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CAPITAL FLOW TO THE COUNTRYSIDE:
AGRARIAN CHANGE AND RICE
PRODUCTION IN CHINA

CHEN YIYUAN

Ph.D

The Hong Kong Polytechnic University

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The Hong Kong Polytechnic University
Department of Applied Social Sciences

**Capital Flow to the Countryside: Agrarian
Change and Rice Production in China**

Chen Yiyuan

A thesis submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy

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CERTIFICATE OF ORIGINALITY

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Chen Yiyuan _____ (Name of student)

Abstract

Based on the theoretical framework of Marxist political economy, this research explores the capital dynamics of *agricultural vertical integration* (*nongye chanye hua*) through a case study of an agribusiness enterprise in County Pingwan of Hunan province. The extended case method is employed in the research. Data is collected primarily through in-depth interviews in over six months' fieldwork. The agribusiness enterprise, which is specialized in agricultural inputs manufacturing/marketing, has contracted large tracts of land from the countryside. The control over land allows the enterprise to integrate the agricultural inputs manufacturing/marketing, agricultural cultivation and products marketing in its industrial chain. Underlying the *agricultural vertical integration*, essentially, it is the agro-capital flowing to countryside. The capital accumulation mechanism of the enterprise, the role of state in promoting the *agricultural vertical integration*, and the impact of the entry of the company on the rural society are examined, attempting to theorize the on-going agrarian transformation and the role of agriculture in China's industrialization.

The exploration of the source of profits of the agribusiness could explain why capital flows to the countryside. It has shown that the agribusiness company derives profits primarily from the 'upstream' (agricultural inputs sales) and 'downstream' of farming (paddy marketing). The control over land enables the enterprise to establish market monopoly in agricultural inputs sales on its contracted land and obtain extra profits. It is the extra profits that motivate the agribusiness to extend the industrial chain.

Moreover, the role of the local state has also been explored, showing how capital flows to the countryside. As the *project funds*, transferred from the central finance, have become more and more important in funding the fiscal

gap of local government, the local government is highly motivated to promoting land circulation in order to introduce in the agribusiness enterprises, as the latter are able to complete the governmental projects more effectively. The collaboration between the agribusiness enterprise and the local government also allows the company to integrate the governmental supporting funds in its capital accumulation.

In order to further examine the capital accumulation mechanism of the agribusiness, the land operation strategies adopted by the enterprise have been explored. What is remarkable is that the large-scale farm operation which is based exclusively on wage labor has been replaced by the strategy of ‘company + *contracted tenant household*’. How the *contracted tenant households* contribute to the capital accumulation of this company is then scrutinized, finding out that the seemingly independent *contracted tenant households* are actually in indirect employment relations with the company, and the ‘family labor’ of the *contracted tenant households* are in effect quite similar to hired labor. Although the *contracted tenant households* are in the shape of ‘household farming’, the shape is preserved because the social networks of these households could be utilized to facilitate the land operation.

Further, the entry of the agribusiness also has deepened the on-going rural social differentiation. As the enterprise contracts land from the villagers through paying land rent, which the medium producers could not afford, the differentiation of the medium-scale farming households is accelerated. A large number of the medium producers are forced to fall back into the stratum of small producers, whereas only a small number of them are able to transform themselves into the capitalized family farmers (or capitalist producers) through ‘collaborating’ with the company. The small-scale farming households, however, derive their household income more and more from off-farm activities, which means that their positions in the capitalist system as ‘wage labor’ have been more and more fixed. What

should be noted is that capitalist producers have emerged inside the countryside, and they may share the same motivation in industrial chain extension as the agribusiness. Both the flow-in of the exogenous agro-capital and the formation of endogenous capital in the countryside have been threatening the household-based farming system.

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List of important conceptions

<i>Agricultural vertical integration</i>	“农业产业化”
<i>Agricultural extension agents</i>	“农业技术推广员”
<i>Big households</i>	“种粮大户”
<i>Contracted tenant households & Sub-contracted tenant households</i>	“代管户”与“耕作户”（公司命名）
<i>Dragon-head enterprises</i>	“龙头企业”
<i>Document No. 1 of the Central Government</i>	“中央一号文件”
<i>Extension agent-retailer</i>	“农技人员兼农资销售商”
<i>Face-to-face society</i>	“熟人社会”
<i>Family farms</i>	“家庭农场”
<i>Farmland improvement project</i>	“农田改造项目”
<i>Formula Fertilization by Soil Testing</i>	“测土配方肥示范项目”

<i>Greenhouse Rice Seedling Nursery</i>	“大棚育秧”
<i>Horizontal concentration strategy</i>	“纵向一体化”
<i>Land circulation</i>	“土地流转”
<i>Major Grain-production County</i>	“产粮大县”
<i>Professional producers of large-scale farming</i>	“专业大户”(中央一号文件)
<i>Project system</i>	“项目制”
<i>Project funds</i>	“项目资金”
<i>Public Agricultural Extension System</i>	“农业技术推广体系”
<i>Renqing relations</i>	“人情关系”
<i>Vertical Integration Strategy</i>	“纵向一体化”
<i>The National Agricultural Science and Technology Park (NASTP)</i>	“国家农业科技园”

Chapter One: Introduction: agrarian questions in contemporary China

The Chinese agriculture has been based on household farming for more than 30 years under the Household Responsibility System (HRS) since the decollectivization of China's rural economy in the early 1980s. It is widely known that the household-based agricultural system has facilitated the development of China's industrialization by providing cheap migrant labor force, whose reproduction could be partly subsidized by their rural earnings. The cheap labor force has contributed substantially to China's industrialization and paved the way for China to be the 'world factory'. However, the on-going agrarian change has challenged the development path. Not only the exogenous capital that flows to the countryside, but also the endogenous capital that is emerging from inside of the rural society, has been reshaping the household-based agricultural structure.

This research aims to examine the expansion of capitalist relations of production in China's agriculture through the lens of *agricultural vertical integration* (*nongye chanye hua*, or *agricultural industrialization*), which means the integration of agricultural cultivation, processing and marketing by the leading 'dragon-head' enterprises or other market-oriented organizations. Underlying the *agricultural vertical integration* process is the *capital-flowing-to-countryside*, which involves both the exogenous agro-capital, but also the agricultural producers in the countryside. Moreover, the state also plays an active part in the promotion of *agricultural vertical integration*. Thus, the exploration of *agricultural vertical integration* would show the dynamics of capital accumulation for the agribusinesses, the impact of the introduction of agro-capital on the rural society, and the role of state in the agrarian transformation. This research

attempts to engage the mainstream discourses on China's agriculture.

Two contending views on the China's agriculture development

In the rural China studies, there are two opposite views on China's agriculture development, which, characterized by He Xuefeng (2014), as the 'agricultural modernization school', or the 'radicals', and the 'peasant economy school' or the 'conservatives'. To be more precise, the 'agricultural modernization school' basically champions the neo-liberalism ideas, whereas the 'peasant economy school' could largely be taken as populism-oriented.

The mainstream discourse on the agriculture development is dominated by the neo-liberalism-oriented claims. A number of influential intellectuals and policy makers propose radical reforms on the land system, *household registration (hujia)* system and household responsibility system (HRS), so as to boost the Chinese economy in a short period and promote the urbanization of China. These advocates suggest that all institutional obstacles which block the free flowing of key factors of production, i.e. the land, labor and capital, between rural and urban areas should be removed in the top-down reform, and that the 'market' should play the dominate role in the social economy. This, they insist, is the path for China to transform from a middle-income country into a developed country.

The agricultural modernization is taken as an integral part of the 'four-in-one' system (*siwei yiti*) with the industrialization, urbanization and informatization. As designed by the think tank of the Chinese government, the informatization – the application of information technology – should be integrated to the development of industrialization, the industrialization and

urbanization could be reinforced by each other, whereas the agricultural modernization and the urbanization should be coordinated (Xinhua Net 2012)¹. Specifically, on rural issues, these advocates propose the Chinese government to advance China's agricultural modernization through the promotion of the *land transfer (tudi liuzhuan*, referring to the lease of land-use right)². Some goes further to suggest establishing private ownership of land. The No. 1 Document of the Central Government³ of 2013 has announced the issuance of certificates of land use right (Xinhua Net, 2013). As interpreted by some intellectuals, the certification of land-use right refers to entail the rural residents to a permanent right to the use of land, which means to entail them private ownership of the land (Nanfang Nongcun Bao, 2014). But for the advocates, the certification is the precondition for land transfer (Zhou, 2010), because the marketization of factors of production entails clear property rights (Dang, 2005). Moreover, they argue that farmland should be transferred to the hands of *specialized big households (zhuanye dahu)*, family farmers and rural cooperatives, which has been stressed by the No. 1 Document of the Central Government of 2013 (Xinhua Net, 2013). Moreover, the *agricultural vertical integration* is also taken as the path for China's agricultural modernization. 'Supporting *agricultural vertical integration* is to support agriculture; supporting leading enterprises is to support agricultural producers' (Guowuyuan, 2012) has been propagated by the Chinese government as the slogan to promote the *agricultural vertical integration*. In short, the modernized agriculture,

¹ For an English version of the full context of the 18th Party Congress of CPC, please refer to: http://www.chinadaily.com.cn/language_tips/news/2012-11/19/content_15941774.htm.

² Essentially, '*land circulation*' could be taken as land renting. But since all arable land is collectively owned and rural households only have the right to contract land from the village, the conception of *land circulation* is created to describe the transfer of land-use right.

³ No.1 Document of the Central Government is the first policy document released by the Central Government of China each year, which is a programmatic document of that year.

according to them, should be dominated by large-scale operation – or ‘appropriate-scale’ operation as some argue (Li, 2009, 2013; Liu, 2012, 2013a, 2013b; Han, 2003a, 2003b; Zhang, et al. 2010; etc.). Attributing the economic backwardness of agricultural producers to the small-scale farming system, they assert that the enlargement of the land operation scale would increase the rural household income. Thus the promotion of large-scale – or appropriate scale – farming is regarded as a way to narrow down the urban-rural economic gap. Meanwhile, those who are ‘freed’ from farming could migrate to cities and engage themselves in the non-agricultural work in the industrial or the service sector, which is viewed as part of the industrialization and urbanization process. Nonetheless, there are two questions that are still to be answered. The first is whether or not the latter sectors could provide enough working opportunities for the large army of labor force, and the second is whether the development of large-scale farming would benefit the whole of rural society or would create a further polarization of society.

On the other side, the ‘peasant economy school’ generally believes that the current land system in China – characterized by the Household Responsibility System (HRS) – should be preserved. The small-scale household farming, according to them, contributes to the development of both the Chinese agriculture and the national economy. As a densely populated country with limited arable land, argued by these intellectuals, the large-scale land operation mode is unsuited to the Chinese conditions. Moreover, the rural land system allows those who fail to settle down in cities to make a living back home. Small producers are also given some presumed values such as reciprocity and egalitarianism. Further, the small-scale farming households supply large numbers of cheap labor power, which contribute a lot to the rapid growth of the Chinese economy. According to these advocates, it is the rural society, which is believed to be constituted with the small producers, that serves as a stabilizer for China in

its rapid industrialization, and allows the soft landing of China's economy in economic crises (e.g. Huang, 2010a, 2010b; He, 2012a, 2012b; Wen, 2001, 2009a). However, in the context of agrarian change, the fate of the small producers is still to be re-explored, particularly in terms of the relations of agricultural production.

Essentially, the bones of the contention lie in the following issues.

The first is the role of agriculture in the late middle phase of industrialization. The populist scholars maintain that the small-scale household farming should be supported by the state, as the small-scale farming households supply a large number of cheap labor force for the industry sector on the one hand, and could provide shelters for these labor in economic crisis on the other. These intellectuals tend to underscore the contribution of agriculture to the industrial accumulation. On the other side, the neo-liberalism intellectuals believe that the current small-scale farming structure has to be transformed – be 'modernized' in specific – in order to be coordinated with the industrial development. They claim that the industrialization process has created conditions for the agricultural modernization. According to them, as a number of rural labor could be absorbed in the off-farm activities, those who are still engaged in farming may expand their land operation scale, which would increase their income. Moreover, the industrial products, such as the agricultural machines, fertilizers, pesticides and other agricultural facilities, would allow the large-scale producers to do the farming intensively. Thus it is the industry that supports the agriculture at this stage. Their divergence indicates that the relationship between the agricultural sector and the industrial department in the late-middle phase of industrialization is still to be explored.

The second contention centers on the fancy of 'scale operation as a way out for China's agriculture'. Whereas the neo-liberalism-oriented promoters highly advocates the development of 'modernized agriculture' – large-scale land operation managed by agribusiness enterprises, rural cooperatives and

specialized agricultural producers (*zhuanye dahu*), their opponents argue against the large-scale land operation mode by claiming that China is endowed with a dense population and relatively little arable land. The former promoters have dominated the policy making. The policy orientation on developing ‘agricultural modernization’ has facilitated the expansion of capitalist relations of production in agriculture, shown in the development of *agricultural vertical integration* as well as the growing of agrarian capitalists. Coexisting with the small-scale farming, the capital accumulation mechanism of the newly emerged large-scale operators should be explored in detail.

Moreover, it is interesting to note that both sides share the view that the small-scale household farming still dominates the Chinese agriculture, although they hold completely opposite opinions on how to deal with it. However, whether the Chinese agriculture could still be characterized as small producers-dominated should be seriously questioned. As a matter of fact, the expansion of commodity relations in rural China since the reform and opening up in the late 1970s has opened the endogenous process of rural social differentiation. The underlying dynamics of the social differentiation and the diverse parts played by the different stratifications of agricultural producers in China’s agrarian transition will be examined in this research.

Agrarian questions in China: a theoretical framework

The above contentions on the development of agriculture in China may be interpreted in the framework of Marxist political economy. The long-discussed ‘agrarian question’ provides useful perspectives in understanding the agrarian transformation.

The agrarian question was come up in the context of the transformation of

the pre-capitalist relations of production in agriculture in the European countries. The agrarian transformation is expected to facilitate the capital accumulation of the industrial department, and both the state and the industrial capital play their parts in the transition. The different layers of meaning of the agrarian question correspond to the contentions on China's agriculture.

With reference to the empirical experience in England, Marx theorized its industrialization process as underpinned by the complete transformation of agricultural production – referring to the formation of agrarian capitalists and wage labor – in *Capital* (Marx, 1976). Although the complete capitalist transformation of agriculture was evident only in England and in Germany east of the Elbe (Bernstein, 1996) in mainland Europe, the theorization provides analytical tools and methods of Marxist political economy in examining the agrarian transition. Summarized by Byres (1991) and Bernstein (1996) the agrarian transition studies after Marx, the agrarian question should be interpreted in three senses.

First, as revealed in Engels's book *The Peasant Question in France and Germany* (1970), the agrarian question is taken mainly as an explicitly political issue. According to Engels, the 'agrarian question' is essentially the 'peasant question', which involves the political problem of how to capture power in countries with large numbers of peasantries. Byres notes that 'the fact of peasantries which were differentiated and further subject to influences that were hastening that differentiation' is central to the 'peasant economy', and the peasant question is that 'of which sections of strata of the peasantry could be won over' to the socialist workers' parties. (Byres, 1991: 7-8) The political sense of the agrarian question, reminded by Bernstein, should be 'viewed in an intrinsically political way in terms of the class dynamics and effects of the manner of its resolution' (Bernstein, 1996: 25-26). The class dynamics are relevant in understanding the agrarian transformation of China.

The second formulation of the agrarian question is the Kautsky-Lenin reading, which concerns the variant forms and effects of capitalist development of agriculture in the countryside. After Engels, Kautsky (1988) and Lenin (1956) further extend the Marx's treatment of the development of capitalism in the countryside with careful empirical analysis respectively in their texts *The Agrarian Question* and *The Development of Capitalism in Russia*. In his book review of Karl Kautsky's *Die Agrarfrage (The Agrarian Question)*, Lenin has highly remarked that Kautsky 'has filled this gap' which the 'Marxism has lacked ... (in the) systematic study of capitalism in agriculture' (Lenin, 1960: 94). Generalized by Banaji (1976, Editorial Note: 1), the Kautsky-Lenin interpretation of agrarian question refers to the following: 'Why does the development of capitalism proceed at a pace and take a form different from that of industry? Why does the capitalist mode of production, despite the dominance attribute to it, coexist with precapitalist social relations of production; and what is the effect of this coexistence on the social formation?' The question about the coexistence of the precapitalist relations of production and the capitalist mode of production is highly relevant to the agrarian transition in the Chinese context.

The third meaning of the agrarian question, defined by Byres, is the role of agriculture in allowing the accumulation to proceed in the capitalist industrialization. Byres derives this layer of meaning from the socialist agrarian transition, as presented in Preobrazhensky's *New Economics* (1965). With reference to the socialist construction following the Russian revolution of 1917, Preobrazhensky argues that the sources of primary accumulation for the socialist industrialization should be the net transfer of 'surplus' from peasant agriculture. The key point in emphasizing this third layer of meaning is that capitalist industrialization may proceed without the full development of capitalism in the countryside (Bernstein, 1996: 25).

The above contentions on China's agricultural development have their origins in the three layers of meaning of the agrarian question, only in

different contexts. The early studies on agrarian question aim at solving the ‘agrarian question of capital’ (Bernstein, 2006: 450), which refers to the transition of the pre-capitalist agrarian social formations into the capitalist relations of production. Byres (2006) defines the ‘agrarian transition’ as ‘those changes in the countryside necessary to the overall development of capitalism and to the ultimate dominance of that mode of production in a particular national social formation.’ The agrarian transition, to a large extent, has facilitated the capital accumulation in the manufacturing industry, particularly in the initial stage of industrialization. But China today has entered the stage of the middle industrialization, when the total value of agricultural output accounts for only 10 per cent of China’s GDP (China Statistical Yearbook, 2012). Direct extraction of the agricultural surplus is no longer indispensable for the industrial accumulation. However, this does not mean the agrarian question is not relevant for China. The agrarian transformation in China, which could be characterized by the endogenous emerging of capitalist producers in the rural area and invasion of the exogenous agro-capital, is proceeding along with the industrialization process. The dynamics and characteristics of China’s agrarian transition, as well as the role of agriculture in the current stage of industrialization, all need to be examined. The studies on agrarian question provides useful analytical framework for understanding the contentions on China’s agriculture in the current context.

The *agricultural vertical integration* will be taken as a cutting point to explore the agrarian transition in China. On the one hand, the *agricultural vertical integration* connects the industrial sector and agricultural production, which makes it possible to examine closely the contribution of agriculture made to the accumulation in the industrial sector. On the other hand, the expansion of *agricultural vertical integration* entails the interaction among the enterprise, the local state and the differentiated agricultural producers in the countryside, which would reveal the capital

accumulation dynamics of the agribusinesses on the one hand, and interpret the role of state in China's agrarian change on the other hand.

Agricultural vertical integration: capital flowing to the countryside

Encouraged by the Chinese government, *agricultural vertical integration* has expanded rapidly throughout the country. Underlying the expansion is the process of *capital flowing to countryside* (*ziben xiaxiang*). In the mainstream discourse, *agricultural vertical integration* has been taken as the only path for the agricultural modernization. But the dynamics of the *agricultural vertical integration* has to be scrutinized. In this research, *capital-flowing-to-countryside* should be understood in two senses.

First, it is the surplus industrial capital that flows to the countryside, in pursuit for its accumulation in the agricultural sector. The agribusiness enterprises, which are motivated to extend their industrial chain into the agricultural cultivation, are normally specialized either in the agricultural inputs manufacturing/marketing or in agricultural products processing. But the surplus capital in these industries has increasingly intensified the competition, driving the agribusinesses to establish market monopoly in order to seize more market share. The extension of industrial chain, which should be characterized by the control of farmland, or the cultivation process, has turned out to be an effective way of establishing monopoly. Through contracting farmland from the villagers and controlling the cultivation process, an agricultural processing enterprise would be able to monopolize the supply of the agricultural products from the contracted land. The monopoly may allow the agribusiness to obtain extra profits through lowering the price of the agricultural products. The same logic applies to the

enterprises specialized in agricultural inputs manufacturing/marketing, in the sense that the control over farmland may enable the enterprise to create monopoly on agricultural inputs sale on their land. The extra profits obtained by the agribusiness enterprises also mean the ‘extra exploitation’ on producers. How the agro-capital subsumes the agricultural producers in its industrial chain will be explored in the research.

Second, coupled with the industrial capital, the state capital, which is usually in the form of the governmental subsidy, also promote the process of capital flowing to the countryside. The abolition of agricultural taxes in 2004 has indicated that the state does not extract the agricultural surplus directly since then. Meanwhile, the state has increased the financial subsidy to the agricultural producers. Since agriculture contributes to only 10 per cent of China’s GDP, the increasing governmental subsidies which are allocated to the agricultural department derive primarily from the industrial sector. In promoting the *agricultural vertical integration*, the state has offered large sum of financial subsidies to the agribusinesses. The governmental subsidies have undoubtedly strengthened the power of the agro-capital. In this sense, the increasing governmental support on the agribusinesses could be taken as an integral part of the *capital-flowing-to-countryside* process in this research.

This research is based on a case study of an agribusiness which is specialized in agricultural inputs manufacturing/marketing. This is a provincial-level dragon-head enterprise. Since 2009, this agribusiness, company Ace, has started to contract the farmland from different villages in County Pingwan for rice cultivation. The land circulation is a strategy for extending its industrial chain from the ‘upstream’ of farming to the agricultural cultivation. The contracted land area of company Ace expands rapidly, which rises from no more than 2,000 mu in 2009 to approximately 30,000 mu in 2013. The local government plays an important part in the land circulation, as it seeks to collaborate with the company in competing

for the award of *major grain-production county (chanliang daxian)*. Since the award brings large sums of *project funds*, which are crucial for funding the local finance, the local state has every incentive to introduce in the agribusiness enterprise. As for the company, it has developed different land operation strategies in the five years in order to maximize the profits from entire the industrial chain. What is most remarkable is that the company has abandoned the horizontal concentration strategy, which is characterized by the large-scale farm management depending exclusively on wage labor, but adopted the vertical integration strategy. The company divides its land into pieces, each of which comprises 200 mu to 500 mu, and contract the land to the *contracted tenant households* who cultivate the land on themselves, but should buy the agricultural inputs from the company and sell the grain to it after harvesting. This study aims to explore the capital accumulation mechanism of the agribusiness enterprise, through which to reveal the capital dynamics of the *agricultural vertical integration* and to further explore the agrarian transformation and the role of agriculture in China's industrialization.

Research objectives

This research consists of four specific objectives, derived from both the current contentions and the framework of agrarian question.

First, the profit source of the agribusiness needs to be examined, in order to explain why the agro-capital flows to the countryside. Since the agribusiness connects the agricultural sector and the industrial sector through its industrial chain extension, this examination corresponds to one of the current contentions on China's agriculture, which concerns the role of agriculture in allowing capital accumulation in the capitalist

industrialization.

Second, the role of government will be explored, so as to reveal how capital flows to the countryside. The governmental subsidies have strengthened the power of agro-capital, which has direct impact on the process of *agricultural vertical integration*. The governmental support is integrated by the agribusinesses as a special part in their capital accumulation. The examination on the collaboration between the government and the agro-capital would contribute to the understanding of the role of state in China's agrarian transition.

Third, the research will scrutinize the micro mechanism of the land operation strategies adopted by the agribusiness through studying how the agribusiness enterprise interacts with the local producers. The reason why large-scale capitalist farm could not be well operated will be explored. This exploration will be followed by the research on how the company makes profits through contracting land to the *contracted tenant households*. The agrarian question on 'why the capitalist mode of production coexisted with pre-capitalist social relations of production' may be solved through the exploration. Moreover, the findings on the relationship between the agribusiness and the immediate producers will allow me to engage the neo-liberalism-oriented advocates who propose strongly to promote the large-scale land operation.

Four, the impact of *capital-flowing-to-countryside* on the rural society will be examined. How the agribusiness enterprise subsumes different stratifications of agricultural producers in its capital accumulation is the main focus. The different strata of producers, in terms of the relations of production, will be identified through looking into the endogenous process of the rural social differentiation. The discussion on how the endogenous differentiation process is shaped by the exogenous capital would reveal the class dynamics of China's agrarian transition, which would allow me to engage the 'peasant economy school' on whether the small producers could

still dominate China's agriculture.

Methodology and fieldwork

Extended case method

This research will be based on the case study of an agribusiness enterprise, which has contracted large tracts of land from County Pingwan of Hunan province. There are two questions that need to be clarified on case study. The first concerns the significance of the case research, which entails explanation of the representativeness of the case, whereas the second focuses on the interpretation of the case, which involves how to go beyond the micro scenario of specific case and reveal the macrostructure through the case research (Lu & Li, 2007). Extended case method will be employed in the research to overcome the problems.

Concerning about representativeness, Giampietro Gobo (2004: 452) has perceptively pointed out that people often get confused about the representativeness of the 'case' with the representativeness of its 'characteristics'. This means that the 'case' might be particular, or even abnormal, but its characteristics could be typical. Robert Yin (2003: 10) has pointed out that, the goal of a case study will be to expand and generalize theories (analytic generalization) instead of enumerating frequencies (statistical generalization). He also states that, '... the mode of generalization is 'analytic generalization', in which a previously developed theory is used as a template with which to compare the empirical results of the case study.' (ibid.: 32-33) The distinction between analytical generalization and statistical generalization is significant, in the sense that the selection of 'case' is theory-guided rather than representativeness-guided.

The case selected in this research is for theorizing the on-going *agricultural vertical integration*, and exploring the capital dynamics of China's agrarian transformation. The agribusiness enterprise in the research, company Ace, which used to be specialized in agricultural inputs manufacturing and marketing, has extended its industrial chain into rice cultivation and grain trade since 2009. This enterprise may be special in two senses. The first is that this company is specialized in agricultural inputs manufacturing/marketing, whereas the majority of such enterprises are specialized in agricultural products processing. Secondly, the enterprise gets involved in rice production, rather than the cash crop cultivation which may bring more profits. But the particularities of the case itself do not impede the generalization of the capital accumulation mechanism of *agricultural vertical integration*. Essentially, the *agricultural vertical integration* implies the extension of industrial chain of the agribusinesses into agricultural cultivation, and thus whether the enterprise is specialized in agricultural inputs manufacturing or in products processing – which represents the upstream and downstream of farming respectively – does not make much difference for exploring the general logic of the vertical integration. On the other hand, as for the rice cultivation, the particularity of which is that the rice price is regulated by the state. The relatively low price restrains the profits obtained by the rice cultivators. That the agribusiness enterprises involve themselves in the low-profit rice cultivation and could reproduce themselves at an expanded scale would show that the dynamics of the agro-capital remain consistent among different crops. In this sense, the case selected in this research entails an analytic generalization, which would reveal the 'representative characteristics'.

On the other hand, as for the micro-macro dilemma of the case study, the extended case method leads the researchers to go beyond the case itself and to look into daily life from the macro perspective, especially under the power relationship; while in turn promotes rethinking of macro structure

from the case, which leads to theory reconstruction (Lu & Li, 2007). Geertz (1983: 69) once elaborates his anthropological approach as follows: ‘[h]opping back and forth between the whole conceived through the parts that actualize it and the parts conceived through the whole that motivates them, we seek to turn them, by a sort of intellectual perpetual motion, into explications of one another.’ The exploration of both the macro and micro experience would allow researchers to interpret the micro mechanism from the macro perspective. Further developed by Burawoy (1998: 5), ‘[t]he extended case method applies reflexive science to ethnography in order to extract the general from the unique, to move from the “micro” to the “macro”, and to connect the present to the past in anticipation of the future, all by building on preexisting theory.’

This research attempts to understand the structural transformation of China’s agriculture through the case study of an agribusiness. Based on the Marxist interpretation of the agrarian question, this study aims to generalize the form and characteristics of China’s agrarian transition. The capital accumulation mechanism of the enterprise, the role of state in the *agricultural vertical integration*, as well as the subsumption of different stratifications of agricultural producers in the industrial chain and its effects, are the primary focus of my study. It will show how the micro operational strategies of the agribusiness are shaped by the macro forces, such as the institutional reform, the state power, and the overwhelming commodification process; while at the same time, the transformation of the macrostructure will be explored from the micro experience.

Research design and fieldwork¹

The data of the research derives primarily from in-depth interviews and

¹ All names of people and places in this thesis are pseudo names.

observation; as well, the available policy documents are also analyzed. My fieldwork was conducted in two phases. From December 2011 to January 2012, I spent nearly one month in County Pingwan to do the preliminary field research. A more intensive fieldwork was conducted from November 2012 and ended in the end of June 2013. Except for no more than one month in the county, I stayed in the villages of four different towns most of the time.

The participants who are involved in my interview are as follows: 23 local cadres who work in the county-/township-level of agriculture sector¹, 10 of who work in the Public Agricultural Extension System (PAES)²; 8 village cadres; 8 managers (at different hierarchical level) of the agribusiness enterprise, company Ace; 19 *contracted tenant households (daiguan hu)* of the company; 16 *sub-tenant households (gengzuo hu)* of the company; 28 individual *big households (dahu)* who cultivate over 50 mu of land in the county; and around 30 of the small-/medium-scale agricultural producers whose land area amounts to no more than 50 mu. These participants come from 11 towns of County Pingwan (there are 26 towns of the county in total), most of who are from 4 towns: Pinghu, Shuichuan, Shuixiang and Xianfu.

Except for the data from my fieldwork in County Pingwan, my previous field researches also contribute to this research. From April 2012 to May 2012, I conducted a one-month field research in a village of Hubei province, the farmland of which has all been contracted by a rice processing enterprise for 16 years. This enterprise shares the same incentives on the industrial

¹ The agriculture sector includes mainly the Agricultural Machinery Administration Bureau/Station (Nongye jixie guanli ju/zhan), Rural Economy Administration Bureau/Station (Nongcun jingji guanli ju/zhan), Bureau/Station of Water Resources (Shuili ju/station), Agricultural Bureau (Nongyeju), Township-level Station of the Public Agricultural Extension System (Nongye jishu tuiguang zhan).

² All these 10 people working in the PAES run their agricultural inputs retail stores. Besides, I also interviewed 3 owners of such stores who are not from the PAES.

chain extension with company Ace. Besides, the land operation strategies of the rice processing enterprise are also quite similar with that of company Ace. The study of this enterprise has inspired me in the interpretation of the capital accumulation dynamics of company Ace. Besides, I spent around one month each year on average doing field research in the villages of different provinces in China, including Hubei, Hunan, Henan and Heilongjiang province. The agricultural development is my primary focus in these researches, which help me to understand the commodification of rural livelihood and the agricultural means of production. The analysis in this research is predicated on both my fieldwork in County Pingwan and the previous researches.

Research Site

The research is conducted in County Pingwan of Hunan province. As a major rice production county, County Pingwan has a long history of rice cultivation. The involvement of company Ace in rice production, thus, makes the county a proper site in exploring the transformation of rice production which is shaped by the forces of agro-capital and the state.

The county is located in the south-central of Hunan province, an inland province in the middle and lower reaches of the Yangtze river. The county enjoys a subtropical humid monsoon climate. The total area of the county is 3.84 million mu (over 2,500 square kilometers), in which 0.88 million mu is farmland. Among the total population of 1.1 million, there are more than 0.9 million rural residents. There are 26 towns and more about 900 villages. The county is surrounded by highlands on the east, north and west side, with a terrain sloping from the northwest to the southeast. There are hills and plains in the central area of County Pingwan, and basins in the southwest. Mountainous area, hilly area and plain accounts for 31.12%, 41.87%, and

20.21% respectively of the total area. The surface water is 1.9 billion cubic meters (Compilation committee of the county annuals, 2007: 1).

What should be noted about the research site is that the county lies in a hilly area, which means that the very large-sized agricultural machinery is inapplicable here. Unlike in the northern part of China where most of the farming activities could be mechanized and few wage labor are needed, hired agricultural labor are still in need for those who operate large-scale farmland in County Pingwan. It makes the labor management crucial for the *big households*.

Organization of the thesis

This thesis comprises six chapters. Chapter one begins with the contending discourses on China's agriculture development, the bones of which could be traced back to the 'agrarian question' in Marxist political economy. The three layers of meaning of the agrarian question are interpreted as the theoretical framework of this research. In order to explore the on-going agrarian transformation in China, the *agricultural vertical integration* is taken as the cutting point. The four objectives of this research are also described, aiming to engage the theoretical and policy issues. At last, I illustrate the methodology and the fieldwork of this research.

Chapter two aims to interpret the reason why the agro-capital flows to the countryside. This chapter focuses on the expansion of commodity relations in rural China, which has impacted both the rural livelihood and the agricultural production. The commodification of the agricultural means of production and the deepening of labor division in farming are given special attention. This chapter shows how the expansion of commodity relations has turned the agricultural inputs into capital, which means that these enterprises

appropriate surplus from the agricultural producers through the sales of the inputs. In the last section of this chapter, the case of company Ace is examined, in order to reveal that the company makes profits primarily from the upstream and downstream of farming. More importantly, the enterprise obtains extra profits from the agricultural inputs sales through the control of farmland, which makes sense of their motivation in contracting land from the countryside.

Chapter three concentrates on how capital flows to countryside with reference to the role of state in the expansion of *agricultural vertical integration*. *Project system* is taken as the leading thread of this chapter, as the project funds transferred from the central finance have become more and more important in funding the fiscal gap of local governments since the 1990s. That the agribusiness enterprise is able to complete the governmental projects more effectively explains why the local state is motivated to introduce in agro-capital. Besides, the local government plays an important part in promoting the *land circulation*, which shows how the local state facilitates the agribusinesses to contract land from the countryside. In the last section, how company Ace integrates the governmental supporting funds in its capital accumulation is explored.

Chapter four goes further to examine how capital flows to the countryside through the study of the land operation strategies of company Ace. This chapter starts with the clarification of the trajectory of the change of land operation strategies adopted by the company. The large-scale farm operation which is based exclusively on wage labor has been replaced by the strategy of ‘company + *contracted tenant household*’. Following that, the current strategy is examined in order to reveal the how the *contracted tenant households* contribute to the capital accumulation of this company. The fact is that the seemingly independent *contracted tenant households* are in effect in indirect employment relations with the agribusiness enterprise, and the ‘family labor’ of the *contracted tenant households* are in effect quite similar

to hired labor. The last section, then, put the *contracted tenant households* in the village context, in order to explain why the shape of ‘household farming’ is preserved.

In chapter five I analyze the impact of the entry of the agribusiness on the rural social differentiation. The rural social differentiation is an on-going process which proceeds since the *Reform and Opening-up* in the late 1970s. Starting from the ‘Chayanov-Lenin debate’ on the fate of family farming, this chapter re-examined the ‘family farming’ in the current Chinese context through the investigation of the rural social differentiation. Four types of agricultural producers are identified in terms of the relations of production, who are the small producers, medium producers, *capitalized family farmers* and capitalist farmers. Further, the chapter elaborates on the influence of company Ace on each of these stratum, and demonstrates that the agro-capital that flows to the countryside accelerates the spontaneous social differentiation of these producers.

In chapter six, I attempt to answer the agrarian questions in China as the conclusion of this research. The role of state, the contribution of agriculture to the industrial accumulation, as well as the trajectory of capitalist agrarian change in China, is summarized. This analysis engages the mainstream discourses on China’s agriculture. Also, I discuss the possible alternative path for China’s agricultural modernization with reference to the collective farming period. Additionally, the new challenges on China’s rice production are presented at last, the question of which needs to be further examined.

Chapter Two: Expansion of commodity relations in rural China and the contribution of agriculture to industrial accumulation

Since the market-oriented economic reform from the late 1970s, commodity relations have been spreading in rural China. Both the rural livelihood and the agricultural production have been involved in the market economy, which paves the way for capital flowing to the countryside.

In order to explain why capital flows to the countryside, this chapter starts from the commodification of subsistence, which opens the process of agricultural commercialization. The commercialization of agricultural production is followed by the high demands of agrochemicals and other efficiency-enhancing inputs. My main focus is the commodification of means of production and how it turns the agricultural inputs into capital. The last section of this chapter reveals the mechanism of capital accumulation from agriculture through a case study, exploring how an agricultural inputs manufacturing/marketing enterprise makes profit from the upstream and downstream of farming through contracting land from the countryside. This study highlights that the commodification of agricultural inputs has weakened the combination between direct producers and the means of production, which is the precondition for capital accumulation *from* agriculture.

Expansion of commodity relations in rural China

In exploring the historical conditions of capital accumulation, Luxemburg

notes that '[c]apitalism needs the non-capitalist social strata as a market for its surplus value, as a source of supply for its means of production and as a reservoir of labor power for its wage system.' (Luxemburg, 2003: 368) This could interpret what has been happening in rural China since the Reform and Open-up. The commodification of subsistence in rural society and the agricultural means of production have turned rural China an important market for the industrial products. Also, the high commodity rate of agricultural products indicates that agriculture is a major source of supply for the industrial capital. Moreover, the increasing proportion of wage income in the rural household income reveals that the countryside is the reservoir of labor power for the urban industries. All the above has revealed the expansion of commodity relations in rural China. This section will concentrate on the process of the expansion of commodity relations in rural China. Both the commodification of subsistence and the commodification of means of production will be explored.

Commodification of subsistence

The Open-up and Reform policies implemented from the late 1970s, directly lead to the expansion of commercial relations in all aspects of social life. Small producers are having more and more difficulties to reproduce themselves outside commodity relations, which could be characterized by the *commodification of subsistence* (Brenner, 2001). The figure on the cash expenses of rural households and the percentage of cash expenses in the total household consumption expenditure in these years presents the general trend.

As shown in Table 2.1, the cash expenses on living cost have been rising rapidly ever since the 1980s. The proportion has gone from no more than 50

percent in 1980 up to approximately 90 percent in 2010, which means that rural households are more and more dependent on the market system for labor reproduction. Cost on food is still the primary expense for rural households. The proportion of cash expenses on food has rise from no more than 20 percent in 1980 to over 30 percent in 2011¹, and the figure stabilize around 30% since 2005. At the same time, the housing cost and the communication/transportation cost also increase significantly. The rise of communication and transportation cost is mainly due to the massive rural-urban migration. According to the National Bureau of Statistics of China (Zhongguo guojia tongjiju, 2012), there are 163 million out-flow migrant workers in 2012. These workers, who are characterized as ‘leaving both the land and the village’ (*li tu you li xiang*), have to travel back and forth between their workplace in cities and their rural homes, which results in the increase of communication and transportation expenses. Moreover, the fast-rising housing cost should also be noted. From 1990 to 2010, the average area of newly built house per capita stabilizes around 0.8 square each year, but the average cost of house-building has increased from 88.34 RMB to 650 RMB per square meter². The rising cash expenses have resulted in rural households’ high cash demand.

¹ In 2011, the proportion reached 31.63%.

² The data of current building prices and the average area of newly built house come from *Zhongguo nongcun tongji nianjian (China rural statistical yearbook)*, 2006, 2012: table 11-14. Constant prices are obtained by using the ‘consumer price index of rural households’ to arrive at adjusted constant prices. The data for consumer price index of rural households come from the same yearbook, 2013, table 8-1.

Table 2.1 Cash Expenses on Living Cost in Rural Households and the Percentage in Total Consumption Expenditure, 1980-2010 (in RMB/person)

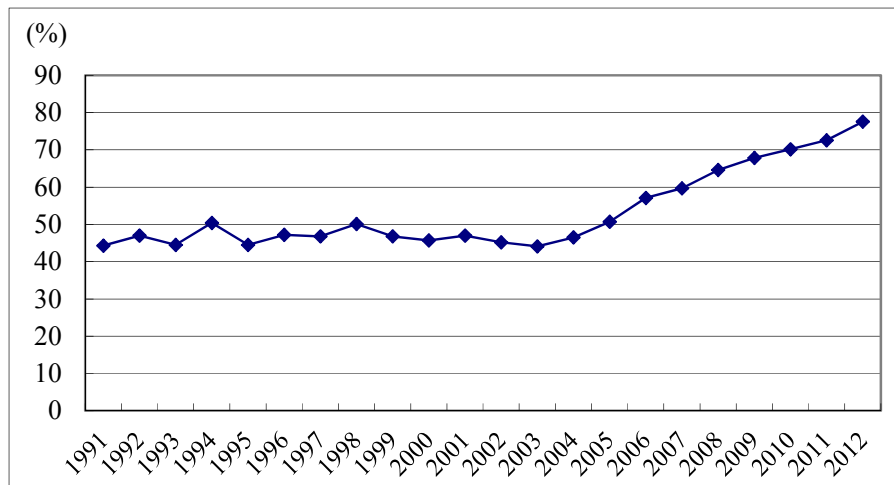
Year	1980	1985	1990	1995	2000	2005	2010
Food	31.3	71.1	149.2	300.6	464.8	754.1	1267.6
	19.3%	24.1%	26.7%	27.0%	27.8%	30.2%	30.0%
Clothing	19.6	28.5	42.1	75.5	95.3	144.8	254.3
	12.1%	9.7%	7.5%	6.8%	5.7%	5.8%	6.0%
Residence	11.4	35.7	77.7	125.9	231.3	335.0	773.6
	7.0%	12.1%	13.9%	11.3%	13.8%	13.4%	18.3%
Communication & transportation	-	-	8.0	28.7	93.2	239.7	445.1
	-	-	1.4%	2.6%	5.6%	9.6%	10.5%
Medical care	-	-	18.2	36.2	87.7	164.5	314.7
	-	-	3.3%	3.2%	5.3%	6.6%	7.4%
Household articles and others ¹	17.5	37.0	66.3	193.6	313.6	460.5	694.2
	10.8%	12.5%	11.9%	17.4%	18.8%	18.4%	16.4%
Total cash expenses	79.6	172.5	358.6	731.4	1286.0	2088.6	3725.2
	49.1%	58.5%	64.1%	65.6%	76.9%	83.5%	88.1%
Total consumption expenditure in cash value	162.2	295.0	559.4	1115.2	1671.8	2500.4	4229.5

Source: The data for ‘total consumption expenditure in cash value’ in current prices come from *Zhongguo nongcun tongji nianjian (China rural statistical yearbook)*, 1989, p. 227; 2006, 2012, table 11-4. The other data come from the same yearbook, 1989, p. 227; 2006, 2012, table 11-9. Constant prices are obtained by using the ‘consumer price index of rural households’ to arrive at adjusted constant prices. The data for consumer price index of rural households come from the same yearbook, 2013, table 8-1 (No price index available for 1980).

¹ The item ‘household articles and others’ includes the household articles, education and entertaining expenses.

