BRILL

Rural China: An International Journal of History and Social Science 13 (2016) 47-76

Rural China
中国乡村研究
brill.com/rchs

The Rise of the Middle Peasant Economy: Non-Capitalistic Agricultural Development and Its Mechanism—The Case of Wu Village, Anhui

Jianlei Zhang
East China University of Science and Technology
zhangjl767@163.com

Jinqing Cao
East China University of Science and Technology

Yunyun Yang
City University of Hong Kong
yyyangunun@163.com

中农经济的兴起：农业发展的去资本主义化及其机制——基于皖中吴村的调查

张建雷、曹锦清、阳云云

Abstract
The rise in China of a middle peasant economy, which differs from the pattern of development of capitalistic agriculture emphasized by mainstream theory, holds out the prospect of the development of small-scale agriculture in China. In some villages where foodgrain crops are the main

[1] Authors' note: We thank Philip Huang and the anonymous referees for their suggestions. Special thanks to Yang LIU for his assistance in the survey. We would also like to thank Richard Gunde for his help in improving the English. All the names of villages and informants mentioned in this article are pseudonyms.

This work is supported by the National Social Science Foundation 国家社科基金项目 with Grant No. 14CKS037.

Jianlei ZHANG, Department of Sociology, and Center for China's Urban and Rural Development Studies, East China University of Science and Technology; Jinqing CAO, Department of Sociology, and Center for China's Urban and Rural Development Studies, East China University of Science and Technology; Yunyun YANG, Department of Applied Social Sciences, City University of Hong Kong.

DOI: 10.1163/22136746-01301003

products, the middle peasant economy with an appropriate scale of farmland, resulting from spontaneous and reciprocal land transfers among peasants, and relying on the use of family labor, can achieve the spontaneous transformation and development of the small peasant economy, expand agricultural employment, increase the income of peasants, and also improve the organizational ability of peasants. If carried out on a wide scale, this will fundamentally change the reality of China's agriculture as "involutionary" and lead to the development of agriculture and prosperity in rural society. The middle peasant economy demonstrates the potential for development within rural society with peasants as the main force, which will not only transform the countryside but also have a significant impact on the development of the national economy.

Keywords
middle peasant economy, household production, community reciprocity, non-capitalism, agricultural development

摘要
不同于主流理论所强调的资本主义农业发展模式，中农经济的兴起，展示出了我国小规模农业发展的另一种前景：在以生产传统主粮作物为主的普通村庄，通过农户间自发的、互惠性土地流转，并依托于家庭劳动力的自我开发，所形成的适度规模经营的中农经济，能够实现小农经济自发的转型升级，扩大农业就业，增加农民收入，提高农民的组织能力，并将从根本上改变了我国农业的过密化现实，实现农业的发展和乡村的繁荣。中农经济实现了以农民为主体的农业和农村发展，充分体现了农村内部实现发展的潜力，这对于国民经济的发展有着重要的影响。

关键词
中农经济、家计生产、社区互惠、去资本化、农业发展

There is a vigorous debate on the best path toward agricultural development in China. It is generally believed that small-scale agriculture based on the "household contract responsibility system" reform is inefficient, and only by promoting scaled agricultural operations can agricultural production become efficient and thus lead to agricultural modernization (Zhang and Huang, 1997; Ma and Cui, 2002; Zhang, 2012). The theoretical presupposition underlying this view is that larger scales of production will make full and rational use of all the factors of production, such as land, machinery, labor, management and technology, to achieve economies of scale (Zhou, 2007: 128). This is what Adam Smith's and Karl Marx's classic theories argue. Smith (2009: 3–7) demonstrated that production at scale and the division of labor can maximize productivity. Marx (1975: 551–53, 738–80) further pointed out that because backward small household farms reject accumulating the means of production and collaboration in production, they would inevitably be replaced by larger-scale and more efficient capitalist farms. The emphasis in these mainstream theories on economies of scale has profoundly influenced the agricultural policy of the Chinese government, particularly the transformation of the collectivized agriculture that existed before the "reform and opening up" and the recent large-scale land transfers carried out by local governments.

