracting. The families who failed to fulfill contracts in the last round of contracting were excluded, allowing more land to be concentrated in those more productive families (Zheng 2004). Such a practice would not be possible in rural villages, wherein villagers' entitlement to land cannot be denied on the basis of low productivity.

The demand for farmland fluctuated over the years, depending on agricultural prices and other related costs such as tax. But, after the abolition of agricultural tax and instituting of direct subsidies to farmland in 2005, a steady rise of demand for land and land rental prices were observed. Concentration of land in ever-larger family farms is rising. In the farms that I studied in Heilongjiang, the biggest family farm stretched over 10,000 mu – larger than entire villages in many parts of China. Production in these big family farms is thoroughly capitalistic. Owners of these farms are no longer direct producers, but landlord-cum-business owners. They can subcontract part of their landholding to other families. They hire laborers to work on their lands. The laborers come from a variety of origins. Some are farm employees who failed to get contract land, some are residents from neighboring rural areas, and some are migrants from other provinces.

In rural villages, a variety of capitalist forms emerged in agriculture. Individual farming households have shifted from subsistence farming to commercial farming, contract farming and entrepreneurial farming (Zhang and Donaldson 2008). At the same time, agribusiness companies have also entered and organized land and labor in various ways. Some households also stayed in subsistence farming. In Heilongjiang's state farms, however, I find at least three differences. First, no outside companies are involved; second, much less variety is found among family farms; and third, no family farms stay exclusively in subsistence farming. All these, I believe, are related with the different organizational legacy state farms have.

While agricultural production is now carried-out by family farms, after the de-collectivization, these farms are still nested in the organizational hierarchy of the state farm. Although family farms have control over the use rights of their contracted land, their rights are more constrained than those enjoyed by rural farming households. First, state farms usually contract land on yearly basis and, as noted earlier, the renewal of contracts is often tied to productivity in the previous round. Second, family farms need to take orders on production matters from the state farm. Such top-down control ranges from variety selection to use of fertilizer and pesticides. State farms continue to exercise some degrees of control over family farms' production in order to ensure both the quantity and quality consistency of the products they purchase from family farms. Third, family farms usually sell their harvests to the state farm or its linked agricultural processing companies.

This closely-linked relationship between family farms and the state farm precluded the involvement of outside agribusiness. It also means that all family farms produce not for self-consumption, but for commercial sales, as well. Thus, none of the family farms are subsistence-oriented. Compared with the command economy, the current relationship between family farms and state farms is still mediated by market, as both the contracting of land and sales of products are open, competed transactions through monetary medium. In this relationship, all family farms are contract farmers producing under contract for the state farms' agribusiness companies.

From the above, I can already see that the close linkage between agricultural production and the industrial and commercial activities integrated in the same state farm, plays an important role in facilitating family farms' transition to commercialized, specialized and large-scale agriculture. In other rural areas, a key reason that keeps many rural households in subsistence farming is their lack of access to markets. It is too costly and risky for individual farmers to acquire the skills and market information about producing a non-staple crop, or find the market intermediary to sell it to non-local markets. Family farms in state farm, in comparison, have direct market access provided by the state farms' integrated businesses.

## **Conclusion**

China's state farms, an important component not only in China's agriculture, but also in country's general economy, have experienced rapid changes during the Reform Era. In this first study of the state farm system in the Western literature, I used state farms' reform experiences in a comparative analysis with farming households in the rest of rural China.

Findings of this study confirmed my hypothesis that the spread of capitalist forms and relations of production in agriculture would be faster in state farms than among farming households due to more conducive institutional conditions. The findings also showed that state farms' institutional legacies, especially the absence of an "equal entitlement" land-rights system, a nested organizational hierarchy and the close linkage between agricultural production and industrial processing, facilitate the growth of capitalist forms of production in state farms. This finding adds another perspective to the agrarian transition debate that besides the social structure and the natural characteristics of agricultural production, pre-existing institutional conditions also aid or hinder the spread of capitalism in agriculture.