The commodification of subsistence has contributed to the commercialization of China's agriculture. Phillip Huang notes that the sown average of vegetable-fruit production has gone up from 3 percent in 1978 to 18 percent in 2007 (Huang, 2010a: 129-130). Besides, for the staple grain, the sown area of which accounts for over 2/3 of the total sown area¹, the commodity rate has been rising sharply as well. In rice production, there is a sharp increase in its commodity rate: from about 40% before 2004 to approximately 80% in 2012 (see Figure 2.1). The rate increases fast particularly after 2003. The high commodity rate of agricultural products has shown that the agricultural production has become more and more market-oriented rather than subsistence-based. Exchange value, instead of use value of agricultural production, becomes the major concern of rural households. It means that the rural households have been increasingly incorporated into the market system.

Figure 2.1 Commodity rate of rice production, 1991-2012²



Source: *Quanguo nongchanpin chengben shouyi ziliao huibian (National data compilation of agricultural products)*, 2007, 2013: table 1-2-1.

¹ According to the *Zhongguo tongji nianjian (China Statistical Yearbook)* 2013: table 13-1, the proportion of sown area of grain crops in the total sown area is 68% in 2012.

² No data available before 1990.

The increasing cash demand has forced the agricultural producers to give up the traditional way of farming. Rural households either turn to migrate to work in cities so as to support their family, or be subsumed to the chemical farming. In most cases, rural households do both. Technically, villagers may still keep their land and not be forced out of farming if they stick to the traditional farming practices – thanks to China’s land system; however, farming could only supply the rural households with food. The increasing charge on education, medication and housing, which are the integral parts of household reproduction, has made farming increasingly been marginalized in rural household activities. Farming could no longer sustain their family reproduction, even with increasing ‘self-exploitation’ as Chayanov terms (1986[1925]). Rural households have to either engage in the labor market, i.e. through working as migrant workers, or engage in the agricultural chemical inputs markets or product markets so as to increase agricultural output. It means that family farmers are not able to continue the family-based production if they fail to engage themselves in the market relations. In this sense, the Chayanovian claim that family farmers could resist the capitalization through increasing self-exploitation, which is at the core of the Marxist-Chayanovian debate, may not be convincing in the Chinese context.

As for those who turn to the chemical farming, in order to make more profits from farming, agricultural producers pursue for every means to increase the output. Thus they are highly motivated to use the agrochemicals and high-yielding seeds, which are available only on the market. This has facilitated the commodification of agricultural means of production.

Commodification of means of production: the transformation of agricultural inputs into capital

Not only has rural households' subsistence been commoditized, so has the agricultural production. As described by Luxemburg (2003: 368-385), the struggle of capital against natural economy in history, which means the separation of direct producers from their means of production and transform the latter into capital, was usually accompanied by violence. However, in China, the separation of producers from their means of production happens in a more subtle way and does not incur violence. Producers are not completely divorced from the means of production, as most of them are available from the market¹. But the combination between producers and the means of production is quite weak, since the price of the agricultural inputs is completely out of the control of the producers. Seemingly, the commodification of means of production happens in a 'natural' way, which could be characterized by the expansion of 'market economy'; however, in the Marxist term, it is the 'silent compulsion of economic forces' (Marx, 1976: 899) that leads to this result.

The commodification of agricultural inputs has implied the deepening social division of labor in farming. Lenin points out in his research on Russia's agriculture that, it is the social division of labor that is the chief factor contributing to the creation of a home market for capitalism, and the process of specialization that creates an increasing number of branches of industry also manifests itself in agriculture (Lenin, 1956: 11-13). This echoes with China's agriculture today. There is an increasing division of labor in farming. With reference to rice cultivation, the ploughing, rice

¹ Land, as a crucial but special means of production, will be discussed in the next chapter. The means of production in this chapter refers mainly to the agricultural inputs such as fertilizers, pesticides, seeds and etc. It is noteworthy here that farmland has also been commoditized, and thus follows largely the same logic as presented here.

seedling transplanting, harvesting, and even pesticide spraying, have been specialized. For agricultural producers (no matter how much their land size is), the more detailed the division of labor, the more agricultural surplus they have to give up. For example, with the development of machine harvesting, rice harvesting has been separated as a specialized activity. As a result, producers now have to pay the machine operators for doing the rice harvesting, which means that they should give up part of their agricultural surplus to machine owners. Moreover, the introduction of the chemical fertilizers and pesticides is also the outcome of social division in farming activities. Producers used to take care of the pest control, weeding and manuring manually, but now producers could hardly have the work done without purchasing these agrochemicals. The chemical control of crop is in effect the most pronounced division of labor in farming.

As a matter of fact, it is barely possible for producers to be engaged in agricultural production outside the market system, as almost all the means of production have been commoditized. As frequently mentioned by rural producers, it has been more and more costly to farm. But in order to increase output, agricultural producers tend to use more and more chemical inputs. As revealed in some reports, both the chemical fertilizers and pesticides input per unit area in China are well above the world average (China.org.cn, 2014; Zhang, 2011).

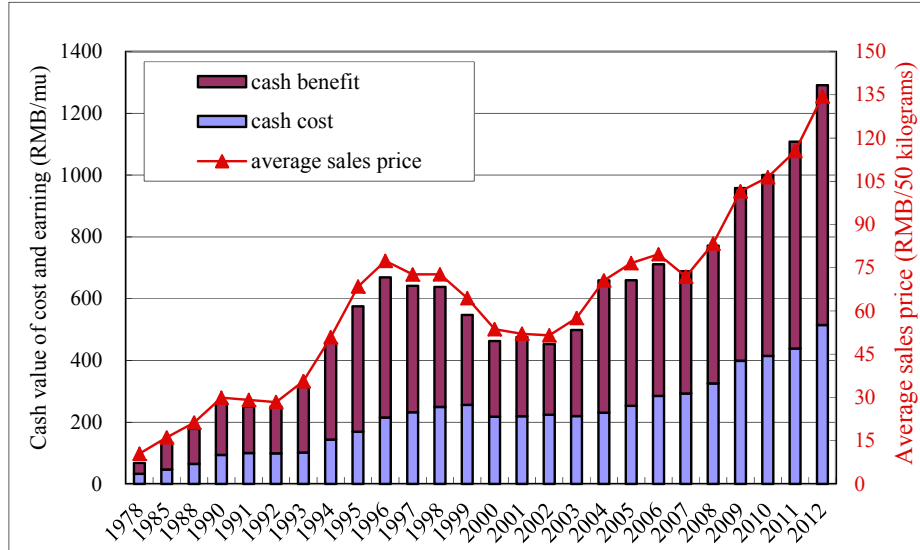
More importantly, the cost of the means of agricultural production has been increasing ever since the late 1970s, which is disproportionate with the fluctuations in the price of agricultural products. Take the rice production as an example. The National Development and Reform Commission's sampling of 68,000 rural households on costs-benefits in various crops shows that, both the rice production cost and benefit have increased tremendously between 1978 and 2012, particularly after 2000, as shown in Figure 2.2. It is clear that the changing tendency of the 'average sales price' curve and the histogram of total cash value of paddy (the sum of the cash

cost and benefit) in all these years are highly consistent. It makes sense that the paddy price, which is macro-controlled by the Chinese government, has direct impact on the total cash value of paddy. However, whereas the change of ‘cash benefit’ from rice production is largely in the same trend as that of the sales price of paddy, the changing of ‘cash cost’, which incorporates mainly the material cost (the material costs consist of the cost of seeds, fertilizers, pesticides, machinery working fee and other inputs¹) in rice cultivation, is inconsistent with the trend. Except for the slightly decline in the early years of the new century, the material cost in rice production has been on the rise since 1978. It implies that no matter how the paddy price changes, the production cost has largely been increasing. In the decade after 2000, the material cost has increased over two-fold, as shown in Figure 2.2. Although the agricultural subsidies for producers go up slightly every year, the increase of subsidies fails to keep up with the rise in price of the agricultural inputs. As demonstrated by some researches, the agricultural subsidies in effect make limited contribution to the increase of rural household income (Ma & Yang, 2005; Huang, Wang & et al., 2011).

Figure 2.2 Cash Value of Costs/Benefits in Rice Production and Average Sales Price of Paddy (1978-2012)²

¹ ‘Other inputs’ include direct cost, i.e. agricultural plastic film fee, irrigation and drainage fee, animal power fee, technology service fee, tools and materials fee, maintenance fee, and indirect costs, i.e. depreciation of fixed assets, tax, insurance expenses, administrative fee, financial expense and sales expenses. The major part of the ‘other inputs’ is the agricultural taxes.

² The data of 1978-1984, 1986-1987 and 1989 is missing. The same below for the data from *Quanguo nongchanpin chengben shouyi ziliao huibian (National data compilation of agricultural products)*.



Source: The data of ‘cash cost’¹, ‘cash benefit’ and ‘average sales price’ in current prices come from *Quanguo nongchanpin chengben shouyi ziliao huibian (Zhongguo guojia fazhan he gaige weiyuanhui jiagesi (National data compilation of agricultural products))*, 2007, 2013, tables 1-2-1. Constant prices of ‘cash cost’ are obtained by using the ‘agricultural means of production’ (*nongye shengchan ziliao*) price index, whereas ‘cash benefit’ and ‘average sales price’ are obtained by using the ‘agricultural products’ (*nongchanpin shengchan jiage*) price index to arrive at adjusted constant prices. The price index data come from the *Zhongguo nongcun tongji nianjian (China rural statistical yearbook)*, 2013, table 8-1.

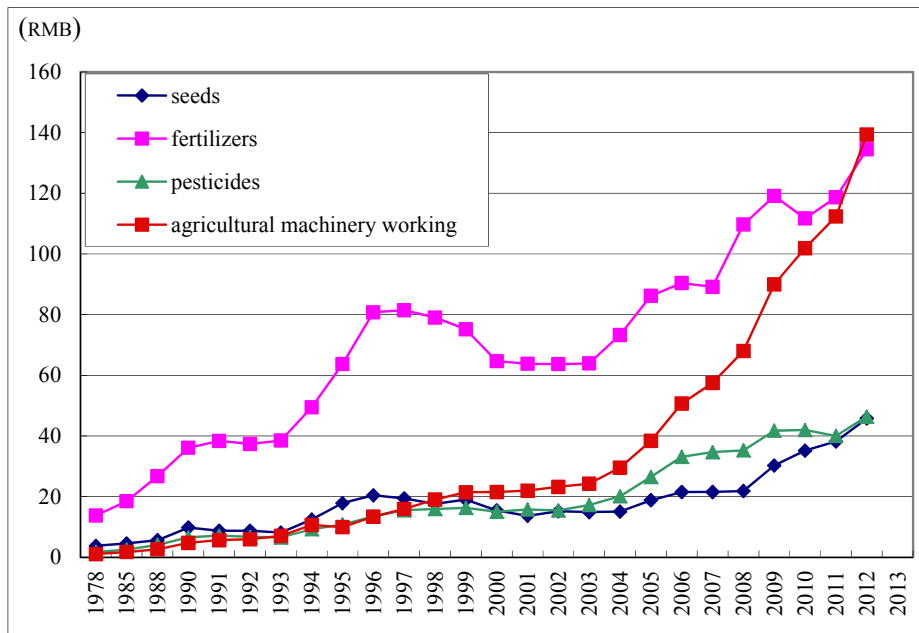
This section concentrates mainly on the commodification of the means of agricultural production. According to the national data, the proportion of the cost on seeds, fertilizers, pesticides, and machinery working service has amounted from around 60% in 1978 up to over 80% in 2012 in the total material cost². In order to examine the change of material cost all these

¹ The ‘cash cost’ incorporates the cost of agricultural material inputs, cost of circulated land and wage of hired labor. The cost of circulated land and wage of hired labor are included in the statistics only after 1998, the sum of which has been relatively low. In 2012, the sum amounts to 89.85. This section focuses mainly on the material inputs cost.

² The figures are calculated by the data from the *Quanguo nongchanpin chengben*

years, the research focuses mainly on these four items. Figure 2.3 shows the changing trends of these items. The fertilizer cost has taken up the most part of the material cost since 1978, and is increasing fast. The price of pesticides and seeds also goes up steadily, and the growth rate accelerates after 2000. Among all the costs, the rise in agricultural machinery working fee is the most prominent, particularly after 2004. In this section, the manufacturing and marketing of the agricultural inputs, as well as the development of agricultural machinery service will be examined based both on the national statistical data and the data from my fieldwork.

Figure 2.3 Material Cost per Unit in Rice Production (1978-2012)



Source: The data of current prices come from the *Quanguo nongchanpin chengben shouyi ziliao huibian (National data compilation of agricultural products)*, 2013, 2007, table 1-2-2. Constant prices are obtained by using the ‘agricultural means of production’ (nongye shengchan ziliao) price index to arrive at adjusted constant prices. The price index data come from the *Zhongguo nongcun tongji nianjian (China rural statistical*

shouyi ziliao huibian (National data compilation of agricultural products), 2007, 2013: table 1-2-2.

yearbook), 2013, table 8-1.

Two pricing mechanism of fertilizers

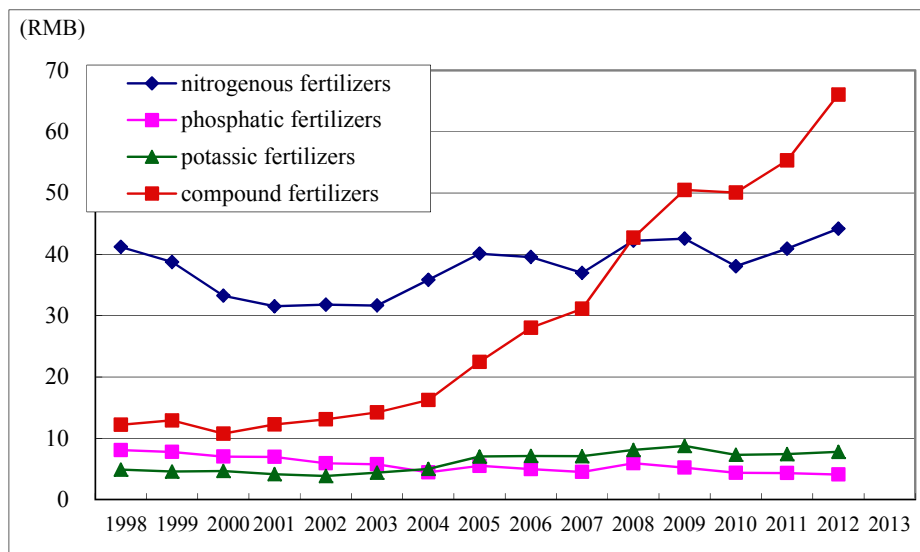
There are two different pricing mechanisms of chemical fertilizers. Whereas the price of conventional-used chemical fertilizers (which refers to the fertilizers used since the collectivization period) such as phosphatic fertilizer and ammonium bicarbonate fertilizer (one kind of nitrogenous fertilizer) keeps relatively stable since the late 1970s, the price of newly-introduced compound fertilizer increases rapidly. The urea fertilizer (one kind of nitrogenous fertilizer, which has been introduced in since the collectivization period) is an exception, the price of which began to increase in fluctuation since the late 1990s. The distinct pricing mechanisms derive from the different manufacturing and marketing conditions of these fertilizers.

In County Pingwan, most of rice producers use only compound fertilizer and the urea fertilizer, and a small number of the experienced producers input a small quantity of phosphatic fertilizer and ammonium carbonate fertilizer in addition. This squares with the national statistical data, which has shown that the most commonly used fertilizers in the paddy field are the compound fertilizer and the nitrogenous fertilizer. Besides, the phosphatic fertilizer and potassic fertilizer are also used, and the input of these fertilizers per unit stabilizes around 1-2 kilograms/mu in all these years, according to the national statistical data. The average input of compound fertilizer amounts from 4.02 kilograms per unit in 1998 to 10.31 kilograms per unit in 2012, whereas that of nitrogenous fertilizer reduces from 12.25 kilograms/mu in 1998 to 8.82 kilograms/mu in 2012¹. What should be noted

¹ The data come from the *Quanguo nongchanpin chengben shouyi ziliao huibian* (National data compilation of agricultural products), 2007, 2013: table 1-2-3.

is that the average cost on compound fertilizer per unit increase over 5-fold from 1998 to 2012 (see Figure 2.4), whereas the input quantity rises only 1.5-fold, which has implied the significant rise in the price of compound fertilizer. Besides, since the input amount of nitrogenous fertilizer per unit reduces by 1/3, the increase tendency of average cost is noteworthy.

Figure 2.4 The Cost on Fertilizers Input per Unit in Rice Production (1998-2012)



Source: *Quanguo nongchanpin chengben shouyi ziliao huibian (National data compilation of agricultural products)*, 2013, 2007, table 1-2-3. Constant prices are obtained by using the ‘agricultural means of production’ (*nongye shengchan ziliao*) price index to arrive at adjusted constant prices. The price index data come from the *Zhongguo nongcun tongji nianjian (China rural statistical yearbook)*, 2013, table 8-1.

It is important to note that the pricing mechanism of compound fertilizer is divergent from that of the phosphatic and ammonium carbonate fertilizer. The price of the latter has been relatively stable over these years, thanks to the pre-existing Supply and Marketing Cooperatives system. As a matter of fact, the earliest fertilizers used in rice production in County Pingwan – introduced in largely from the 1960s to 1970s – include imported urea

fertilizer, ammonium carbonate fertilizer and local-produced phosphatic fertilizer. Although the quantity of available fertilizers was small then, the price kept stable. The National Supply and Marketing Cooperatives contributed significantly in stabilizing the price. Recalled by some elderly rice producers, the fertilizer price was connected to the paddy price. It was commonly known that the price of one kilogram of paddy was roughly equivalent to that of one kilogram of urea fertilizer; the price of three bags (each bag weighs 50 kilograms) of ammonium carbonate fertilizer equaled to that of one bag of urea fertilizer; and the price of phosphatic fertilizer was slightly lower than that of ammonium carbonate fertilizer. In Pingwan city, there were a number of state-owned fertilizer manufacturers, which were built in the 1970s, specialized in manufacturing phosphatic fertilizer and nitrogenous fertilizer (mainly ammonium carbonate fertilizer). In the collectivization period, the manufacturing and marketing of the agricultural inputs were strictly controlled by the state. The fertilizers were defined as ‘rural-support supplies’ (*zhi nong wuzi*) rather than ‘commodities’, and thus they were subject to state pricing. According to a previous staff of a state-owned chemical fertilizer manufacturer, the state would lower the fertilizer price once there were extra profits in fertilizer manufacturing. These enterprises would obtain subsidies from the state if they suffered from benefit loss for selling at the specified price (Gui, 2006). It is the state-controlled supply and marketing system that guarantees the price stability of agricultural means of production. Even in the de-collectivization era, the price of phosphatic fertilizer and ammonium carbonate fertilizer keeps relatively stable, as the producers know well about the connection between the price of these fertilizers and the paddy price, which could be taken as ‘institutional heritage’ of the Supply and Marketing Cooperatives system.

On the other side, the manufacturing and marketing of the newly introduced compound fertilizer has been deeply rooted in the world

economic system since the very beginning, which means that the price of compound fertilizer is highly affected by the global economy. According to a retailer of agricultural inputs, who is also an agent of a township agricultural technology extension station, the price of compound fertilizer goes up fast in the recent years. In County Pingwan, the compound fertilizer was introduced in 2007 when the price was 100 to 110 RMB per 50 kilograms, and the price goes up by 10 RMB per 50 kilograms on average each year after that. It has reached 140 to 150 RMB/50 kilograms in 2012. The price of compound fertilizers is directly affected by the imported price of potassic fertilizer, the price of which accounts for approximately one third of the production cost of compound fertilizer (Cao, Yi, & Zheng, 2006).

What should be noted is that the manufacturing/marketing of urea fertilizer is distinctive from either the earlier-used fertilizers such as phosphatic and ammonium carbonate fertilizer or the newly introduced fertilizer such as the compound fertilizer. Although urea fertilizer was imported as early as in the 1960s, and the price was stable over the collectivization period, things has changed dramatically in the late 1990s when China becomes an exporting country of urea fertilizer. The large quantities of urea fertilizer export began in 1996, and China has become the net exporting country of urea fertilizer in 2000 (Zhongguo huafei wang, 2014). Around the same period, the urea fertilizer price begins to rise and becomes fluctuating. In County Pingwan, the price of urea fertilizer grows from some 70 RMB/50 kilograms in 1997 to 110-140 RMB/50 kilograms in 2012, and the price fluctuates wildly. As explained by a retailer, it is the coal prices and the export trade that result in the price fluctuation of the urea fertilizer. Since coal is the major material in manufacturing urea fertilizer, the price of coal – which is determined on the world market – has significant impact on the price of urea fertilizer (Liu & Li, 2004). Besides, large quantities of export have also contributed to the increase of home

market price of the urea fertilizer. Moreover, according to the new policy, the export tariff on urea fertilizer will be substantially reduced (from 75% to 15%) in the peak season of domestic demand for urea fertilizer¹ in 2014 (Zhang, 2013), which is good news for the fertilizer manufacturing/marketing enterprises, but would result in continuous price fluctuation in the domestic market.

Moreover, according to an agricultural technology extension agent, although the compound fertilizers has been widely accepted, as it is labor-saving to use them instead of inputting nitrogenous, phosphatic and potassic fertilizer respectively, the latter three fertilizers are still necessary even after the input of compound fertilizer. However, the agricultural-inputs retailers are much more motivated to sell compound fertilizers and urea fertilizers than the phosphatic, ammonium carbonate, and potassic fertilizers², as the profits of the latter three fertilizers are much lower than the former. Since the phosphatic and ammonium carbonate fertilizer are local-produced and villagers are quite familiar about the pricing mechanism, the prices of these fertilizers are relatively stable. The price of these fertilizers ranges from 29 RMB to 40 RMB per package in County Pingwan. But the pricing mechanism of the newly introduced compound fertilizer is far beyond the knowledge of rural producers. The various brands of the compound fertilizer have made the situation more complicated. It is the agricultural inputs manufacturers and retailers who are benefited from the complex market conditions. According to a retailer, the profits of one package of compound fertilizer could amount to 30 to 50 RMB.

¹ In order to stabilize the domestic price of urea fertilizer, the state used to restrict exports through setting high tariff on urea fertilizer export in the peak season of domestic demand.

² According to an agent of the agricultural technology extension station, agricultural inputs retailers tend to strongly recommend producers to purchase the compound fertilizer, and are reluctant to sell the 'profitless' fertilizers such as the phosphatic, ammonium carbonate, and potassic fertilizers. It is quite common that retailers sell the profitless fertilizers in bundle with the profitable fertilizers or pesticides.

It has shown that the pricing mechanism of newly introduced compound fertilizer and the earlier-used fertilizers, i.e. the phosphatic and ammonium carbonate fertilizers, are quite different. On the one side, the Supply and Marketing Cooperatives system contributed to the stabilization of price of the earlier-used fertilizers, and the price of these fertilizers was closely connected to the paddy price, which was familiar to producers. On the other side, the manufacturing/marketing of the newly introduced compound fertilizer has been deeply involved in the world economic system, which makes its price completely unpredictable for the producers. Besides, the case of the urea fertilizer reveals the transformation from the former pricing mechanism to the latter. As the manufacturing/marketing of newly introduced fertilizers has been deeply embedded in the world economic system, the widely use of these fertilizers implies that the agricultural producers are increasingly involved in the global economy. Since it is barely possible for the producers to farm outside the market system, the price increase of these agricultural inputs would definitely reduce their income.

Two giant leaps of the price of paddy pesticides

Both the agricultural technology extension agents and the agricultural inputs retailers in County Pingwan have indicated that there is a sharp rise of the pesticide price in the past decade. One *extension agent-retailer*¹ identifies two giant leaps of the price of paddy pesticides.

The first leap happened around 2004 when *Regent* (name of a fipronil

¹ Since the late 1980s, the Chinese government has started the reform of Public Agricultural Extension System (PAES), one of which is to encourage the PAES stations to earn their own income through providing fee-based services or engaging themselves in commercial activities such as agricultural inputs sales. Since then, many of the agricultural extension agents have been engaged in running retail stores of agricultural inputs. These people are thus both agricultural extension agents and agricultural inputs retailers. The reform of PAES will be elaborated later in this chapter.

pesticide), produced by the Bayer (one of the *Fortune Global 500* in Germany, specialized in pharmaceutical and medical products, crop protection and non-agricultural pest control, and high-tech polymer materials) flooded in China. *Regent* is an insecticide for killing rice stem borer. As recalled by the *extension agent-retailer*, there was an outbreak of rice stem borer in 2003 and 2004 in southern China, but unfortunately, the domestic pesticides could barely deal with it. That was when *Regent* became extremely popular. It is estimated that the outbreak of rice stem borer in 2003 and 2004 was caused by the change of rice cropping system. It was just around 2003 and 2004 when large area of double-cropping rice was changed into single-cropping rice (the middle-season rice)¹. The problem with the change of cropping system is that there were single-cropping rice and double-cropping rice cultivated in two adjacent plots of paddy field, since the field of rural households was scatteredly distributed, and there were still some producers sticking to the double-cropping rice then. This kind of field is called ‘bridge field’ (*qiaoliang tian*). Since the time of pesticide-spraying is different between the double-cropping rice and the middle-season rice, the ‘bridge field’ made it possible for insects to hide among different plots of fields. When pesticide was sprayed in the double-cropping paddy field, the insects moved to the adjacent middle-season paddy field, and vice versa. As a result, there was an outbreak of rice stem borer in 2003 and 2004. Since domestic-produced pesticides failed to deal with the sudden increase of rice stem borer, the pesticide market was quickly dominated by the imported pesticide ‘*Regent*’. As a matter of fact, *Regent* had entered China since 1998, but the sales volume was quite low during 1998 and 2002 in the whole Pingwan city. But in 2004, the sales volume in Pingwan city amounted to over 30 tons². As

¹ The reason why a massive of rice producers transformed from double-cropping to single-cropping system is unclear. Some county officials guess it may be connected with the abolition of agricultural taxes, the policy of which was released in 2004.

² One pack of *Regent* weighs 10 ml, and only 3 packs were needed for each mu of

noted by the *extension agent-retailer*, the wide spread of *Regent* has impacts both on the rice production and on China's pesticide market. On the one hand, the pesticide cost on each mu of paddy field increased significantly. Before 2003, the cost of pesticide per unit was 7 to 8 RMB each time (producers spray pesticide for 3 to 4 times in the whole growing season); the cost goes up to 12 to 15 RMB each time after 2004. On the other hand, the widely-accepted small-packaged *Regent* (10 ml for each package) opens the new era of small packaged pesticides in China. Before the expansion of *Regent* in the China's market, the domestic pesticides were basically packaged in large bottle.

The second leap was in about 2008 when the *Rynaxypyr*TM (a chlorantraniliprole pesticide) produced by the DuPont company (one of the *Fortune Global 500* in the US, whose fields cover agriculture, nutrition, electronics and communications, safety and protection, home and construction, transportation and apparel¹) entered the China market. The pesticide cost per unit rose from 12-15 RMB each time to 18-22 RMB because of the widely use of *Rynaxypyr*TM. The frequent typhoon in 2008 contributed to the wide spread of *Rynaxypyr*TM. From 2006 to 2008, large quantities of rice pests migrate from the triple-cropping region of Southeast Asia to inland area like Hunan province of China with the typhoon, resulting in the overlapping of pest generations and the outbreak of rice leaf roller. The domestic pesticides failed to deal with it once again. The domestic pesticides could cope with different generations of rice leaf roller respectively, if there were only local overwintering pests. However, the migration of adult pests results in the overlapping of pest generations, which means the co-existence of rice leaf roller in their first- to five-generation.

paddy field. This means that in 2004, *Regent* was used in at least 1 million mu of field paddy in County Pingwan.

¹ From the website of the DuPont company. <http://www.dupont.com/corporate-functions/our-company.html>.

Whereas the domestic pesticides could not kill all these pests, the *Rynaxypr*TM has turned out to be much more effective. The *extension agent-retailer* was a little emotional when talking about the price of *Rynaxypr*TM. ‘The hell of *Rynaxypr*TM is so unscrupulous! The price per package was 6 RMB in 2008, and then rise to 7 RMB in the second year and 8 RMB in the third year¹!’

Following the DuPont Company, Byaer, Syngenta, BASF and Japanese enterprises also entered China’s pesticide market in the next few years. The *Rynaxypr*TM produced by the DuPont Company, *Long ge* produced by a Japanese company, *Foggo* produced by Syngenta and *Dao teng* produced by the Bayer Company, are the top four pesticides on the market², which are also termed as ‘Four Heavenly Kings’ (*si da tian wang*) in the paddy field. The domestic pesticides could barely compete with them. It is estimated that the market shares of imported pesticides have amounted to 30 percent in 2010 (Liu, 2012). As shown in a report, the sales of the six giant pesticides companies, i.e. Bayer, BASF, DuPont, Syngenta, Dow AgroSciences and Monsanto, have taken up 80 percent of the world market, whereas that of the over 1,800 Chinese pesticide enterprises accounts only for 10 percent (Wang, 2013). Those who are far-sighted have warned that the annexation and reorganization of pesticide enterprises has just started in China, and the giant foreign enterprises are highly motivated to dominate the Chinese market (Nongye keji bao, 2013). It means that China’s agricultural inputs market is faced with great challenge.

What should be noted is that the manufacturers of imported pesticide – and also the compound fertilizer – are motivated to establish ‘monopoly sales’. In the case of *Rynaxypr*TM, the marketing channel is as follows: national general agent - provincial agent - county agent - township/village retailers - rice producers. The DuPont Company keeps strict control of the

¹ In 2013, the price has amounted to 9 RMB each package.

² The four pesticides deal with the same problem.

sales network. In order to set a monopoly price, the company restricts the number of sales agent in each province to no more than two, and makes sure that there is only one sales agent in each county and one retailer in each town selling *Rynaxypyr*TM. This is to avoid price competition. According to the general agent of *Rynaxypyr*TM in County Pingwan, the DuPont Company has developed delicate strategies to avoid unauthorized sales¹. All the packages are numbered, and the pesticide packages delivered to each province/county are in different number segment, which allows the company to easily track down the packages, and the sales network could be well supervised. These strategies are developed first by the DuPont Company, as explained by the county general agent of *Rynaxypyr*TM, to establish the monopoly price of specific products. Other giant corporations such as Bayer, Syngenta and BASF have also started to take these marketing strategies. Thus it is unsurprising to find out that although there are 7 or 8 agricultural inputs retail stores in a town, one could hardly find the agricultural inputs of the same brand – particularly the imported pesticides – in different stores. The monopoly price of agricultural inputs would definitely lead to the rising cost in agricultural production.

Rising cost of rice seeds

¹ The ‘unauthorized sales’ means that those who are not the authorized agents sell the *Rynaxypyr*TM at a lower price. For instance, if the county sales agent of *Rynaxypyr*TM wholesales the pesticides to the authorized township retailer at the price of 7 RMB/package, and suggests the retailer to sell at a retail price of no lower than 8 RMB/package, the authorized retailer would normally sell the pesticides at the price of 8 RMB/package. But there might be some other agricultural inputs retailer who manages to get the *Rynaxypyr*TM – probably from the sales agent of other counties or other provinces, which is *unauthorized* – at the price of 7 RMB/package, and sell the pesticides to producers at a price of 7.5 RMB/package or 7.8 RMB/package. This unauthorized retailer could make profits from the sales, and the authorized retailer may be forced to retail at a price lower than 8 RMB/package. It causes market price disorder, as concerned by the DuPont Company.

The situation of seeds is no better than the fertilizers or pesticides in terms of the rising price.

Pointed out by a head of a township agricultural extension station, the Chinese seed market is in extreme disorder, mainly due to the ineffective supervision on the seeds quality. He notes that, ‘Seeds should be taken as ‘special’ commodity, and thus should be specially treated. ... There should be a monopoly bureau in charge of the seed sales, and this bureau must be supervised by the government. ... I can not understand why the seed market is opened up¹.’ The ‘open up’ of seed market means that seed production and marketing has been opened to private operators. Since the promulgation of Seed Law in 2000, there have been more and more varieties of seeds on the market, and the seed price started to go up since then. According to the head of the agricultural extension station, the ratio between the seed price and paddy price was largely stable before 2000. The price of 1 kilogram of seeds was equal to that of 10 kilograms of paddy then. However, for some new seed varieties, the price of 1 kilogram of seeds amounts to over 20 kilograms of paddy now.

According to a report, China’s soybean, cotton, high-end vegetable and flower seed market has been dominated by the multinational corporations since the Seed Law implemented in 2000. The staple crop seed market, now become the main battlefield for these giant corporations. The hybrid-rice seed production technology develops rapidly in the US, and it has turned out that the bilinear hybrid-rice seed (produced by Bayer of German) could be well planted in India. The situation of China’s staple crop seed market is not optimistic (Cao, 2013).

¹ ‘The opening up of seeds market’ began in 2000 when the Seed Law was promulgated. The full context of the Seed Law is available from: http://www.eduzhai.net/yingyu/615/763/yingyu_246802.html. The English version of the Seed Law could be available from: http://www.eduzhai.net/yingyu/615/763/yingyu_246802.html.

*The transformation of Public Agricultural Extension System
(PAES) in China*

In order to interpret the commodification of agricultural means of production, it is significant to elaborate on the transformation of the PAES in China. The commercialization of PAES, characterized by the deep involvement of agricultural extension stations in the commercial activities, has threatened the public service provided by the agricultural extension sectors. Moreover, the foreign corporations might exploit this system for agricultural inputs sales.

The involvement of extension stations in commercial activities reduces their commitment in providing public services for agricultural producers. The commercialization of the PAES started from the late 1980s. In 1988, the central government encouraged the PAES stations to earn their own income through providing fee-based services or engaging themselves in commercial activities such as agricultural inputs sales (Lu, 1999: 206–216), so that these stations could be self-financed (Huang, Hu, et al., 2000: 169-203). As part of the reform, both the central government and the local governments cut funds of the PAES stations, resulting in their serious fund insufficiency (Hu, Yang, et al., 2009). By the year 2011, only half of township extension stations were fully state-funded, whereas 27 per cent were partially state-funded and 20 per cent were self-funded. The budget shortfall pushed these stations to move along the continuum toward commercialization (Waldron, Brown, & Longworth, 2006: 287). Many agents were engaged in agricultural inputs retail since then. With rich technical knowledge in agriculture, these *retailer-agents* are quite competitive in agricultural inputs retail as they could provide technical guidance for the buyers. The commercialization of extension stations could be characterized, in a sense, by the growing number of agricultural inputs stores run by the extension

station agents. As indicated by some researchers, the commercialization of agricultural extension stations has reduced the quality of their services due to the conflicts of interests between the agents and the agricultural producers (Huang, Qiao, et al. 2001). The case of fertilizer sales interpreted provides an example. As retailers, they are driven to sell the compound fertilizer, which brings them more profits; but as agricultural extension agents, they should have encouraged the producer to use more phosphatic and ammonium carbonate fertilizers, which are much less profitable but could contribute to the yield increase. This is the dilemma faced by the *retailer-agents*. As frequently observed, most of the *retailer-agents* tend to sell more compound fertilizers in order to survive in the competitive market. Reflected by an extension agent, the agricultural producers are more likely to accept their suggestions on the use of fertilizers and pesticides if they are full-time extension agents, but distrust those *retailer-agents*.

Moreover, the market-oriented transformation has also deactivated the PAES. Besides the reform in the late 1980s, the Chinese central government pushed another reform on the PAES in the late 1990s, which shifted the administrative rights of the township agricultural extension stations from county Agriculture Bureaus to township governments; and also shifted the budgetary burden from county Agriculture Bureaus to township governments (Hu, Huang, & Li, 2004). As a result, the extension agents are frequently called on for administrative duties (i.e. family planning, fire protection, election, etc.), which have taken up almost half of their working time. According to a national representative survey, the extension agents spend less than one third of their working time delivering agricultural extension services (AES) in 2002 (Hu, Yang, et al., 2009), which is far less than that of 85% in 1985 (Huang, Qiao, et al. 2001). According to an extension agent who has worked in a township extension station in County Pingwan for years, before the reform in the 1990s, extension agents spent most of their time doing field experiments and were closely connected with

the agricultural producers. However, they are now more motivated to be engaged commercial activities than to provide extension services. In this sense, the PAES has been deactivated.

What is worse, there is a tendency that the foreign agricultural inputs manufacturers exploit PAES in marketing their products. Although the PAES has been deactivated, to some extent, in the transformation, the pre-established wide social networks are still there. The county-level and township extension stations have established close contacts with large quantities of villagers in the past few decades through providing public services. In County Pingwan, the rapid extension of *Rynaxypr*TM could be attributed to wide network of the county-level and township extension stations. The DuPont Company reached those *retailer-agents* to be their sales agents since the beginning¹. The county sales agent of *Rynaxypr*TM in County Pingwan is a staff of the County Agricultural Bureau, who used to work in the township extension stations in several different towns. His wide social network contributes a lot to the sales promotion of *Rynaxypr*TM. Funded by the DuPont Company, this sales agent gave lectures on agrotechnique in a number of towns in County Pingwan, and it was the agricultural extension stations in these towns that played the leading role in organizing the villagers to attend the lectures². Besides introducing the agritechnical measures, a main focus of these lectures was to introduce the new pesticide *Rynaxypr*TM. In addition, the sales agent also conducted field experiments in these towns, showing how to use the pesticide. Other giant

¹ The DuPont Company first reached the head of agricultural extension service department, which is a subordinate unit of the County Agricultural Bureau, persuading him to be their sales agent of *Rynaxypr*TM in County Pingwan. But he worried about the market risks and refused (this man is now the general sales agent of County Pingwan for *Dao Teng* which is produced by Bayer). Then the company reached another one who is now their sales agent.

² I attended one of the lectures during my fieldwork. To my surprise, a significant number of audiences attended the lecture, and they were very focused on the lecture. It means that villagers are motivated to access the agricultural technical knowledge.

corporations such as Bayer have also adopted the same way in products promotion. These well-financed companies have re-activated the PAES, in a sense, through funding the commercialized agricultural technology extension activities. It seems that the profits-oriented agribusinesses benefit more from the PAES than the agricultural producers.

Both the commodification of agricultural inputs and the commercialization of PAES lead to the transformation of agricultural means of production into capital. The same trend could be observed in the expansion of specialized agricultural machinery work.

Rapid development of agricultural mechanization

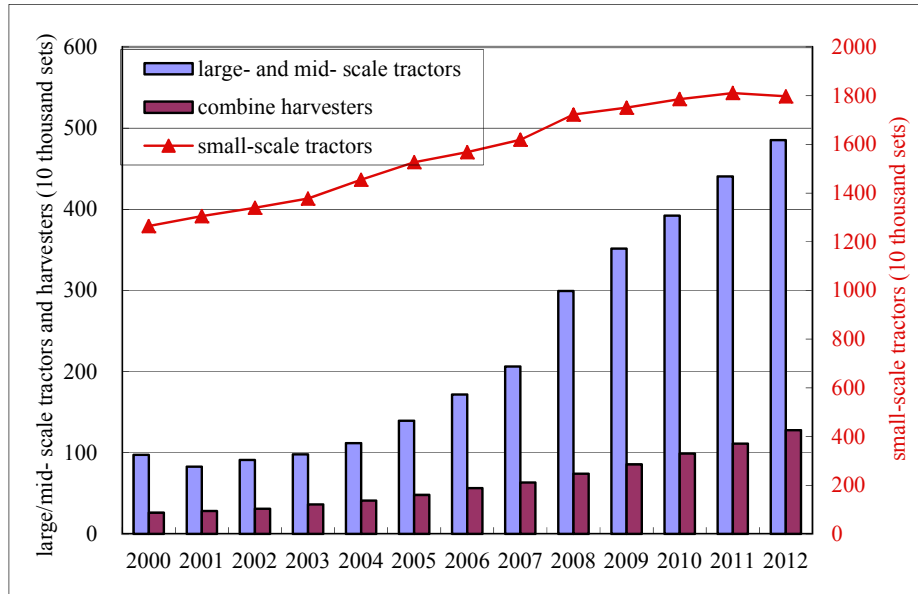
Shown in Figure 2.3, among all the material cost in rice production, what is the most remarkable is the cost on agricultural machinery work, which is surging particularly after 2004¹. The subsidy policy on machine purchase contributes to the rapid increase of possession quantity of agricultural machinery.

The popularizing of agricultural machinery should be taken dialectically. On the one hand, admittedly, individual households who operate small-scale farmland benefit from the subsidy policy, and the possession quantity of small-scale machines increases from around 14 million sets in 2004 to approximately 18 million sets in 2012 (shown in Figure 2.5). On the other hand, nonetheless, the much higher growth rate of the possession quantity of large- and middle- sized machines (including both the tractors and harvesters), which are affordable only for the *big households (da hu)*, shows

¹ The fast expansion of agricultural machinery after 2004 should be attributed to the ‘The Law of the People’s Republic of China on Promotion of Agricultural Mechanization’, which has been promulgated in 2004. The law has explicitly noted that central finance and provincial finance should arrange special funds to subsidize those who purchase agricultural machinery. The subsidy policy will be elaborated in Chapter 3.

that it is the *big households* who are benefited much more from the policy.

Figure 2.5 Possession quantity of agricultural machinery, 2000-2012



Source: *Zhongguo nongcun tongji nianjian (China rural statistical yearbook)*, 2013: table 3-6.

Whereas the small-scale farming households purchase small-sized agricultural machines mainly for their own use, those who own large- and middle- sized machines use these machines not only in their field, but also use them to do the machine ploughing or harvesting for others in order to make profits. In this sense, the purchase of large-/middle-sized machines may be taken as ‘capital investment’. The case of Dong Ximin could illustrate the logic of large-/middle-sized machine purchasing.