However, mainstream theory and practice have been questioned by some scholars. Philip Huang (2014a: 1.1–8) has argued that the notion of economies of scale in industrial economies cannot be simplistically applied to agricultural

economies, since the development of agriculture is strictly limited by man-land relations. In China after the Ming and Qing dynasties, under the pressure of the reality of "lots of people and little land," the rural economy failed to develop in accordance with what Adam Smith and Marx would have predicted. Instead, it evolved according to Chayanov's logic, in which peasants continue to input labor, though with very low marginal returns, until the family's consumption needs are met, or what Philip Huang termed "involution" (Huang, 1992, 2000). Huang (2006) has pointed out that involution in peasant agriculture remained the very basis of the rural economy in China, while the commercialization of agriculture and the large-scale migration of the rural labor force along with industrial development changed little. In a recent study, Huang (2010: 103–59) finds that there has been a structural transformation in Chinese agriculture—a "hidden agricultural revolution"—resulting from changes in food consumption patterns leading to a shift from low-value and labor-intensive traditional modes of food production to a new, high-value and "capital and labor dual intensifying" pattern (focusing on the production of vegetables-fruits and meat-fish-poultry). This "hidden revolution" provides the possibility for small household farms in the new era to develop according to a new "vertical integration" encompassing production to processing to marketing.

In focusing exclusively on the new agriculture under this "hidden agricultural revolution," Huang has overlooked the changes in traditional grain production. Some scholars, however, have argued that in traditional grain production, scale economies, driven by the government and an influx of capital, have brought about the rise and expansion of agricultural capitalism, thus transforming rural relations of production on the basis of small peasant households (Zhang, 2013; Chen, 2013; Sun, 2013). They believe that the rise of agricultural capitalism in rural areas has resulted in the differentiation of rural production relations, and might lead to the proletarianization or semi-proletarianization of peasants in the future. If these scholars are right about current Chinese agriculture in which grain crops remain predominant (and that this situation will continue in the foreseeable future),[2] then agricultural development in China will indeed likely follow the path that Marx (1975: 738–80) and Lenin (1984: 53–159) predicted—namely, the proletarianization of peasants—rather than the route of small family management based on "vertical integration" expected by Huang. But is there a third way to agricultural development in China?

In surveys in rural areas in recent years, He Xuefeng and his colleagues have found that since the late 1990s and early 2000s, migrant peasant-workers have transferred farmland to their relatives and friends who stay in the villages and live by farming, albeit with low incomes, while the migrants have left for work or on business, leading to the formation of medium-sized agricultural management groups in rural areas, namely "middle peasants" (He, 2011; Chen, 2012; Yang, 2012;

[2] During 2007–2013, the acreage devoted to traditional grain crops accounted for around 68 percent of the total sown area. The area planted in cereals (including rice, wheat, and corn) is increasing year by year, with an average annual growth of 0.9 percent (see http://data.stats.gov.cn/workspace/index?m=hgnd).

Lin, 2012). They believe that in the context where younger manpower and financial resources flow out from rural to urban areas, the emerging middle peasants have constituted the main part of the middle class and have been the foundation for governance in rural society today, thus enhancing social order.

Obviously, Professor He and his colleagues have looked at the significance of this group in shaping social order from a sociological perspective. In a similar vein, our study suggests that the newly emerging middle peasants have special significance for agricultural economics as they are different both from peasant households who farm their own contracted land, and from large capitalist farms that heavily rely on hired labor. The medium-sized agricultural management mode, resulting from the transfer of farmland within rural communities, constitutes a unique agricultural economic form, namely the middle peasant economy. The main concerns of this study are: What is the middle peasant economy? And does it represent a new direction in agricultural reform in China? Based on fieldwork in Wu village in Anhui province, this study first investigates the situation of the middle peasant economy from a micro perspective, then attempts to point out its potential development opportunities and its possible impact on the national economy.[3]