This study relied on primary data collected in state farms in Heilongjiang Province. Heilongjiang's state farms have the longest history in China and account for 45% of farmland in all China's state farms (Sun 1999). Thus, I believe studying state farms in Heilongjiang provides the most effective way to identify the main trends in China's state farm system. However, China's 2000 plus state farms vary greatly in size, economic location and structure. For example, while nation wide, the average size of state farms is 30,000 mu, but in Heilongjiang, the average size is ten times bigger (Liu 1999). Among the over 2000 state farms, 281 of them accounts for nearly 60% of the GDP (Guo 1999). The conclusions drawn from Heilongjiang's experience, thus, may

not be representative of smaller state farms located elsewhere. But a review of secondary literature shows that the observations in Heilongjiang are also reported from state farms elsewhere. More importantly, the theoretical findings are applicable in other contexts.

## References

- De Janvry, Alain. 1981. *The Agrarian Question and Reformism in Latin America*. Baltimore: The Johns Hopkins University Press.
- Goodman, David, Bernardo Sorj, and John Wilkinson. 1987. *From Farming to Biotechnology: A Theory of Agro-Industrial Development*. Oxford: Basil Blackwell.
- Guo, Hongdong, Robert W. Jolly, and Jianhua Zhu. 2007. Contract Farming in China: Perspectives of Farm Households and Agribusiness Firms. *Comparative Economic Studies* 49 (2):285.
- Guo, Shutian. 1999. 50 splendid years of China's agriculture and reclamation system. *Economics of Agriculture and Reclamation in China* 1999 (11):13-15.
- Hill, Kay. 1994. China's state farms go corporate. *The China Business Review* 21 (6):28-31.
- Jia, Daming. 2004. An update and discussion on institutional reform and economic development in China's state farms. *Economic Studies and References* 2004 (70):35-39.
- Kautsky, Karl. [1899]1988. *The Agrarian Question*. Winchester, MA: Zwan Publications.
- Kung, James Kai-sing. 1995. Equal entitlement versus tenure security under a regime of collective property rights: Peasants' preference for institutions in post-Reform Chinese agriculture. *Journal of Comparative Economics* 21 (1):82-111.
- Liu, Liangyu. 1999. How did state farms implemented the household production system. *Economics of Agriculture and Reclamation in China* 1999 (2):2-4.
- Mann, Susan A., and James M. Dickinson. 1978. Obstacles to the development of capitalist agriculture. *Journal of Peasant Studies* 5 (4):466-481. Miyata, Sachiko, Nicholas Minot, and Dinghuan Hu. 2009. Impact of Contract Farming on Income: Linking Small Farmers, Packers, and Supermarkets in China. *World Development* 37 (11):1781-1790.
- Moore, Barrington, Jr. 1993 [1966]. *Social Origins of Dictatorship and Democracy: Lord and Peasant in the Making of the Modern World*. Boston: Beacon Press. Original edition, 1966.
- Oi, Jean C., and Andrew G. Walder, eds. 1999. *Property Rights and Economic Reform in China*. Stanford, California: Stanford University Press.
- Sun, Rensong. 1999. A review of reforms in the management system of reclamation farms. *Economics of Agriculture and Reclamation in China* 1999 (1):9-12.
- Zhang, Qian Forrest, and John A. Donaldson. 2008. The rise of agrarian capitalism with Chinese characteristics: Agricultural modernization, agribusiness and collective land rights. *The China Journal* 60 (July 2008):25-47.

Zhao, Fangtian, and Jianliang Peng. 1998. The basic progresses in the economic reforms of the agriculture and reclamation system. *Economics of Agriculture and Reclamation in China* 1998 (10):3-7.

Zheng, Yougui. 2004. A review and discussion on reforms in China's state farms. *Research in Chinese Economic History* 2004 (4):43-51.