Dong Ximin, from Qinzheng village of Shuichuan town, has operated a middle-scale pig farm (approximately 300 pigs) for over 10 years. The income from pig-breeding allows him to be the first ones who purchase large-sized agricultural machines. Dong spent 40,000 RMB on the first harvester (the original price of this harvester is over 50,000 RMB, and the subsidy amounts to 10,000 RMB) in 2005. Four years later, he sold the first

machine and bought the second harvester (the original price of which is approximately 60,000 RMB) by way of trade-in. Deducted by the trade-in value of the first harvester and the subsidy of purchasing the new machine, the second harvester cost him only 5,000 RMB. In 2012, he purchased another harvester, the original price of which is 90,000 RMB, and he paid for 72,000 RMB for it – the machine subsidy amounted to 18,000 RMB. Besides, he also spent 54,000 RMB on a large-scale tractor (ploughing machine, the original price of which is 76,000 RMB) in 2012. The reason why he spent so much on agricultural machines in 2012 was that he contracted 200 mu of land from company Ace in 2012¹. Other than using these machines on his own contracted land, Dong also do machine ploughing and harvesting for other rice producers. Calculated by Dong, the gross income from harvesting one mu of paddy field is 100 RMB, whereas the cost consists of the oil cost of approximately 20 RMB, the machinery depreciation of 15 RMB, and labor cost of 15 RMB (two more people are needed for bagging the paddy during harvesting, the labor wage for each of them is 150 RMB per day, which amounts to 15 RMB per unit on average). Thus the net income from doing one mu of machinery harvesting is 50 RMB. The gross income from doing machine ploughing is largely the same as that of the machine harvesting, but Dong obtain less benefits from the machine ploughing, as he hires a worker to operate the ploughing machine (Dong himself operates the harvester). For doing one mu of machine ploughing, the labor cost is 18 RMB on average, whereas the oil cost amounts to 40 RMB and machinery depreciation is 20 RMB. The net income per unit for doing machinery ploughing is around 20 RMB. For Dong Ximin, his net income from doing machine harvesting is approximately 50,000 RMB one year, whereas that from machine ploughing amounts to 40,000 RMB.

According to an experienced machinery operator in County Pingwan, the

¹ The land operation strategies of company Ace will be elaborated in the coming chapters.

average service life for a harvesting machine is 3 years¹. The profits made in the first one-year-and-a-half could normally cover the cost of the machine, whereas the profits from second one-year-and-a-half are the net profits of the machine owner. In this sense, the purchase of large/middle-sized machines should be taken as ‘capital investment’.

What should be highlighted is that the rapid development of agricultural mechanization has indicated the deepening of social division of labor in farming. The ploughing and harvesting work has been increasing specialized, which means that the agricultural producers now have to pay the machine owners in order to have the work done². The payment to the machine owners is essentially part of the agricultural surplus of the producers. It indicates that individual producers who have no large-/middle-sized machines have to give up part of their agricultural surplus to the machine owners.

Capital-dominated marketing system of agricultural products

Although not part of the commodification of means of production, the marketing of agricultural products is still noteworthy, as the paddy marketing has increasingly been dominated by capital.

Shown in Figure 2.1, the commodity rate of grain has been rising rapidly after 2000, which implies that an increasing part of the grain is sold to the market instead of for family consumption. It echoes with my observation in the field research. More and more rice producers tend to sell the paddy to the market and purchase rice back, instead of processing the paddy with the family-owned rice mill or in the local processing plantings. This may partly

¹ The service life of a ploughing machine might be longer.

² In County Pingwan, almost no one harvests rice manually now, because after the manual harvest, producers need to thresh rice manually, which is quite labor intensive. The rice harvester could not only harvest the rice, but also complete rice threshing simultaneously. There are hardly any rice threshing machines in the countryside.

due to the rural-urban migration. The outflow of rural labor means that the family consumption need of rice decreases, which gives rise to the commodity rate of paddy. However, the paddy producers suffer from the present marketing system. The research conducted by Wu Guanghan (2012) on the extensively-existed ‘middlemen + peasants’ marketing pattern shows that the proportion of profits obtained by producers in the whole industrial chain has reduced from 56% in 1999 to 43% in 2010. The decrease of immediate producers’ gains in the whole industrial chain indicates that the middlemen appropriate part of the benefits that should have been obtained by agricultural producers. Wu argues that the individual producers are semi-subordinated to the commercial capital. In the capital-dominated products marketing system, the high commodity rate the paddy indicates that the producers have been increasingly involved in the market system. One consequence is that the more agricultural products the producers sell to the market, the more they are exploited.

To sum it up, the essence of *the commodification of means of production* is that the agricultural-inputs manufacturers have turned the agricultural cultivation into a market for their surplus value. The expansion of agricultural inputs industry, popularization of agricultural mechanization, and development of market-oriented grain marketing system, all reveal the deepening of social division of labor in farming. This could be well revealed in the reflection of an elder rice producer:

‘It is the labor power that mattered when we grew rice in the past. We did the rice breeding by ourselves, did ploughing with our own cattle, used only farmyard manure, and harvested the rice manually. One could farm as long as he input labor. The farming cost was quite low, and thus we could have almost all the paddy. Things have changed now. We have to pay for the seeds, fertilizers and pesticides. We have to pay others for doing

machine ploughing and harvesting for us. Although the grain output amounts up to 500 kilograms, we could get no more than 200 kilograms after deduction of all the costs. One could feed himself by cultivating two mu of land, but now one has to cultivate a few mu of land to feed himself. It takes money instead of labor power to farm. This is unbelievable!

In China, this ‘unbelievable’ process has started ever since the implementation of HRS. This process has also been interpreted by Lenin (1956: 47-48): ‘The means of production from which the small producer is ‘freed’ are converted into capital in the hands of their new owner, serve to produce commodities and, consequently are themselves converted into commodities. Thus, even the simple reproduction of these means of production now requires that they be purchased (previously, these means of production were reproduced in greater part in the natural form and partly were made at home), ...’ The commodification of the means of production means that benefits of rural households would be increasingly squeezed by the agro-capital. According to Magdoff and co-authors (2000: 12), ‘farming is one of the few businesses that pays retail prices for inputs and sells its products at wholesale prices.’ The rising production costs and low price of agriculture products – particularly the staple grain, the price of which is regulated by the state – reduces the profits of producers. Seemingly, producers are not divorced from the means of production; but since all means of production are now only available on the market, the combination between labor and the means of production is subtle. This is the precondition for capital accumulation to proceed in the agricultural production, and thus is the pre-requisite of capital flowing to countryside. The following section will illustrate the capital accumulation in agriculture through a case of an agribusiness enterprise.

Capital accumulation in agriculture: profit-making from the upstream and downstream of farming

Encouraged by the Chinese government, *agricultural vertical integration* has expanded rapidly throughout the country. The *agricultural vertical integration* means the integration of agricultural cultivation, processing and marketing by the leading ‘dragon-head’ enterprises (*long tou qiye*) or other market-oriented organizations. In County Pingwan where I conducted my fieldwork, an agribusiness company, specialized in agricultural inputs manufacturing and marketing, has engaged itself in the *agricultural vertical integration* since 2009 through contracting large tracts of land from the county. Company Ace subsumes individual farming households in its industrial chain through subcontracting the land to them. The commodification of agricultural means of production has created favorable conditions for this ‘dragon-head’ enterprise to make profits from the upstream and downstream of farming.

Extension of industrial chain

Company Ace is established in 2004 on the re-structure of the collective-owned Agricultural Inputs Company of County Pingwan, which used to be the county-level organization of the *Supply and Marketing Cooperatives (SMC)* in the collectivization period. As an agribusiness corporation, the business of company Ace involves chemical engineering, fertilizer manufacturing and marketing.

Contracting land from the countryside and engaging itself in land operation is in effect a sales strategy of the company for agricultural inputs marketing. Company Ace is faced with two types of competitors. The first is

the township *agricultural extension agents*, who are engaged in agricultural inputs retail. The wide social network of these *retailer-agents*, established in the long-term delivering of technical service for individual producers, makes them a most powerful competitor of company Ace. Moreover, a number of the laid-off workers in the reform of the *SMC* who have contracted the previous *SMC* stores also compete with the company in agricultural inputs marketing. The established sales network of the *SMC* in the past few decades makes them competitive.

In order to survive the competition, the company Ace attempts to develop a different marketing strategy through contracting land from the countryside, and ensuring that the agricultural inputs used in the contracted land are from the company. In 2009, company Ace started a pilot program in Shuichuan town of County Pingwan, contracting around 2,000 mu of farmland from the town. In the next few years, company Ace dramatically expands its land scale. Until 2013, company Ace has contracted approximately 30,000 mu of land in County Pingwan and five other counties. Most of the land is contracted to company Ace on a 5-year contract. With hardly any experience in agricultural cultivation, company Ace went into trouble in the first couple of years when it attempts to establish a capitalist farm and depend exclusively on wage labor. The company keeps adjusting the strategies, and gradually comes to the strategy of ‘company + *contracted tenant households*’ in land operation. The control over land allows the company to control the cultivation process.

Capital accumulation in the ‘upstream’ and ‘downstream’ of farming

Although company Ace has sub-contracted all the farmland to individual

households, the company still dominates the agricultural cultivation process through controlling the external conditions of production. Each of these households – named ‘*contracted tenant households (dai guan hu)*’ – subcontracts 200-500 mu of land from the company, and cultivates double-cropping rice or middle-season rice. As a condition for contracting land from company Ace, the *contracted tenant households* are required to purchase the ‘agricultural inputs package’ (including seeds, fertilizers, pesticides, and agricultural machinery service, i.e. rice seedling transplanting, tractor-ploughing and machine harvesting) from the company. Ace then sell their paddy to it.

By controlling the cultivation process, this agribusiness makes profits from the ‘upstream’ and ‘downstream’ of the industrial chain. As Bernstein (2010: 65) notes, ‘agriculture’ or ‘agricultural sector’ in modern capitalist economies means ‘farming together with all the economic interests and their specialized institutions and activities, “upstream” and “downstream” of farming, that affect the activities and reproduction of farmers.’ ‘Upstream’ refers to the conditions of production necessary for farming, whereas ‘downstream’ means the marketing, processing, and distribution of products.

Capital accumulation in the upstream of farming

As indicated by a manager of company Ace, the company makes a profit of around 130 RMB/mu each season from the sales of ‘agricultural inputs package’¹, which is the ‘upstream’ of farming. As noted by the general manager of company Ace,

‘As long as the land is under the name of our company, we can ensure that all the seeds, fertilizers and pesticides (used in the field) are provided by our company. We have the land use right once we contract that plot of land. There is

¹ The agricultural inputs package for early- and late- season rice is 518 RMB and 538 respectively, whereas that of middle season rice is 606 RMB for each mu in 2012.

no way that other (agricultural inputs) manufacturers/retailers sell their products on our land!

This argument is important as it explains why company Ace is so motivated in contracting land from the countryside. The fact is that the more land the company contracts, the more profits it can make from the sales of agricultural inputs. Contracting land from the countryside allows the company to establish market monopoly on its contracted land. In this sense, the land contraction could be taken as some kind of ‘land enclosure’.

The importance of the land control for the company can never be emphasized too much (how the company Ace access to the large tracts of land will be explained in Chapter 4) if we contrast the land operation strategy of company Ace with *contract farming*¹. As shown in many researches, contract default by agricultural producers in *contract farming* is quite common in China (e.g. Guo & Jolly, 2008; Guo, Jolly, & Zhu, 2007) as compared with the violation of contracts by agribusinesses commonly observed in other countries (Little & Watts, 1994). The default rate is quite high – according to a research, the default rate may reach 80 percent (Liu, 2003). Since the most frequent form of contract default is the producers’ side-selling, the companies have developed different strategies to create market monopoly. It has turned out that the relative geographic isolation of the production base and the absence of domestic demand for the products may contribute to the establishment of market monopoly (Zhang, 2012). Obviously, none of these conditions present in staple food production. Therefore, land control seems to be the only shortcut for the agribusinesses

¹ There are some misuses of the concept ‘*contract farming*’. *Contract farming* in this research refers to that rural households sign contracts with agribusinesses before cultivation, and the rights and obligations of both the producers and the enterprise are clarified in the contract. The producers should supply the agricultural products to the enterprise according to the contract, whereas the enterprise is also obliged to purchase the products at the agreed price (Liu, 2003). Therefore, *contract farming* does not involve land-use right transfer.

engaged in staple grain production to maintain its monopoly power. The *contracted tenant households* of company Ace could barely violate the contract – for instance, using other agricultural inputs, or side-selling their paddy, because the company may take their land back once they default the contract.

More importantly, the ‘land enclosure’, which is characterized by the strong control over the land use right, brings not only the general benefits in agricultural inputs marketing to this enterprise, but also surplus profits. The above-noted 130 RMB/mu of profits from the sales of the ‘agricultural inputs package’ includes both the general profits and the surplus profits. If we term the profits made by the retailers from selling the agricultural inputs at the general market price as ‘general profits’, the profits made by the company from selling the agricultural inputs at the ‘package price’ – which is higher than the general market price – should be termed as ‘surplus profits’. Table 2.2 shows the price differences between market price and the ‘package’ price of the same agricultural inputs, as calculated by one of the agency households. As indicated by different households, the price differences range from 40 to 60 RMB per unit¹. The price differences are where the surplus profits of the company derived from. It is the control of land use right – which has created a market monopoly on the sales of the agricultural inputs – that guarantees the surplus profits of the company. In this sense, the *means of production* – the seeds, fertilizers and pesticides, specifically – have been turned into *means of surplus-appropriation*.

Table 2.2 The Surplus Profit of Company Ace on Each Unit of Land from

¹ The company does not list the specific price of each item when selling the ‘package’. Therefore, calculated by different *contracted tenant households*, the price differences are slightly different. The 40 to 60 RMB price differences do not include the machinery working. What listed in Table 2.2 are the prices estimated by one of the *contracted tenant households*.

the ‘Agricultural Inputs Package’¹ (RMB)

	Market price	‘Package’ price	Price differences
Pesticides	85	100	15
Seeds	50	60	10
Fertilizers	98	128	30
Total	233	288	55

Capital accumulation from downstream of farming

The company Ace also gains profits from ‘downstream’ of rice farming through paddy marketing. Most of the *contracted tenant households* sell their paddy to company Ace right after harvesting (in September and October). That is the time when the paddy price is the lowest of year. Company Ace stores up the grain and sell them next year around the Tomb-sweeping Day (in early April) when the paddy price is the highest of year. The price difference could be about 10 RMB for every 50 kilograms, which means that company Ace could get a net profit of approximately 100 RMB per mu².

What should be noted is that the *contracted tenant households* have no choice but sell the paddy to company Ace right after the harvesting, as they have no warehouse for storage of the large quantities of paddy. Moreover, they cannot afford the risk of loss in drying the grain in the sun. For the past three decades, the majority of rice producers cultivate mainly their own land, which is no more than 10 mu, and they dry grain in the sun on the

¹ The ‘agricultural inputs package’ includes not only the seeds, pesticides and fertilizers, but also the agricultural machinery work. As claimed by the manager of company Ace, the company does not make profits from the machine working, but some *contracted tenant households* seem to have different opinion. Since it is the agricultural inputs manufacturing and marketing that the company is specialized at, I focus mainly on the seeds, pesticides and fertilizers.

² Normally, the average grain yield of middle-season rice is around 500 kilograms per mu, whereas that of the double-cropping rice may be 700 to 800 kilograms per unit.

grain-sunning ground in front of their houses or on the road. They could react quickly when the storm comes, and move the paddy back in their houses. However, for the large-scale producers¹, it is highly risky to dry grain in the sun, as the weather is quite unpredictable in the harvesting season. In 2012, a couple in County Pingwan who cultivate 46 mu of middle season rice suffered great loss in grain drying. The weather was fine when they did harvesting and they spread out their paddy on the road, but it rained unexpectedly in the following few days. As a result, around 20,000 kilograms of their grain were rain-soaked, whereas approximately 2,000 kilograms grain sprouted, which could only be used to feed fish and chicken. ‘Our tears were exhausted that time,’ as said by the couple. In order to avoid the potential risk, the *contracted tenant households* choose to sell the paddy to the company right after harvest.

There are two favorable conditions that contribute to the company’s success in making profits in the downstream of rice farming. First, the company built a grain-drying center in 2011, which enables the company to process large quantities of paddy rapidly. Covering an area of 10 mu, the center incorporates 24 sets of drying equipments, and the daily processing capacity is around 500 tones. What should be noted is that the building of the center is greatly supported by both the central and local government. The governmental financial support on the center accounted for 80 percent of the total cost, whereas the investment of company Ace amounted to approximately one million RMB². Since there are no public drying facilities, large agribusiness such as company Ace, who could afford to make such investment enjoys exclusive advantages in paddy drying.

Second, the usage of the large grain reserves allows the company to store

¹ In County Pingwan, land holding per capita is no more than 1 mu on average. Thereby, an individual household cultivates no more than 10 mu of land. Those who cultivate over 200 mu of land are definitely the *big households*.

² The governmental support on the building of the grain-drying center will be elaborated in Chapter three.

up large quantities of paddy and wait for the right price for sale. As introduced by the deputy general manager of company Ace, the grain reserves managed by company Ace – owned and rented by the company – could be used to store 50,000 tones of grain. There are two large-scale grain reserves located in the county near the grain-drying center. The capacity of the two reserves is 10,000 tones and 20,000 tones respectively. The 10,000-tone reserve, owned by the company, was rebuilt on the base of two rice processing enterprises acquired by company Ace in 2007, whereas the 20,000-tone one was a National Grain House in County Pingwan, which is rented by the company. Besides, company Ace rented several township grain storage facilities, which are deserved after the reform of grain distribution system in 1998. These small-scale grain reserves, the capacity of which totals to 20,000 tones, are used for temporary storage¹. The grain reserves, coupled with the grain-drying center, allow company Ace to make profits from grain marketing.

The agribusiness enterprises, which extend their industrial chain through contracting land from the countryside, largely share the same logic with company Ace in capital accumulation. These enterprises normally derive profits from the upstream and downstream of farming. Company C, which is another case in my previous field research, provides another example. Company C is a large-scale agribusiness specialized in rice processing² in Hubei province. The company contracted over 10,000 mu of land from 8 villages in a county of Hubei – an eighteen-year contract – as its rice production base at the beginning of 2010³. The company is highly motivated

¹ In towns such as the Shuichuan town, the contracted land area is relatively large and the quantity of grain output is high, which entails such temporary reserves in the harvesting season.

² In 2009, the volume of rice processing of this agribusiness amounts to 0.11 billion kilograms, the total value of which is 0.83 billion RMB.

³ The data is collected from the interview with one manager of company C.

to expand its land scale, in order to have a large and stable supply of paddy. As indicated by a manager of company C, they had to face fierce market competition in paddy purchase each year with numerous middle- and small-scale rice processing enterprises, and the grain transportation cost¹ amounted to 20 million RMB per year in the past years. The company then seeks to establish their own rice production base and invest the previous transportation fee (20 million RMB) in land management. Their strong control of the rice production base guarantees the supply of the paddy for processing. The industrial chain extension strategies adopted by company Ace and company C are essentially the same, although the former is specialized in agricultural inputs manufacturing/marketing ('upstream' of farming) and the latter is mainly engaged in agricultural product processing and marketing ('downstream' of farming). These companies make profits from the 'upstream' or 'downstream' of farming through controlling the agricultural cultivation process. What should be noted is that, there is an increasing number of agribusinesses like company Ace across China (Zhang & Donaldson, 2010), which shares the same dynamics of capital accumulation.

Although not engaged in rice cultivation directly, these companies dominate the entire cultivation process through contracting land to the *contracted tenant households* and control the external conditions of the agricultural production. Other researches have also observed the dominant power of these agribusinesses over the subsumed households (Wu, 2012; Huang, 2012). Through dominating the cultivation process but not directly engaged in it, the companies assume the minimum risk in the whole industrial chain, but gain the most profits.

¹ Company C is located in Hubei province, but it had to purchase paddy from several different provinces, which gives rise to the transportation cost.

The subsumption of *contracted tenant households*

Although company Ace makes profits primarily in the upstream and downstream of farming, the rice cultivation process is crucial for this agribusiness, since it is an intermediate link that links up the upstream and downstream of the whole industrial chain. Thus, the subsumption of the *contracted tenant households* in its industrial chain is very important. The access to funds and large-tract of land is what attracts the individual households to contract land from the company.

On the one hand, contracting land from the company is a shortcut for those who are highly motivated to expand their land size. With the support from the local government¹, the company has contracted large tracts of land in the countryside. In some villages, the village cadres are mobilized to facilitate the land circulation work through talking the villagers into transferring their land use right to the company. It is much more difficult for individual households to contract land from the large numbers of small landholders on their own. For those individual households who have strong motivation to expand their land scale, it is obviously a shortcut to contract land from the company.

Moreover, the company Acedvances a large part of the production cost to the *contracted tenant households*, which means that these large-scale producers do not have to worry about the cash shortage in cultivation. As a strategy, the ‘agricultural inputs package’ is provided to the *contracted tenant households* on credit, and the settlement could be made after harvesting when they sell paddy to the company. It has significantly relieved the financial pressure for these producers. Normally, the total cash demand would amount to over 99,000 RMB for growing 100 mu of middle season

¹ The reason why the local government is motivated to get involved in the land circulation will be interpreted in Chapter three.

rice (see Table 2.3). This expense is too much for an ordinary rural household to afford. According to a *contracted tenant household*, it is not cost-effective for an individual household to loan from the bank to cultivate the 100 mu of land because the net profits would be quite limited after deduction of the loan interest. In 2012, the paddy price was 128 RMB for 50 kilograms, which means that the gross benefit per unit would be 1,280 RMB (assuming the grain yield per unit is 500 kilograms on average) and the gross benefit of 100 mu would be 128,000 RMB. The net profits, therefore, might be around 29,000 RMB one year. Deducted by the loan interest, the profits might be even lower. As considered by this *contracted tenant household*, it does not make sense to go through all the trouble and makes only some 20,000 RMB, as the wage income for an ordinary migrant worker could be over 20,000 RMB at the minimum. Therefore, those who are motivated to expand land-scale but have limited funds prefer to contract from company Ace.

In order to advance the production funds to the *contracted tenant households*, the agribusiness should be well-funded. As a city-level ‘dragon-head’ enterprise, company Ace enjoys the financial support from the local government¹, which makes it relatively easy for this enterprise to loan from the bank at low interest. In 2013, a rural commercial bank provided a huge loan for the company. Initially, the bank intended to loan directly to the *contracted tenant households*, with the contracted land from the company Ace and the agricultural machinery possessed by these households as the collateral security for loans. The loan amount for each of the *contracted tenant households* could be 200,000 to 400,000 RMB a year. However, company Ace successfully convinced the bank to grant the loans

¹ In 1998, the promotion of *agricultural vertical integration* was officially affirmed by the state. The Chinese government has released a wide range of policies including fiscal policy, tax policy, and monetary policy in support of the ‘dragon-head’ agribusinesses. The governmental policies will be examined in Chapter three.

to the company, and let the company decide how much to loan to specific *contracted tenant households*. The comments of the manager from company Ace – who has participated in the negotiation with the rural commercial bank – on loaning from banks are noteworthy:

‘There are large amounts of money in banks at present, and the problem for them is to which industry they should loan. Real estate, undoubtedly, is not a reasonable choice now. No one knows when you can recoup the money if loaning to the real estate company. But the agricultural field is different. There is neither too much risk, nor too many extravagant profits in this field. It is predicable and stable, which ensures the repaying capacity of lenders. It is the loan interests that are all the banks care about. ... I tell them (referring to the above-mentioned rural commercial bank) that if they loan directly to the *contracted tenant households*, the bank should control all the risks by themselves. But apparently they have no way to control the risk. Oppositely, our company is highly connected to these households, and we can have the risk under control.’

The way the company controls the loan risk is that it grants limited amount of loan to the *contracted tenant households*. The potential output of paddy of these households is taken as the collateral security, and thus those who contract more land from the company could get more loans. Normally, one contracted household could get a loan of no more than 100,000 RMB a year. The large amount of loans allows the company to take control of the *contracted tenant households*.

Table 2.3 Estimate Cost of Middle Season Rice Planting of a Rice Producer¹

¹ This is calculated by an experienced rice producer, who worked as a hired farmhand on company Ace’s farm in 2011. He used to consider about planting 100 mu of middle season rice with a partner, but eventually gave up this idea after making a detailed

Items	Cost per mu (RMB)
Land circulation fee	200
Tractor-ploughing	130
Fertilizers, pesticides and herbicides	101+80+20=201
Seeds	0.75 kilograms/mu × 120/kilogram=90
Rice transplanting (labor hiring)	130
Machine harvest	120
Labor hiring in spreading fertilizers, spraying pesticides, carrying grains and etc.	120
Total	991

Conclusion

The expansion of commodity relations in the countryside since the reform and opening-up in the late 1970s paves the way for capital flowing to countryside. The commodification of agricultural means of production is essentially the ‘capitalization’ of agricultural inputs. The accumulation of capital in agriculture, either in the upstream or downstream of farming, is what drives capital to the countryside.

Since the implementation of HRS, rural livelihood has been increasingly involved in the market system, pushing the rural producers towards market-oriented production. In pursuit for higher yields and more cash income, agricultural producers use more and more agrochemicals, high-yielding seeds and other efficiency-enhancing inputs. The

estimate of the total input and output.

commodification of agricultural means of production has made it impossible for rural households to farm outside the market system. On the one hand, the fertilizers, pesticides and seeds, which used to be the ‘rural-support supplies’ (in the collectivization period), have now been transformed into ‘commodities’. The commercialization of PAES contributes to the commodification process. What should be noted is the trend of the PAES being exploited by the foreign agricultural-input manufacturers in marketing their products, which may deeply involved China’s agriculture into the global economy system. The result might be the growing of production cost in farming, which may threaten the rural livelihood. Moreover, although the promotion of agricultural machinery relieves the labor intensity, it also pushes up the cost of agricultural production. In this way, the seeming combination of the immediate producers with the means of production is rather weak, in the sense that they are all available on the market. On the other hand, the capital-dominated grain marketing system has also damaged the interests of the individual producers, as there has been a tendency that the middlemen in grain trade appropriate more benefits from whole industrial chain.

It is important to note that the profits made by the agricultural inputs manufacturers (and also the agricultural machinery operators and grain dealers) derive, in effect, from the agricultural surplus, compared with the traditional farming practices. Such profits are what drive the agribusiness enterprises to get involved in land operation.

In the case of company Ace, it makes profits both in the upstream and downstream of farming. As a matter of fact, the more land the company controls, the more profits it could make, which explains why the company is so motivated to expand its contracted land area: from no more than 2000 mu in 2009 to approximately 30,000 mu in 2013. Through sub-contracting the land to individual households who agree to purchase the ‘agricultural inputs package’ provided by the company, company Ace makes profits from the

agricultural inputs sales. The control over land allows this agribusiness to create a market monopoly on agricultural inputs sales on its contracted land. More importantly, the control over land enables the company to make extra-profits, as the *contracted tenant households* have no choice but accept the ‘package’ price of the agricultural inputs, which is above the market price. Otherwise, the company would take back their land. In some sense, it is the extra-profits rather than the general profits that motivate the company to expand its land scale exponentially.

How the agency households contribute to the capital accumulation of the agro-capital will be elaborated in chapter four. Land operation strategies will be elaborated in that chapter, in order to interpret why the company chooses to subsume the rural households into its industrial chain.

Chapter Three: The role of state and capital accumulation

The governmental policies have played important roles in the rapid expansion of *agricultural vertical integration (nongye chanye hua)*. As

Byres (1996: 6-7) noted, political economy suggests that where agrarian transition has proceeded, the state intervention will have significant influence on the way of that transition. The main focus of this chapter is how the state shapes the process of capital flowing to countryside, and how the agro-capital makes accumulation by taking advantage of the state policies. What should be highlighted is that the capital dynamics of the *agricultural vertical integration*, which is characterized by the capital accumulation from the upstream and downstream of farming (interpreted in chapter two), is most easily neglected, whereas the role of the state is overemphasized. The examination of the role of state in this chapter is predicated on the understanding of the capital dynamics of the agro-capital.

Ever since the 1990s, the Chinese government has attached great importance on *agricultural vertical integration*, aiming to transform the small-scale household farming into modernized agriculture, which is characterized by large-scale land operation and specialized production. The *Ninth Five-Year Plan for National Economic and Social Development* (in 1996) has highlighted the ‘active promotion of *agricultural vertical integration*’ – the conception of *agricultural vertical integration* was come up for the first time in the national development plan, and encouraged the transfer of land-use right. In 1998, the promotion of *agricultural vertical integration* was officially affirmed by the state. Since then, the Chinese government has released a wide range of policies including fiscal policy, tax policy, and monetary policy in order to support the ‘dragon-head’ agribusinesses. In 1999, the Agricultural Bank of China gave discounts on loans of RMB 500 million in support of the ‘dragon-head’ enterprises development (Nongyebu (MOA), 2000). *The 10th Five-Year Plan* (in 2001) announced to support the development of leading enterprises through making preferential policies on fiscal allowance, tax preferences and credit guarantee from the government. According to the official report, the central government invested 11.9 billion RMB to support national-level

‘dragon-head’ enterprises from 2001 to 2005 (Zheng & Song, 2008: 30). The support from the government, together with the preferential policies, has turned agriculture into a new field of investment for the agribusiness enterprises.

In the past few years, there are a number of news reports on the large enterprises’ investment in agriculture. In 2009, the Netease, an enterprise specialized in the online games, invested 300 million RMB in pig breed in Zhejiang province (only the result has turned out to be undesirable) (Netease New Media, 2013). And since 2010, the IT giant Lenovo has invested over one billion RMB in agricultural production, and established its blueberry and kiwi fruit production base in the province of Shandong, Sichuan, Shanxi and etc. Lenovo has become the largest blueberry production enterprise and the largest kiwi fruit production enterprise in China, and the Lenovo group plans to invest another two billion RMB in modern agriculture (Yang, 2013; Xinhua Net, 2013). Following that, LeTV, specialized in network video, invests in ecological agriculture in Shanxi province in 2014, and establishes a production base covering approximately 3,000 mu of land (Zhongguo wang (China Network), 2014). Besides, there are also large corporations engaged in staple grain production. In 2011, the CEO of Jingdong (360buy.com), an electric commerce business, rented 5,000 mu of land from his hometown in Anhui province for rice growing (Huaxi Dushibao, 2011). The investment of these well-known non-agricultural businesses in agriculture is only the tip of the iceberg.

The promotion of *agricultural vertical integration* has encouraged large numbers of agribusiness enterprises to contract land from the countryside. From 2000 to 2006, more than 580 national-level ‘dragon-head’ enterprises and more than 4800 provincial-level enterprises have been certified by Ministry of Agriculture (MOA) and/or other ministries, as well as the provinces respectively, as ‘key leading enterprises’ in *agricultural vertical integration*. (Zheng & Song, 2008: 25). The land contracted by the

agribusinesses has amounted to 28 million mu (which is 10.3% of the total area of land circulation) by the end of 2012, which is 115% more than that in 2009 (Liu, 2014) and 34% more than that in 2011 (Dong, 2014). Moreover, in 2013, their contracted land increases by 40% than that of 2012 (ibid.). Although the area of land circulated by these enterprises is relatively small, the rapid growth rate is remarkable.

The rapid expansion of *agricultural vertical integration* has aroused attention of researchers. There are some rural support intellectuals who argue that we should be vigilant about capital-flowing-to-countryside (He, 2013: 57-69; Li, 2009: 76-90; Wen, 2009b: 81-87; Huang, 2010a; Huang, Gao & Peng, 2012; Pan, 2008). They tend to believe that it is the government that ‘pushes’ the capital to flow to countryside. Also, they insist that small-scale household farming is going to persist in the long term, and that the agribusinesses are impossible to out-compete small-scale producers in terms of per unit yield. Arguing that the agro-capital would encroach on the interests of small producers, these intellectuals expect the Chinese government to regulate the agro-capital (He, 2013: 60-61; Li, 2009: 90). According to He Xuefeng (2009: 65), due to the low efficiency in agricultural production, the agribusinesses have to cover their losses in agricultural planting with their profits from other business (such as the profits from upstream and downstream of farming); or, the local government should provide subsidies for these enterprises. He holds that the agribusinesses’ involvement in agricultural production does not make sense, particularly for the local government, as the small producers – who are defeated by the agro-capital under the support of the government – are more productive even without the massive subsidies. However, paradoxically, the seemingly illogical practice keeps repeating itself in reality. The question is how we understand it.

This chapter will examine the role of state in capital-flowing-to-countryside. Specifically, this chapter will concentrate on

the following issues: the reason why the local government is motivated to introduce in the agro-capital, how the local government facilitates the capital-flowing-to-countryside, and how this agribusiness integrates the governmental support in its capital accumulation. The dynamics between the state and the agro-capital will be examined through the exploration of the *project system*, as *projects* are what directly connect the state and the agribusiness.

Projects and local finance: local state in alliance with the agro-capital

Before looking into the relationship between the local government and the agro-capital, it is necessary to briefly explain the origin of the *project system*. As part of the central-to-local financial transfer payment system, *project funds* have become more and more important in funding the fiscal gap of local governments since the 1990s. The *tax-sharing reform* implemented in 1994 has significantly enhanced the taxing power of central government, but at the same time resulted in the increasing fiscal gap of the local finance, especially for the county and township level governments. In the previous *Fiscal Responsibility System*, value-added tax constitutes the main source of the local revenue, which had strongly motivated the local governments to expand investment in local enterprises. However, the substantial incidence of rent-seeking as well as the regional protectionism under the system eventually leads to the reform of the *tax-sharing reform* (Qu, Zhou & Ying, 2009). The value-added tax of local enterprises is now collected by the central state instead of the local state, which pushes the local government to seek for new sources to sustain their revenue. The increasing financial transfers from the central state – including the general

transfer payments and special transfer payments – thus become the new finance source of the local governments. For some counties in the central region of China, the transfer payment accounts for over 50 percent of their local finance (Zhou, 2006). Moreover, the special transfer payments, which are allocated in the form of *projects funds*, are much more than the general transfer payments (Li, 2006; Zhe & Chen, 2011; Zhou, 2012). In order to obtain the *project funds*, the local government should well complete the projects.

Specifically, it is the agricultural projects that are important for an agricultural county like County Pingwan. What should be noted is that those awarded ‘*major grain-production counties*’ (*chanliang daxian*) are more likely to succeed in the application of agricultural projects. As a matter of fact, the approval of agricultural projects could be taken as the means by which the state guides the development of agriculture. As indicated by some researches, although China’s state sector has undergone a wide range of dramatic reforms since the Open-up and Reform policy in the late 1970s, the strong influence of the Chinese state on the economic development does not fade away, as against the orthodox liberal economist arguments. On the contrary, the state has retained its strong capacity in guiding the development of the national economy, as could be readily witnessed in the development of agriculture (Waldron, Brown, & Longworth, 2006). To ensure the self-sufficiency in staple crops, the Chinese government has been strongly promoting the grain production, and has promulgated the rewarding policies for major grain production counties since 2005. Each year, the Chinese central government selects no more than 200 counties from the approximately 3000 counties all over the country as the ‘*major grain-production counties*’. The listed counties may obtain large amounts of reward funds. For some agricultural counties, the reward funds may account for a major part of their local finance. Moreover, in recent years, an increasing part of the reward funds is transferred through *project funds*,

which means that the local government has to complete these projects to obtain the project funds. The agricultural counties are highly motivated to compete for the title of ‘*major grain-production county*’, which would bring both awarding funds and project funds. It is significant to note that the collaboration between the local government and the agribusiness enterprises is crucial both in the competition for the title of ‘*major grain-production county*’ and in the completion of these agricultural projects, which will be elaborated in this section.

The role of company Ace in the competition for the title of ‘major grain-production county’

As aforementioned, the central government provides substantial amount of reward funds for the listed ‘*major grain-production counties*’. The reward funds have increased from 17.5 billion in 2009 to 32 billion RMB in 2013. In 2013, each of the listed counties could obtain a reward fund ranging from 5 to 80 million RMB (depending on the provincial finance) (Nongyebu (MOA), 2014). The evaluation criteria consists the grain output, the commodity rate of grain, and the sown area, which takes up 60 per cent, 20 per cent and 20 per cent respectively in the calculation. Specifically, the average grain output should be over 200 million kilograms, whereas the quantity of commodity grain should be no less than 5 million kilograms, according to the national policy from 2006 to 2010 (ibid.). County Pingwan has been listed as ‘*major grain-production county*’ since 2006 (fails only in 2007). For this county, the governmental reward funds and relevant project funds constitute a major part of the county finance.

Expanding the planting area of double-cropping rice is taken as the primary way by County Pingwan in competition for the title of *major grain-production county*, as it could increase the grain output as well as the sown area. As a matter of fact, due to the favorable climate, triple-cropping

system had been adopted in this area historically. The planting mode used to be ‘early season rice - late season rice - rape’. However, as a result of the ever growing costs of agricultural production and the outflow of rural labor since the 1990s, more and more producers change from the ‘early season rice - late season rice - rape’ mode to the ‘rape – middle season rice’ planting structure. The average yield of middle-season rice per mu is around 550 to 600 kilograms, whereas that of double-cropping rice is 850 to 900 kilograms. Given that it requires double inputs but the output increases disproportionately, individual producers are reluctant to grow double-cropping rice. Thus it is no easy to expand the planting area of it.

In order to cope with the regular inspections from the higher-ups, the county has assigned specific area – most of which distributes along the main roads in the county – as demonstration area of double-cropping rice. As required by the county government, the local cadres should, on all accounts, make sure that double-cropping rice be planted in the assigned area since 2008. According to the head of the County Agriculture Bureau, each of these cadres is supposed to take charge of certain area of double-cropping rice cultivation. The area ranges from 50 to 500 mu. The higher the cadres’ administrative rank, the larger the area they should take charge of, and the four main cadres¹ of each town are the ones who should each take charge of 500 mu of double-cropping rice planting. They could persuade the villagers to grow double-cropping rice, or, they could encourage the village cadres to grow. Otherwise, these township cadres have to grow the double-cropping rice by themselves. The double-cropping rice cultivation area is one of the most important criteria of performance evaluation for these cadres. Therefore, both the township cadres and village cadres are under great pressure to do the persuasion. The problems is that the assigned area may

¹ The four main leaders in a town are: Party committee secretary of the town, mayor of the town, chairman of the town people’s congress, and chairman of the Chinese People’s Political Consultative Conference (CPPCC) in the town.

have involved more than 3,000 rural households, which means that local cadres should deal with each of these households in order to persuade them to grow double-cropping rice. Complained by some local cadres, ‘the work of promoting the double-cropping rice production is even more difficult than that of *family planning*!’ As described by the head of the County Agriculture Bureau, there are some ‘capable’ village cadres who have developed different strategies to deal with the unadvisable villagers. For example, some village cadres refuse to approve the use of construction land (for house-building) if the villager does not grow double-cropping rice. Or, the village cadres would not register the residence of newly-born children of those villagers who are reluctant to cultivate the double-cropping rice. According to the head, these are good solutions, which could be characterized as ‘*village regulations and agreements*’ (*cungui minyue*)¹. However, not all the village cadres are this ‘capable’, and there are always some households refuse to grow double-cropping rice no matter what, which makes some local cadres complain a lot about this work. Moreover, there are some unlucky township cadres who are forced to grow double-cropping rice by themselves and become the *big households*. Most of them suffer from terrible benefit loss, unsurprisingly. These unpleasant experiences are what push the local cadres to involve actively in the land circulation, which will be elaborated in the next section.

After a series of failed attempts, the local government eventually comes up with an alternative way to expand the double-cropping rice cultivation area. The county government encourages the agribusiness enterprises – and

¹ The *village regulations and agreements* (*cungui minyue*) is first come up with in the Organic Law of The Villagers Committee of The People’s Republic of China implemented in 1998. The *village regulations and agreements* are constituted by the villagers committee, aiming to ensure the self-government by the villagers in the countryside. It is ironic somehow that these regulations and agreements are used against the villagers here.

also the individual households who are able to operate large-scale farm¹ – to contract land from the assigned area and get engaged in cultivating double-cropping rice. The government provides subsidies – 150 RMB per mu – for those who grow over 50 mu of double-cropping rice. In this way, the local government needs only to deal with a small number of *big households* and the agribusiness enterprises, which surely eases their burden.

In a sense, it is the company that solves the ‘puzzle’ of the local government. As indicated in chapter two, the company makes profits mainly from the agricultural inputs sales and the paddy marketing. The cultivation of double cropping rice means double needs of agricultural-inputs per unit, which is beneficial for the agricultural-inputs enterprise. Thus the company is more than ready to ‘collaborate’ with the local government. As a matter of fact, the cultivation of double-cropping rice is what initially connects company Ace with the local government.

Collaboration between the county government and Company Ace in completion of projects

For County Pingwan, the transfer payment through projects accounts for a very large proportion of its local revenue. According to the estimation of one official from the county government, one half of the total fiscal revenue may come from the projects funds. The funds from the *Major-Grain-Production-County-Related Projects* are the highest. These projects includes: *Green Farming Base Project, Mechanical Rice Transplanting Promotion Project, Greenhouse Rice Seedling Nursery Project, Demonstration of the Application of Formula Fertilization by Soil*

¹ Those who cultivate over 50 mu of land are the large-scale farmers and are termed as *big households* by the county government.

Testing Project, etc¹. What should be noted is that company Ace has involved in each of these projects.

Company Ace's involvement makes it easier to complete these projects. Take the *Green Farming Base Project* as an example. On the one hand, as it requires a large infrastructural investment to establish the green farming base, it is impossible for individual households to undertake the projects. The cost on the solar insecticide lamps, insect sex attractants, parasitoid wasp, and water pump is quite large. Besides, there are other costs. For example, the building of duck-shed and the purchase of duckling – ducks are raised in the paddy fields for insect control. As calculated by a staff from company Ace, the average input for each mu of the green farming base may amount to 1700 to 1800 RMB in the first year. This is too costly for the small-scale farming households, whose average input cost per unit amounts to no more than 600 RMB. Even though the cost on these materials may be reimbursed by the project funds afterwards, the project undertaker should advance the payment. The well-funded agribusiness enterprise is thus the best project undertaker. On the other hand, the grain yield on the green farming base will definitely be lower than that of the regular paddy field, which means benefit loss for the producers. But for company Ace, even if it suffers benefit loss in undertaking the *Green Farming Base Project*, it could be benefited indirectly in its cooperation with the local government, which will be discussed in the next section.

Besides, the completion of these projects also contributes to the performance achievements of the local bureaucrats. The development of agricultural modernization, *agricultural vertical integration*, and area of land circulation has become the major part of the local government *performance evaluation (zhengji kaohe)*. According to one governmental document of County Pingwan, one inspection team of the provincial party

¹ It is a pity that the data of the specific fund of each project is unavailable.

committee of Hunan province noted in their report in 2011 that ‘the *agricultural vertical integration* has not been well-developed in County Pingwan, and the agricultural infrastructure in this county is weak’. The county government is nervous about this comment, and takes various measures to make improvements. Company Ace not only contracts large tracts of land from the countryside – which increases the land circulation area, but also directly promotes the development of *agricultural vertical integration*, which has greatly improved the county government’s work performance.

Nonetheless, the completion of the projects and the good records of the local government’s performance achievements do not necessarily mean the well development of China’s agriculture, or that the majority of rural producers get benefited. Since the local government cares mainly about the *project inspection*, they tend to cooperate with the local enterprises, which are experienced in ‘creating bright spots’ (*dazao liangdian*) in inspection. Normally, the farmland along the main roads of a county is the most prominent area; thereby, a lot of project funds are invested in these areas, making them look commendable. However, things might be quite different if the inspection teams go further. So as long as what presents along the main roads is satisfying, the inspection result would be good. But according to my observation during fieldwork, the paddy field that is further away from the main roads normally looks quite different: more weeds, less green farming facilities, and even some land uncultivated (referring to the field which is in the *green farming demonstration* area). This is why the local people joke these projects as ‘road policy’ (*malu zhengce*). The gap between the central policy and the local implementation has also been demonstrated by other researches. One quantitative research on the policy performance evaluation shows that the central financial support on the agribusiness enterprises does not result in the expected output increase, let alone promoting the local agricultural production (Lin & Zhang, 2004). Among

the theorizations on the relationship between the local government and local enterprises, the conception ‘local state corporatism’ – come up with by Jean Oi (1989) – is quite influential. Oi argues that it is the corporation of the organization system of local cadres – established in the Mao’s era – and the township and village enterprises (TVEs, *xiangzhen qiye*) that explains the rapid economic growth in the 1980s and 1990s. Some Chinese scholars have further developed Oi’s theory. Zhao Shukai uses the conception of ‘local state corporatization’ (*difang zhengfu gongsi hua*) to reveal the internal mechanism of local state in the development of local economy in the new century. According to Zhao, the ‘local state corporatization’ could be characterized by the local governments’ high motivation in *investment attraction* (*zhaoshang yinzi*) and fiscal revenue growth. Underlying this ‘local state corporatization’ is the fragmentation of the government system, characterized by the incoordination among different governmental departments and among different levels of governments. The result is the ‘mobilization way’ of governmental operation, referring that the local government mobilizes all the available resources, i.e. the manpower, financial and material resources, in a very short time by its administrative power, in order to realize some specific goals (Zhao, 2012). In the case of County Pingwan, in order to compete for the title of ‘*major grain-production county*’, the county government seeks to mobilize all the available resources. Company Ace, which is well-funded and has sufficient manpower, is definitely to be mobilized, as shown in the above-mentioned *Green Farming Base Project*. However, just as criticized by Zhao Shukai, the local governmental ‘mobilization’ is normally carried out mainly through its administrative power and through the collaboration with the enterprises, whereas the masses are barely involved.

As the agribusiness contributes not only to the completion of projects but also to the governmental performance evaluation, both the county government and the township government are motivated to collaborate with

the company through providing assistance, such as in land circulation and in the company's application of projects. The next section will focus on how the local government facilitates the capital-flowing-to-countryside through the examination of land circulation.

Land transfer: the local state assisting in capital flowing to the countryside

As demonstrated in chapter two, the control over land allows company Ace to dominate the agricultural production process, which facilitates it to make profits from the upstream and downstream of farming. Although the agricultural cultivation per se brings hardly any direct profits to the enterprise, the planting process is what connects the upstream and downstream of the industrial chain. Therefore, the access to land is quite important for this enterprise, and it values the assistance of the local government in land circulation.

Company Ace started to contract land from the countryside since 2009, and the local government played an important role in it. In China, most of the farmland is collectively owned and the collective has contracted all the land to individual households via long-term leases. In order to equally distribute the farmland, each household has both fertile land and barren land, which makes the landholding of each household scattered. Therefore, it is hardly possible for the enterprises to negotiate with these individual households to contract land in compact areas without the assistance from the local government. The local cadres are proactive in facilitating the land circulation, not only for expanding the double-cropping rice cultivation area, but also for a good record of achievements. The land circulation area has been used by the municipal government of Pingwan as a crucial indicator in

evaluating the county governmental performance since 2009.

The local cadres involve mainly in the land circulation work in the assigned area of double-cropping rice. According to a county government document in 2013, the county government plans to expand the assigned area of double-cropping rice to 60,000 mu, which involves 7 towns in the county. Explained by a manager from company Ace, these cadres are pro-active in assisting in the land circulation because they are aware that once the company contracts the land, they need only to deal with the company Acend could save all the trouble in persuading the individual households into growing double-cropping rice. Therefore, although there are difficulties in persuading the rural households to contract their land to company Ace – as some households refuse either to grow double-cropping rice, or sign the land circulation contract – they ‘suffer’ only one year if the land is eventually contracted by the company; otherwise, they will have to go through all the trouble every year. But after all, it is the company Acend the local government who are benefited from the land circulation. Other researchers have also pointed out that the local cadres and entrepreneurs are always motivated in land circulation, because they are the vest interest groups (Guan & Wang, 2003).

There are three factors that reduce the resistance in land circulation.

First, the *farmland improvement project* (*nongtian gaizao*, including land leveling, irrigation channels rebuilding, tractor road building and etc.) contributes to the land circulation process. What should be noted is that, according to a governmental document of County Pingwan, suggested by the county government, the assigned double-cropping rice production area should be given priority in the implementation of *farmland improvement projects*. As observed in my fieldwork, wherever such project is completed, the households involved are more likely to contract their land to the company. One possible interpretation is that since the *farmland improvement* normally involves the destroying of the original land

boundaries, the improvement usually comes with land redistribution. Village cadres tend to concentrate the land of those who agree to contract land to company Ace, whereas set aside the land of the villagers who will cultivate the land by themselves. This makes it much easier for the company to contract land in a compact area. Also, since the soil would become less fertile in the first couple of years after the land leveling – because the deep soil may be turned over to the earth’s surface, some producers are inclined to circulate their land out for a few years, which also facilitates the land circulation. Therefore, the farmland improvement reduces the resistance in land circulation.

Secondly, the mainstream discourse on ‘agriculture modernization’ is used in promoting the land circulation. ‘Chairman Mao said, “Agricultural mechanization is the fundamental way out for agriculture.” How could the mechanization be possible without land circulation and concentration?’ These are the words frequently used by the village cadres in persuading the rural households into signing the farmland circulation contract. The quotation of Mao Zedong was put forward in 1959 (Mao, 1999) in the context of agricultural collectivization. Agricultural mechanization was not only possible but also efficiency-promoting in collective farming, which would eventually benefit all the producers. However, the discourse on ‘agriculture modernization’ and ‘agriculture mechanization’ has been constructed as *political correctness*, although in a quite different context. As interpreted in chapter two, in the commodity economy, agricultural mechanization only result in the formation of *big households*, who could appropriate the agriculture surplus of the small-scale households through doing agricultural machinery work for them. Moreover, land concentration, or scale operation – regarded as the path for agriculture modernization – in the current context is also dominated by capital. Individual producers who contribute their land to the development of *agriculture modernization* barely benefit from it. Nonetheless, the mainstream discourse has

de-contextualized the pursuit for ‘agricultural modernization’. In the matter of developing agricultural modernization, rural households seem not to be in a position to say ‘no’. The powerful discourse forces the rural households to be subordinated. Those who refuse to contract their land to company Ace are under great pressure.

Thirdly, the rural social differentiation also reduces the resistance in land circulation. Researches on rural social differentiation have indicated that rural households’ attitudes towards land circulation are varied. These researches come to the similar conclusion that: there are around 10 per cent of rural households who are ready to rent out their land, as they have been engaged in business in cities for years; another 10 per cent of households who derive their family income exclusively from labor wage are also willing to rent out their land in the short term; around 25 per cent of individual households which could be characterized as ‘half-worker half-cultivator’ (*ban gong ban geng*) structure, show an ambivalent attitude towards land circulation; approximately 50 per cent of households who derive more than half of their family income from agricultural production are reluctant to rent out their land; whereas the rest of the households who are the poorest in the village rely heavily on the agricultural income are against land circulation (Chen, 2009; Yang, 2011). The findings from my fieldwork in County Pingwan are similar. The 1/5 of rural households who rely little on agricultural income prefer to contract their land to agribusinesses or *big households* who pay the land circulation fee, as otherwise they have to ask their friends or relatives to take over the land for free. Another 1/4 of rural households who hold an ambivalent attitude towards land circulation may be persuaded into signing the contracts, since the agricultural income is not indispensable for them. As a matter of fact, they are usually the focus of the local cadres in the land circulation work. As for the 50 per cent of rural households who are reluctant to rent out their land, a majority of them cultivate not only their own land, but also the land from their friends or

relatives who have migrated to cities for free. Therefore, when the agribusiness enterprises or *big households* who offer to contract the land of the migrant workers through paying the land circulation fee – sometimes in a considerable amount, a number of migrant worker households prefers to contract their land to them. Thus those who used to cultivate a middle-scale farm – usually scales from 10 to 50 mu of land in County Pingwan – are now left with only their own land, which is normally no more than 10 mu. Since the benefits from the small-scale of land are quite limited, these households would prefer to migrate to cities in this case, and contract their own land to the enterprises or *big households* too. In short, the rural social differentiation has been utilized to facilitate the land circulation. Moreover, the low income from agricultural production is also an important reason that rural households ‘give up’ their land, and the commodification of means of production, as interpreted in chapter two, should be responsible for that.

The land circulation could be taken as a game among different subjects. The implementation of Household Responsibility System (HRS) has established a multi-tier land system, under which there are different subjects related to farmland, i.e. landowner (the collective), representative of the landowner (village cadres), and the land user (the producers). Thus, the national policy, decisions of village cadres, collective will and negotiation between the parties, as pointed out by Zhang Jing, are the four forces that have impact on the making of land-use rules. As a matter of fact, the implementation of the rules is the outcome of struggle and competition between the above forces. Demonstrated with land-disputes, she notes that the settlement of the disputes is not the result of court trial, but a political settlement, which means that the side with more powerful people prevails (Zhang, 2003). It could be applied to land circulation as well. When the local government and village cadres get involved in the land circulation process, their dominant power could definitely influence the outcome. Phillip Huang (2012: 97) points out that capital or the local government may

easily manipulate the small producers as the latter ones lack bargaining chips.

What should be noted is that besides collaborating with the local government in contracting land from the assigned area, company Ace also contracts land in other regions by itself. According to a manager of company Ace, they expect to expand their land scale as much as possible. Therefore, centered on each of the villages where they have contracted farmland from, they attempt to contract more from the nearby villages. In the winter of 2012, the company organized a team of around 20 staffs to concentrate on the land circulation work in Xianfu town. These staffs visit the rural households one by one, talking them into signing the land circulation contract. The company contracted over 2,000 mu of land after the one-month work. The expansion of land beyond the assigned area means that the company is not completely dependent on the local government, but has internal dynamics in capital accumulation.

To sum it up, in order to collaborate with the agribusiness enterprises and *big households* in expanding the double-cropping rice production area as well as in completion of agricultural projects, the local cadres are actively involved in the land circulation work. The local cadres and the enterprise are not only more powerful but also more resourceful in the game of land-use. Through the arrangement of the *farmland improvement projects*, the county and township government creates favorable conditions for the company to contract land from the villages where the farmland improvement projects are completed. In the micro-level, the village cadres take advantage of both the mainstream discourse on ‘agricultural modernization’ and the rural social differentiation in promoting the land circulation.

The next section will focus on how this agribusiness enterprise integrates the governmental support in its capital accumulation.

Accumulation from *projects*: agro-capital making profits from governmental support

Under the *project system*, the county government is the end of the transfer payment from the central state. Other than the ‘major grain-production county - related’ projects, the county government also apply for other projects, for instance, the *Agricultural Science and Technology Park (ASTP) Project*. The title of ‘major grain-production county’ contributes a lot to the successful application of all these projects. The agribusiness company, which plays an important role in the government’s competition of the title, makes profits from participating in these projects, directly and indirectly.

‘Political task’ and political capital

The project funds are special sources of benefits for the agribusiness enterprises, and the way to obtain these profits is divergent from that of the economic dynamics. It is the ‘political capital’ that is the pre-requisite to gain these profits. The conception of ‘political capital’ is often used in political arena as an indicator of the influence of politicians. But the ‘political capital’ in this research is predicated on the Pierre Bourdieu’s (1984) inter-convertibility theory, which shows that different types of capital, such as the economic capital, social capital, and symbolic capital, could interact and transform from one to another. In this research, ‘political capital’ refers to how the agribusinesses are able to get political resources from the government. The political resources, such as the exclusive or prioritized access to some governmental subsidies and profitable projects, would then be transferred to economic benefits.

The best way for the agribusiness enterprises to accumulate political capital is through taking ‘political tasks’. Besides, the company leaders’

close relationship with the local government also contributes to the accumulation of political capital.

As mentioned above, the county government collaborates with company Ace in a number of projects, some of which are taken by the company Aces ‘political tasks’. The completion of ‘political tasks’ requires a great deal of manpower and material inputs to undertake some of these projects, but the economic benefits may be very limited in most cases, sometimes the company even suffers benefit loss. Managers from the company note that they do not expect to make any profits from these projects, but they are aware that the completion of the tasks would contribute to the accumulation of ‘political capital’, which would allow them to get supports from the local government. The company’s involvement in the *Centralization of Rice Seedling Nursing Project*, which is part of the *Major-Grain-Production-County-Related Projects*, is an example.

To complete this project, the company has to invest large amount of manpower and material resources, which is far more than the output. But the county government values this project. As mentioned above, the cultivation of double-cropping rice is fundamental for the local government to compete for the *Major Grain Production County*. The nursing of early-season rice seedling is crucial for growing double-cropping rice. Normally, the seedlings should be raised in March when the temperature is still low, and thus agricultural plastic film is needed for raising the seedlings. Besides, the seedling nursing process is quite complicated, which discourages producers from growing early-season rice. If the company could take care of the early-season rice seedling nursing, there might be more *big households* getting engaged in double-cropping rice cultivation.

One key character of ‘political task’ is that the work has to be ‘successful’ no matter what – ‘successful’ means that the results of these projects be approved by the upper governments. The implementation of the *Centralization of Rice Seedling Nursing Project* shows the internal logic of

the ‘political task’. In 2013, there was a serious problem with the seedling nursing, which made the head of the county government outraged, and the company Ace also suffered from great loss. Due to the lack of experience, there was serious problem with the nutrition soil in the seedling nursing greenhouse. As a result, a large part of the seedlings died before transplanting. What is worse, as the soil was too loose, the rest of the seedlings could not be transplanted with the rice transplanters. The mechanical rice seedling transplanting is supposed to be part of the project. In order to complete the project, the company made the best use of the rest seedlings, and also tried every means to buy the rice seedlings from individual producers. Moreover, the company hired farmhands to do the rice transplanting manually. The cost of rice transplanting was over 180 RMB per mu on average, which was far more than the supposed cost of 80 RMB per mu through mechanical transplanting. The company made up the price difference and lost a large sum of money on this project, but the project was completed – in the sense that it went through the inspection of the higher-ups – even though the process is tough.

Although the leaders of the county government are furious with the enterprise sometimes, they rely heavily on it. As implied by some bureaucrats in the local government, the government is somehow ‘kidnapped’ by these enterprises. The projects that the agribusiness enterprise involves in, such as double-cropping rice cultivation, large-scale land circulation, agricultural mechanization, centralized rice seedling nursing and etc, are the main focus in the evaluation of the local government performance.

Furthermore, the chairman of the board of company Ace, who was one of the delegates of the People’s Congress of Hunan province¹, also contribute to the formation of ‘political capital’ to the company. The political identity

¹ He is no longer the delegate since 2013, due to some political reasons.

of this chairman allows him to have more access to the latest information of the governmental policies. Hence, the company has more advantages in the competition of project applications. This shows the deep association between the company Ace and the local state. The political capital could be transformed into economic capital through the projects.

Profit making from projects

Although some of the projects are ‘political tasks’ for the company, there are also some projects from which the company could derive profits. Company Ace attaches great importance on the application of these projects. According to the general manager of company Ace, the *Project Department* of the company study very carefully the governmental documents, particularly the *Document No. 1 of the Central Government (zhongyang yihao wenjian)*, and make project applications according to the policy orientation. The *Document No. 1 of the Central Government* of each year in the past decade has concentrated on rural issues, and these documents indicate the policy orientation of the central government. Since the Chinese government has issued a series of supportive policies in order to promote the development of rural cooperatives, particularly after the implementation of *Law of the People's Republic of China on Farmers' Professional Cooperatives*¹ in 2007, company Ace promoted the establishment of three rural cooperatives: Cooperative of High Quality Rice Plantation, Cooperative of Agricultural Machinery Working, and Cooperative of Pest Control & Prevention, in order to obtain the governmental support. The company makes some of the project applications in the name of the cooperatives. For example, the *Green Farming Base Project* is applied in the name of the Cooperative of Pest Control & Prevention. However, these

¹ The English version of this law is available at: <http://www.lawinfochina.com/display.aspx?lib=law&id=5614&CGid=>

enterprise-dominated cooperatives involved very few individual households in. Although these cooperatives are criticized as ‘fake cooperatives’ (e.g. Zhang and Zhang, 2007; Zhang, 2011)¹, the company takes advantage of the governmental policies and makes profits.

As pointed out by one of the officers from the County Agricultural Bureau, company Ace was the only one in the county who has mastered the essence of the *Document No. 1 of the Central Government* in 2012. It refers to the company’s successful application of projects. The company is quite good at making project proposals that cater to the central government. Because of the policy orientation on the development of *green agriculture* and *agricultural technology extension*, the company makes a series of project proposals centered on these items, such as the *Rice Seedling Nursing Factory Project*, the *Mechanized Grain-drying Project*, the *Formula Fertilization by Soil Testing Project* and etc., which have all been approved. There are three different ways that the company makes profits through the projects.

Firstly, the completion of some projects requires the local government to work with the company; in taking these projects, the company takes advantage of the government’s administrative power to make the best gains. The *Formula Fertilization by Soil Testing Project* is one example. As an agricultural inputs production enterprise, company Ace is specialized on the fertilizer manufacturing. The *Formula Fertilization by Soil Testing Project* requires the enterprise to produce the fertilizers according to the soil-testing-based formula provided by the government. Both the local government and the enterprise have their roles to play in completing the project. The company should supply sufficient fertilizers with good quality, whereas the county government has to promote the use of the formulated fertilizers, which is measured by how many fertilizers are sold. Thus the

¹ For more about the cooperative development in China, please refer to Yan, H. & Y. Chen (2013).

county government is motivated to facilitate the marketing of these fertilizers. The government of County Pingwan has distributed a substantial number of cash coupons to the villagers, encouraging them to buy the formulated fertilizers. The value of each coupon is 20 RMB, and one coupon could be used in buying one bag of fertilizers. The cash coupon is designed to promote the sales of the fertilizers through subsidizing the buyers and should have benefited the agricultural producers. However, it turns out that it is the company who makes the most gains. As explained by an agricultural extension agent, the fertilizers which should have been priced at 120 RMB are priced at 140 RMB each bag. As a result, the cash coupons for the buyers now become the subsidies for the company. The company thus not only makes general profits, but also obtains the governmental subsidies. Moreover, the County Agriculture Bureau facilitates the marketing of the formulated fertilizers through using its administrative power. It requires all the agricultural inputs retail stores that are run by the agricultural extension stations to put the sales of the formulated fertilizers in the first priority. Since there is at least one such store in each town – and these stores are usually the most competitive ones because they not only sell agricultural inputs, but also provide technical guidance to the buyers, as mentioned in chapter two – the administrative order from the county government contributes a lot in the marketing of these fertilizers. In undertaking the *Formula Fertilization by Soil Testing Project*, the company has not only monopolized the manufacturing of the formulated fertilizers, but also been supported by the county government in the fertilizers marketing. This project contributes to the capital accumulation of this company.

As a matter of fact, the *Formula Fertilization by Soil Testing Project* of County Pingwan is not the first such project that company Ace undertakes. According to the manager of the Fertilizers Manufacturing Factory, which is affiliated to company Ace, the company has been engaged in manufacturing

formulated fertilizers since 2006. This manager notes that the chairman of the board of company Ace is quite sensitive about the governmental policy orientation, and the company has started to make preparations for the application of such projects even before 2005. The company won the first bidding of the *Formula Fertilization by Soil Testing Project* in 2006, which is hosted by the Agriculture Bureau of County Yanwan of Hunan province. Since then, the company has won the bidding of similar projects hosted by different counties each year. The operation of these projects in different counties varies a little bit. In some counties, like County Yanwan, the sales of the formulated fertilizers are taken charge of by the company, which means that company Ace sells the fertilizers through its own sales network, whereas the county government provides only assistance. But since both the local government and the company have their roles to play in completing these projects, the company exploits the local governments' contribution in its capital accumulation.

Secondly, through integrating the existed project achievement into new projects, the company could make profits from the new projects. *The National Agricultural Science and Technology Park (NASTP) Project* serves as an example. It is the municipal government of Pingwan that makes the project proposal, and the Municipal Agricultural Science and Technology Park and company Ace undertake the project cooperatively. The period of this project is from 2013 to 2020, and the total investment funds will amount to 960 million RMB. The project includes four main targets: the construction of a grain and oil crops production base, a vegetable planting park, a oil-tea camellia planting park and a park for agricultural products processing and logistics. Take the construction of the grain and oil crops production base as an instance. According to the project implementation plan made by company Ace, the grain and oil crops production base will be constructed in the assigned areas of double-cropping rice. As a matter of fact, a lot of the to-be-implemented project plans have already been fulfilled in

these areas, such as land circulation, farmland improvement, the establishment of green farming base, the building of rice seedling nursing factory and etc. This means that the company could easily complete the project without additional input, and thus the project funds could be its net profits.

The company makes project proposals each year, and the case such as the *National Agricultural Science and Technology Park (NASTP) Project* may not be the exception. The increasing funds input may lead to the ‘involution’ of the project funds, which could be characterized as ‘nested projects’ (*xiangmu qiantao*), ‘overlapping projects’ (*xiangmu chongdie*), and etc., as demonstrated by researches on *project system* in China (Qu, 2012). The local governments and the enterprises reap the benefits from the system, whereas the large numbers of ordinary small producers are excluded. As noted by researchers, the efficiency of both the distribution of project funds and the implementation of projects have to be reflected (Zhou, 2012; She & Chen, 2011).

Thirdly, some fixed assets, such as the grain-drying center and the rice seedling nursing factory, which were built with the project funds, are possessed by the company Acefter the completion of those projects. The company could derive profits from these assets in the long term. Take the grain-drying center as an example. The building of the center is part of the *Mechanized Grain Drying Project*, and the total investment amounts to 10 million RMB. The county government grants 2.7 million RMB as local supporting funds for the project, indicated by an official from the county government. Besides, company Ace obtains project funds as well as agricultural machinery subsidies allocated by the central government, the amount of which is higher than that of the county government¹. The input of

¹ The specific amount of the central government allocation is unclear. But it seems that the central government allocation accounts for a major part of total investment of 10 million RMB, since the company itself input no more than 10 percent of the total

the company is no more than 1 million RMB, which is 10 percent of the total investment, as disclosed by one manager from the company. Currently, this drying center serves primarily the *contracted tenant households* of the company, and the charge of paddy drying is 5 RMB for drying 50 kilograms of paddy. The person in charge of this center plans to expand the business scope, and the charge of grain drying will be higher for those who are not their contracted households. Since it is the only grain-drying center in this county, and there are an increasing number of *big households* who may need the drying service, the company may probably derive more benefits from the center. The company's use of the rice seedling nursing factory follows the same logic. In 2012, the company built the first rice seedling nursing factory in County Pingwan with the project funds. The building of this factory cost 2.58 million RMB, in which the county government grants 2 million as local supporting funds. Company Ace may derive profits from marketing the rice seedlings to the *big households* if the factory could be well-operated. Moreover, according to the head of the factory, they plan to use the factory as a greenhouse for vegetable/fruit growing in the second half of year when it is idle. This could be profitable too.

Conclusion

To sum it up, this chapter concentrates mainly on the role of state in capital-flowing-to-countryside through the examination of the *project system*. As an increasing part of the central government's fiscal payments is transfer through the *project funds*, and the local state attaches great importance on the application and completion of projects, it is helpful to

investment (which is 1 million), whereas the local government provides 2.7 million RMB.

explore the relationship between the state and the agribusiness through the projects.

From the local state perspective, the tax-sharing reform in the mid-1990s has made the local state rely more and more on the fiscal transfer payment from the central finance. For an agricultural county, the title of '*major grain-production county*' is quite important, as the listed counties may obtain large amounts of reward funds, and may be more easily in successfully applying the agricultural projects. The agricultural counties are thus making every effort to compete for this title. County Pingwan takes the expansion of double-cropping rice area as a fundamental way in the competition for the title. But since it is uneconomic to grow double-cropping rice for producers, it is extremely difficult to encourage the individual households to do so. After a lot of failed trials, the local government alters to collaborate with the agribusiness enterprise and *big households*, and subsidize those who cultivate over 50 mu of double-cropping rice. Company Ace helps not only in the expanding of double-cropping rice cultivation, but also in the completion of agricultural projects. In the recent years, the award funds for the '*major grain-production counties*' have been increasingly transferred through project funds, which means that the counties have to complete certain projects in order to obtain these funds. The agribusiness company with both the manpower and material resources contributes a lot to the completion of these projects. In this sense, the *project system* has become an institutional force that prompts the local state to collaborate with the agribusiness enterprises. What should be noted is that the agricultural counties in China are all in competition for the title of '*major grain-production county*', and the situation in County Pingwan may not be the exception.

Moreover, in order to collaborate with the company, the local government involves actively in land transfer, which facilitates the enterprise to contract land from the countryside. As the farmland is collectively owned and has

been scattered distributed to individual households, it would be difficult for the agribusiness enterprises to contract land from the large numbers of households without the assistance of the local government. There are three factors that contribute to the land circulation. First, the *farmland improvement project* reduces the resistance in the land circulation process, as the *farmland improvement* may destroy the original land boundaries and usually comes with land redistribution. The redistribution of farmland makes the land circulation easier, as the village cadres could concentrate the land of those who are willing to contract their land to the company, and set aside the rest for those households who choose to cultivate the land by themselves. Besides, the mainstream discourse on agricultural modernization, which has been constructed as ‘*political correctness*’, is also used in promoting the land circulation. Moreover, the rural social differentiation, which means that nearly half of the rural households are ready to, or could be persuaded to contract their land to the agribusinesses, also reduces the resistance in land circulation.

Most importantly, the agribusiness integrates the governmental support in its capital accumulation. The company involves in most of the county’s agricultural projects, some of which are taken as ‘political tasks’. Company Ace accumulates political capital from doing the ‘political tasks’, which pays back when it needs the assistance from the local government. There are also some projects that are profitable for the enterprise. The company could make profits from these projects in three ways. First, in doing some projects, the company takes advantage of the governmental administrative power in its profit-making. Second, through integrating the existed projects in new ones, the company could complete the new projects costlessly, which means a great part of funds of the new projects could be its net profits. Thirdly, the company may derive profits from the exploitation of the fixed assets, which were built with project funds in future.

Seemingly, the co-operation between the local government and company

Ace reveals a 'win-win' situation. On the one hand, the company's involvement in double-cropping rice production and in the agricultural projects help the local government to obtain transfer payments from the central government, which has funded the local finance. On the other hand, with the support from the local government, company Ace contracts large tract of land from the countryside, which facilitates its capital accumulation from agriculture. Also, the involvement of company Ace in completing the agricultural projects also brings benefits to it. In this sense, both the agribusiness and the local government take what they need in this cooperation. However, the problem is, since the local government and the company have reaped all the benefits from the system, the large number of ordinary small producers are excluded. The result is the inefficiency of both the distribution of project funds and the implementation of projects. Moreover, with the agro-capital getting stronger, it would be more difficult for the local government to control or take advantage of it, particularly when the county government relies heavily on these enterprises in project implementation.

There is one more point that should be highlighted. Admittedly, the governmental supporting funds, mainly transferred through agricultural projects, constitute a special source of profits for the agribusiness enterprise – it is not easy to indicate the exact proportion of governmental subsidies in the production value of the agribusiness; but they should not be overemphasized. There is a tendency in the Chinese academia that stress it is the government that promotes the agro-capital to engage in agriculture production (He, 2013: 62-69; Huang, 2010b), whereas the capital dynamics of the agribusinesses are overlooked. As a matter of fact, the agricultural subsidies also play an important part in the farm income in the western countries. As revealed by Maria de los Angeles Crummett (2002), in the European Union, more than 40 percent of the value of farm production come from the governmental subsidies and other programs, whereas in the

United States and Canada, the number is 34 percent and 11 percent respectively. But the power of agro-capital in these countries is essential. In China, as demonstrated in the chapter two, the agribusiness enterprises have internal motivation in pursuit for capital accumulation and expanded reproduction. The governmental subsidies are special source of profits for the agribusinesses, but not indispensable.

Chapter Four: Capital accumulation and sub-contracting farming

The previous chapters have indicated that the ‘dragon-head’ agribusiness makes profits mainly from the upstream and downstream of agriculture through subsuming the *contracted tenant households* in its industrial chain. Although the company does not derive profits directly from the agricultural cultivation, it is still a key link in the whole industrial chain. This chapter will focus on how the *contracted tenant households* contribute to the accumulation of the agro-capital, which would indicate how capital flows to countryside.

According to an official data, until 2012, there are 280, 000 agribusiness enterprises engaged in the *agricultural vertical integration*, involving 110 million individual households (Guowuyuan xinwen bangongshi [The State Council Information Office], 2012), which account for 40% of all rural individual households¹. The mainstream academic writings champion this new mode of agricultural production from various perspectives: e.g., reduction of the rural-urban income gap (Li, 2012); enhancement of competitiveness of individual households who are integrated in the agribusinesses (Yin, 2012); better organization of farmers (Du, 2005); small-scale farm households access to big market (Zheng & Cheng, 2005); transfer of surplus for rural labour and creation of job opportunities (Jiang & Zhu, 2005), etc. In a word, these arguments come to the same end: this new way of agricultural operation brings a win-win situation between company Ace and farmers (i.e. Wan, 2008; Niu, 2002). Claiming that *agricultural vertical integration* of production is the fundamental way to realize agricultural modernization in China, they propose to further promoting it (Yan, 1997). These scholars, as well as policy makers, take it for granted that the new mode is beneficial for agricultural households, without carefully examining the mechanism of capital accumulation in these

¹ According to the National Bureau of Statistics of China, there are around 0.27 billion rural households in 2012.

agribusinesses. The so-called ‘win-win situation’ will be re-examined through the study of the interaction between these households and the agribusinesses.

Mentioned in the previous chapters, the company has contracted large tracts of land from the villagers, and the contracted area is increasing. During the 5 years, the company has made two major changes on its land operation strategies, and finally comes to the current one which they call ‘company + contracted tenant households’. The capitalist farm worked by wage labor used to be the first choice of company Ace, but this strategy has been abandoned quickly. Instead, the company subcontracts its land to a number of *contracted tenant households*. The *contracted tenant households* should pay the land rent, buy the agricultural inputs ‘package’ from the company, and sell the paddy to the company. Seemingly, the producers are not divorced from the means of production – but are ‘re-united’ with them through buying them – in the agrarian transformation, and the shape of ‘household farming’ has been preserved. The undeveloped horizontal concentration of production results in the low percentage of hired workers in agriculture, and it seems that capitalist relations have not expanded in the countryside yet even when capital has flowed in. However, the question is how we should understand the role of these *contracted tenant households*, and why the integration of the *contracted tenant households* in its industrial chain is a more effective strategy for the company. The characteristics of capitalist relations in agriculture should be reflected through the exploration.

Among the interpretations on China’s agrarian structure, an influential argument is that household farming still dominates China’s agriculture. Phillip Huang and his co-authors’ research, which demonstrates that China’s agricultural development should be characterized as ‘capitalization without proletarianization’ (Huang, Gao & Peng, 2012), is most well-known. They have pointed out that the hired agricultural year-workers in China accounts for only 3 per cent of all labor input in agriculture, which is in sharp contrast

to that of 45 per cent in India. For these scholars, it implies that capitalist relations have not spread in China's agriculture. Moreover, there are also researchers arguing that the agribusiness companies derive profits mainly from the circulation field instead of the cultivation field (Wu 2012; Huang 2012; Zhang 2013). They note that those agribusiness enterprises which are engage in agricultural production rely primarily on contract farming instead of large-scale capitalist farming in land operation, which means the 'household farming' still dominates. Therefore, they tend to highlight the 'commercial nature' of the capital, and argue that the agribusinesses make profits mainly through lowering the price they pay for purchasing the agricultural products and pushing up the sales price when they sell them. For these scholars, the agribusiness represents the commercial capital rather than industrial capital, and the involved households are in some sense autonomous – instead of being subsumed under capital. However, to what extent could these households be taken as autonomous is a question that should be examined.

In order to understand the role of household farming in the expansion of *agricultural vertical integration*, this chapter will start with the clarification of the different land operation strategies of this company. Following that, the current *contracted tenant households* will be examined, in order to interpret how they contribute to the capital accumulation of this company. Finally, I will further explore the reasons why the shape of 'household farming' is preserved in the village context, and explain how the rural social resources have been exploited in company Ace's capital accumulation.

Transformation of land operation strategies

(I) Horizontal concentration strategy

In 2009, company Ace followed the path of typical capitalist farming, which means that they manage large-scale farmland by using exclusively hired workers and overseers. Through concentrating large tracts of land through land circulation (in 2009, the area was 1,200 mu), purchasing the agricultural machinery¹ and manufacturing the agricultural inputs by itself, the company takes possession of all means of production, and depends completely on hired farmhands in rice planting. It could be termed as the ‘horizontal concentration strategy’. Company Ace established a ‘Cultivation Department’, which was run by two managers and three ‘cultivators’, to take charge of rice cultivation. The two managers made the production plan and dispatched production materials, whereas the three ‘cultivators’, who were actually the overseers, dealt with five agricultural machinery operators and a dozen of direct farm workers. The machinery operators were paid a basic salary of 1200 yuan per month and a commission-based payment based on their working area. The direct workers who did weeding, irrigation water management, pesticide spraying, fertilizer spreading, and grain carrying got paid of 15 yuan for every 50 kilograms of grain² they produce.

Quite a lot of problems have been exposed in the first year. First of all, due to the unfavorable topographic conditions – the mountainous terrain in the southern area of China – the advantages of mechanized farming could not be brought into full play. Consequently, a lot of agricultural workers are needed, resulting in high labor cost. For instance, the two managers and three cultivators got monthly payment of around 1,500 RMB to 2,000 RMB respectively, the cost of which has proved to be too high. Besides, the direct

¹ In 2009, company Ace expended 1,900,000 yuan on 9 large-sized ploughing machines, 9 rice transplanters, 6 harvesters, some water pumps and spraying machines.

² In 2009, the average grain price was 95 yuan per 50 kilograms.

workers got paid of 150 RMB on average for each mu of land they cultivate. The total labor cost was too high for the company to obtain any profits from cultivation. Secondly, there are serious problems in labor supervision. As noted by one of the managers from the previous Cultivation Department, the direct workers developed various ways to withhold pesticides and fertilizers which should have been input in the contracted land of company Ace. It also happened frequently that the workers who were hired to spray pesticides did the work carelessly, leaving some area of the paddy field uncovered. This definitely resulted in low yield. What is worse, both the direct workers and nearby villagers 'stole' the grain when harvesting. In the harvesting season, there were a number of machine harvesters working in scattered paddy field¹ at the same time, which made it impossible to watch closely on each plot of land. The company thus suffered a great loss during the grain harvesting. According to one of their managers, in 2009, the year-end settlement of accounts showed that company Ace lost over 0.2 million RMB in rice cultivation.

This strategy was quickly abandoned. Company Ace has made significant changes in land operation since 2010, and was no longer involved in rice cultivation. The company then took control of the cultivation process through dominating the upstream and downstream of farming, and vertically integrated household production in its industrial chain. This has indicated the end of the horizontal concentration strategy.

¹ In 2009, the contracted land distributes along a main road of the county. Although the land is relatively compact, there are a lot of pieces of land. Moreover, in order to avoid the rainy season, the rice harvesting time is limited, which means that they need to have as the harvesters to work at the same time.

(II) ‘Contracted tenant households’ (daiguanhu) + ‘sub-tenant households’ (gengzuohu): a vertical integration strategy

Since 2010, company Ace has sold out the agricultural machines, divided all its land into pieces – sized from 200 to 1,000 mu, and subcontracted them to the ‘contracted tenant households’. These *contracted tenant households* were obliged to pay the land circulation fee of 200 yuan/mu, and buy the ‘agricultural input package’ (including seeds, fertilizers, pesticides and agricultural machinery services¹) from the company. After harvesting, they should sell the grain to company Ace. It is tempting to be a *contracted tenant household* in two senses. First, financial pressure of these households was reduced since the cost of land circulation fee, agricultural inputs, as well as payment for agricultural machinery operators could be advanced by company Ace. *Contracted tenant households* were allowed to settle accounts when selling paddy to the company. Second, with financial support from the local government, company Ace has built the only grain drying center in County Pingwan, which is of great importance for the large-scale rice producers. Since it is highly risky to dry large quantities of grain in the sun, as the weather is quite unpredictable in the harvesting season, these *contracted tenant households* were inclined to deliver their grain to the grain-drying center of the company right after harvesting. Through controlling the upstream and downstream of rice cultivation, company Ace managed to withdraw from rice cultivation and vertically integrated *contracted tenant households*.

Most of the *contracted tenant households* under this strategy were not engaged in agricultural production before. They were engaged mostly in the

¹ Whether to choose the machinery service is relatively flexible, in the sense that the *contracted tenant households* could do machine ploughing, rice seedling transplanting or harvesting by themselves if they have machines.

non-agricultural industries, such as the construction industry or the self-employment business. In Bernstein's term, it might be called *agriculture beyond the farm*, referring to the investment in land and farming by those who engage in non-agricultural business (Bernstein 2010: 110). In the case of company Ace, these people who do not tilling the paddy fields themselves but employ farm hands, are referred to as 'doing farming in leather shoes' (*chuanzhe pixie zhongdi de ren*). They were advertised as 'new farmers', which creates the illusion that farming is easy and profitable. However, as a matter of fact, the *contracted tenant households* then were away from the farming activities. It is the '*sub-tenant households*', who are essentially the wage labor that work the land with the means of production purchased by the *contracted tenant households*. Normally, the *sub-tenant households* are those who could not migrate to work in cities either because they are too old in urban labor market (usually over 50 years old) or because they have to stay in their villages to take care of their children or elderly parents.

Lu Huaman, who is a labor contractor in construction industry and also runs a small transportation business, has contracted with company Ace as a *contracted tenant household* since 2010, and hires 22 sub-tenant households on his 800 mu of land which distributes in 4 villages. Lu lives in a town around 30 miles away from these villages. Although having contracted large tract of land from company Ace, Lu spends most of his time on the construction sites and depends exclusively on the sub-tenant households in farming. Each of these *sub-tenant households* cultivate 40-70 mu of land, and get 15 yuan for every 50 kilograms of grain¹ they produce. These *sub-tenant households* follow the instructions of Lu on when to spray pesticide, spread fertilizers, do the weeding and etc. They are quite similar to the direct workers hired by company Ace in 2009, in terms of their access

¹ In 2009, the average grain price was 95 yuan per 50 kilograms.

to the means of production. The only difference is that *sub-tenant households* are under closer supervision of the *contracted tenant households* who are responsible for their own profits and losses.

The average cost per unit, in Lu's case, is 1100 RMB, which consists of the input package fee of 598 RMB, the land circulation fee of 200 RMB, payment for sub-tenant households (suppose the yield per unit is 500 kilograms) of 150 RMB and extra expenditure (including the irrigation fee¹, electronic charge for pumping irrigation and etc.) of 150 RMB. Given that the price of paddy was 120 RMB for every 50 kilogram in 2011, the yield per unit should reach 450 kilograms per unit in order to balance the expenditure.

Since Lu himself is busy engaged in other businesses, he hires overseers to supervise the *sub-tenant households*. The overseers are expected to make sure that the *sub-tenant households* input the pesticides and fertilizers in full-dose in his contracted land. He chooses the overseers from the *sub-tenant households*. Lu believes that the village cadres are adequate for the supervising work, and thus he pays, in private, those village cadres who also serve as *sub-tenant households* for the supervision work.

It has turned out that this strategy does not work well either. There are two major problems. On the one hand, these *contracted tenant households*, who are engaged mainly in the non-agricultural activities, rely exclusively on the *sub-tenant households* in farming. It means that in the structure of 'company – *contracted tenant households* – *sub-tenant households*', both the company and the *contracted tenant households* appropriate the surplus value produced by the *sub-tenant households*. However, the limited surplus in rice cultivation could not support them both. Moreover, the *contracted tenant households* should take all the risks in farming, and the larger their land area is, the more risk they have to take. Since few of these

¹ The irrigation fee amounts to 30 RMB per mu on average in County Pingwan. It goes to the local government as the maintaining fee for the irrigation system maintenance.

contracted tenant households could obtain the profits they expect, their turn-over rate is quite high. The second problem involves the role of the ‘overseers’ and labor supervision. Although the *contracted tenant households* like Lu may give extra pay to the ‘overseers’ to supervise the *sub-contracted households*, the result turns out to be unsatisfying. The payment for labor supervision is quite low due to the limited profits, and it fails to motivate these village cadres to serve as overseers. Village cadres, normally, would avoid the conflict with villagers for the sake of an ‘outsider’.

The high turn over rate of the *contracted tenant households* poses problems to company Ace, since it is no easy to find someone to take over the left-over land immediately. Thus, this strategy was abandoned too after one-year operation.

(III) *Contracted tenant households as sub-tenant households:* modified vertical integration strategy

Since the second half of 2010, company Ace has altered its strategy again and subcontracted land at a shrunk size of 100-200 mu¹ to *contracted tenant households* who could operate the land without relying on the *sub-tenant households*. In most cases, these contracted households use wage labor only in busy season. Been distinguished from the previous *contracted tenant households* who are engaged mainly in non-agricultural occupations, most of the new *contracted tenant households* are experienced agricultural producers who have long been engaged in farming. Whereas those who rely on *sub-tenant households* are referred to as ‘doing farming in leather shoes’,

¹ In accordance with the geographical and technical conditions in County Pingwan, the optimal land size for an individual household is 100 to 200 mu.

these new *contracted tenant households* are characterized as ‘doing farming in straw sandals’ (*chuanzhe caoxie zhongtian de ren*), as they are expected to work the farm or at least supervise the wage labor by themselves.

The *contracted tenant households* have to pay the land rent, purchase the agricultural inputs from company Ace, and sell the paddy to the company at the market price after harvesting. Although the company has strong control over the production process, these *tenant households* are flexible in arranging the farming activities. Unlike those who are paid piece-rate wage, these households own the means of production through paying for them, enjoying flexibility in farming arrangements, and sell their paddy to the company at the market rate. Superficially, they are not wage labours of company Ace, as they seem to be ‘autonomous’ in cultivation.

This modified vertical integration strategy has gradually been stable. After nearly 3 years’ attempt, managers of the company come to realize that it is more effective to contracting land to the *contracted tenant households* who operate farmland by themselves. Those who operate a farm of 100 to 200 mu generally have higher yield, and the turn-over rate of these *contracted tenant households* is lower. It is cost-saving to integrate this type of *contracted tenant households* in its industrial chain. What is noteworthy is that in the case of company C, a large-scale agribusiness specialized in rice processing, which has been mentioned in chapter two, the trajectory of its land operation strategies follows exactly the same path as company Ace. Initially, company C operated the farmland in the horizontal concentration way. After the failure of the capitalist way of farm operation, company C subcontracted its land to a number of rural households (Hu & Wu 2013), who are similar to the *contracted tenant households* of company Ace. This again indicates that the ‘company + households’ way of land operation may be more effective for these agribusinesses.

The trajectory of the change of land operation strategies has shown that

the optimal strategy of land operation for the company is not predicated on ‘the expropriation of the workers from the conditions of labour’ as described by Marx (1981: 751), but a ‘re-unity’ of the rural labor and their means of production, although the ‘unity’ has been transformed. Mann and Dickinson (1978) claim that the reason for the persistence of family farms lies in the logic and nature of capitalism itself. They insist that certain spheres of agriculture are incompatible with the requirements of capitalist production, and Marx’s distinction between production time and labor time could be used in the interpretation. The study conducted by Ka Chih-Ming (1998) has also shown that in the transformation of the traditional agriculture of colonial Taiwan (1895-1945), the Japanese capital acquired sugarcane via contractual arrangements with small family farms instead of managing the farms with wage labor. Ka claims that the competitiveness of peasant farms – due to the improvement of productivity with the help of the capitalists – is the reason for their survival, and it is more effective for the capitalists to integrate these transformed peasant farms into their capital accumulation chain. In the current Chinese context, the reason why *contracted tenant households* are integrated by the agribusiness follows a diverged logic. The next two sections will further concentrate on the relationship between the *contracted tenant households* and the company, and explore why the integration of the *contracted tenant households* in its industrial chain is a more effective strategy for the company.

The articulation of ‘household farming’ by agro-capital: indirect employment

Different types of *contracted tenant households*

Based on the four dimensions of the relations of production – the possession of means of production, social division of labor, distribution of products of labor, and social relations of consumption, accumulation and reproduction (Bernstein 2010, 22-23) – agricultural producers could be divided into four basic stratum: small producers, medium producers (*zhongnong*¹), *capitalized family farmers* and capitalist farmers (Chen 2013). Among these four stratum, the medium producers are the main focus in this section, as most of the *contracted tenant households* originate from this stratum.

It is He Xuefeng and his research team first pays attention on the medium-scale farming households (He, 2011a; Yang, 2011, 2012; Lin, 2012; Chen, 2012). Aged between 45 to 60 years old, the medium producers are no longer competitive in the urban labor market. Agricultural production is therefore the main source of income for them. They may also take part-time jobs in slack season in the neighborhood, such as working on construction sites, or running small transportation business. Before the entry of agribusiness enterprises, the medium-scale farming households could take over the land for free from their relatives or friends who have migrated to work in cities, and expand their land scale to 20 to 50 mu. The expansion of land scale allows these households to make the best use of their family labor, which could be taken as a breakthrough of trap of ‘agricultural involution’, the conception of which was interpreted by Phillip Huang (2000a; 2000b; 2006) to illustrate the economic growth at the cost of diminishing marginal returns of labor input under heavy population pressure in China’s history.

¹ Other than operating a medium-scale farm, *zhongnong* defined by these scholars are given presumed qualities such as reciprocities, active participation in village political affairs and commitment to the values of a way of life based on household and community.

The rural-urban migration has eased the human-farmland conflict. Moreover, it is possible for the medium producers to make some accumulation, and thus they have the potential – and some of them also have the motivation – to further expanding their land scale.

However, there are two fundamental difficulties for the medium-scale farming households to scale up. On the one side, it is no easy to circulate land in compact areas by themselves, as the farmland has been scattered distributed to individual households since the HRS reform, and it is much more difficult – if not impossible – for the medium producers to deal with each of these households to for land concentration. Moreover, for each rural household, their land is distributed in small plots in several places – a design for fair distribution of different fertility of land, which makes it even harder to concentrate a large tract of compact land. It would undoubtedly be ineffective to use agricultural machinery in farming if farmland is not compact. On the other side, even if they are fortunate enough to have access to compact land, they are faced with a shortage of funds. It takes more than 100,000 RMB to manage a farm of about 100 mu, which is far beyond the affordability of individual households, particular when they have very limited access to loan from the bank due to the lack of mortgage guarantee¹. It therefore makes sense for the medium producers to ‘collaborate’ with agribusiness enterprises like company Ace, which is a shortcut for these households to expand their land size, and to operate the farm even if they do not have much circulation funds at hand.

There are basically three types of *contracted tenant households* in terms

¹ According to the Guaranty Law of the People's Republic of China, ‘the land-use right to the land owned by the collectives such as cultivated land, house sites, private plots and private hills, with the exception of those provided in sub-paragraph’ may not be mortgaged. (For an English translation of the law, see http://www.eduzhai.net/yingyu/615/763/yingyu_247321.html) It is clear that the contracted land from the collectives could not be used as mortgage guarantee. Theoretically speaking, the village houses on the house sites could be mortgaged, but since the mortgage of land-use right of house sites is illegal, the creditor could only obtain the building materials of the house as compensation if the debtor is unable to pay off debt.

of how they make profits. The following three cases will reveal the different types respectively.

Case 1: Making profits through intensive input of family labor

Ma Fumin (born in 1965) is from Sanli village of Shuichuan town, and he contracts 50 mu of farmland from company Ace in 2013. Before 2013, the company contracted only a small area of the land from his village, and the land in Ma's production team was not included. Ma cultivated approximately 20 mu of land then, which he took over for free from his friends and relatives who migrated to work in cities. However, in 2013, the company contracts more land from his village, as these land lies in the newly assigned area for double-cropping rice. Since the 20 mu of Ma's land is in this area, he could no longer cultivate the land for free. But Ma takes the opportunity to contract land from the company, and expands his land area to 50 mu. As he said, he may not be able to operate a 50-mu farm without collaborating with the company.

Table 4.1 Estimate cost of early season rice planting by Ma Fumin
(contracted tenant household)

Items	Cost (RMB) per mu
Land circulation fee	$300 \div 2 = 150^1$
Agricultural inputs package (including rice seeds, fertilizers, pesticides, machinery ploughing, rice transplanting, harvesting)	$553 - 90 = 463$ (Ma does the ploughing by his own small-scale ploughing machine. The cost could be deducted.)

¹ The land circulation fee goes up to 300 RMB per mu since 2013. Since Ma cultivates double-cropping rice, the land circulation fee could be divided when calculating the early season rice.

Extra agricultural input	0
Seedling nursing	0 (family labor input)
Rice transplanting	0 ¹
Electric charge for pumping irrigation	40
Charge by the irrigation reservoir	0
Manual weeding	60
Spreading fertilizers	0 (family labor input)
Spraying pesticides	0 (family labor input)
Irrigation control	0 (family labor input)
Carrying grain bags	40
Total	753

Ma and his wife do most of the farm work by themselves in order to save costs. Based on previous experience, Ma lists the estimated cost of the early-season rice as following (see table 3)². He plans to hire farmhands only in weeding and grain carrying, and will take the other work, i.e. seedling nursing, preparing land for planting, irrigation control, spraying pesticide, and spreading fertilizers, with his wife. According to Ma, it may take 4 to 5 working days (including the time spent on growing both the early-season rice and late-season rice) for cultivating each mu of double-cropping rice.

According to Ma, the average yield of early season rice per unit could be approximately 400 kilograms in a normal year³. Based on the grain price of

¹ Since Ma's village lies in an area that is assigned by the local government as the demonstration area of mechanized rice transplanting (as afore mentioned, the demonstration is part of a *project* in County Pingwan), the transplanting fee in his paddy field is covered by the 'agricultural input package'. Therefore, he does not use manual rice transplanting like in the other cases.

² This interview was conducted in April 2013, when they just finished the rice transplanting. Thus Ma Fumin could list only the estimate costs.

³ The expected yield is a little bit high according to other producers, most of who believe that the average yield for each season of double-cropping might be 350 kilograms at best.

around 61.5 RMB for every 50 kilograms in 2012, the net income of early season rice could be 231 RMB per mu. The late season rice should be largely the same. Therefore the net income for a unit could be 462 RMB. The total income could be 612 RMB for each mu, added by the double-cropping rice subsidy of 150 RMB/mu¹.

Ma also mentions that if the net income from the contracted land could not reach 30,000 RMB (600 RMB/mu×50 mu), he would quit next year. He explains that it is no difficult to find a place in cities with a monthly payment of over 2,000 RMB, which means a year-income of over 24,000 RMB. If the benefits from farming cannot reach 30,000 RMB, it makes no sense to stick to it.

Case 2: Making profits mainly from agricultural machinery work

Liu Juncai (born in 1960) is from Songbai village of Shuichuan town. He contracts around 110 mu of land from company Ace since 2011². The contracted land lies in Liu's own production team, and he cultivates middle-season rice. Since there is a distance away from his land to the main roads, company Ace acquiesces in the middle-season rice planting. The costs of the middle season rice are listed in Table 4. The average yield in Liu's farm was 550 kilogram per unit in 2012³, and sold at a price of 62.5 RMB for every 50 kilograms. The net income for each mu of middle season rice was 417 RMB. Liu's total net income amounts to 45,870 RMB from rice planting.

What should be noted is that since he does the machine ploughing and harvesting by using his own machines, the company pays him 180 RMB per mu as agricultural machinery working payment. Deducted by the oil cost and

¹ Implemented in 2012, the county government grants 150 RMB per mu as subsidies for those who grow double-cropping rice for over 50 mu.

² Liu Juncai is a *sub-contracted household* since 2010, when he took charge of some 50 mu of land. In 2011, he contracts land directly from the company, and becomes a *contracted tenant household*.

³ Due to the high yield (almost the highest among all the agency households), Liu is named as one of the four *Expert Farmers* in 2012.

machinery depreciation of 50 RMB/mu, his net income from the machinery work on his own farm is 130 RMB/mu, which amounts to 14,300 RMB.

Liu purchased 1 large-sized rice harvester in 2012, which costs 68,000 RMB (the original price is 98,000 RMB, and the agricultural machinery purchase subsidy is 30,000 RMB). He also owned two small-sized ploughing machines, purchased in 1985 and 2010 respectively, and each machine costs some 2,000 RMB. Besides using the machines in his contracted land from company Ace, Liu also rents out his agricultural machines (which means that other rice producers pay him to do the machine ploughing or harvesting for them) to make profits. The overall working area of the two small-sized ploughing machines is 150 mu (the 110 mu of his contracted land included) each year on average. He charges 100 RMB for doing machine ploughing per unit. The oil cost and machinery depreciation amounts to 20 RMB, as estimated by Liu. Thus he could make a profit of approximately 3,200 RMB $((150 \text{ mu} - 110 \text{ mu}) \times 80 \text{ RMB/mu})$ from doing machine ploughing for others. On the other side, the total working area of his rice harvester is approximately 1,300 mu (his contracted land included), which brings him considerable profits. Liu's charge for harvesting one mu of paddy field is 90 RMB. The oil cost is approximately 20 RMB and the depreciation of machinery is around 10 RMB. Since one more person is needed for bagging the grain during harvesting, Liu's son works with him in the harvest

Table 4.2 Cost of middle season rice planting by Liu Juncai (*contracted tenant household*)

Items	Cost (RMB) per mu
Land circulation fee	200
Agricultural inputs 'package' ¹	598

¹ The 'agricultural inputs package' includes the pesticides, fertilizers, seeds, and the agricultural machinery work. Although Liu does the machine ploughing and harvesting by himself, he gives full payment of the 'agricultural input package'. The company then pays him for doing the machinery work.

Extra agricultural input	15 ¹
Seedling nursing	20 ²
Rice seedling transplanting	135 ³
Electric charge for pumping irrigation	30
Charge by the irrigation reservoir	0 ⁴
Manual weeding	30 ⁵
Spreading fertilizers	10
Spraying pesticides	0 (family labor input)
Irrigation control	0 (family labor input)
Carrying grain bags	30
Total	958

season and Liu does not need to pay him. So the net income from harvesting one mu of paddy field is 60 RMB. The net income from the harvester rental amounts to approximately 71,400 RMB $((1300 \text{ mu} - 110 \text{ mu}) \times 60 \text{ RMB/mu})$. Therefore, the total net income, in 2012, from his machinery working amounts to 88,900 RMB (3,200 RMB + 71,400 RMB + 14,300 RMB), with the machinery working payment from company Ace included. Apparently, his income from doing agricultural machinery work is much more than that from agricultural production.

¹ The urea fertilizer provided in the ‘inputs package’ is 10 kilograms per mu. However, as an experienced rice producer, Liu insists that the urea fertilizer input should be 16 kilograms for each unit in order to have a good harvest. Therefore, he spends approximately 15 RMB more each unit on the additional urea fertilizer $(2.6 \text{ RMB/kilogram} \times 6 \text{ kilograms} = 15.6 \text{ RMB})$.

² Liu and his wife use wage labor in seedling nursing, and also input their own labor. The 20 RMB per mu is the labor wage.

³ Liu explains that he is uncertain about the efficiency of rice transplanting by the rice transplanter, and thus he chooses to use wage labor instead. In the agricultural inputs ‘package’, the mechanized rice transplanting is 110 RMB per unit, but the manual rice transplanting takes 135 RMB each unit. Since this is decisive for the grain yield, Liu prefers to spend more on the transplanting work.

⁴ Since Liu’s contracted land is not in the irrigation area of the county reservoir, he does not have to the irrigation fee.

⁵ Liu and his wife use both wage labor and their family labor in weeding. The labor costs does not include the family labor input.

The above two cases show the two types of successful *contracted tenant households* who could make profits in rice planting. The first are the ones like Ma Fumin, whose profits from rice cultivation largely equals to the labor wage of their family labor input. These are the households who have only small-sized agricultural machines, contract relatively small pieces of farmland from the company, and input intensively their family labor. They use wage labor only in busy season. As noted by Ma, his family labor inputs in one unit of double-cropping rice are 4 to 5 working days, and the total net income from one mu of double-cropping rice may be approximately 600 RMB¹. It means that he gets 120 to 150 RMB for each working day, which is close to the daily payment of an unskilled construction worker² – around 100 RMB to 120 RMB. As a matter of fact, Ma takes the labor wage on the labor market as a reference. If the benefits from farming cannot reach their expectation, these contracted households would turn to the off-farm activities.

The second type of *contracted tenant households*, among whom Liu Juncai is typical, derives profits mainly from the agricultural machinery work instead of the rice cultivation per se. In Liu's case, a considerable part of his income comes from the machinery work, which almost doubles the benefits from rice cultivation. These households normally own large-sized agricultural machines, and are motivated to make the best use of the machines. For these households, contracting certain area of farmland from the company means that they could at least make profits from the machinery work on the contracted land. The agricultural machinery work will be further explored in the next chapter. In order to understand the relationship

¹ What should be noted is that this is in the condition that the grain yield per unit reaches 400 kilograms each season, which is too optimistic according to many other producers.

² Since working on a nearby construction site is the most common part-time job for villagers in the countryside, the wage of a contracture worker is taken as a reference.

between these households and company Ace, we concentrate primarily on his income from rice cultivation here. Liu use both hired labor and his family labor in farming. The comparison between Case 1 and Case 2 shows that the Liu Juncai uses more wage labor than Ma Fumin¹. This is reasonable for Liu because he spends more time doing machine ploughing and harvesting for others, which is more profitable. Liu’s family labor input per unit is 2 to 2.5 working days and the net income per unit is 417 RMB, which means that the payment for his family labor is 160 to 210 RMB each working day. This is a little higher than that of Ma Fumin (which is 120 to 150 RMB per day), and is largely the same as the daily payment of a skilled worker. Since Liu is quite experienced in farming and the yield of his field is among the highest of all the *contracted tenant households*, it is unsurprising that he gets a ‘skill labor’ payment. But fundamentally, Liu still gets only his labor wage from rice cultivation.

Furthermore, not all *contracted tenant households* are able to make profits. Those who have neither strong physical strength, nor large-sized machines, could hardly make any profits.

Case 3: Benefit-losing due to the lack of either man power or agricultural machinery

Table 4.3 Cost of middle season rice planting by Wan Yingheng (*contracted tenant household*)

Items	Cost (RMB) per mu
Land circulation fee	200
Agricultural inputs ‘package’ (including rice seeds, fertilizers,	593 – 110 = 483 (Wan use manual rice transplanting too.

¹ Although the labor costs in these two cases are almost the same, Liu Juncai uses wage labor more frequently. One more point is that, since it is the first year for Ma Fumin to get engaged in the relatively large-scale operation, he is less experienced. His estimated cost in manual weeding is a little too high.

pesticides, machine-ploughing, rice transplanting, harvesting)	So the cost of rice transplanting in the package is deducted.)
Extra agricultural input	0
Seedling nursing	30
Rice transplanting	130
Electric charge for pumping irrigation	26 ¹
Charge by the irrigation reservoir	20 ²
Manual weeding	40
Spreading fertilizers	150 (Wan uses hired labor on these items. The average cost per unit is 150 RMB.)
Spraying pesticides	
Irrigation control	
Carrying grain bags	
Total	1079

Wan Yingheng (born in 1953), from Pinghu town, contracted 260 mu of land from company Ace in 2012, cultivating mainly middle season rice. Since the contracted land lies in Xianfu town, Wan and his wife had to go back and forth between the two towns. Table 5 shows the costs of his middle-season rice in 2012. As an 'outsider', Wan and his wife were faced with various difficulties in land operation (The predicament of non-local *contracted tenant households* will be elaborated in the next chapter). The result is that the grain yield in his land was 425 kilograms per unit, which is quite low as compared with the average yield of 500 to 550 kilograms by common producers. The price of grain was 125 RMB for every 50 kilograms, and Wan's gross income from one mu of middle-season rice was 1062.5 RMB, which could not even cover the cost of

¹ There are 170 mu of land that needs pumping irrigation. The electric charge for this area is 40 RMB per unit. The equalized electric charge of all his land is about 26 RMB per unit.

² Part of Wan's contracted land lies in the irrigated area of a middle-scale irrigation reservoir in County Pingwan. The charge of 38 RMB per unit in the irrigated area is for the management and maintenance of the irrigation reservoir. This charge is 20 RMB per unit when equalized to all the 260 mu of land Wan contracted.

1079 RMB/mu.

The case of Wan Yingheng tells a different story from Case 1 and Case 2. Having no advantage in physical power, Wan depends heavily on wage labor. The labor costs of Wan are more than doubled of that of Ma Fumin (the rice transplanting excluded). The benefit loss of *contracted tenant households* like Wan Yingheng is almost predictable. It prompts company Ace to be more careful in choosing *contracted tenant households*. The low grain yield of the *contracted tenant households* reduces the profits of the company from grain marketing. Moreover, the loss of *contracted tenant households* could probably result in their turn over, which would bring trouble to the company in dealing with the left over land. One manager from company Ace has made it clear that the future *contracted tenant households* should be no more than 50 years old.

Company Ace tends to integrate more households like Liu Juncai in their industrial chain in future. They are able to make profits from doing agricultural machinery work, which ensures their relative stability. For this company, the low turnover rate of *contracted tenant households* could save the management costs. On the other side, this means that it will be more demanding to become a *contracted tenant household* in future.

The appropriation of ‘surplus value’ outside direct employment

The description of different types of *contracted tenant households* is for further exploring the dynamics between them and the company. Mentioned at the beginning of this chapter, some researchers believe that the ‘dragon-head’ enterprises in the *agricultural vertical integration* rely

primarily on ‘contract farming’ instead of large-scale capitalist farming, and thus they argue that the agro-capital is commercial capital rather than industrial capital (Wu, G. 2012; Huang, P. 2012). As the *contracted tenant households* are not ‘employees’ of company Ace, and still take the shape of individual ‘household farming’, it seems that employment relationship in agriculture has not spread. For the above scholars, it is the ‘household farming’ that dominates China’s agriculture. However, the large quantities of farming households do not necessarily mean they are autonomous. Moreover, the ‘commercial nature’ of the agro-capital has been over-emphasized. The examination of company Ace could provide a different perspective to explore the profit-deriving dynamics of these agribusinesses.

As said by many *contracted tenant households* like Ma Fumin, being a *contracted tenant household*, they ‘get only their labor wage’ (*zhuan laoli qian*). They also express that if the profits they make from the farming are lower than the labor wage of migrant workers, they would quit and migrate to cities. It means that the profits made by these household producers are virtually their ‘labor wage’, the amount of which equals to that of the migrant workers who are under exploitation of urban capital. In this sense, the labor in household farming is no different from the wage labor in terms of their relationship with the general capital. As demonstrated by Marx (1976), it is impossible that the value of the labor-power been fully compensated under the capitalist relations of production, as the surplus value is all that capitalists care about. It implies that family labor of the *contracted tenant households* creates ‘surplus value’ just like those who are in formal employment relationship, and the ‘surplus value’ is appropriated by the agribusiness. As a matter of fact, the profits in the ‘upstream’ and ‘downstream’ of farming, which are obtained by the agribusiness enterprise, derive from the surplus value created by the *contracted tenant households*. In other words, the agro-capital appropriates the surplus value through

controlling the ‘upstream’ and ‘downstream’ of farming.

As noted by Marx, the dull compulsion of economic relations is what completes the subjection of the labourer to the capitalist (Marx, 2008 [1863-1864]: 3-127). It implies that the nature of the capitalist employment relationship is the coercion in the relations of production, which guarantees the acquisition of surplus value by the capitalists. This coercion could be found in the subsumption of *contracted tenant households* by the agribusiness. These households are subordinated to the agribusiness as the latter controls the external conditions of production (i.e. the supply of agricultural inputs and the control of the grain drying equipment). It is this subordination that allows the company to appropriate the ‘surplus value’ created by the *contracted tenant households*. In this sense, the relationship between the *contracted tenant households* and the company should be characterized as ‘indirect employment’. This should be highlighted as the seemingly ‘independence’ of these households covers the fact of their being exploited.

The problem with over emphasis on the ‘commercial nature’ of agro-capital, as mentioned at the beginning of this section, is that it fails to reveal the creation of surplus value in the production field, but assume falsely that the surplus value is produced the circulation field. Marx has emphasized in volume one of *Capital* that commodity circulation, referring to the exchange of commodities, creates no value (Marx 1976: 258-269); the merchants simply shares the surplus value created by immediate labor in the production field. In the case of the agribusiness enterprises, the direct control of the external conditions of production allows them to dominate the cultivation process, which means that they have deeply involved in the agricultural production. It is thus inappropriate to define the agribusiness simply as ‘commercial capital’.

Moreover, the ‘company + *contracted tenant households*’ pattern implies that surplus value could be generated even outside the direct employment

relationship. When it comes to the labor employment, people are most likely to think of the pattern elaborated by Marx as ‘capitalists-proletarian workers’ relationship. However, the problem is, as noted by Bernstein (2010: 36), how strictly should labor power, the basis of the appropriation of surplus value (exploitation) and hence capitalist profit, be limited to proletarians employed as ‘free’ wage workers. The research of Banaji (2002) on the labor regimes and labor processes on commercial landed estates in various regions has implied that labor exploitation could be realized through a variety of social arrangements in different historical circumstances. This interpretation makes sense in understanding the *agricultural vertical integration* in China. In the case of company Ace, the *contracted tenant households* are not ‘employees’ of this agribusiness; rather, the situation is more like that the company ‘outsources’ rice cultivation to these *contracted tenant households*. The company provides almost all the means of production, including land, agricultural inputs and advanced funds to the *contracted tenant households*, whereas the latter take care of the production process and sell the final products to the company. The *contracted tenant households* are, in a sense, not separated from the means of production, because they are the buyers of them. Thus they may not be termed as proletarian labor. However, the enterprise could still appropriate the surplus value they produce through controlling the means of production. As noted by Bernstein (2010: 34), even though ‘free’ proletarian wage labor is the ‘ideal’ form of labor in capitalism, it is not the only type of labor exploited by capital. The outsourcing of agricultural production only makes the exploitation more covert.

According to Marx, there are two forms of the subsumption of labor under capital, i.e., the *formal subsumption* of labor and the *real subsumption* of labor (2008 [1863-1864]: 3-127). The *real subsumption* happens when direct employment relationship has been established between capital and free labor. In this research, the articulation of household farming in the

industrial chain of agribusinesses should be characterized as the *formal subsumption* of labor. The family labor of the *contracted tenant households* is subsumed under the regulation of capital through land contract. The *domination and subordination* relations in the rice cultivation process have disintegrated the *independence* of the contracted households. According to Marx, the loss of independence in the production process shows the introduction of capitalist mode of production (2008 [1863-1864]: 78). Moreover, in addition to the valorization of capital, the *formal subsumption* of labor under capital also contributes in mobilizing rural social resources in the capital accumulation, which will be elaborated in the next section.

This section has demonstrated that the seemingly independent *contracted tenant households* are in effect in indirect employment relations with the agribusiness enterprise. The surplus value created by these households is the source of profits in the upstream and downstream of rice cultivation. The company's control over the production conditions – farmland, agricultural inputs and grain drying facilities – makes the appropriation of surplus value possible. It implies that the labor power in the *contracted tenant households* is subsumed under capital even though there are no direct employment relations. What should be pointed out is that such relationship as the 'company + *contracted tenant households*' exists extensively, and there may be more rural households been involved in such relationship with the expansion of *agricultural vertical integration*. For instance, the 'contract farmer' identified by Forest Zhang (2008) is to a large extent similar to the *contracted tenant households*.

However, the problem is that even some *contracted tenant households* with strong family labor power and large-scale machines could not make profits. It poses problem to the understanding of *household farming*. The question is why some *contracted tenant households* are more productive

than the others when they are all in the shape of *household farming*. What should be pointed out is that *contracted tenant households* are in urgent need due to the rapid land expansion of company Ace, and thus it happens frequently that *contracted tenant households* are not available from the village where the company contracts land from. Consequently, more than 1/3 of the *contracted tenant households* are from other towns which are away from the farmland they contract from company Ace, and another 1/3 are from other villages of the same town where their contracted land lies in. There are no more than 1/3 of the contracted households whose contracted land from the company lies in their own villages. The former two groups of contracted households could be taken as ‘non-local *contracted tenant households*’ (*wailai daiguanhu*), whereas the latter one could be named ‘local *contracted tenant households*’ (*bendi daiguanhu*). The reason for this division will be elaborated in the next section. In 2012, company Ace awarded one *Model Farmer* (*zhongtian biaobing*) and four *Expert Farmers* (*zhongtian nengshou*) out of more than 20 *contracted tenant households* based on the average yield per unit. It is noteworthy that none of these five households are the non-locals. Moreover, the field research has shown that the non-local *contracted tenant households* are faced with many unexpected problems, which have adverse impacts on their land operation. The exploration of *contracted tenant households* in the village context will help to better understand why the shape of ‘household farming’ is important for company Ace. The next section will concentrate on the role of rural social relations in capital accumulation.

The exploitation of rural social relations in capital accumulation

Through contracting land to the *contracted tenant households*, the company has successfully mobilized rural social resources to facilitate its land operation. One major difference between the agrarian community and the industrial organization is that the latter is based on formal institutions, whereas the agrarian community, normally with a long history, values the informal norms. The qualities of reciprocities, equality among community members, and commitment to the values of a way of life based on household and community respected by rural residents are what hold the community together. Moreover, the productive factors such as land and irrigation system are embedded in the rural social network. When the external capital flows to the countryside, it has to face with the local rules. It would be cost saving for the company in land operation if it makes good use of the rural social resources.

Fei Xiaotong (1992) has indicated that the traditional Chinese society could be characterized by ‘a society totally based on the familiar’ (1992: 42) with the ‘differential mode of association’ (*chaxugeju*) (1992: 20). As a metaphor of *chaxugeju*, kinship is described as the concentric circles formed when a stone is thrown into a lake. Each person is the center of his/her network, and the society is composed of overlapping networks of people linked together through differentially categorized social relationships (1992: 21). Based on Fei’s interpretation, Chen Baifeng (2011a: 47-53) summarizes the characteristics of rules of Chinese rural society as: ‘face-saving principle’ (*qingmian yuanze*, the core of which is the *renqing guanxi*, referring to the favors given and return among rural residents), ‘principle of avoiding extremes’ (*bu zou jiduan yuanze*, which means that people should be ‘reasonable’ when coming into conflict with each other, and those who are too stubborn or unsympathetic are going to extremes), ‘principle of social exclusion against outsiders’ (*qishi yuanze*, which means that ‘insiders’ and ‘outsiders’ of a rural community will be treated quite differently by villagers) and ‘hometown attachment principle’ (*xiangqing yuanze*, referring that rural

residents value their village hometown as spiritual belonging, and they would return to their origins wherever they go, just like fallen leaves return to the roots)¹. These interpretations make sense in this research as they have established a framework of rural social structure: the *renqing guanxi* weaves a local social network, *face competition (mianzi jingzheng)* which is derived from the ‘face-saving principle’ keeps the vitality of rural society, and the principle of social exclusion against outsiders, derived from *chaxugeju*, makes a clear the boundary of ‘face-to-face society’. Land operation will be easier for company Ace if the *renqing guanxi* and ‘*face competition*’ could be exploited in its capital accumulation whereas social exclusion been avoided. This section will elaborate on the mechanisms of how the integration of *contracted tenant households* contributes to the exploitation of rural social resources.

The dilemma in labor recruitment for non-local *contracted tenant households*

Wage labor is indispensable for the *contracted tenant households* who operate a farmland comprising about 200 mu, even if they make the best of their family labor. Rice cultivation in County Pingwan has yet been fully mechanized due to the hilly terrain, particularly in rice seedling transplanting. Hired farmhands are thus in great demand in the transplanting season for the large-scale producers. However, labor recruitment is a tough problem for the non-local *contracted tenant households*, as they have limited social networks in these villages. As a result, they could rely only on the village cadres or prestigious figures from the village to help on labor

¹ The ‘hometown attachment principle’ expands the inter-personal relationship to individual-village relationship.

recruitment. The problem is whether these people would regard the profits of these outside *contracted tenant households* as their first consideration.

In 2012, Wang Deyuan and his wife contracted a farmland comprising more than 100 mu in Qinzheng village of Shuichuan town, which is from around 30 miles away from his home in Chunjiang town. This couple no longer contract land from the company in 2013, since they barely make any profits from rice cultivation in the last year. Speaking of the land operation in 2012, Wang and his wife are both frustrated, and both believe that things should have been better if they were residents in Qinzheng village:

‘It would be easier for the local people to recruit farmhands. For the local *contracted tenant households*, they can hire whoever they like. But I am a complete stranger here. When I need wage labor, I have to turn to the leader of their production team (*cunmin xiaozu*)¹. Otherwise, people won’t work for me. They may be worried that I would not pay them. The production team leader divides the team members into different groups. For example, if the employer needs 8 workers today, the first 8 people will come to take the job. Next time if 5 workers are required, another 5 villagers will do the work. Those who are old or lazy are also sent to my farm. If I were a native people, I would surely hire those who I like. I would hire the strong labor, not the elder ones, of course. You see, this is the difference (between a local and non-local *contracted tenant household*)!’

In this case, the leader of the production team plays a crucial role in the labor recruitment of the non-local *contracted tenant households*. The

¹ ‘Production team’ derives from the three-tier structure in collectivization period made up of commune, production brigade and production teams, with the production teams as the key unit of account in this hierarchy. (Bramall, 2008: Chapter 7 ‘Collective farming’) After the implementation of Household Responsibility System, the production team has mostly been preserved, not functioning as an economic organization though. A production team typically consisted of about twenty to thirty households, and a village normally comprised on average some ten production teams.

problem is that Wang and his wife have to rely on the production team leader in labor recruitment, but the team leader seems not to take their side. This is the predicament faced by all the non-local *contracted tenant households*. It is interesting to look into the role of the production team leader/village cadres here. On the one hand, production team is the grass-root administrative organization in China, and the team leader enjoys political legitimacy in the formal political structure. On the other hand, those who are elected as team leaders generally have high prestige in rural society (He 2003: 67-75), which means that they take important positions in the informal structure. In this sense, production team leaders/village cadres are at the junction of the formal structure and informal structure in the rural society, which makes them the best ‘agents’ for capital in the countryside. However, in most cases, the primary concern of the production team leaders/village cadres when assisting the *contracted tenant households* in labor recruitment is not the productiveness of the labor, but the equitable distribution of the work opportunities within their production team/village. As said by a Village Secretary of the Party branch: ‘Some villagers will come to fight with you if you don’t ‘assign work’ to them!’¹ As members of the village, villagers take it for granted that such work opportunities should be distributed evenly to each of them. This could be traced back to the practice in the collective farming period from the late 1950s to the end of 1970s when the leaders of production teams made agricultural work plans and assigned work to each of the team members. As a production team leader, the key is to ‘schedule the work according to how many workers there are’ (*you duoshao ge laodongli anpai duoshao*

¹ There is one point that should be noted. It is inappropriate to consider that capital is ‘enslaved to’ the rural society. People may argue that the villagers and village cadres have the bargain power in labor recruitment, and they take the initiative to choose to work for the *contracted tenant households*. The problem with this argument is that to what extent could they ‘not choose’? Marx used to satirize on the so-called ‘voluntary’ of workers. Beneath the surface of ‘voluntary’ selling of their labor power is ‘the silent compulsion of economic relations’ (Marx, 1976: 899). They would have no income if they choose not to work.

nonghuo), rather than to ‘assign workers to complete the tasks according to how much work there is’ (*you duoshao nonghuo anpai duoshao ge laodongli*) (Cao, et al. 2001: 177). The historical memory explains, at least to some extent, why the villagers have high expectation on production team leaders/village cadres in the equal distribution of work opportunities, although the context varies significantly. The dilemma in labor recruitment is inescapable for the external *contracted tenant households*. Labor recruitment is not so much a problem for the local *contracted tenant households* who know well about their countrymen, which relieves them from the trouble.

There may be two means for the non-local contracted households to breakthrough. The first is to pay the village cadres/production team leaders in order to make them the agency for labor recruitment. The problem is whether these households could afford the costs. The second is to develop their social network in these villages in the long run. This is the way that might be workable, but it may take a long time for the outsiders to integrate themselves in a totally strange rural community. Moreover, labor recruitment is not the only problem faced by the non-local *contracted tenant households* (the other problems will be interpreted in the next sections).

Labor recruitment for local *contracted tenant households*: favors given and received

What should be noted is that the predicament faced by the non-local *contracted tenant households* is exactly the advantage of the local households. The local *contracted tenant households* have more advantages in labor recruitment. As one of the village members, the ‘*renqing*’ relationship plays a key role in the employment relations. Fei Xiaotong

(1992: 125) has interpreted well about ‘*renqing*’. It describes the relationship among an intimate group, in which each member owes countless favors to the others. Moreover, it is impossible for a person not to owe favors in such an intimate group. The one who owes favor will seek for an opportunity to return another a bigger favor, which makes the one owe him in the future. More importantly, people in an intimate group would avoid settling their accounts, since there will be no need for further contact if they do not owe anything to others. Chen Baifeng (2011b) further interprets that ‘*renqing kuiqian*’ (favor-owing) happens not only in economic sphere, but also in the field of social culture. One may owe the other a favor in various senses on one occasion. For the local *contracted tenant households*, since ‘*renqing*’ relations could be exploited in labor recruitment, the employment relations are covered under rural social relations.

Ma Anguo, from the Sanli village of Shuichuan town, contracts more than 60 mu of land from company Ace in 2013, which lies in his own production team. Ma and his wife have started to take over the land from relatives who migrate to work in cities since the 1990s. This type of land taken-over is embedded deeply in the rural social network, in the sense that those who give their land for free to Ma are all his kinsmen or friends. Although the land was not in compact area, he did not have to pay. Ma’s land area has reached over 30 mu before company Ace contracts land from his village. Ma also works on the construction sites in and near County Pingwan in slack season all these years. He is a typical medium producer before 2013.

As a local *contracted tenant household*, Ma’s social network contributes a lot in his labor recruitment. More importantly, most of the hired farmhands are those who Ma owes favors to (*qian renqing*). Ma started to use wage labor when his land area reached 30 mu. These workers are mostly his elderly kinsmen who (or whose sons) give their land for free to Ma in the past few years. Ma owed them favors in the sense that he cultivated their

land for free, and now he returns the favors (*huan renqing*) through providing these elders work opportunities. He explains that: ‘these elderly people gave their land to me because their children had migrated to cities, and they themselves are too old to do the farming. They did not charge me anything for the land. Now I should take care of them.’ By ‘taking care of them’, Ma means that he provides them work opportunities so that they could earn some money. These elderly villagers are generally aged from 60 to 70 years old, who could hardly find jobs even in the neighborhood. Ma speaks bluntly that:

‘The external *contracted tenant households* were reluctant to hire these elderly people who work ineffectively. They normally ‘contract’ the work (*bao gong*¹, which means that the workers get paid by piece), say, rice seedling transplanting, to the hired farmhands. But the elderly are reluctant to take the job this way. They could only get some 60 yuan each per day for doing *bao gong* because they work slowly. So you know, they (the external *contracted tenant households*) don’t say directly that they do not hire elderly people, but ask you to do *bao gong*. You won’t come if you can’t do it. But I pay the elderly people 90 yuan for a working day (*zuo dian gong*²) no matter how much work they finish. These are the people who gave me their land for free. Although the company has contracted their land, I should still take care of them. I do not pay them by piece. Frankly, they work slowly, so sometimes I lose some 10 RMB for hiring each of them every day³. But I know they would

¹ ‘*Bao gong*’ could be understood with reference to the ‘piece-rate system’. It applies only in rice seedling transplanting. The agricultural employers normally contract the rice seedling transplanting work to a group of workers, who would get paid based on the area they finish transplanting. Those younger workers who work faster could get more payment each day, whereas the elderly workers could hardly get even the average daily payment in doing *bao gong*.

² ‘*Dian gong*’ means that workers get paid by time wage.

³ This is an interesting point. When he said that he ‘loses’ money for hiring these elderly people, it does not actually mean that he spends more than he gets. It means that he spent 10 yuan more on each labor because of their low working efficiency, as compared with those who hire strong labor. I will come to this point in the following sections.

work carefully. They would be responsible for their work, and I don't have to supervise them. This is because we are relatives, and we are in good relationship. (I asked Ma: 'what if you don't hire them?') These elders would say 'this man is untrustworthy' if I hire others.'

What should be noted is that 'favor-owing' is valued and reinforced by the village community. Everyone respects and follows the norm, and also expects others to do so. In this case, Ma is aware that if he does not hire these elder workers – as a return of favor, he would be regarded as 'untrustworthy'. The 'trust' is based not on formal contracts, but on people's consciousness of following the informal rules shared by the whole community. As Fei Xiaotong (1992: 44) noted, trust in rural society derives from familiarity, and has very solid foundations as it is rooted in customary norms. Therefore, it makes sense that the elderly people expect Ma to hire them when he needs wage labor. If Ma fails to do so, he would risk losing his reputation in the rural society. In this sense, owing and returning favors is more than just personal affair, but also involves public attention (Chen 2011). The long-term receiving and giving favors contributes to the reproduction of rural social relations.

As shown in this case, '*renqing*' relations are exploited in the labor recruitment. Before company Ace contracts land from his village, it is Ma who owed favors to his relatives, in the sense that he took over their land for free. When he contracts land from the company Acend becomes a contracted tenant households, he returns the favors to them through offering them work opportunities with relatively high payment. It is the elderly people who owe him favor now. They would work carefully because they owe favors to the employer, which makes labor supervision unnecessary. Although the labor costs on Ma's farm is a little higher than that of some non-local *contracted tenant households*, the yield per unit on his land is higher due to the careful work of the elder workers, which in effect increases his income.

The *renqing* relations have been involved in the employment relationship between the local *contracted tenant households* and the other villagers. Obviously, it is the unique advantage for these households. The accumulation of capital has been covered under the sentimental *renqing* relationship, and the reproduction of social relations seems to agree with the reproduction of capital.

‘Face competition’ (*mianzi jingzheng*) in rural society: the game of making-out in rice seedling transplanting

Whereas *renqing* weaves the rural social relations into a net, ‘face competition’ (*mianzi jingzheng*) enables the rural residents to reconstruct their positions in the net. For the rural residents, the overt and covert *face competition* within the community is part of their tacit knowledge. In the land operation of the local *contracted tenant households*, *face competition* has been taken advantage of in labor supervision.

Zhang Qiushi, a *contracted tenant household* from Liuquan town, has been engaged in large-scale rice cultivation since 2009. He cultivated more than 100 mu of land in 2009, and was one of those who were honored as ‘*zhongliang dahu*’ (big household in grain production) by the county government. In 2013, his land area has reached approximately 500 mu. He started to work with company Ace since 2010, which means that he loans from the company Acend buys part of the agricultural inputs from the company. Unlike the other *contracted tenant households*, Zhang does not contract farmland from company Ace, but from the villagers in his own village and neighborhood villages with the support of the village and township cadres. The majority of his land lies in his own village. Zhang has accumulated rich land operation experience in practice in these years. He

talks with high spirits in the interview on how to improve the work efficiency of the hired farmhands in rice seedling transplanting:

'I usually hire more than one team of workers to do the rice seedling transplanting (*chayang du*)¹. What do they have in mind? **They like to compete with each other. Rural people all know about it.** If different teams work together, they will keep an eye on others' progress. You see, there is one person in each team in charge of moving rice seedlings from the seedling bed to the paddy field. Indirectly speaking, this person is doing labor supervision. Since he goes back and forth, he would know how much work other teams have finished. If his team only finishes the transplanting in 2 mu of land when another team finishes more than 3 mu, he would speak to his team workers: 'That team has finished more work than us! We have to work harder!' ... From all these years' experience, (I have found out that) if I hire 3 to 4 teams of workers – each team comprising of 8 people usually, the area they finish transplanting by the end of a working day usually differs only by 0.4 to 0.5 mu among different teams. Why are there some differences? It is mostly because of natural conditions, for example, some paddy field is far from the rice seedling bed while the other is nearer; some land is on rough terrain while the other is not. **Even if I do not complain about anything, the workers themselves would feel ashamed if lagging behind too much.** (Laugh) What does all this prove? **When they work together, as I said before, they have such consciousness.** Things would be quite different if I hire only one team of workers. I didn't figure out this way in the first year

¹ With the emergence of more and more large-scale rice producers, there is an increase need for rice seedling transplanting workers, as the machine transplanting technology is immature in this county. Therefore, some professional rice seedling transplanting teams (*chayang dui*) have developed. These teams are composed mostly of women aged from 40 to 60 years old, and the organizers are normally the prestigious people in the countryside. The organizers usually have wide social networks both in and outside their villages, which makes it possible for them to access to more work opportunities. The villagers are then organized to do the rice seedling transplanting in different towns and villages. The income is distributed evenly in a team. This kind of *chayang dui* has emerged almost in every town.

(when I operate large-scale farmland).'

There are some important points in Zhang's statement. As an experienced *big household*, he makes good use of his local knowledge in labor supervision. The view that 'rural people all know about it' reveals that the informal norms such as '*face competition*' are widely recognized. The interesting story he shares shows that the *face competition* in rural society has been exploited in labor supervision, creating 'a game of making-out' (Burawoy 1979) in rice seeding transplanting.

Face competition is embedded in the rural social structure. People value their reputation as well as their social status in the village, which is what underlies the *face competition*. People derive their life values from the social interaction. He Xuefeng (2008) has distinguished three levels of peasant life values: the 'elementary value' (*jichuxing jiazhi*) which means that people pursue for the satisfaction of survival needs, the 'social value' (*shehuixing jiazhi*) which deals with how people relate to each other and how people derive life values from the society, and the 'fundamental value' (*bentixing jiazhi*) which refers to how people deal with death and how they derive infinite life meaning from limited lifetime. The pursuit of 'social value' prompts people to get involved in *face competition* in order to earn reputation. Normally, people compete with each other on the height and quality of their houses, the quantities of betrothal gifts they receive, and the sumptuousness of wedding/funeral banquet (He, 2009: 336; Gui & Yu, 2010; Gui & Ou'yang, 2012). The large-scale farming households have now brought *face competition* to the workplace through labor employment. As a local *contracted tenant household*, Zhang's own social network allows him to have access to more than two reliable organizers of rice seedling transplanting worker team, who helps in organizing the workers (the role of organizers will be discussed later in this chapter). Moreover, Zhang mentioned more than once the 'consciousness' of people in competition with

each other on work efficiency and their ‘feeling ashamed’ when lagging behind, which implies that *face competition* has well contributed to the labor management.

Zhang also mentions that every year on the Commending Assembly or on the training courses for *big households* in rice cultivation (*zhongliang dahu*) when these large-scale rice producers get together, their focal topic is on how to supervise the wage labor. They share experience and learn from each other. Zhang says that his way of hiring more than one team of workers has been widely adopted.

The boundary of ‘*shuren shehui*’ (face-to-face society)¹: social exclusion and discrimination of the ‘others’

It has shown that contracting land to the ‘local’ *contracted tenant households* is a reasonable decision for company Ace, in the sense that the rural social resources could be well mobilized by these ‘local’ households. A key point here is what ‘local’ means, and what is the boundary of a ‘face-to-face society’. The cases of Liu Juncai and Zhou Huasong could answer the question.

Liu Juncai, the one mentioned in the previous section (Case 2), has contracted 110 mu of land from company Ace since 2011. The land lies all in his production team. He made good profits in 2011, and thus company Ace encouraged him to take over another 40 mu of land lies in his neighbor production team. Liu tried to refuse at first, as he knew well that there might be some troubles if he cultivates that land, for instance the confliction with

¹ The ‘face-to-face society’, in Fei Xiaotong’s term (1992), has been transformed in some sense in contemporary China. In this research, the conception is still adopted as an analysis unit in order to understand the role of rural social network in the capital accumulation of company Ace. The transformation of rural society will be discussed at the end of this chapter.

villagers in that production team on irrigation. However, he was eventually persuaded by company Ace and contracted the land. The condition he attached is that he cooperates with one villager from that production in cultivating the land. During the interview, Liu kept talking about the ‘inconveniences’ to cultivate farmland outside his own production team, but he failed to explain what the ‘inconveniences’ were and where they are derived from.

Things would be clearer when Zhou Huasong’s case is examined. Zhou is from the same village as Liu Juncai, and he contracted more than 400 mu of land from company Ace in 2013, which lies both in his village and the neighbor village (Songbai village). He has one large-sized ploughing machine, two rice harvesters and one rice seedling transplanting machine. Zhou’s wife resentfully talked about an unpleasant experience happened not long before the interview.

‘I spread fertilizers in that field the other day, in Songbai village. I plugged all the outlets¹ (in the paddy field), and then left. I can’t watch that field everyday, right? I have quite a lot of work to do. You know what? People excavated the outlets of my paddy field and all the water flew away (to other’s field)! I just went to spread fertilizers again today. ... The next day after that (referring to the day she spread fertilizers), I rode past that paddy field on a motorcycle – they mustn’t have thought that I would go to check that field right in the next day. I found that there wasn’t even one drop of water in my field and all the outlets were open! You can see if there were any fertilizers left! I stood by that field and asked loudly: ‘who is this wicked?! My husband and I just spread fertilizers here yesterday, and there was full of water in my field. We plugged all the outlets before we left. How come there

¹ There are banks of earth around the paddy field, on which there are outlets for irrigation water to flow in and out. When it is time to drain away the water in the field, people remove the earth from the outlets. When irrigation is needed, people could plug the outlets after watering in.

is no water at all? You know we spread fertilizers. Why still excavating all the outlets in my field?' You know what they said? They said: 'That could not be conducted by humans. It may be the mice who excavated the hole.' Do you believe the mice could dig such a big hole? Where were the muds they removed? Even if it is the mice, there should have been mice footprints, isn't it? Why should a mouse dig on the field bank? Then I said: 'you say it was the mice. Why the mice had not come before I spread the fertilizers?'

This type of unpleasant experiences – which involve the undermining activities conducted by local villagers – has troubled all the non-local *contracted tenant households*. For example, some villagers who have rented their land to company Ace insist that they still have rights to grow vegetable on the paddy ridge (they used to do so when they cultivate the land by themselves). Thus if their vegetable gets poisoned by the pesticides from the paddy field, these villagers would ask the *contracted tenant households* for compensation. Besides, what annoys the *contracted tenant households* more is that the villagers 'steal' their grain in the harvest season¹. On the other side, the local *contracted tenant households* seem not to have these troubles. This kind of social exclusion is quite common. Some *contracted tenant households* believe that they are excluded because they are from different towns. But it is somehow surprising to hear such a story from Zhou Huasong, whose contracted land lies right in his neighbor village. The undermining activities conducted by the villagers have shown the discrimination against the 'outsiders'. The 'discrimination', as interpreted

¹ In paddy field, there will be some scattered paddy after harvesting. As a customary, anyone in or near the village could collect the scattered paddy for free. Normally, it is the elderly people and kids who pick up the paddy little by little for feeding chicken. People would not mind because there could be not much left. But things are different in the case of company Ace. Elderly people do not wait until the *contracted tenant households* finish the harvesting, but closely follow the rice harvesters. According to the *contracted tenant households*, the elders were not picking up the scattered paddy, but cutting the rice ears from the field with their scissors. They could do nothing about it except warning the elders. But the elder villagers seem not to listen to them. This is why they call it 'stealing'.

by Chen Baifeng (2006), refers to the regardless of the interest of ‘others’, or even violent attacking against the ‘outsiders’. But on the other side, although Zhou’s wife is angry, she accepts the reality, and even understands the discrimination and exclusion. When asked that would there be any conflicts if someone from a different village cultivates land in her village, she answered for sure that there would be. She explains that her fellow villagers, she herself included, would not allow this person to use public resources – such as the water channel and the pond water – without paying¹. Her husband explains that: members of the very production team could use the public resources (for example, the pond water) for free to cultivate the land of the production team, no matter it is his/her own land, or land contracting from company Ace; but those who are not the team members – even if they are from a different production team of the same village – will be excluded from using the resources for free, whether the land they cultivate lies in the production team or not. It means that the membership is decisive when it comes to the right of the use of public resources. However, traditionally, paddy field and irrigation water resources are linked together, which means that each plot of paddy field has its corresponding irrigation water system. Before the foundation of the new China, the paddy field without irrigation water source was unable to be sold in land dealing. In this sense, theoretically, when company Ace contracts land from a village, it has the rights to use the irrigation water in the village. It means that those who contract the land from company Ace should also be eligible to use the irrigation system. But the non-local *contracted tenant households* are excluded from using the irrigation water because they are ‘outsiders’. It is therefore important to understand what the ‘membership’ means in a ‘face-to-face society’ in order to make sense of the cases of Liu and Zhou.

The above cases have implied that the ‘face-to-face society’ today is

¹ The irrigation water Zhou Huasong use is from a pond in that village. They did not pay extra money on the water. The irrigation water issue is interpreted later.

limited to a production team. It means that those who are not members of a production team would be taken as the ‘outsiders’. The reason could be traced back to the initial formation of ‘production team’. The ‘production team’ was constructed since the collectivization period, and is preserved after the implementation of Household Responsibility System. People in the same production team know well about each other because of the long-term social interaction. Moreover, in a long historical period, rural people depend heavily on each other, not only in agricultural activities, but also in daily life. The mutual aid in farming, house constructions, wedding/funeral banquets and etc. happens primarily within a production team. Intimate social relations within a production team, represented by the *renqing* relations, are thus developed due to the long-term life experience. As noted by He Xuefeng (2011b), it is the *renqing* relations that promote people to get familiar with each other, and also defines a clear boundary between *zijiren* (‘us’) and *wairen* (‘others’). The ‘production team’ has been established as a basic unit of the ‘face-to-face society’, whereas the ‘village’ could only be taken as ‘half-intimate society (*ban shuren shehui*)’ (He, 2000). He Xuefeng reinterprets the concept of ‘*shuren shehui*’ and ‘*ban shuren shehui*’ based on the practice of the village committee election, and highlights the political implications of ‘village-as-half-intimate-society’ (*cunzhuang ban shuren shehui*). It makes sense to confine the ‘face-to-face society’ to ‘production team’ in the current context. The unpleasant experience of Zhou Huasong has shown that people from his neighbor village discriminate him as an ‘outsider’. As a matter of fact, the ‘discrimination’ against outsiders has been widely accepted by members of a ‘face-to-face society’. In the same sense, the reason why Liu Juncai insisted to have a cooperator from the neighbor production team is that he knows well about the social exclusion. The distinction between ‘us’ and ‘others’ makes a clear boundary of the ‘face-to-face society’.

The next question is what makes a ‘member’. As a matter of fact, the

membership of a ‘face-to-face society’ is to a large extent established in the history. On the one hand, the boundary of a ‘face-to-face’ group is established based on long-term social interactions among villagers, which means those who are deeply involved in the ‘*renqing*’ relations are taken as ‘one of us’. On the other hand, it is significant to note that a member should make long-term contributions to the group, particularly in maintaining the irrigation system, which normally takes labor input and sometimes fund input too every year. Thereby, the outsiders who have assumed no obligations in the village are excluded from enjoying the right of using the public resources. It is no easy for the outsiders to be accepted as a ‘one of us’ member in short-term.

We could figure out that through contracting land to the local *contracted tenant households*, particularly to those who from the production team where the land lies, company Ace could readily exploit the public resources in these villages. It means that the subsumption of the local *contracted tenant households* in its industrial chain allows the company to subsume the rural social networks of these households, which are established in history, into its capital accumulation.

To sum it up, the reason why the shape of ‘household farming’ is preserved – in the sense that the company contracts the land to the *contracted tenant households* instead of managing the large-scale farm by itself – rather than dissolved by the company is that the social networks of these households could be exploited in the land operation, so that it is possible for the company to take control of the agricultural cultivation process and mobilize all the available resources in rural society at the minimum cost. It has shown that not all the *contracted tenant households* could well operate their farms. The non-local *contracted tenant households* are excluded or discriminated when doing farming in a strange village, whereas the local *contracted tenant households* who operate the farm in

their own production teams enjoy the advantages in labor recruitment, labor supervision, and the use of public resources. It indicates that ‘household farming’ should be examined in the village context. Household farming, which is uprooted from the specific social context, fails to reveal its superiority in production efficiency, just like the non-local *contracted tenant households*.

As a matter of fact, the company has purposefully searched for the available social resources since the very beginning when they contracted land in the countryside. Mentioned by a staff of company Ace, they conduct blanket search for those who are well-connected in the rural society in and around all the villages where they contract land from. The village cadres, owners of the village grocery stores, the agricultural machine operators, ‘*big households*’ (referring to those who cultivate a relatively large area of paddy field), and individual grain dealers, are all the potential targets the company Ace attempts to establish connection with. The company tries to persuade these people into contracting land from it, or buying agricultural inputs from the company. These efforts have allowed the company to develop its own social networks in the countryside. It has shown that the company is strongly motivated to make the best use of the pre-existing rural social relations to clear the way for its capital accumulation. However, the exploitation of the rural social networks also has impact on the rural society, which means that whether this strategy could be sustainable is to be questioned.

The future dilemma of the company’s exploitation of rural social resources

The strategy of exploiting the rural social resources through contracting

land to the *contracted tenant households* may face with predicament in future. On the one hand, the exploitation of rural social relations by the agribusiness enterprise has also transformed these relations. The case of Zhang Qiushi may be taken as an example.

Having operated the large-scale farm for over five years, Zhang Qiushi has rich experience in labor recruitment and labor supervision. His own social network plays an important part in the labor management. As large amounts of workers are needed in rice seedling transplanting, the examination of rice seedling transplanting would be productive in exploring how the labor employment relations have influenced the rural social relations. There are two ways to pay the workers, as mentioned in the preceding section. The first is to pay by piece rate (*bao gong*), which means the workers get paid of 130 RMB for finishing transplanting one mu of rice seedling. The second way is to pay by daily rate (*dian gong*), referring that the workers get paid of 100 RMB for each working day. According to Zhang, there are pros and cons of both ways for employers. On the one hand, the quality of the rice seedling transplanting work would be better if paying the workers by daily rate, but the employer should strengthen the supervision of labor, as the speed of transplanting work would be pretty slow otherwise. On the other hand, the transplanting work could be completed in a relatively short time if the workers are paid by piece rate, but the quality of the transplanting work might be relatively poor, which might eventually lower the grain output. Zhang notes that he prefers to use the time rate system. He explains that:

‘Generally, I would rely on an acquaintance (referring to the organizer of a rice seedling transplanting worker team, who is a relative or a good friend of Zhang), and let him organize the workers (to do the rice seedling transplanting). I would seek for 2 or 3 acquaintances, each of who helps me to organize 8 workers in their teams. They would complete the transplanting

work carefully. They (referring to the organizers) said, 'I take 100 RMB from you (for each working day), and I will complete the same quantity of work just like you pay me 130 RMB for transplanting one mu of rice seedling. You don't have to worry about me not working hard. **If I take 100 RMB from you for one (working) day, I would surely do the work by taking the quantity of work completed by those who are paid 130 RMB for transplanting one mu of rice seedling as a reference. I would make my work deserve your payment (*duideqi laoban*).**' You see, I do not have to say that 'you must finish certain quantities of work one day.' ... What is important is to build good relationship with people (*zuo ren*). This organizer of a worker team, who could also be an indirect overseer, should be the one that I can trust. This person helps me in organizing these workers, and they do the organization work for free. ... Why don't I pay the workers by piece rate (*qing bao gong*)? I ask the organizer to organize the workers for me; this is like I assign him some sort of power. The organizer would be under great pressure if I pay the workers by piece rate: as an organizer, he should strive for more payment for the workers, which may compromise the quality of their work. And if so, he would be embarrassed when faced with the employer who is his acquaintance. I would not put the organizers in such dilemma.'

In labor supervision, Zhang relies completely on the worker team organizers. He himself deals only with the organizers. He explains that the key of adopting the time rate system is that the employer has established a trust relationship with the organizer. Furthermore, Zhang chooses the daily rate payment in order to free the organizers from the dilemma of labor supervision. Under the piece rate system, the organizer might probably take the side of his co-workers in order to get more payment; whereas under the daily rate system, since the payment is fixed, the organizer should care more of the employer's interests and serve as an overseer. The organizer is in effect an intermediary between the workers and the employer. This dilemma

faced by the organizers under the piece rate system shows the conflict of interest between *contracted tenant households* – the employer and the rice-seedling transplanting workers – the wage labor. The employer-wage labor conflict is the inherent contradiction under capitalism. Through exploiting his trust relations with the organizers in the labor employment, Zhang Qiushi only temporarily ‘resolves’ the contradiction.

What should be noted is that the exploitation of rural social relations in labor recruitment and labor supervision has been transforming the rural society. The interaction dynamics of the employment relations are completely different from that of the *renqing* relations in rural society. Even though the team organizers of the rice seedling transplanting workers and the *contracted tenant household* are relatives or friends, they now calculate clearly their own labor input and return when employed to do the rice seedling transplanting. The idea that ‘my work would deserve your payment’, is no longer derived from the logic of *renqing* relations, in which people always try to return a bigger favor to others. In the employment relationship, people intend to square accounts with each other after each exchange. They would make sure that their work ‘deserves the payment’, but never contribute more. Fei Xiaotong (1992: 125-126) notes that the maintenance of an intimate society depends on the fact that people always owe favors to each other. However, the employment relationship has been gradually transforming this dynamics, in the sense that people now prefers to square their accounts with each other.

What needs to be pointed out is that, in the interview, Zhang still felt embarrassed when having to refer himself as a ‘*laoban*’ (employer). For Zhang and his generation, *laoban*, as an exploiting class, has been eliminated in the socialist movement. Thus, when the employment relationship comes back again, Zhang seems not to be used to it. But the class relations have emerged in the countryside even when villagers are not well conscious about it.

The second predicament in the company's exploitation of rural relations is that the overwhelming commodification relations in all aspects of social life are reshaping the rural society, which means that the strategy of mobilizing the rural social resources as a way to save the land management cost may not be sustainable.

Firstly, involving *renqing* relations in the labor recruitment (as in the case of Ma Anguo) may not be a long-term solution for the employer-labor contradiction. *Renqing* relationship is in some sense destroyed rather than reproduced when it is involved in the employment relations. The commodification of labor power has greatly transformed the social relations in the countryside. Labor employment relations, as interpreted by Marx (1976), create two antithetical classes. Whereas the employers pursue for the maximization of profits at the lowest cost, the wage labor seek to get the most payment at the lowest labor input. The opposite positions are created once the employment relationship is established. However, *renqing* relations are essentially derived from the need for cooperation, which means that both sides pursue for a same objective, instead of standing on the opposite sides. In this sense, it is impossible that the contradiction in the employment relations be fundamentally solved by the *renqing* relationship. It might only be covered in the short term.

Secondly, *face competition* could no longer be exploited in labor supervision (as in the case of Zhang Qiushi) if the villagers do not care much about their social status in the village any more. *Face competition* makes sense for villagers only when they derive their life meaning from the village community and value their reputation in the community. However, the countryside is constructed, ideologically, as a depleted area characterized by 'conservative' and 'backward', and the cultural values of rural society has been dissolved (Yan, 2005). Urban development has been prioritized since the Reform and Open-up in the late 1970s, which makes

cities the center of commodity economy. Resources have been allocated primarily to cities by the Chinese government since the end of the collectivization period, whereas the rural areas are left behind. The outflow of rural resources has resulted in the dissolution of rural values. *Face competition* has been increasingly rootless, as villagers, particularly the rural youth, tend to derive their life meaning from outside the village and care less about their reputation or prestige in their villages.

Last but not the least, the boundary of the ‘face-to-face’ society has become more and more fuzzy, which would make it difficult to mobilize the rural resources simply through contracting land to the local households. As clarified above, the membership of an ‘us group’ is to a large extent defined by the members’ long-term contributions to the village, for instance, their contribution in the maintenance of public irrigation system. However, the increasing *free-riders* in the village have dampened the enthusiasm of other villagers in involving in the public affairs (He, 2011c). The rural social differentiation may accounts partly for the creation of *free-riders*. For some villagers, the income from farming is of little importance, and thus they have little motivation in contributing to the maintenance of public goods. Moreover, the organization and mobilization capability of the production team is also weakened after the Rural Tax and Fee Reform around 2004. The abolition of compulsory work makes it impossible for the team leaders to mobilize rural labor in repairing the irrigation system. When the contributions of members become less and less important, the membership based on it would make no sense to the villagers. If so, villagers may compete for the use of public resources, and there might be conflicts even within a ‘face-to-face society’, which has been observed in some villages during my field research. When membership is no longer recognized, it would be difficult for the agribusiness enterprises to mobilize the rural resources through subsuming local households in its industrial chain.

Conclusion

This chapter focuses on the role of household farming in the capital accumulation of the agribusiness enterprise. The main argument is that the strategy of ‘company + *contracted tenant households*’ could better contribute to the profit-making of the agribusiness, rather than the strategy of capitalist farm operation based completely on wage labor. Moreover, this vertical integration strategy of land operation does not mean the un-development of capitalist relations in agriculture. The seemingly ‘autonomous’ *contracted tenant households* are actually in indirect employment relationship with the company. The shape of ‘household farming’ is preserved so that the social networks of the local households could be exploited in land operation.

The different land operation strategies are explored in the first section of this chapter. After the failure trial of the horizontal concentration strategy – which means the operation of large-scale wage-labour based capitalist farm, the company turns to the vertical integration strategy. After some adjustments, the company has found out an effective way of land operation. Through contracting the land to *contracted tenant households*, the company transfers all the risks in rice cultivation to these households; and since these *contracted tenant households* have to buy the ‘agricultural input package’ from the company Ace and sell the paddy to it, the company could always make profits. What should be noted is that this optimal land operation strategy is not predicated on the separation of rural labor and their means of production, but a seeming re-unity of them. This re-unity creates a false image that the *contracted tenant households* are independent production units.

The exploration of different types of *contracted tenant households* has demonstrated that these seemingly independent households are in effect

indirect employed by the agribusiness enterprise. The profits these *contracted tenant households* make from rice cultivation are simply equal to the payment of their family labor input, and the surplus value produced by these households – which is actually the source of profits in the upstream and downstream of rice cultivation – is appropriated by the company. The company’s control over all the production conditions – farmland, agricultural inputs and grain drying facilities – gives it the coercive power in its relationship with the *contracted tenant households*. It is the coercion that enables the agro-capital to appropriate the surplus value. It implies that the labor power in the *contracted tenant households* is subsumed under capital even though there are no direct employment relations. In this sense, the ‘household farming’ in this research is more in the shape than in reality. What should be noted is that the ‘company Ace – *contracted tenant households*’ relationship exists extensively, which may indicate the wide spread of this kind of indirect employment relations.

The next section of this chapter looks into the question why the shape of ‘household farming’ is preserved through examining the *contracted tenant households* in the village context. The basic finding is that the social networks of these households could be exploited in facilitating the land operation. By contrasting with non-local *contracted tenant households*, local ones – referring to those households whose contracted land from the company lies in their own production teams – enjoy the advantages in labor recruitment, labor supervision, and the use of public resources. This has indicated that ‘family farming’ – the ‘farms operated by individual households’, to be specific – which has been removed from its social context is rootless, and shows no specific superiority in production efficiency. The subsumption of local *contracted tenant households* makes it possible for the company to exploit all the available social resources in rural society at the minimum cost in its land operation. However, whether this strategy could be sustainable should be further explored, because both the

entry of the agribusiness enterprise itself and the general trend of commodification have been reshaping and transforming the rural society.

So far, we have mainly concentrated on the relationship between company Ace and the *contracted tenant households* who contract land from the company so as to understand the dynamics of capital accumulation of the agro-capital. There are still other groups in the village that are connected directly or indirectly with the company, and the entry of the agro-capital has impacted them too. Therefore, the next chapter will focus on the influence of the company on the different strata of rural producers, through which to explore how the entry of agribusiness enterprise affects the rural society.

One more point that should be mentioned is that, the company now names these *contracted tenant households* ‘family farmers’ instead of ‘*contracted tenant households*’. The change of name for these households is simply to cater for the governmental policies, as the No.1 Document of the China’s Central Government in 2012 has made it clear that the development of ‘family farms’ will be promoted with policy support. Through advertising itself an enterprise which ‘provides services’ to the ‘family farms’, company Ace could get support from the government more easily. However, the conception of ‘family farm’ is not self-evident. The ‘family farms’ as integrated company Ace, each of which comprises over 100 mu of farmland, uses wage labor and pursuit for the maximization of profits, are obviously diverged from those who cultivate a small plot of land, depend on their family labor and produce mainly for supplying their families. Thereby, the next chapter will extend beyond the *contracted tenant households*, and examine the relationship between the company Ace and different strata of agricultural producers, who are all under the name of ‘family farming’. The examination will help to explore the influence of the agro-capital on rural social differentiation.

Chapter Five: Rural social differentiation being shaped by the capital flowing to countryside

This chapter concentrates on the impact of agribusiness on the on-going rural social differentiation. There are a number of researches focusing on the rural social differentiation, most of which class the villagers in terms of their household income. Lu Xueyi and his colleague (1990) come up early in the 1990s that rural society has differentiated into eight stratifications since reform and opening up: agricultural labour, migrant workers, employers of private enterprises, rural intellectuals, individual labour and individual businessmen, private entrepreneurs, managers of township and village enterprises, and rural administrators. This way of stratification division dominates the study of rural social differentiation in the 1990s. Afterwards, however, Gong Xiongbing (2003) reveals some changes with regard to the above eight stratifications based on his research. For instance, the number of migrant workers, individual businessmen, and private entrepreneurs rises sharply, while managers of township and village enterprises have already disappeared into history. With the large-scale rural-urban migration, there are new changes in the rural social stratifications. Based on the economic and employment status, Chen Baifeng (2009) divides villagers into five stratifications, which are businessmen out in cities (10.4 percent), half-farmers and half-workers (23.1 percent), agricultural producers with part-time work (46.4 percent), migrant worker households¹ (10.7 percent) and the poor (8.8 percent)². However, Chen does not consider about the

¹ The migrant worker households refer to those households whose family members have all migrated to cities.

² There are also some other households (accounting for 0.6 percent), including the big households and the ‘*banbianhu*’, referring to those couples with one holding the urban *hukou* (registered permanent residence) and another holding the rural *hukou*.

informal land circulation among individual households, which refers to that those who do not migrate to cities take over the land of the migrant workers for free. Based on Chen's research, He Xuefeng (2011a) makes a new classification in terms of how much the villagers depend on the income from land operation after the abolition of agricultural taxes, and distinguishes villagers as: off-farm villagers (accounting for 15 percent, including both those who have migrated to cities and those who stay in the villages but are engaged in off-farm activities) who cares little about the farming income, half-peasant and half-workers (accounting for 45 percent) who care more about the farming income than the first stratification, and villagers who are engaged mainly in agricultural production (accounting for 30 percent, including both the medium producers (10 percent) and small producers who are motivated to cultivate more land (20 percent)), who care most about the income from farming¹. The researches conducted by Chen Baifeng (2012), Yang Hua (2012) and Lin Huihuang (2012) on *zhongnong* (medium producers) reveal largely the same findings. My fieldwork in County Pingwan has also shown the similar stratification structure. The Table 5.1 is made based on the existing literature and on my own fieldwork.

Among the five stratifications, the richest households have mostly settled in cities, and they do not care about the farming income. Their land may be taken over by their relatives/friends, or be contracted by the *big households* or the agribusinesses. The upper-middle stratification is composed mainly of the *big households* either specialized in planting or breeding, who derive their income mainly from farming. For the middle stratification, their income from farming is at least as much as the wage income. Villagers in the lower-middle stratification are mostly small producers, who are engaged in primarily in farming, and whose income from farming is more than the wage income. The bottom stratification is composed of small producers too,

¹ There are another 10 percent of villagers who care most about the income from farming. These are the poor families.

who rely heavily on farming. We can see that exception for the top 10 percent of the richest households, the rest of the villagers all derive at least part of their income from farming. Moreover, except for the middle stratification, farming income contribute to a large part of their household income.

Table 5.1 Rural Social Differentiation Based on Household Income

Stratifications	Percentage	Source of income/Main occupation
Richest households	5 - 10%	Running their own businesses or being construction contractors
Upper-middle stratification	10 - 15 %	Specialized in large-scale planting or breeding (<i>big households</i>)
Middle stratification	20 - 30%	Half-peasant half-worker households, or migrant worker households
Lower-middle stratification	30 - 40%	Small producers with wage income (no more than the farming income)
Bottom stratification	5 - 10%	Small producers relying primarily on farming

In order to understand the influence of the involvement of agribusiness on the rural society, this research will focus mainly on the agricultural producers. The upper-middle stratification, middle stratification, lower-middle stratification as well as the bottom stratification will all be involved in this examination. Since the income from farming constitute a considerable part for most of these producers, I will concentrate on the agricultural production of these households, in order to present the dynamics among different producers.

This research will explore the social differentiation in terms of the relations of production. The major objective of this chapter is to explore the connection mechanism between the agribusiness and different stratum of agricultural producers, through which to understand the agrarian capitalism in the Chinese context. This chapter will start from the long-term theoretical

debate on rural social differentiation. The following section will focus on the rural social differentiation proceeding before the agribusiness enterprises contracting land from the countryside. Then the influence of the company on different strata of agricultural producers will be examined, in order to present how the agro-capital has affected the rural social differentiation.

‘Lenin-Chayanov debate’ on rural social differentiation

The neoliberal advocates and the populists in China mentioned in the introduction chapter hold opposite viewpoints on the prospects of the small-scale family farming. The former insist that it should be replaced by the modernized agriculture – the capitalist farming in specific, whereas the latter propose that it needs to be preserved. The debate on the family farming is essentially part of the discussion on rural social differentiation under capitalism, which should be traced back to a classic debate in the peasant studies, which, characterized by Bernstein (2009), as the ‘Lenin-Chayanov debate’. Concentrated on the agriculture development in Russia in the nineteenth century, Lenin and Chayanov come to completely different conclusions on the social differentiation. The bone of the contention is whether or not the small-scale household farming would survive in the expansion of the agrarian capitalism, and both of the two sides have followers.

Chayanov insists that the production of peasant households is to meet the basic need of their family members instead of pursuing for profit maximization, and thus they would increase labor input even under extremely low marginal return, which is termed as ‘self-exploitation’. He argues that the family farming, characterized by the ‘peasant mode of

production’, could resist the penetration of capitalist relations. Chayanov has also observed the economic differences among the rural households, but he attributes the differentiation to the family population dynamics, which means that it is the dependency ratio of a household – proportion of working-age adults to the number of people too young or too old to work – that determines its economic situation. Essentially, Chayanov takes the rural producers as a homogenous entity, and believes that they are able to reproduce themselves under capitalism (Chayanov, 1986). There are scholars who share this understanding (e.g. Thorner, 1971; Vergopoulos, 1978). In the China studies, following Chayanov, Phillip Huang (2000a, 2000b) further theorized China’s agriculture from 1350 to 1950 with the concept of ‘involution’. It refers to that the population pressures on farmland led to farms that are too small to provide adequate subsistence, and thus in the long history China’s agriculture was characterized by the excessive labor input in farming even with diminishing of marginal benefit. Moreover, the income from household handicrafts, which were undertaken mainly by the auxiliary labor such as women and the elders, was an indispensable part for the supplement of farm income. In the latest research, Huang further argues that the Chinese agriculture should be characterized as ‘capitalization without proletarianization’, and that the ‘household farming’ still dominates the Chinese agriculture. To be sure, the above-mentioned rural support intellectuals generally follow the Chayanovian reading as well, and they argue against the oppression of the global capitalism on the small producers. What should be noted is that these scholars tend to idealize the small-scale farming, constructing the small-scale farming as both equality-enhancing and environmental-friendly; and they also highlight the virtues and values of the small producers. Moreover, small producers are also highly appreciated by Jan Douwe van der Ploeg (2009), who asserts that there is a trend of re-peasantization both in European countries and in the third world countries. The problem is how we should take the ‘peasantry’

in the 21st century, or, how we understand ‘household farming’ in the context of agrarian change.

On the other side, according to Lenin, family farming is just a transitional form, which will eventually be dissolved in to the agrarian capitalists and proletariats. Lenin demonstrates the emergence of the capitalist relations of production in the Russian countryside, and the differentiation of the agricultural producers into small, middle and rich peasant classes (Lenin, 1956: chapter two). He also warns that, the theoretical proposition that capitalism requires free, landless worker should not be taken too stereotyped. Small producers may have access to a piece of land in a wide range of forms, which, however, does not change their nature as ‘agricultural proletarian’ (ibid.: 178-179). Lenin’s approach – also the Marxist approach – to the development of capitalism is inspiring, as it ‘extended beyond the logics and paths, problems and prospects, of peasant farming. It encompassed different types of capitalist agriculture – their origins, paths of development, modalities of accumulation, labor regimes, locations in social divisions of labor, relations with other forms of capital and with the state...’(Bernstein, 2009: 63).

Following Lenin, the Marxist scholars have further argued the inexorable trend of social differentiation among the agricultural producers. de Janvry (1981:103-111) emphasizes the concentration of wealth within a village, and insists that the class differentiation in the rural society is inevitable. For de Janvry, the semi-proletarianization of peasants is a transitional form, and the rural producers will eventually become polarized. Slightly different as putting forward by Kautsky (1988: 164), small-scale farming could in no way be completely squeezed out since they provide large numbers of agricultural labor. If small-scale farming is excluded excessively, agricultural capitalists would subdivide their land through selling or renting it to small producers. However, significantly, Kautsky has pointed out that the large-scale production and small-scale farming are not exclusive to each

other, but more in a relation like capitalists and hired workers. Luxemburg (2013) also claims that the pre-capitalist economies are an integral part of the world capitalist system, as members of the former make indispensable contributions to the latter in three senses: consuming the capitalist products, providing raw materials for the capitalist industry and serving as reservoirs of hired labor. She further notes that the final phase in the campaign of capitalism against natural economy is the eradication of rural industries from peasant economy, which would force the peasants to buy the commodities produced by capital. And in order to be able to buy the commodities, the villagers have to sell their labor and become proletariats.

To sum it up, the debate on rural social differentiation has shown two opposite viewpoints. Whereas the Chayanovian scholars insist the vitality of household farming, the Marxists argue that the rural producers will eventually be polarized under capitalism. This research will evaluate the debate with reference to the on-going agrarian change in China.

This chapter attempts to focus on the following issues. Firstly, the most widely used conception of 'household farming' will be re-examined through the exploration of rural social differentiation. The small-scale household farming, which has been claimed as the dominant mode of production in China, will be examined in the social differentiation of agricultural producers, whereas the emergence of capitalist relations of production will be revealed via the study of *big households*. Secondly, the impact of the involvement of the agribusiness on different strata of producers will be studied, through which to present how the rural social differentiation is shaped by capital-flowing-to-countryside. An important question to be answered in this chapter is that why small-scale household farming persists in this process, and how they contribute to the agrarian capitalization.

Rural social differentiation since the HRS: the formation of endogenous capital

Illustrated in chapter two, rural households are increasingly involved in commodity production in demand of cash, which should be taken as the result of the commodification of subsistence. According to Henry Bernstein (2010: 104), once this is the case, there is a tendency of class differentiation among agricultural producers. This is what has been happening in China since the late 1970s. In this section, the different stratum of producers will be examined, with special attention on the emergence of capitalist relations of production in farming.

Virtually, four types of agricultural producers could be distinguished in terms of the relations of production, based on the empirical experience of rice cultivation in County Pingwan (Chen, 2013): small producers, *zhongong* (medium producers), *capitalized family farmers* and the large-scale capitalist farm operators. These characteristics of the four types of producers will be elaborated in this section respectively. Unlike the researches which differentiate the rural households in accordance with their household income (e.g. Lu & Zhang, 1990; Gong, 2003; Chen, 2009; He, 2011; Yang, 2011), the classing in this chapter is predicated on the relations of production in farming, i.e. the possession of means of production, social division of labor, distribution of products of labor, and social relations of consumption, accumulation and reproduction (Bernstein, 2010: 22-23). The essential characteristics of these stratum have been listed in table 5.2. What needs to be noted is that all these four types of producers are under the name of ‘family farmers’ in the mainstream discourse in China. However, as Bernstein (ibid.: 93) indicates, ‘... the notion of the ‘family farm’ is often used to refer variously to *family-owned*, *family-managed* or *family-worked*

farms, which can be misleading.’ A family-owned farm may be a capitalist enterprise operated by a hired manager with wage labor, whereas a family-managed farm could be just as the *contracted tenant households* of company Ace, which means a farm run by a family. As a matter of fact, the rural social differentiation has invalidated the conception of ‘household farming’. We should examine the different stratum separately. The general trend is that capitalist relations of production are taking shape in the countryside, and this has also been observed by scholars like Forest Qian Zhang (2008) who reveals 5 different types of agricultural producers in terms of their relationship with agribusiness.

What should be highlighted is that the different stratum of agricultural producers are defined with the four dimensions of relations of production, rather than the land area. For example, there are households whose land scale has reached over 50 mu, but do not use hired labor at all. These households could not be classed as capitalist family farmers. Meanwhile, a number of households who operate a farm comprises no more than 500 mu have already shown all characteristics of the capitalist farms. Moreover, there are possibilities that the different types of producers may transform. Therefore, it is better to take the agricultural producers as on a continuous spectrum, with one end as subsistence-based small producers and the other end as capitalist farmers, and all producers could find their positions on the spectrum.

Table 5.2 Different Types of 'Family Farms'

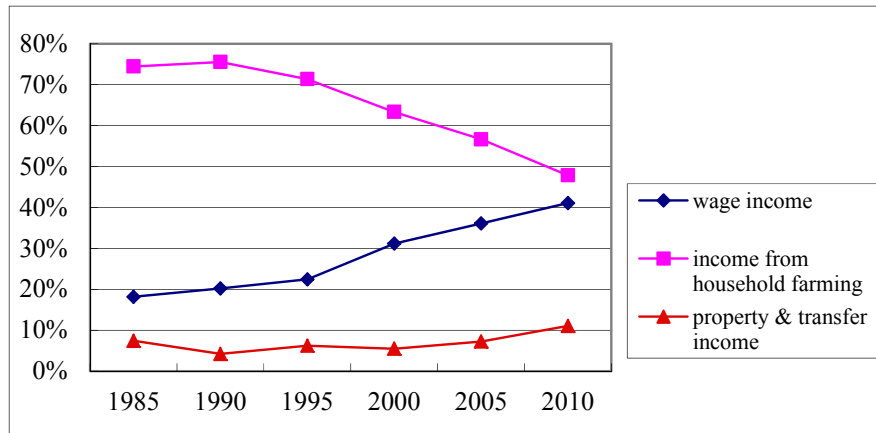
	Small producers	Medium producers	Big households	
			<i>Capitalized family farmers (CFF)</i>	Capitalist Farmers
Possess of means of production	Cultivating only their own contracted land (sometimes circulating in small pieces of land from kinsman for free) having no machines or small-sized machines	Taking over land for free from acquaintances, scaled from 20 to 50 mu, and possessing small-sized machines	Expanding land area through paying land rent, usually scaled from 50 to 500 mu, and possessing large/middle size machines	Expanding land area through paying land circulation fee, scaled over 500 mu, and possessing large/middle size machines
Social division of labor	Depending on family labor	Depending on family labor	Use family labor and wage labor	Depending mainly on hired labor for all the farming activities
Distribution of products of labor	Distributing within family	Distributing within family	Distributing within family, and paying for wage labor	Appropriating surplus value from wage labor
Consumption, accumulation and reproduction	Meeting the basic needs for family members	Meeting the basic needs for family members, and having some surplus	Pursuing for profit maximization and expansion of reproduction, aiming at an optimum scale	Pursuing for profit maximization, aiming at entering into the downstream of farming

Small producers: subsistence-based farming

Quantitatively, it is the small producers that still dominate. Small producers are those who cultivate their own land – sometimes they also take over small plots of land for free from their relatives or friends who migrate to cities – and depend exclusively on the family labor. Their production is mainly for family consumption, and much of the agricultural work is undertaken by middle-aged women or the elderly, which is usually described as ‘feminization and seniorization’ of agriculture (e.g. Huang, Gao & Peng, 2012, He, 2012a). Besides, wage income also contributes a lot to their family income. These households should be characterized as the ‘half-worker half-cultivator’ (*ban gong ban geng*) structure.

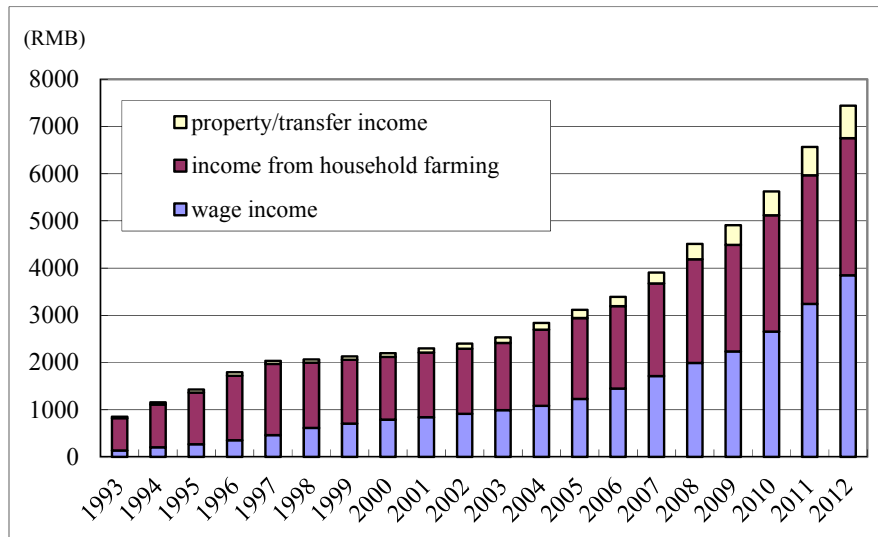
There is a growing trend that the wage income playing an increasingly important part in their household income. Based on the national data, Figure 5.1 shows the proportion of wage income in the rural household income from 1985 to 2010. There is a clear tendency that the proportion of wage income is ever increasing, whereas that of the benefits from household farming decreases rapidly. To be more specific, Figure 5.2 reveals the situation of Hunan province from 1993 to 2012. The contribution of wage to the household income has become largely equal to that of the household farming in 2009 in Hunan province; and afterwards, the average wage income exceeds the benefits from agricultural production for individual households each year. The similar findings have been demonstrated in other researches too. For example, the data from a longitudinal survey, which covers 9 of China’s 30 provinces, also shows that wage income has gone from contributing just one fifth of total household income in 1991 to three-fifths in 2006 (Dong, Bowles & Chang, 2009).

Figure 5.1 The Proportion of Rural Household Income (per capita),
1980-2010



Source: *Zhongguo nongcun tongji nianjian (China rural statistical yearbook)*, 2012: table 11-198.

Figure 5.2 The Constitution of Rural Household Income in Hunan
Province (per capita), 1993-2012



Source: The data comes from *Zhongguo nongcun tongji nianjian (China rural statistical yearbook)* 1994-1998: table 9-4; 1999: table 9-7; 2000-2005: table 11-7;

⁹⁸ The implementation of HRS in most regions of China is from 1978 to 1982 (in some regions even as late as the mid-1980s). The reason for the relatively high proportion of wage income in 1980 is that in some regions, the household income is still measured by *gongfen* (work points) which is normally taken as labor wage.

2006: table 11-6; 2007-2013: table 11-7. Data before 1993 is unavailable.

According to Chayanov (1986[1925]), the small commodity producers are simply subsistence-based cultivators, whose production supplies food for their families. All the other market-involved activities are taken as discretionary. Bernstein has interpreted it as ‘subsistence plus’ model (Bernstein, 2010: 103). He also makes it clear that once these households are integrated to the commodity relations, they are subject to the compulsions of commodification. Even if they farm only for their own consumption, they should have been subsumed in the commodity relations in other ways, normally through the labor market. The subsistence-based farming is supplemented by their wages, and the ‘subsistence plus’ model has been reversed (ibid.: 103-104). Essentially, the small-scale farming households could hardly reproduce themselves without wage income. This has resonated with a significant argument made by Lenin (1956: 179-180), who notes that every type of rural workers might have certain access to a small piece of land, the property of which might even be protected by law, but this does not make any difference in their class status as proletariat since their position in the capitalist system as ‘wage labor’ have been fixed.

The key point is how these small producers are subsumed in the overall economic system. There are two basically two ways. The first is that small-scale farming households supply wage labor both for the agricultural and industrial department. For example, the farm workers hired by the *contracted tenant households* of company Ace are mostly from these households. Secondly, the small-scale farming households are also important market for industrial products, particularly the agricultural inputs. In Luxemburg’s words (2003: 368), they are ‘the market for its (referring to the agro-capital or industrial capital) surplus value’. In another sense, it means that those who manufacture and market these products appropriate part of their agricultural surplus. The agricultural machinery work should be

highlighted here, as the small-scale farming is itself a market for the machinery work now. Since most of the small producers have just small-size machines or none, they normally pay the agricultural machinery operators for doing them the ploughing or harvesting. These work used to be completed manually by the family labor with no costs, although it may take more manpower input. But as a result of the rural-urban migration, most of the strong labor is engaged in off-farm activities far away from home. The left-behind female and elderly labor, who are not strong enough to take the work manually, have to depend on the machinery operators to work for them, meaning that they have to give up part of the agricultural surplus to the latter.

Medium producers: in precarious position

This group of producers has been mentioned in chapter four. Although operating a larger farm than the small producers, the medium producers do not use hired workers. But since they have more land than the small producers, they could normally have a regular surplus each year besides supplying food for their family, which promises them the potential to transform into capitalist producers. On the other hand, the land acquired by the medium producers is mostly for free from their relatives, which means that they may lose the free land easily when others pay land rent for cultivating it. In this sense, the medium producers are in a precarious position.

With reference to County Pingwan, the land scale of medium producers is usually larger than that of small producers – normally amounts from 20 to 50 mu. These households tend to take over land as much as possible from their relatives who migrate to work in cities, and they do not have to pay, or

pay very little for the land. To be sure, their land is in dispersed pieces in most cases. Moreover, as they do not pay the land circulation fee – could not afford to pay, to be specific, the accessible land is limited. These medium producers do not use wage labor, but input intensively their family labor. On the other hand, due to the lack of large-sized agricultural machines, they also need to pay for the machinery operators to do the rice harvesting – sometimes ploughing as well. Unlike the small producers, the medium producers rely more on the agricultural benefits rather than the wage income. The accumulation from agricultural production promises them the potential to transform themselves into *capitalized family farmers* when conditions permit – and there are always such ‘conditions’ in the agrarian change in China, as will be interpreted in the next section.

There are scholars who place high hopes on these producers, expecting them to be a stable force and be the hard core of the rural society (He, 2011; Chen, 2012; Lin, 2012; Yang, 2012). However, the medium households are far from being stable when the land circulation market has been established. The majority of these households could barely compete with those who pay land circulation fee for concentrating land, and would thus fall back into the stratum of small producers when no free farmland is available. On the other hand, as shown in the previous chapters, a small number of capable medium producers could successfully transform themselves into the *capitalized family farmers*, just like the *contracted tenant households* of company Ace introduced in chapter four.

Capitalized family farmers: the embryo of agricultural capitalism in rural China

The *capitalized family farmers* are a newly emerged group of agricultural

producers, who show the embryo of capitalist relations of production in China's agriculture. As suggested by Lehmann (1986: 606), the *capitalized family farm* is a way through the 'Chinese Wall', which, derived from Chayanov and the dependency theory, cannot be penetrated by capitalism, and would 'totally prevent peasant producers from becoming capitalists.'

The land size of *capitalized family farmers* normally scales from 50 to 500 mu, which is acquired through paying land circulation fee – the price is 200 RMB per mu on average in County Pingwan. Since the area of their farmland has been so large that it is hardly possible for these households to input only their family labor, the use of wage labor is indispensable. The extensive use of wage labor is what distinguishes them from the above two types of agricultural producers. In the meanwhile, family labor also play important roles in farming – for instance, it is normally the family members who operate the agricultural machines, which differs them from the capitalist farmers who have freed their family labor from direct farming activities. Moreover, profit maximization is their clear goal. There is an increasing number of this type of family farms in the past few years.

The formation of the capitalized family farms could be either due to the stimulation of external capital such as the agribusiness enterprises, or due to the spontaneous rural social differentiation; or due to the governmental promotion. Some capable medium producers who are lucky enough to take the opportunities could transform themselves to the *capitalized family farmers*. The most important conditions for the transformation are the access to land and funds. Although it is difficult for the medium households themselves to contract large tracts of land from numbers of individual households, there are other ways to access land. In county Pingwan, as mentioned in the previous chapters, since the county government has assigned certain zone as demonstration area for double-cropping rice cultivation, and the village and township cadres encourage those who are capable of doing large-scale farming to grow double-cropping rice, there are

a number of big households getting involved in. Taking the opportunities created by the local government, these households expand their land area and thus become *capitalized family farmers*. Moreover, the agribusiness such as company Ace also helps the medium producers to transform into *capitalized family farmers* through subsuming them as *contracted tenant households*. What should be noted is that not all agribusinesses with the intention to accumulate capital via industrial chain extension could achieve their goals. Some agribusiness enterprises who fail to figure an effective way of land operation, may suffer from great loss and left large area of farmland behind. The well-funded medium producers who could afford to pay the land circulation fee could then take over the land, and transform into the *capitalized family farmers*. There are also such examples in County Pingwan. Furthermore, even without the external factors, some medium producers may also be able to expand their land scale gradually and transform successfully⁹⁹.

One important point is that the income of the *capitalized family farmers* derives both from the rice cultivation and from the agricultural machinery work. On the one hand, these households could make considerable profits from rice cultivation. For example, Wang Guozhong, who operated a farm which comprises 300 mu, obtained a net benefit of over 120,000 RMB from rice cultivation in 2012. Wang has used wage labor extensively in farming, the cost of which amounted to 150,000 RMB in 2012. The hired workers undoubtedly contribute to the capital accumulation on his farm. On the other hand, they also make profits by doing agricultural machinery work for others. Those who do not have large-/middle-sized machines – referring to the small and medium producers – have become the major market for the agricultural machinery work. For instance, the net benefits from doing machine harvesting may amount to 60 RMB per unit, as demonstrated in

⁹⁹ The four paths of the formation of capitalized family farms in another article (Chen, 2013).

chapter four. Essentially, the benefits obtained by the machinery operators are part of the agriculture surplus produced by the small or medium producers. In this sense, the small-scale farming contributes to the primitive capital accumulation for the capitalized family farms.

The number of capitalized family farms has been ever increasing, particularly since the release of *Document No. 1 of the Central Government (zhongyang yihao wenjian)* of 2013, which highlights the governmental support on the development of *family farms, professional producers of large-scale farming (zhuan ye dahu)* and *rural cooperatives* (Xinhua Net, 2013). The governmental-promoted *family farms* should be better characterized as capitalized family farms, as the farm operation, according to the officers of the Ministry of Agriculture in China, should be ‘specialized, mechanized and intensive in farming’ (Guowuyuan xinwen bangongshi [State Council Information Office], 2013). The development of *family farms* in Songjiang District of Shanghai has been widely championed as the model cases (e.g. Nongmin ribao [Farmers’ Daily], 2013; Sina Finance, 2014). These farms, the area of which normally comprises around 10 hectares, are taken as the ‘appropriate scale operation’. They are championed as model *family farms* because few wage labor are used and the operators are able to make considerable profits. These farms are taken as the advanced organization form of farming.

However, a fundamental problem with this optimistic view is that the high motivation of reproduction expansion of these households is neglected. It is the capital accumulation dynamics rather than the subsistence-driven incentives that this type of *family farms* is predicated on. It means that their land scale will be in no way fixed at the area of 10 hectares. In order to make the best of their means of production – their agricultural machinery in particular, these households will definitely pursue for expanding their land to the optimum scale. The ‘optimum scale’ will be elaborated in the coming part. In a word, the emergence of the capitalized family farms has shown

the embryo of capitalist relations of production in farming.

Capitalist farmers: the formation of agrarian capitalists

The capitalist farms are closely connected to the capitalized family farms, and the essential difference is that the former has freed their family labor from direct agricultural activities, and depend mainly on the hired labor to do the farming. According to Marx, '[t]he capitalist requires a certain minimum amount of capital to be able to stop being a worker himself and to confine himself entirely to the direction of the labor, process and the conduct of trade with the commodities that have been produced' (Marx, 2008 [1863-1864]: 87). It is because only when the capitalist employs enough workers so that the surplus value produced by them could be sufficient to provide both the income for the capitalist's own consumption and the fund for accumulation, that he himself could be exempted from direct work and serves only as the overseer or the director of the labor process (ibid.: 82). When it comes to farming, only those who have freed themselves from direct farming activities, and serve completely as overseers of the farming process and are engaged primarily in the products sales, could be termed as the capitalist farmers. As a matter of fact, the *capitalized family farmers* have great incentives to transform themselves to the capitalist farmers, in order for better capital accumulation. This section will firstly show an important dynamics of the transformation, and further reveal the mechanisms of capital accumulation on the capitalist farms, with the exploration of their expanded reproduction at last.

Dynamics of land expansion: the agricultural machinery work

Huang Fuquan, approximately 40 years old, operates a farm of around 1,500 mu in Shuixiang town. Huang used to work as a technician in a garment factory in Guangdong until 2007. He came back home then because the two of his children have to attend school at home – there had been no policy that allowed the children of migrant workers to attend school in their working cities. Huang has invested in agricultural machinery since 2007, and has been engaged primarily in doing machinery work in the first couple of years. He purchased his first harvester in 2007 and more other machines in the next few years. By 2013, he has owned 3 harvesters, 2 large-sized ploughing machines, 9 rice transplanters¹⁰⁰. These machines have cost him more than 600,000 RMB. Besides, he opened up an agricultural inputs retail store in 2009. Moreover, Huang has started to contract land from others since 2011. His land area was around 100 mu in 2011 and 2012, and he has been engaged mainly in farming rather than doing agricultural machinery work since then, with high motivation to develop expanded reproduction. In 2013, he has expanded his farmland to over 1,000 mu.

In the first couple years, Huang was engaged mainly in agricultural machinery work, but he soon realized that the income from machinery work is unstable. Explained by Huang, it may take only 2 to 3 days for completing the machine harvesting of 100 mu of paddy field if the land is compact; however, it might take 4 to 5 days if the land is dispersedly owned by different small households. This is hardly surprising, as the harvesting time may be varied a lot when the rice varieties used by the households are

¹⁰⁰ In the first few years, Huang purchased the machines with his own savings. In 2013, he loaned 200,000 RMB from the Rural Credit Cooperative (RCC) with the local government guarantee. Huang explained that there were two reasons why he could obtain the large sum of loans from the RCC. On the one hand, he has had no adverse credit record in the past years when he loaned from the RCC for running his agricultural inputs retail store. On the other hand, as a well-known *big household* in rice plantation for a couple of years, the government has confidence in him and thus does not hesitate to be his guarantor in order to encourage the land circulation. As for the loan interest, Huang is reluctant to tell because the local government is involved.

different. The harvester may have to travel back and forth if this is the case, and it would surely be more time-consuming for doing the harvest. However, the best time for double-cropping rice harvesting is usually no more than 10 days. As there are more and more households buying agricultural machines in one village, the agricultural machinery work market has become increasingly more competitive. Thereby, in order to make the best use of the machines, it is better to contract compact area of land by himself. This is just like the industrial chain extension strategy of company Ace, who creates the market monopoly for agricultural inputs sales through the control over land. Likewise, the machine owners tend to have more land under their control to create a monopoly market for doing the machinery work.

According to Huang, the farmland should reach certain area in order to minimize the machine idle time. The ideal area, imaged by him, should amount from 300 to 500 mu, with 60 per cent of which cultivating double-cropping rice and the other 40 per cent cultivating middle-season rice and oilseed rape¹⁰¹. He explains that if the farmland amounts to 500 mu, with 300 mu of which cultivated with double-cropping rice and 200 mu of middle-season rice, the total machinery work area could be 800 mu a year, the amount of which is almost the maximum of working area for a harvester. If the land area is 300 mu, with 200 mu of which cultivated with double-cropping rice and 100 mu of middle-season rice, the total machinery work area would be 500 mu a year. Although the machine may be idled to some extent, the service life of the harvester could be one year longer. But 500 mu of working area is the floor level for a harvester, as the harvester is prone to rust and the rubber belt is liable to deteriorate, and thus the less of the machine idle time, the better. The ploughing machine is largely the same as the harvester. Moreover, agricultural producers like Huang Fuquan

¹⁰¹ The growing season for middle-season rice in Hunan province is normally from late April to September, whereas that of the oilseed rape is from October to April of the next year.

always expect a long period of the land circulation contract. Huang has made it clear that 3 years might be the minimum period that would allow him to make profits. The majority of Huang's 1000 mu of farmland has been contracted for three years, but the contract is made in different years, and there is also part of his land that is under one-year circulation contract. Thus, Huang still seeks to contract more land because the contract of part of his land would expire each year. Moreover, as he has more than one set of agricultural machines – one set of machines should include one ploughing machine, one harvester and one rice transplanter, he is able to manage more than 500 mu of land.

Importantly, the land operation strategy of Huang Fuquan has changed in 2013. In 2011 and 2012 when his land area was around 100 mu, Huang did the machinery work all by himself – although he hired labor in farming, and his income derived from both the rice cultivation and the machinery working. However, in 2013, he has exempted himself from all the farming activities, and served only as the overseer and the director of the farming process. Hired workers are used in all the farming activities, even in agricultural machinery operation. The evolution trajectory of Huang's farm typically reveals the transformation of a capitalized family farm to a capitalist farm.

One more point that should be noted is that the governmental promotion of the agricultural mechanization is creating a large number of machinery operators like Huang Fuquan, who are highly motivated to expand their land area. The agricultural mechanization is taken as the embodiment of agricultural modernization, and is highly championed by mainstream advocates. Also, there are large amounts of governmental subsidies in supporting the purchase of agricultural machinery. The subsidy policy for agricultural machinery purchase started in 2004, when the Chinese central government promulgated the 'The Law of the People's Republic of China

on Promotion of Agricultural Mechanization’¹⁰², declaring that ‘the central finance and provincial finance shall arrange special funds respectively, and subsidize farmers and agricultural production and management organizations to purchase the advanced and applicable agricultural machinery popularized under the support of the state.’ In 2004, the central finance arranged 70 million RMB as subsidies for agricultural machinery purchase. In the following years, the subsidy fund expands exponentially. From 2005 to 2013, the funds are 0.3 billion, 0.6 billion, 2 billion, 4 billion, 13 billion, 15.5 billion, 17.5 billion, 21.5 billion and 21.75 billion respectively (Xie, Yang, & Cao, 2013)¹⁰³, adding up to 96.15 billion RMB in the past 10 years. In specific, County Pingwan has received financial allocation of the special fund since 2004, which amounted to 2 to 3 million RMB each year in the first couple of years. The allocation amount goes up each year afterwards, and the fund in 2012 has amounted to over 12 million RMB (Pingwan xian nongy jixie guanli ju [Administration of Agricultural Machinery in County Pingwan], 2013). In the county, the subsidies accounts for 30% of the purchase price for each machine, following the principle of ‘first-purchase, first-subsidized’¹⁰⁴. Moreover, what should be noted is that those who could afford large-/middle- sized machines could receive more subsidies. In this sense, the subsidy policy for agricultural machinery purchase is more favorable to the better-off households, and virtually widens the gap between the better-off households and the poor villagers. As a result, the large sum of subsidy creates a surging number of agricultural machinery

¹⁰² For an English translation of the law, see: <http://www.lawinfochina.com/display.aspx?lib=law&id=3563&CGid>

¹⁰³ The data of 2013 is from the website of Ministry of Finance of China, see http://www.mof.gov.cn/preview/nongyesi/zhengfuxinxi/bgtGongZuoDongTai_1_1_1_1_3/201307/t20130726_969802.html.

¹⁰⁴ In County Pingwan, those who purchase agricultural machines should pay full price for the machines at first, and then apply for the subsidies. The machine subsidies may be transferred to the buyers’ bank account months later. Thus, it is less possible for those who could not afford to advance the money to acquire the subsidies.

owners, who are either *capitalized family farmers* or capitalist farmers.

The land expansion dynamics driven by the agricultural machinery possession is important to be noted, as there are researchers who, with good intentions, expect that the farm size will reach – and be stable at – the ‘appropriate scale’ by the year 2030. According to their estimation, the landholding per capita will reach 15 mu for the major grain producers and 3 mu for the cash crop producers by 2030. These scholars believe that this would result in full employment of the agricultural population (Huang & Peng, 2007; Huang & Gao, 2013). The problem is that the capital dynamics will promote the medium producers and *capitalized family farmers* to increasingly expand their land area, with those households possessing agricultural machines as good examples. Even those who have reached the ‘appropriate scale’, as expected by Phillip Huang and his co-authors, it does not mean these producers would not change. The result would be the continuous social differentiation among the agricultural producers.

Capital accumulation: profit-making from farming and agricultural machinery work

There is another example of the capitalist farm. Zhang Qiushi (who is a *contracted tenant household* of company Ace mentioned in chapter four¹⁰⁵), from the Liuquan Town, operates a farm of approximately 500 mu in 2013. In light of the four classes of agricultural producers, Zhang Qiushi should be classed as a capitalist farmer since 2010 when his land area reached 300 mu,

¹⁰⁵ The case of Zhang Qiushi is a little different from other *contracted tenant households*, in the sense that his land is not contracted from company Ace. Zhang is one of the first *big households* in County Pingwan, and he has expanded his land scale to over 100 mu under the help of the local cadres in 2009, when company Ace just started to circulate land in the county. In 2011, Zhang began to cooperate with company Ace, and became an agency household, nominally. Zhang purchases some inputs from the ‘agricultural inputs package’ of company Ace, but his land is not under the name of the company, and thus he does not have to sell his grain to the company.

as he depends completely on the wage labor in all the farming activities since then. His land operation situation in 2012 will be revealed in order to examine the profit-making of the capitalist farms.

On the one hand, the profits of the capitalist farms derive from the agricultural production. In 2012, he cultivated approximately 200 mu of double-cropping rice and 100 mu of middle-season rice. According to Zhang, he could not make any profits from double-cropping rice cultivation. The average inputs of one mu of double-cropping rice amounted to 2,200 RMB, whereas the output was no more than 750 kilograms. As the grain price in 2012 was 2.6 RMB/kilogram, the gross benefit amounted to 1,950 RMB. Without the governmental subsidies, it would be money-losing to grow the double-cropping rice. Even with the subsidies – such as the double-cropping rice cultivation subsidy of 150 RMB per unit, the subsidy for centralization of rice seedling nursing, which would amount to around 50 RMB per unit on average, and other subsidies – the result may turn out to be break-even at best. The cultivation of double-cropping rice is a ‘political task’ for these capitalist farmers in a sense. They choose to take the task in order to win the support from the local government in the other circumstances, such as in bank loan (like in the case Huang Fuquan) or in land circulation. On the other hand, the bright side is that Zhang could make profits from the middle-season rice. The average input per mu was 1,100 RMB on average, whereas the yield per unit reached 575 kilograms, which means that the net benefit from one mu of middle season rice amounted to approximately 400 RMB according to the grain price of 2.6 RMB/kilogram. Thus, Zhang’s overall net profits from rice farming amount to 40,000 RMB in 2012.

Zhang also states that he would like to expand his land area in the hilly areas rather than along the main roads in future – the land distributed along the main roads should be cultivated with double-cropping rice, which means that he intends to expand the area of middle-season rice. As he has freed himself from the farming activities, he spent a lot of time on land circulation.

He has already negotiated a six-year land circulation contract with some villages. These are the relatively remote villages, where the village road and other infrastructures are in disrepair for long, and thus the villagers agree to contract their land to Zhang Qiushi without any charge if he promises to rebuild the infrastructures. Zhang has made the budget that the average investment in the infrastructure rebuilding would amount to 50,000 RMB, which will be well worth for him, because the better infrastructure, for instance, better tractor road would make it easier for doing the agricultural machinery work.

On the other hand, Zhang also make profits through hiring machinery operators to do the agricultural machinery work, which is an important part of his capital accumulation. As indicated by Hart (1994), the capitalist farmers are often engaged in other activities, such as rural retail trade and transport, renting out draft animals and tractors and etc., which are termed as ‘diversification for accumulation’. In the case of Zhang, the possession of agricultural machinery allows him to accumulate capital through renting them out. Zhang has six ploughing machines of his own, two rice harvesters – which he purchases with a partner and should also shares the profits from which with the partner, and seven rice seedling transplanters. Zhang owns one of the transplanters, and shares the cost of the other six machines with six other households respectively. His investment in machines amounts to approximately 110,000 RMB. As aforementioned, he does not operate any of the machines by himself, but hires machinery operators to do the work. Deducted by the labor wage and other costs – such as the oil fee and machinery depreciation, Zhang could still make profits from the machinery work.

The possession of machinery not only allows him to be flexible in the farming arrangements¹⁰⁶, but also enables him to make profits from hiring

¹⁰⁶ Without his own machines, Zhang would have to rent others’ machines. In the busy farming season, there would always been numbers of households queuing up for the

wage labor to operate these machines. Take the rice harvester as an example. Zhang purchased the two rice harvesters in 2011 and 2012 respectively with his partner Liu, who is a *capitalized family farmer* – and also a Secretary of Village Branch of the Communist Party of China – in the neighbor county. Liu does not operate the machines by himself either, and he shares the machine cost with Zhang in order to share the profits from the machinery work. In Liu's county, the popularization of machines is a little earlier than in County Pingwan, and thus there are more agricultural machines in his county, which makes the machinery work market more competitive there. Liu believes that they would gain more profits if using the rice harvesters in County Pingwan, and therefore both machines serve in Zhang's county. Liu is simply an investor, who pays half the cost of the machines and takes his share of the profits. Zhang Qiushi, who takes charge of putting the machines into operation, also benefits from this partnership. It is not only because he could obtain his share of the profits, but also, because the share of machine costs reduces his financial pressure. The first rice harvester, bought in 2011, was middle-sized, the working area of which could reach 500 mu as maximum a year. The original price of the machine was over 60,000 RMB, and with the governmental subsidy, they paid around 40,000 RMB. By the end of 2012, the profits from the machinery work have covered the cost. They sold this harvester at the price of 10,000 RMB, which means that each of them obtain a net income of 5,000 RMB from this machine. They purchased the second harvester, a large-sized machine, at the price of approximately 80,000 RMB in 2012 – the original price of this machine amounted to 96,000 RMB. The working area of this harvester could reach 800 mu a year. As the sown area of Zhang in 2012 was only 500 mu¹⁰⁷,

machinery operators to do ploughing or harvesting for them. Thus, there should be high possibility that some households missing the best season, which would cause benefit loss. Thereby, the ownership of agricultural machinery is vital for the large-scale agricultural producers.

¹⁰⁷ Zhang cultivates 200 mu of double-cropping rice and 100 mu of middle-season

these machines also work for other agricultural households. Estimated by Zhang, the service life of this machine may be 3 years, and the cost could be covered in the first one-year-and-a-half. It means that the profits in the second one-and-a-half years, which also amounts to around 80,000 RMB, will be their net profits. In short, Zhang and his partner invest 40,000 RMB each in the large-sized harvester, and each of them could make a net profit of 40,000 RMB in three years – or, around 13,000 RMB per year.

The reason why Zhang collaborates with different households to purchase the rice seedling transplanters follows a divergent logic from cost-sharing. The cost of the transplanters is quite low with the governmental subsidies. As the government is vigorous promoting the popularization of the transplanters, a substantial amount of subsidy fund has been appropriated. For example, a buyer should spend only 1,450 RMB to have a small-sized transplanter, the original price of which may reach 15,450 RMB. Therefore, it is not the financial pressure that is of concern to him. He shares the cost of these machines with his partners in order to have enough skilled operators – referring to his partners – to do the rice seedling transplanting for him. As explained by Zhang, the rice seedling transplanting machinery has only been introduced in the county not before long, and thus the experienced operators of the transplanters are in critical shortage. It means that even if Zhang could afford to buy all these transplanters, it is difficult for him to hire the operators. Through collaboration with his partners, he could well solve this problem. These people who have purchased the machines would be motivated to learn how to operate them, and Zhang hires them to do the machine transplanting after they complete the work in their own field. He is able to apply machine transplanting as much as possible in his paddy field in this way, which helps saving a considerable sum of costs in rice transplanting, as the wage cost of the rice seedling transplanting may be

rice.

doubled if the work is completed manually.

There is one more point that should be highlighted. The profits from the agricultural machinery work are important reasons why these capitalist producers are content to grow the double-cropping rice. Other than taking it as a political task, the growing of double-cropping rice also makes economic sense for these producers. In the case of Zhang Qiushi, he pays the machinery work fee even when using the harvesters in his own paddy field, so as to calculate the cost/benefit of the machines and to share the net profits with his partner. Therefore, when he complains that he could barely make any profits from the double-cropping rice cultivation, he does not really include the profits derive from the machinery work. As calculated above, the average net profits from the machine harvesting work could be over 13,000 RMB per year for Zhang, the profits of which are derived from the double-cropping rice growing. Moreover, in 2012 when the sown average of rice amounted to only 500 mu, Zhang has to rent out the machines – referring that he hired the operators to do the machinery work for other individual households – to work for those small-/middle-scale farming households in order to avoid the machinery idle. But with the expansion of his land scale – for instance in 2013 when his farm area has reached to approximately 500 mu, he could have all his machines running at full capacity by serving his own land. In this sense, the profits he makes from agricultural machinery work should not be separated from the profits derived from farming.

Further, what is noteworthy is that the profits obtained by these capitalist farmers derive from the surplus value produced by the hired workers. As the capitalist farms rely completely on hired labor, labor management is vital to the farm operation. Zhang is undoubtedly an experienced manager. He explains that one reason that he purchases so many machines is for better labor arrangement. ‘The people I hire work 8 hours a day, and I serve them three meals a day. I am not like those smaller-scale producers who hire wage

labor for just one day or two. Starting from February, I need to use the wage labor in farming up until November. If a worker gets too exhausted in the first day, he may not be able to work in the next, so I do not ask them to work over time. I want them to get good rest. Why do I buy so many machines? (Because) I would rather hire more people than have them work extended hours. In the busy season, there are up to 5 hired operators doing machine ploughing for me. The people I hire are all elder ones. If they get sick due to the overwork, no one could work for me... If a machine operator works over 20 days a month, he may get more than 3,000 RMB that month.’ It has shown that Zhang is quite calculating in labor arrangements, so that these workers may not be too exhausted to work for him. But the relatively good treatment of the hired workers could not cover the fact that Zhang, as a capitalist farmer, appropriates the surplus value created by his hired labor – not only the machinery operators, but also the labor who undertake the other farming activities. For the capitalist farms, both the profits from farming and from the agricultural machinery work derive from the surplus value produced by the hired workers.

Reproduction expansion: the dynamics of extending the industrial chain

Although the capitalist farmers are motivated to expand their land area in order to make the best of their resources, such as their machines and manpower, they also pursue for expanded reproduction through investing in the downstream of farming, i.e. in the agricultural products processing.

There is a well-known *big household* in rice production in County Pingwan, who has operated a farm of approximately 5,000 mu¹⁰⁸ since

¹⁰⁸ The specific average of his farm is controversial. Some people insist that his land scale is just around 2,000 mu, and the reason why he inflates his farm scale is to

2010. Lu Ping, born in 1978, may be the first capitalist farmer in County Pingwan. Lu's family had migrated to Guangdong province since 2000, and run a shoe shop there. Their business grew rapidly in the first few years. However, since around 2007, they faced difficulties in the shoe business. As introduced by Lu himself, inspired by the news and TV programs, which introduce the stories of those successful agricultural producers who operate large-scale farm, he came back home by the end of 2008, and invested the 1 million RMB of his saving into the land operation in 2009. His farm comprised around 1,000 mu of land in 2009, all of which lies in the assigned double-cropping rice cultivation area, and thus it is the local government that contributed a lot to the land circulation. In 2010, Lu further expanded his land area to 5,000 mu. The land circulation contract involves 8 villages, and the land distributes mainly in his own village and neighbor villages where his kinsmen reside. Explained by Lu, his father has five brothers, and thus Lu has many cousins, which makes them a big family. He divides his land into a number of tracts – the area of each tract amounts from 100 to 200 mu on average – in accordance with the location, and pay monthly salary to his kinsmen to take charge of the farming activities on each tract of land. In some sense, the kinsmen Lu hires are similar to the *contracted tenant households* of company Ace. The big family, according to Lu, is his unparalleled advantage in land operation.

What makes Lu Ping the most well-known agricultural producer in County Pingwan is that he is the first one in the county who has been awarded as the ‘*national advanced individual in grain production*’ (*quanguo liangshi shengchan xianjin geren*). Lu Ping was awarded in 2012. Although the advanced individuals in grain production have been awarded for nearly 10 years, the year of 2012 is special in the sense that the award is issued by the State Council instead of the Ministry of Agriculture (MOA). Lu explains

defraud the governmental subsidies. It is difficult to confirm the data, but the undisputed fact is that his farm size ranks only second to company Ace in the county.

that any national advanced individual awarded by the State Council could enjoy the same preferential treatment as the *National Labor Heroes*¹⁰⁹, and he is the only one in County Pingwan who enjoys this honor. Besides, he obtained a very large-sized tractor as a reward, which is inapplicable in the hilly area like in County Pingwan. He sold the machine at the price of over 100,000 RMB. The story of Lu Ping is quite widely known, particularly among these *big households*, and stimulates them to enlarge their land area.

The awards of *the national advanced units/individuals in grain production* each year, which is started by the MOA in 2004 as a way to promote the increasing of national grain output (Nongyebu [MOA], 2004), is quite influential. This title brings not only social prestige, but also economic benefits, just as in the case of Lu Ping. This award has inspired quite a lot of *capitalized family farmers*, or capitalist farmers like Lu, to expand their land area, as the land area and grain output are the main indicators in the evaluation. For instance, in the 2013 notification of the award (Nongyebu [MOA], 2013), it has been made clear that the grain cultivation area of those who is over 500 mu, or whose grain output is over 250,000 kilograms, could be qualified as candidates. As a matter of fact, those who manage farms of over 500 mu of land must be endowed with sufficient funds, and be undoubtedly relied primarily on hired workers in farming. In this sense, this award functions as a great incentive for the development of capitalist farms.

However, enlarging land size is not the ultimate goal for these capitalist farmers, and they have every incentive to extend the industrial chain into the downstream of farming. Lu does not plan to further expanding his farm size in the coming few years, but intends to engage in grain processing as the next plan. The insufficient of fund is what prevents him to do so at present,

¹⁰⁹ The preferential treatments for the *National Labor Heroes* include special subsidies for the labor heroes, festival consolation money, and etc. Moreover, these treatments are life-long, and the individuals could enjoy the retire treatments as the civil servants.

but he is making preparations. As a start, as the government is vigorously promoting the development of rural cooperatives, he has registered a rice-cultivation cooperative and is the general director of the cooperative himself, so as to enjoy the governmental subsidies and support on the cooperative. The land area involved has amounted to over 8,000 mu, as introduced by Lu, in which 5,000 mu are under his name. In his plan, members of the cooperative will cultivate the same variety of the high quality rice, so that he could market the rice under his own brand – Lu has registered a rice brand already. Probably, this cooperative will be one of the many ‘fake cooperatives’ in China, which are dominated by the *big households*, as criticized by scholars (e.g. Zhang, 2011; Zhang, 2009; Wen, 2009b: 11; Yan & Chen, 2013). But for Lu Ping, the cooperative is just a paving stone in his way of the industrial chain extension. The whole picture as visualized by Lu is that he accumulates capital in the whole industrial chain, i.e. from rice cultivation, grain processing, to rice marketing. Lu believes that the engagement in grain processing and rice marketing would be risk-reducing, insomuch as even if there is some benefit loss in the grain cultivation, he could make profits from the downstream of the industrial chain. Understood by Lu, the industrial chain extension is the general trend in the future, and it is unwise to equate the ‘agriculture’ with ‘farming’ in the new age, which exactly resonates with Bernstein’s remind: ‘... farming, once the most localized of activities, becomes a part of “agriculture” or the “agricultural sector”’ (Bernstein, 2010: 61).

It is of great significant to understand that the capitalist farmers’ motivation in extending the industrial chain into the downstream of farming shares the exact logic of the agribusinesses, such as company Ace. As interpreted in the previous chapters, the capital accumulation dynamics of company Ace is to extend its industrial chain from the upstream of farming into the agricultural production itself, and further to the downstream of farming. Importantly, both the agribusiness enterprise and the capitalist

producers are involved in the industrial chain extension process, although in different directions. This has shown the formation of agricultural chain of production and the dynamics of the agro-capital accumulation.

The emergence of the capitalist farmers, no matter where their primitive funds derive from – maybe from the agricultural machinery work, from the profits of farming, or from the benefits of running off-farm business, shows a change of the relations of production in the countryside. What should be noted is that these capitalist farmers are unexceptionally the rural elites who have more access to the local resources, either in the political or economic sense. The research conducted by Harriss-White and co-authors also indicates that in the development of capitalist economy in Arunachal Pradesh of India, it is the local elites (i.e. politicians, businessmen, traders and bureaucrats) who have access to the resources of the state, become the rentier class and are able to accumulate wealth (Harriss - White, B. et al 2009). Anyway, as these households are mostly originated in the rural society, we take them as the representative of the endogenous capital.

Until now, the continuous spectrum of agricultural producers has been fully presented. At one end of this spectrum are the subsistence-based producers, whereas the capitalist producers, who are motivated to extend the agricultural production into the downstream of farming, are at the other end. What is noteworthy is that the capital accumulation of the capitalized family farms and the capitalist farms involves the small-/middle-scale farming households. The former two classes and the latter two ones are connected both through labor hiring, and through doing the agricultural machinery work. Through labor hiring, the surplus value produced by the labor from the small-/middle-scale households is appropriated by the *capitalized family farmers* and the capitalist farmers, whereas through the machinery work, the small-/middle-scale households who have no machines give up part of their agriculture surplus to the machine owners in exchange of the machine

ploughing/harvesting work. The internal connection is what underlies the social differentiation, which is also re-shaped by the process of capital flowing to the countryside. The next section will focus on how the entry of exogenous agro-capital impacts the on-going rural social differentiation process.

Rural social differentiation accelerated by the agribusinesses

The spontaneous rural social differentiation is being re-shaped when the agribusiness enterprises involve themselves in land operation. Specifically, the social differentiation of agricultural producers may be deepened by the agribusinesses.

Small producers: been preserved

Small producers contributing to the capital accumulation of the agribusinesses

The small producers contribute to the capital accumulation of company Ace, indirectly, in two senses. On the one hand, they are the source of the agricultural wage labor. Although not directly hired by the company, the workers are connected to company Ace through working for the *contracted tenant households*. On the other hand, the agriculture surplus produced by the small-scale farming households, part of which is appropriated by the *contracted tenant households* through the agricultural machinery work – the *contracted tenant households* of company Ace charge for doing machine

rice transplanting/harvesting/ploughing for them, facilitates the capital accumulation of these households. The survival and stable of the *contracted tenant households* underpins the operation of company Ace. In this sense, the small producers have indirectly contributed to agribusiness indirectly.

Researchers have pointed out that one reason for the persistence of small-scale family farming under the capitalism is that they supply labor power (Luxemburg, 2003; Kautsky, 1988). The examination of the agricultural vertical integration in China reveals that the small producers may not be directly employed by the agribusinesses. In the case of company Ace, it is the *contracted tenant households* who hire farmhands from the small-scale farming households.

What should be noted is that although it is the *contracted tenant households* who hire the wage labor, it does not mean that company Ace distances itself from labor employment. As a matter of fact, the company gets involved when the *contracted tenant households*, particularly the non-local ones, have difficulty in labor hiring or labor management. As explained in chapter four, the non-local *contracted tenant households* may encounter various difficulties in dealing with the villagers. Here is an example mentioned by one manager of company Ace. Yang Junhui, who is from the Zhantai Town, has contracted a farm comprising around 400 mu in Shuichuan Town from company Ace. As a non-local *contracted tenant household*, Yang had a hard time in labor hiring in 2012. Based on his budget on rice seedling transplanting, the daily payment for the hired labor should be 120 RMB/day for each labor; however, he could not hire enough farmhands to do the work, as most of the villagers expected a payment of at least 130 RMB for each working day. The rice seedling transplanting was in slow progress due to the lack of labor power. It worried the local government, as Yang's contracted land distributes in the assigned area of double-cropping rice cultivation, and there would be regular checks from the higher-ups right after the transplanting season. Company Ace then got

involved. Having been engaged in land circulation and land operation in the county for a few years, the company has gradually developed its own social network within the county, which allows it to be able to access available labor force. Through hiring workers from some relatively remote villages, who agree to accept the payment of 120 RMB per day, the labor shortage problem was well solved. As explained by this manager, the involvement of the company is necessary because the labor wage should be kept down, so that the *contracted tenant households* could make more profits, and that the turn-over rate of these households could be reduced. Otherwise, if Yang Junhui had been forced to raise the daily payment for his hired labor, the labor price on the local labor market would have to rise, which should have adverse impact on the other *contracted tenant households*. One more point that should be noted is that, it is the unbalanced economic development of different towns/villages that makes it possible for the company to hire labor at a lower price. There are always some remote villages with limited access to working opportunities, and thus people from these villages would be content to take the low-paid jobs.

Virtually, the labor of small households has hardly any bargain power with the company on the labor market. Although it has been made clear on the land circulation contract that those who have contracted their land to the company should be given priority in labor hiring *if all other conditions are equal*, the prerequisite of this priority is that these villagers should accept 'the equal conditions'. In Yang's case, the villagers who circulate their land to company Ace refuse to accept the daily payment offered by Yang Junhui, and thus lose their 'priority'. Virtually, these villagers are at a disadvantage position in their relations with the agribusinesses. Moreover, in order to save cost, the *contracted tenant households* tend to use as less wage labor as possible. Instead, they are more inclined to use the agricultural machines in replacement of manpower, which has created a huge reserve army of labor. The surplus labor also put the small-scale farming households at a

disadvantage.

Other than serving as a reservoir of labor power, small households also contribute to the capital accumulation of the *contracted tenant households* through paying for the agricultural machinery work. The *contracted tenant households*, as interpreted in the previous chapters, are essentially in an indirect employment relationship with company Ace, indicating that they are under the exploitation of the agro-capital. It is barely possible for them to be able to reproduce on an expanded scale only through farming. As a matter of fact, most of the *contracted tenant households*, who possess large-/middle-sized agricultural machines, make considerable profits through doing the machine ploughing or harvesting for the small-scale farming households. As aforementioned, if the service life of a rice harvester is three years, the owner could not only cover the cost of the machine, but also make the same profits as the cost in the three years. The key is that the profits made by the machine owners are in effect part of the agriculture surplus produced by the small producers. These households used to do the ploughing or harvesting manually – or with farm cattle, which did not add to the farming costs. However, the outflow of strong rural labor who pursue for higher-paid jobs, has made it impossible to complete these farming activities manually. They should pay 100 to 120 RMB per mu for those who doing the machine harvesting/ploughing, the payment of which is essentially part of their agriculture surplus.

The interconnection mechanism among the company, the *contracted tenant households*, and the small-scale farming households is as follows: the *contracted tenant households* who are exploited by the company, sustain the expanded reproduction through the direct exploitation of the hired labor from small-scale farming households and the indirect appropriation of agriculture surplus produced by the these households via the machinery work. Without the direct exploitation and indirect appropriation of the surplus value of the small-scale farming households, the *contracted tenant*

households could hardly survive, which means that the whole industrial chain of the company may not be sustained without the small-scale farming households.

The preservation of small-scale farming is conducive not only to the development of the agro-business, but also to the whole economy. In Wilson's words, they provide 'the labor subsidy to capitalism', referring to 'the economic provisioning that comes from outside the dominant capitalist system but becomes integral and necessary to the functioning and expansion of that system' (Wilson, 2012: 204). Not only company Ace, but also the capitalist farmers in County Pingwan, has realized that their development entails the preservation of the small producers. For instance, after two years' exploration, Lu Ping has found out that his farm should be juxtaposed with the small-scale individual households. He used to think that it would be no good if his hired workers still keep their small landholdings, because these wage labor were very likely to 'steal' his fertilizers or pesticides home. After one or two years, however, Lu has clearly found out that these labor would much prefer to migrate to work in cities than work on his farmland if they were left with no land at home. The result is that Lu would avoid contracting the land of his hired labor in land circulation. Company Ace follows the same logic in land circulation as well. Even if their land has to be circulated to the company so as to keep the land compact, these households will get a piece of land – the area of which equivalent to their own land, sometimes even larger – set aside by the company from its contracted land as a replacement. This has unsurprisingly resonated with the argument made by Kautsky (1988), who asserts that the shortage of labor power would motivate the large landholdings to retreat before smaller ones in land concentration.

Moreover, Marx has also made comments on the fate of small immediate agricultural producers based on the empirical experience of England in the

seventeenth century. According to Marx,

‘The process ... which creates the capitalist-relation can be nothing other than the process which divorces the worker from the ownership of the conditions of his own labor; it is a process which operates two transformations, whereby the social means of subsistence and production are turned into capital, and the immediate producers are turned into wage-laborers. So-called primitive accumulation, therefore, is nothing else than the historical process of divorcing the producer from the means of production (Marx, 1976: 874-875).’

It is important to note that the primitive accumulation process is to clear the way for the capitalist system. The pre-capitalist relations of production in the European countries used to be the obstacles for the capitalist accumulation, which motivates the capitalist entrepreneurs to disintegrate the pre-capitalist social formation. The dispossession of the immediate producers of their means of production has turned them into commodity, to be bought and used by capitalist entrepreneurs. However, in the case of China, which should be characterized by the commodity economy since the implementation of *open-up* policy in the late 1970s, the commodification of labor does not entail absolute dispossession of their means of production. With the commodification of subsistence and means of production, as demonstrated in chapter two, it has been more and more difficult for the farming households to reproduce themselves simply through the agricultural activities, which forces them to sell their labor power in exchange of the means of subsistence. The commodification of rural labor proceeds without the disintegration of the small-scale farming. To put it another way, the persistence of small producers in the commodity economy does not impede the expansion of capitalist relations. In contrast, it has turned out that the ‘half-worker half-cultivator’ structure could better contribute to the

capitalist economy. The study on rural-urban migrant workers in China has pointed out the contributions made by these migrant workers – who should be taken as the semi-proletarianized workers – to the global capitalism. As part of their reproduction could be completed through farming, the wage of these migrant workers is lower than those full proletarians who receive a social welfare package, which reduces the labor costs of the capitalist enterprises (Pun et al., 2009).

Moreover, farming today has become more and more fragmented, which means that the agriculture surplus produced by the small-scale farming households may be appropriated by the agricultural machinery operators, the agricultural inputs retail store owners, and the grain dealers. It implies that even the subsistence-based farming could contribute to the capitalist accumulation both within and outside the agriculture department. It has been demonstrated by researchers that the proportion of profits obtained by household producers in the whole industrial chain has reduced from 56% in 1999 to 43% in 2010 (Wu, 2012). The capitalist enterprises have developed a range of methods to have the small producers under their control, and the persistence of small producers is in no conflict with their capital accumulation.

Furthermore, the small-scale household farming in the current context should never be taken the same as that before the founding of the People's Republic of China. Scholars like Phillip Huang and his colleagues (2011: 163) argue that 'family' today is still a basic economic unit, like in the past, which comprises both principal and auxiliary labor. The old 'half-agriculture half-handicrafts' (*ban geng ban fu*) family unit has now become the new 'half-worker half-cultivator' (*ban gong ban geng*) family unit (Huang, 2010a). However, even though both the 'half-agriculture half-handicrafts' and the 'half-worker half-cultivator' structures are household-based, they are quite different in terms of their relation to the market. The old 'half-agriculture half-handicraft' households sold their products – instead of

labor power – to the market, which means that they still possessed the means of production, and were free from the direct exploitation¹¹⁰. On the other side, the new ‘half-worker half-cultivator’ families could hardly reproduce themselves without selling their labor power to the market, which means that they are in deeper level of proletarianized. With the wage income playing an increasingly important part in the household income, they have become more ‘wage labor’ than ‘agricultural cultivators’. In this sense, although the small producers are preserved – or recreated (Wilson, 2012), the general trend of proletarianization is irresistible.

Medium producers: differentiation accelerated

As indicated in the previous chapters, a majority of the *contracted tenant households* of company Ace derive from the medium producers. The agribusiness enterprises provide opportunities for a small number of medium producers to transform themselves into the *capitalized family farmers*, which is one side of the coin. On the other side, the majority of medium producers would be dissolved, falling back to be small producers.

The majority of medium-scale producers, who take over the land from their relatives or friends free of charge, would be dissolved once the *land circulation market* has been established. The agribusiness enterprises, as

¹¹⁰ What has to be noted is that the ‘half-agriculture half-handicraft’ households have gone through a significant change in the nineteenth century. Demonstrated by Fei Xiaotong (2006), the handicrafts had used to be consumed by those who lived in the cities, and whose resources derived from the land rent and other exploitations. The income from selling the handicrafts had subsidized the rural households. In this sense, although the urban-rural relationship was exploitive, there had been compensation from the urban residents to the rural producers through the exchange of handicrafts. However, the semi-colonial treaty ports opened in the nineteenth century have deepened the urban-rural exploitation, as the urban consumers have largely turned to buy the imported commodities, causing the bankrupt of the rural producers.

well as the capitalized family farms and capitalist farms, which pay the land rent – the *land circulation fee*, to be specific – for land concentration, contribute to the formation of *land circulation market*. In most cases, the medium producers could not afford to pay the land rent, which, in County Pingwan, ranges from 200 RMB to 300 RMB per mu for the paddy field. For a medium producer who grows 20 mu of rice, the net benefit from the rice cultivation may reach 20,000 RMB, if the land is acquired for free. But if deducted by the land rent of 200 RMB per mu, their benefit would reduce by 20 per cent. As it normally takes a household 6 months in rice cultivation, they expect a net income of 20,000 RMB at least; otherwise, the family labor would rather take off-farm jobs in cities. Thereby, most of the medium producers are reluctant to pay the land rent. As a result, the majority of these households may probably lose the land, which they take over for free, and fall back into the stratum of small producers.

Only a few lucky ones could successfully transform themselves into the *capitalized family farmers* through ‘collaborating’ with the agribusiness enterprise. As interpreted in chapter four, there are some medium producers who have great incentives to expand their land area. These households usually have limited access to the available land and enough funds, and thus contracting land from company Ace is a shortcut for them, as shown in the cases of Ma Fumin and Liu Juncui in chapter four. Being the *contracted tenant households* of company Ace, these households are able to expand their land area and be funded by the enterprise. The capable ones may even reproduce at an expanded scale with good management. On the other side, however, there are also unlucky ones like Wan Yingheng and some non-local *contracted tenant households* who have difficulty in running the large-scale farm. The unsuccessful agency households may ‘fall back to’ the small-scale farming. In this sense, the land concentration of the agribusinesses may accelerate the differentiation of the medium producers.

As argued by Tong Zhihui and Wen Tiejun (2009), the rural social

differentiation will be increased with the transference of capital and departmental capital¹¹¹ to the countryside. According to these scholars, the collaboration of the *big households* with the agro-capital or departmental capital, aiming for the expanded reproduction, has deepened the rural social differentiation. Virtually, the medium producers will be polarized into small-scale farming households and *capitalized family farmers* in the spontaneous process of rural differentiation, even with no external forces. This general trend is irresistible when the commodity economy has spread. The capital-flowing-to-countryside only accelerates the differentiation process.

Capitalized family farmers: collaboration with agribusiness as a way to transform into capitalist farmers

The ‘company + *contracted tenant households*’ strategy adopted by company Ace is in effect the ‘collaboration’ between the agribusiness and the capitalized family farms, although it is the company that dominates the ‘collaboration’. Through contracting land from the company, the previous medium producers have transformed themselves into the *capitalized family farmers*. However, the capital accumulation dynamics of the capitalized family farms will eventually lead the well-operated *contracted tenant households* to get independent from the company. The *contracted tenant households*, as interpreted in chapter four, are indirectly exploited by the agribusiness enterprise, which goes against the capital accumulation of these capitalized family farms. They are motivated to operate independently in

¹¹¹ The transference of departmental capital to the countryside means that the governmental departments which concern the agricultural production getting involved in the profit-earning businesses, including providing paid services to the agricultural producers.

pursuit for expanded reproduction.

The case of Liu Juncai (introduced in chapter four) serves as an example. Liu has contracted 110 mu of farmland from company Ace since 2011. After ‘collaboration’ with the company for three years, he plans to operate the farm on his own from 2014. As the five-year land circulation contract signed by Company Ace with the villagers in Liu’s village will end in 2013, he intends to contract the land from the villagers by himself, which means the land will be under his name – instead of under the name of company Ace – from 2014. There are some other *contracted tenant households* sharing the same idea. For example, Liang Tianming, a local-based *contracted tenant household* who has contracted around 200 mu of land from company Ace in Xiangjiang Town since 2012, also plans to stop being the *contracted tenant household* of the company, and to operate his own farm after 2014. Liang even considers contracting a larger area of land from the villagers.

The reason why they would like to operate independently, as expressed by these *contracted tenant households*, is that they feel ‘restrained’ collaborating with the company. The ‘restraint’ may be interpreted in two senses. On the one side, some *contracted tenant households* complain that their farming arrangements were frequently interrupted because of the low work efficiency of the company. Yang got very angry with the company once, because the delay delivery of pesticides from the company nearly made him miss the time for pest control. The ineffective management of the company may increase the risk faced by these *contracted tenant households*. On the other side, both Liu Juncai and Liang Tianming have complained that the company takes too much of their profits via the sales of the ‘agricultural input packages’. Besides, Liu argues that they have limited choices on the varieties of fertilizers and pesticides, which may have forced them to spend extra money on the agricultural inputs. In short, the *contracted tenant households* are at a disadvantage in their relationship with the company, which hinders them from reproducing at an expanded scale.

Fundamentally speaking, the capital accumulation of the company Acend that of the contracted capitalized family farms goes against each other.

To sum it up, on the one hand, the collaboration with the company is a shortcut for the medium producers to transform themselves into the *capitalized family farmers* or capitalist farmers. The reason why Liang Tianming chose to collaborate with company Ace in the first place is that he was in shortage of funds then. He could settle the account with the company Ace after harvesting as a *contracted tenant household*, which relieved his financial pressure. On the other hand, however, these *contracted tenant households* are at a disadvantage position in this collaboration, which prompts them to operate independently after two or three years. For these households, the collaboration with company Ace allows them to accumulate both the land operation experience and social prestige as *big households*. After being the *contracted tenant households* for two or three years, they may be well-known as *big households* in their towns, which would make it easier for them to contract land from the villagers of their village/town. Whether or not the land rent could be paid in time is one of the concerns of those who are reluctant to rent out their land. Villagers normally have more faith in those experienced *big households*, which makes these *contracted tenant households* of company Ace more favorable. Moreover, the profits they made from being a *contracted tenant household* also promise them the potential to run large-scale farms on their own in the future. In short, the land operation experience as well as profits they obtained when serving as *contracted tenant households* will facilitate these *capitalized family farmers* to transform into the capitalist farmers.

Capitalist farmers: competing with the agro-capital in land circulation

As aforementioned, the capital accumulation dynamics of the capitalist farmers – who should be taken as the incarnation of endogenous capital – are the same as the agro-capital – the exogenous capital – that flows to the countryside, in the sense that they both pursue to accumulate through the industrial chain extension. Moreover, the control over land is fundamental for both of them to make profits from the upstream and downstream of farming. Therefore, the capitalist farmers are most likely to compete with the agribusiness in land circulation.

It is important to note that the operation strategy of company Ace is replicable, and some agricultural inputs retail stores have been engaged in land operation, following the footsteps of company Ace. Hong Yungui, the head of the agricultural technology extension station of Huaigu Town, has run his agricultural inputs retail store since the late 1990s. Hong involved himself in land operation since 2009 because part of the land in his town had been assigned as demonstration area of double-cropping rice cultivation. Collaborating with the deputy town chief, he contracted over 200 mu of land in the assigned area in 2009 to grow double-cropping rice. One year later, the deputy town chief quitted, but Hong kept contracting more land. In 2013, his land area has reached over 500 mu. The same as company Ace, all the agricultural inputs used in his contracted land are from his own store. Besides, Hong relies completely on hired labor to do the farming. His knowledge on the agriculture technology allows him to break even in the double-cropping rice growing – with the governmental subsidies of course. The profits he makes derive mainly from the agricultural inputs sales. Moreover, Hong Yungui has been awarded as the *provincial advanced*

individual in grain production in 2011 and 2013. Capitalist farmers like Hong may be a competitor of company Ace from a long-term perspective, as both the capitalist farmers and the agribusinesses pursue to further expand their land area.

Moreover, some storekeepers of the agricultural inputs retail stores may not involve themselves directly in land operation, but collaborate with the *capitalized family farmers* or the capitalist farmers intensively. Liang Tianming, who intends to operate a farm independently from company Ace, has mentioned that he may cooperate with the head of agricultural technology extension station in his town, who runs an agricultural inputs retail store. The cooperation with the retail-store owners could reduce the financial pressure of the capitalist farmers like Liang, as the agricultural inputs could be supplied to them on credit. Furthermore, their cooperation could go further. For example, the owner of the retail store may share the other costs on land operation with the capitalist farmers, and could thus share the benefits as well.

The capitalist producers have emerged in the countryside, maybe in different identities at present, i.e. the agricultural inputs retail store owners, the agricultural machine operators, the head of the agricultural extension stations, the village cadres, the big households, and etc., and this class may probably be in competition in land circulation with the agribusinesses. The future interaction between this newly emerged class and the exogenous agro-capital still needs to be further explored.

To sum it up, this section has shown that the social differentiation of agricultural producers has been accelerated when the agribusinesses involve themselves in land operation. First of all, small producers, who could make contributions to the capital accumulation of the agribusinesses – they also contribute to the overall economy, are preserved. Secondly, the medium producers are the most heavily affected by the agribusinesses. Whereas a

few lucky ones successfully transform themselves into the *capitalized family farmers* through contracting land from the agribusiness enterprise, a majority of them are pushed back to be engaged in small-scale farming. The differentiation of the medium-scale farming households is accelerated. Thirdly, the *capitalized family farmers*, who are highly motivated to reproduce at an expanded scale and become capitalist farmers, may complete the transformation through collaborating with company Ace, i.e. being the *contracted tenant households*. In this sense, it is the agribusiness enterprise that creates conditions for the *capitalized family farmers* to transform in a relatively short time. Last but not the least, the newly emerging capitalist farmers shares the same logic of capital accumulation as the agribusinesses, in the sense that the former also seeks for capital accumulation through extending the industrial chain of production. This class of agricultural producers is the one that may be in competition with the agribusinesses in land. As a matter of fact, the social differentiation of agricultural producers should be an inevitable course in an economy characterized by commodification, the process of which would proceed in the countryside even without the involvement of the exogenous capital, and the agro-capital only contributes to the acceleration of this process.

Conclusion

This chapter has explored the influence of the capital flowing to countryside on the rural social differentiation. It is important to note that the rural social differentiation process has been accelerated by the involvement of the exogenous agro-capital.

The Lenin-Chayanov debate on the social differentiation of rural producers has provided useful analytical framework in examining the

agrarian issues in China. Whereas the Chayanovian scholarship believe in the vitality of small producers and insist that they could resist the penetration of capitalism, the Marxists, represented by Lenin, argue that the small-scale farming will eventually be dissolved, and rural society will be polarized into capitalists and proletarians. Although the Chayanovian reading is widely championed by the Chinese scholars, it fails to explain the on-going agrarian change in China, and the commonly-used conception of ‘household farming’ is not well-defined. This chapter evaluates both approaches in the exploration of the rural social differentiation and the impact of the agro-capital that flows to the countryside on the differentiation.

To begin with, the rural social differentiation is revealed in terms of the relations of production, i.e. the possession of means of production, the social division of labor in farming, the division of products of labor, and consumption, accumulation and reproduction. Based on the four dimensions – instead of the land area – the agricultural producers in rural China are classed in four strata: the small producers, medium producers, *capitalized family farmers* and capitalist farmers.

- Quantitatively, it is the small producers that dominate. These small producers should not be taken as subsistence-based cultivators as defined by Chayanov. They have been deeply embedded in the commodity economy, which means that they are subject to the compulsions of commodification. The small-scale farming households are largely the ‘half-worker half-cultivator’ households, with the wage income contributing to an increasing part to the household income. Moreover, the commodification of the means of production allows those who possess the means of production to appropriate the agriculture surplus produced by these households.

The small producers contribute to the capital accumulation of company Ace through being employed by the *contracted tenant*

households. These contracted households who are exploited by the company, reproduce themselves through the direct exploitation of the hired labor supplied by the small-scale farming households and the indirect appropriation of agriculture surplus produced by these households via the machinery work. Small producers are preserved rather than dissolved, as their existence does not impede the capital accumulation either within or outside the agriculture department. Nonetheless, even though the small producers may survive temporarily – or maybe in a lasting period – the general trend of proletarianization is irreversible, as they could acquire a shrinking part of profits from the whole industrial chain, and wage income plays a more and more important part in their household income.

- The medium producers, who could take over the land of their kinsmen or friends for free, are able to make some accumulations from farming. These households rely exclusively on their family labor. Some researchers expect these medium producers to be stable and be the hard core of rural society, but they are in effect far from being stable, particularly when the land circulation market has been established and they have no more free access to extra land.

The involvement of the agribusiness enterprise in land operation has accelerated the differentiation of the medium producer stratum. A small number of capable medium-scale farming households are able to transform themselves into the *capitalized family farmers*, whereas a majority of them have to fall back to small-scale farming households, as they could not afford to pay land rent.

- The *capitalized family farmers*, who normally possess large-/middle-sized machines, pay the land rent for land

concentration, use both family labor and wage labor, and pursue for the maximization of profits, represent the embryo of capitalist relations of production in China's agriculture. The formation of the capitalized family farms could be either due to the stimulation of external capital such as the agribusiness enterprises, or due to the spontaneous rural social differentiation. These producers derive profits both from farming and from the agricultural machinery work – which means they appropriate part of the agriculture surplus from the small producers.

The collaboration with the company is a shortcut for the medium producers to transform themselves into the *capitalized family farmers*. However, the capital accumulation dynamics of the capitalized family farms will eventually lead the well-operated *contracted tenant households* – the *capitalized family farmers* – to get independent from the company, as the latter appropriates too much of their profits. These independent *capitalized family farmers* are most likely to develop into the capitalist producers.

- The capitalist farmers shares the most characteristics with the *capitalized family farmers*, and the main difference between them is that the former ones are endowed with more funds and land, which allow them to free their family labor from direct farming activities, and act only as overseers. For the capitalist farmers, the possession of farming machines motivates them to expand their land area in order to reduce the machine idle time. In rice cultivation, the optimum land area for those who possess one set of agricultural machinery is 300 to 500 mu. Thus, even if their land area reaches the 'appropriate scale' – for instance 150 mu, as reported in the case of the 'family farms' in Shanghai, it does not mean that they would stop land expansion. Moreover, these producers have great incentives to extend the industrial chain of

their production and get involved in the downstream of farming. The capital accumulation dynamics of these producers is quite similar to that of the agribusinesses, in the sense that they both expect to accumulate capital from the whole industrial chain, although they are engaged in different parts of the chain.

The capitalist farmers are newly emerged in the countryside. Sharing the same expansion logic, they may be in competition with the agribusiness in land. The future relationship between them needs to be further explored.

Chapter Six: Capital flowing to countryside and agrarian change in China

Chapter two to chapter five has revealed the micro practice of *agricultural vertical integration* through a case study of an agribusiness enterprise. This chapter will go back to the research objectives interpreted in the introduction chapter, and attempt to answer the agrarian question in China.

The development of *agricultural vertical integration* involves different subjects: the agribusiness enterprises, the state and the differentiated agricultural producers. Taking the *agricultural vertical integration* as the cutting point, this research attempts to characterize the on-going agrarian change in China. The myth on advancing agricultural modernization through the development of *agricultural vertical integration* and large-/appropriate-scale land operation, which are both capital-dominated, would lead to the destroying of household-based farming system, and the acceleration of rural polarization. In order to examine the expansion of capitalist relations, the role of the state in the process, the contribution of agriculture to the industrial accumulation, as well as the path of agrarian capitalization in China has been explored.

The role of state in China's agrarian change

It is important to note that other than the surplus industrial capital, the state capital, in forms of governmental subsidies and the *project funds*, is also part of the *capital* that flows to countryside. The abolition of agricultural taxes in 2004, and the low contribution of agriculture to China's

GDP (10 per cent), implies that the state capital derives primarily from the industrial sector. The discussion of the role of state in China's agrarian transformation is predicated on this understanding.

In order to better connect the 'small producers' with the 'big market', the Chinese government attaches great importance on promoting the *agricultural vertical integration*. Also, the development of *family farmers*, rural cooperatives and specialized *big households*, who are the large-/appropriate- scale land operators, is taken as the only way to modernize China's agriculture. Substantial governmental subsidies and *project funds* have been allocated to support their development. The governmental financial investment in agriculture, which could also be taken as the state capital, has undoubtedly strengthened the power of the agro-capital.

Moreover, the local state is also actively involved in the process of *capital flowing to countryside*. The concern of local finance and the governmental achievements is what motivates the local state to collaborate with the agribusinesses. Since the tax-sharing reform in the mid-1990s, the local government has relied more and more on the fiscal transfer payment from the central finance. The transfer payment serves as the means for the central state to regulate the agricultural development. The title of 'major grain-production county' has been created as an incentive for encouraging the increase of grain output. Those counties are honored would receive large amounts of transfer payments from the central state, which has prompts the agricultural counties such as County Pingwan to make every effort to compete for this title. The cultivation area, as well as the grain output, is the main criteria to be eligible for the award. Since the expansion of cultivation area of double-cropping rice is the most convenient way to meet the two requirements, the county government has taken every effort to encourage individual households to grow double-cropping rice. These individual producers are very reluctant to do so, insomuch as it is uneconomic to grow

double-cropping rice. After a lot of failed attempts, the local government alters to collaborate with the agribusiness enterprise. As the agribusiness derives its profits not from the rice cultivation, but mainly from the agricultural inputs sales, it benefits from the collaboration. The company actually contributes a lot to the county's success in the competition of the 'major grain-production county'. This title brings large amount of award funds to the local government, which is crucial for funding the local finance. However, in recent years, the award funds are increasingly transferred through *project funds*, which means that the counties have to complete certain projects in order to obtain these funds. The projects includes the *Green Farming Base Project, Mechanical Rice Transplanting Promotion Project, Greenhouse Rice Seedling Nursery Project, Demonstration of the Application of Formula Fertilization by Soil Testing Project* and etc. These projects could be easier completed with the assist of the agribusiness, which has both the manpower and material resources to be mobilized. The projects not only bring economic benefits for the local state, but also keep good records of the local government's performance achievements. Also, the agribusiness enterprise has made profits from completing the projects too. In this sense, the *project system* has become an institutional force that ties the local state to the agribusiness enterprises together.

The contribution of agriculture to industrial capital accumulation

One sense of the agrarian question concerns the role of countryside in allowing capital accumulation to proceed outside of agriculture. The transfer of 'surplus' from agriculture constitutes the main part of the industrial accumulation in the earliest stage of industrialization. Marx has been

theorized the process as ‘primitive accumulation’ (Marx, 1976: 873-876). This research focuses on the role of agriculture in the middle stage of industrialization, when the agriculture contributes to only 10 per cent of the China’s GDP. The study of *agricultural vertical integration* provides a referential perspective in approaching this issue. The agribusiness enterprise not only directly appropriates the agricultural surplus from the producers who have contracts with the enterprise, but also involves, indirectly, the common small producers in its capital accumulation chain.

The *agricultural vertical integration* has proceeded rapidly in China. The exploration of the capital accumulation dynamics of the agribusinesses is important in understanding why there are more and more agribusiness enterprises contracting land from the countryside. Controlling land is one of the strategies for these agribusinesses to extend their industrial chain, so that they could obtain more profits from the ‘upstream’ and/or ‘downstream’ of farming. In the case of company Ace, the control over land allows it to establish a monopoly market in agricultural inputs sales. The company could thus make extra profits through contracting land to the *contracted tenant households* who should buy the ‘agricultural inputs package’ from the enterprise. These are the households who are motivated to expand their land area, but have limited access to available land. They choose to accept the terms of the company – even though they are aware that the price of the agricultural inputs is higher than the general market price – so that they could expand their land operation scale. As a matter of fact, the extra profits obtained by the company Acere in effect part of the agricultural surplus produced by the *contracted tenant households*. However, both the company Acend the contracted households pursue for expanded reproduction. It has turned out that their pursuits are incompatible, as the capital accumulation of the company is predicated on maximizing the exploitation of surplus value produced by the *contracted tenant households*. It is the exploitation that drives them to ‘get independent’ from the company once they are ready

to operate large-scale farms on their own.

Moreover, the small/medium producers also contribute to the capital accumulation of the enterprise. The small-/medium- scale farming households are connected to the enterprise through the *contracted tenant households*. These contracted households pursue to reproduce at an expanded scale, but since the company has appropriated a large part of the agricultural surplus produced by these households – mainly through raising the price of the agricultural inputs, the latter has to develop other strategies to make profits. The most effect way is to engage in the agricultural machinery work. Owning large-/middle- sized agricultural machinery, the *contracted tenant households* could do the machine ploughing or harvesting for those who do not have machines. The profits from the machinery work are considerable, which allows the machine-owners to make accumulations. Without these profits, the *contracted tenant households* could hardly reproduce on the same scale, let alone pursuing for expanded reproduction. In other words, the profits from agricultural machinery work subsidize these households, which makes the exploitive ‘company + *contracted tenant households*’ system sustainable. Further, the machinery work fee paid to the machine-owners is essentially part of the agricultural surplus of the small-/medium- scale farming households. In this sense, these relatively small producers contribute to the capital accumulation of the agribusiness enterprises indirectly.

The findings here are against the mainstream discourse on *agricultural vertical integration*, which argue that it may result in a ‘win-win’ situation between the agricultural producers and the agribusinesses. As shown in the analysis, the ‘agricultural producers’ are differentiated. Even though the some of the *contracted tenant households*, seemingly, make profits, they are only a small group of producers who follow the capitalist dynamics. As a matter of fact, it is hard to say whether these contracted households ‘win’ in the game. Even though the collaboration with the enterprise provides a

springboard for these households to expand their operation scale, they are in effect indirectly exploited by the enterprise, and a large part of their profits derive from the machinery work they provide for those with no machines. Otherwise, these contracted households would not so eager to get independent from the company once they are ready to operate on their own. Moreover, the majority of ordinary producers, who make indirect contributions to the capital accumulation of the agribusiness enterprises, share no benefits from the expansion of *agricultural vertical integration*. What is worse, the previous medium producers, who could not afford the land rent, actually suffer benefits loss, because the agribusiness enterprises contract the land which was cultivated by the medium-scale farming households for free. Thus, taking *agricultural vertical integration* as the only way out for China's agriculture and the way to narrow down the urban-rural income gap is unreasonable.

Further, what facilitates the agribusiness to appropriate the agricultural surplus from the contracted households, and involves the ordinary producers in its capital accumulation is that the agricultural production in the modern economy is essentially an integral part of a whole industrial chain. Both the 'upstream' and 'downstream' of farming are dominated by the industrial capital. The immediate producers take a shrinking part of the benefits from the industrial chain, whereas the agro-capital appropriates the majority. This is hardly surprising in the modern economy. As pointed out by Bernstein, in the pre-capitalist societies, '[w]hat we call "agriculture" was... simply an aggregation, the sum total, of farmers and their activities. ... (The connection between farmers and non-farmers) were not affected by the wider division of labor, processes of technological change and market dynamics that came to characterize "agricultural sector" in industrial capitalism.' (Bernstein, 2010: 64) He insightfully notes that the 'agricultural sector' was invented in the development of capitalist economies, which means farming together with all the specialized institutions and activities,

and the ‘upstream’ and ‘downstream’ of farming which affects the activities and reproduction of farmers. In this sense, farming/agriculture has been closely connected to the industrial capital, with the former systematically contributes to the capital accumulation of the latter.

The capitalist agrarian transformation in China: different trajectories of subsumption of labor by capital

The agrarian question also concerns the path of agrarian transition. In China, the expansion of capitalist relations of production in agriculture is a debatable topic. The mainstream discourse on promoting the ‘agricultural modernization’ emphasizes that the large-/appropriate- scale land operation would be more *productive* than the small-scale household farming, the focus of which is on the advancement of *productive forces*; however, the change of *relations of production* in the development of large-/appropriate- scale producers has been neglected. On the other side, the populist-oriented scholars who insist that the small producers should be strongly supported, also, do not pay enough attention on the emergence of capitalist relations of production in agriculture. The capitalist transition of China’s agriculture, maybe due to the ideological concerns, has largely been avoided. The examination of the operation of *agricultural vertical integration* in China provides a referential perspective in looking into the expansion of capitalist relations of production in agriculture, and the different trajectories of subsumption of labor by capital.

In the case of this research, the enterprise has developed different land operation strategies. One question that should be answered is why the

company contracts the land to individual households, instead of managing a large-scale farm with hired labor and overseers. An important reason is that it is difficult to effectively supervise the agricultural activities. Moreover, since the profits in agricultural cultivation are limited, land operators normally could not afford to hire overseers. After attempting different land operation strategies, the agribusiness finds out that contracting land to the local *contracted tenant households* is the most efficient one. It means that these households should pay the land rent to the company – the same amount of which is then paid by the company to the land owners, buy the ‘agricultural inputs package’ from the company, and sell their grain to the company after harvesting. The contracted households should be self-responsible for profit and loss in rice cultivation, indicating that the company has disengaged itself from the cultivation process. The profits – and also the risks – from rice cultivation have been ‘left to’ the contracted households, whereas the company obtains profits mainly from the agricultural inputs sales and the grain marketing. In this way, the company saves all the trouble and cost in land operation, but obtains the most profits from the industrial chain. Moreover, the shape of ‘household farming’ is preserved – in the sense that the producers are not separated from the means of production, so that the social networks of these households could be utilized in land operation for saving costs. It implies that the company could integrate the social resources of these contracted households into its capital accumulation. However, the preserve of the shape of ‘household farming’ could not cover the fact that these contracted households are in indirect employment relationship with the company. As a matter of fact, the benefits obtained by these contracted households are simply equal to the total wage payment of their family labor. The employment relationship between these contracted households and the company is covert, but this type of relationship could be widely observed in the operation of agribusinesses. Additionally, just like the *contracted tenant households* who are in indirect

employment relations with the agribusiness enterprise, those who involved in *contract farming* are much the same. As one form of the *agricultural vertical integration*, the *contract farming* is also expanding rapidly in China. The contracted households are subsumed by the agribusinesses through buying the agricultural inputs and selling their products to them. They may have the land of their own, but it could not save them from being exploited because the agro-capital may develop different strategies to have the agricultural cultivation process under control. In this sense, the development of *agricultural vertical integration* results in the expansion of capitalist relations, but the subsumption of labor by capital happens without outright dispossession of their means of production.

The exogenous agro-capital flowing to countryside is one side of the agrarian change in China; on the other side, it is the emergence of endogenous capital inside the rural area, which is represented by the (quasi-)capitalist producers. The (quasi-)capitalist producers who are derived from the differentiation of the agricultural producers, indicates the emergence of capitalist relations of production in agriculture. As a matter of fact, the rural social differentiation has proceeded before the development of *agricultural vertical integration*. Most studies on the rural social differentiation focus primarily on the economic differentiation of rural household income, and present static classifications of different households. The dynamic interaction among different stratifications is filtered out in these analyses. Moreover, this classification fails to reveal the change of agricultural production structure, as the wage labor plays a more and more important part in the rural household income. Those who are classified in the middle-income households may fall into two categories in terms of the major source of income. The rural households whose income derives primarily from agricultural production and those who are engaged mainly in off-farm work may both be the middle-income households. However, the former ones may own their means of agricultural production and pursue for

expanded reproduction, and the capital accumulation of whom may have impact on the other agricultural producers; whereas the latter households probably possess much less (or no) means of production of their own, and since their main economic activities happen outside the countryside, they have less influence on the agrarian change. In order to look into the transformation of agricultural production, this research examines the rural social differentiation in terms of the relations of production instead of the household income.

There are four strata of agricultural producers in China: small producers, medium producers, *capitalized family farmers* and capitalist producers. The small producers are those who cultivate their own land and are mostly the 'half-worker half-cultivator' households. For most of the small-scale farming households, it is the wage income that contributes to the main part of their household income. The medium producers take over the land of their kinsmen or friends who have migrated to cities without paying land rent, and are able to make some accumulations from farming. Thus, they have the potential to transform into the *capitalized family farmers*. The *capitalized family farmers* pay land rent in order to concentrate large tracts of land, and normally possess large-/middle-sized machines. Unlike the small producers and medium producers, these *capitalized family farmers* use both family labor and wage labor, and pursue for the maximization of profits. They represent the embryo of capitalist relations of production in China's agriculture, and thus could be taken as the *quasi-capitalist farmers*. Besides, the capitalist producers has also emerged in the countryside, who distinguish with the *capitalized family farmers* in the sense that the family labor of these households are freed from direct farming activities. These producers use exclusively wage labor in farming, and pursue for expanded reproduction through extending the industrial chain from cultivation to agricultural products processing. Although the number of *capitalized family farmers* and the capitalist producers is relatively small at present, they develop rapidly

particularly since the beginning of the 2010s. The *(quasi-)capitalist farmers* depend exclusively on wage labor in farming, which means that their accumulation derives from the direct appropriation of the surplus value created by the hired labor power. The labor relations on these farms represent the ideal-typed wage-labor-based capitalist relations.

What should be noted is that the emergence of *(quasi-)capitalist farmers* in the countryside is an endogenous process, which, though, maybe influenced by external forces such as the state policy and the flow-in of exogenous agro-capital. As a matter of fact, the differentiation among agricultural producers has been accelerated by the rapid expansion of the *agricultural vertical integration*. Most notably, a small number of capable medium producers transform themselves into the *capitalized family farmers* through collaborating with the agribusiness enterprise, whereas the majority of them fall back to small-scale farming, as they could not afford to pay land rent. Moreover, these *capitalized family farmers* (who are the *contracted tenant households*) who contract land from company Ace seek to get independent from the company, as the latter appropriates too much of their profits. The independent *capitalized family farmers*, with all their accumulations and land operation experience, are most likely to develop into capitalist farmers. In this sense, the agribusiness has facilitated the formation of *(quasi-)capitalist producers* in the countryside.

To sum it up, the agrarian change in China should be characterized by the confluence of the top-down promotion and the bottom-up practice, both of which lead to the expansion of capitalist relations in agriculture. Both the exogenous agro-capital flowing to countryside and the formation of endogenous capital inside the countryside contribute to the process. Different trajectories of labor subsumption under the endogenous and the exogenous capital have been identified. It is important to note the subsumption of rural labor by capital may happen without outright

dispossession of their land or other means of production, which means that the proletarianization of labor may not be the only way of labor subsumption under capital. Emphasized by Bernstein, ‘... capital is capable of exploiting labor through a wide range of social arrangements in different historical circumstances. ... (It has) demonstrate(d) how fluid and ambiguous such categories as “landless labor”, “tenant farmers” and “small peasants” often are in social reality, because the same people can move between those positions at different moments or even occupy them at the same time. The presumed boundaries between “free” and “unfree” labor can be similarly fluid and ambiguous.’ (Bernstein, 2010: 34) Banaji has also suggested that there are a number of concrete forms of dispossession and control of agrarian labor by capital in different historical circumstances, which means there may be different trajectories of subsumption of labor connecting with different trajectories of accumulation (Banaji, 2002: 115). It suggests that the expansion of capitalist relations in the countryside – characterized by the growing power of capital – may not be necessarily accompanied by the booming of proletariat agricultural workers. The indirect, covert employment relationship may exist more extensively in China. The original English path of agrarian change, which is characterized by agrarian capital employing proletarian wage labor, may not be the unique type of agrarian capitalism. In this sense, the understanding that equate agrarian capitalization with the expansion of employment relations in agriculture has to be re-examined. The findings of this research could help to re-evaluate an influential argument, which characterize China’s agriculture as capitalization without proletarianization.

In a recent research, Phillip Huang points out that the Chinese agriculture should be characterized as capitalization without proletarianization, which means that the substantial capitalization in agricultural – showed in the increased capital input per unit of land – is not followed by the surge of agricultural proletariat. Having demonstrated that the hired agricultural

year-workers in China account for only 3 percent of all labor input in agriculture, Huang notes that China's agriculture is still dominated by the small producers. However, the 'capitalization' conceptualized by Huang refers mainly to the increase of 'capital' input in agriculture, which is divergent from Marx's interpretation. According to Marx, money in itself is no more *capital* than are the means of production and of subsistence; rather, *capital* implies the dynamics between the owners of money, means of production and means of subsistence, and the sellers of their own labor-power (Marx, 1976: 874). In this sense, the capitalization of China's agriculture should be examined otherwise. Moreover, the argument on the low proportion of proletarianized farm workers should also be re-scrutinized.

First, the proportion of agricultural wage labor may need to be evaluated in the long term. An observable trend is that the agrarian transformation of China has been accelerating particularly since the late 2000s, represented both by the massive agro-capital flowing to countryside and by the growing of capitalist land operators inside the countryside. The governmental encouragement on farmland circulation since the Third Plenary Session of the Seventeenth Central Committee (in 2008), as well as the promotion of the development of *family farms* in the No.1 Document of Central Government in 2013, have contributed a lot to this trend. Moreover, the on-going rural social differentiation since the Reform and Open-up has created a large stratum of agricultural producers – the medium producers – who have the potential to operate large-scale farms. The governmental promotion of the large-/‘appropriate’- scale operation serves as the catalyst of the transformation of these potential producers. It means that China's agriculture is going through a rapid agrarian change, which may last for the coming decades. Therefore, the low proportion of proletarian farm workers at present may not be constant at 3 percent.

Second, proletarian wage-labor-based agriculture may not be the unique

form of agrarian capitalization. As demonstrated by the case of the agribusiness enterprise, the agro-capital could develop a wide range of strategies in capital accumulation and labor exploitation. The direct labor employment is only one of them. Contracting land to individual households has turned out to be a more effective way of land operation for the agribusiness, as the social resources of these households could be utilized in farm operation at the minimum cost. The contracted households are seemingly autonomous, but are in effect indirectly employed by the enterprise. When the agricultural production system has been subsumed to the capitalist economy, labor exploitation may not be indispensable for capital accumulation. The different trajectories of labor subsumption under capital suggest that the exploration of the capitalist relations of production in farming should be flexible.

Scholars like Phillip Huang tend to insist that household farming still dominates China's agriculture. However, what has to be noted is that household producers in the current context are never the same as the pre-capitalist small producers. According to Marx (1976), these small producers are doomed to be dissolved with the development of capitalist agriculture. In a sense, Marx's prediction has come true. The pre-capitalist producers, who were engaged in subsistence farming, were largely outside the capitalist economic system since they had very limited need for market exchange. Although small producers exist extensively in China today, they have been deeply embedded in the commercialized economic system. As the result of the commodification of means of production, independent farming households now contribute a lot to the profits of industrial enterprises which are specialized in the 'upstream' or 'downstream' of farming through paying for the agricultural inputs. They are unable to produce outside the market, which has confirmed Marx's statement on the demise of subsistence-based producers. As an integral part of the whole economic system, the perpetuation of the small producers today does not impede the capital

accumulation. Thus, the survival of small producers should be interpreted in the commodity economy. The perpetuation of household farming could in no way alter the big picture of capitalist agrarian transformation in China.

Because of the complexities of labor subsumption under capital in different historical context, it may not be appropriate to take the size of agricultural wage labor as the only indicator to characterize the expansion of capitalist relations of production in agriculture. New dimensions need to be further developed to better theorize the agricultural capitalism.

New challenges for rice production: cheap rice import

One limitation of this research is that the grain marketing has not been well explored. The market-oriented grain marketing system reform since the 1980s has contributed to the agricultural commodification.

Moreover, the rice import since 2012 has impacted the rice producers. Since 2012, rice import has been increasing. The import in 2012 has reached 2.31 million ton, with the year-on-year growth of 3.1 times. According to the Chinese government, the supply tension of rice should not be taken as the main reason for import increase; instead, it is due to the price different of rice at home and abroad¹¹². Since the proportion of rice import accounts for only 1.7 per cent of the domestic output, there is no need to worry about the food security in China (Zhongguo shangwubu [Ministry of Commerce of the PRC], 2014). The import in 2013 amounted to 2.24 billion ton, which was only slightly lower than that of 2012 (Zhongguo guojia liangyou xinxi zhongxin [China National Grain and Oils Information Center], 2014). However, the impact of rice import on China's rice production seems to

¹¹² Those rice processing enterprises which use rice as raw material prefer to buy the cheap import rice, resulting in the benefit loss of the local rice milling enterprises.

have been underestimated. Until 2014, a substantial number of small-/medium-sized rice processing enterprises has been influenced. According to a report, around 28 percent of rice milling enterprises in Jiangxi province – a major rice production province – was forced to shut down, due to the low price of import rice and the relatively high price of domestic unhusked rice. As a matter of fact, the price of import rice is lower than that of the unhusked rice, resulting in the benefit loss of those enterprises engaged in rice milling¹¹³. Moreover, the agricultural producers are not spared. In normal years, it is estimated that over one half of the paddy is purchased by private enterprises. Due to the low profit from rice processing, the troubled enterprises are reluctant to purchase paddy from the rice producers, which should definitely affect their benefits (Renmin ribao [China People's Daily], 2014). Not only in Jiangxi, rice enterprises in Jiangsu province (Zhongguo wang [China Net], 2013) and Hunan province (from my field research) are also affected.

Interpreted by the Chinese government, the price inversion of rice should be taken as the main cause for the import increase. In order to stimulate grain production, the Chinese government sets minimum purchase price for staple grain. The increase of minimum purchase price for paddy in the last few years has contributed to the relatively rising of income for rice producers. However, it has also resulted in the price inversion of paddy and rice. What would be the further impact of rice import on China's rice enterprises has to be further studied. Moreover, how the world market price would affect our domestic rice production also needs to be questioned.

¹¹³ Rice milling enterprises should not be equated with the rice processing enterprises. The former ones are normally engaged in processing paddy into rice, whereas the latter ones use rice as their raw material and process rice into other products, such as rice noodles.

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