The Rise of the Middle Peasant Economy

Wu village, located in hilly terrain in the center of Anhui province, consists of 16 natural villages, with a population of 4,142 living in 1,115 families, and 5,900 *mu* of arable land. Wu village is characterized by a rice-based cropping pattern of three crops of rice: early-, middle-, and late-harvest. In earlier years, double cropping of early- and late-harvest rice was the main form of production. However, in recent years, as more people have migrated to urban areas, most peasants have chosen to grow single-cropped "middle-harvest rice," then wheat after reaping the rice, forming a pattern of rice-wheat cropping rotation. Beginning the 1980s, peasants in Wu village migrated to the cities in search of work, most prominently in the construction industry in Zhejiang and Shanghai. During this period, jobs were scarce and only those with special skills could find work. Then, in the 1990s, encouraged by relatives and friends who had migrated out of villages earlier, a large number of villagers flooded into Jiangsu, Zhejiang, and Shanghai, especially during the period from 1995 to 2000. Nowadays, the number of migrant peasant-workers in Wu village has reached up to two thousand, accounting for nearly half the total population of the village. They work in a variety of jobs. Specifically, migrant peasant-workers who are thirty years old or below usually work in factories, such as those making shoes, garments, and toys, etc., in Wenzhou city, Zhejiang. Most migrant workers aged thirty and above are employed in the construction industry, working as bricklayers, carpenters, and unskilled laborers. In addition, there are about two hundred persons who work outside the village but still within the county, engaging in some business or working as servers in restaurants, supermarket staff, and so on.

[3] The authors conducted fieldwork in Wu village for twenty days during October 2014.

Table 1. Scale Distribution of Current Agricultural Management in Wu Village

Scale of farmland (*mu*)	Number of households (%)	Total area of farmland (%)
0	472 (42.3)	0
1–14	545(48.9)	2,000 (33.9)
15–50	79 (7.1)	2,270 (38.5)
51–99	12 (1.1)	820 (13.9)
100–150	7 (0.6)	810 (13.7)
Total	1,115 (100)	5,900 (100)

Source of data: Interviews with local cadres and production group leaders of Wu village conducted by the authors in October 2014.

At present, the stay-at-home population in Wu village numbers about two thousand, mainly consisting of people over fifty years old and left-behind women and children. Table 1 shows the current situation of agricultural management in Wu village.

More than 42 percent of the households in Wu village have given up farming (see Table 1). Nevertheless, 545 households (48.9 percent) still engage in small-scale agricultural production on their 1–14 *mu* of contracted land, the total cultivated area of which accounts for about 34 percent of the total farmland of the village. In addition, many peasant households are now cultivating on a larger scale—over 15 *mu*—which implies that apart from working their own contracted farmland, they also work the farmland of other peasants which they have obtained via land transfers. These households have become middle peasants, managing farmland of a moderate scale.

With reference to the research conducted by He et al., the definition of middle peasant in this study includes several key factors: 1) a moderate scale of management, i.e., over 15 *mu* (scale formation over 15 *mu* requires land transfers since the contracted farmland of each household is generally less than 10 *mu*); 2) transfers of farmland among friends and relatives within the village; 3) family-based labor supplemented by machinery. However, unlike He et al., who have defined the management scale of the middle peasant as 15–40 *mu*, we believe that the management scale could be expanded to more than 50 *mu*, and several households could even reach up to 100 *mu* and still be regarding as middle peasants. According to this definition, Wu village has 98 households that can be considered middle peasant. These account for 9 percent of the total households, but they cultivate 66 percent of the village's total farmland, and have become the key labor power for agricultural production in the village.

Agricultural Commercialization, Rural Labor Mobility, and the Rise of the Middle Peasant

The background to the rise of a middle peasant economy has been the agricultural commercialization and rural labor mobility that has occurred in China since the

1980s. In the early 1980s, the state gradually liberalized the market for agricultural products and launched reforms to commercialize grain. However, it was not until 2004 that grain prices and grain circulation markets were fully liberalized and the grain market system was finally established (Xiong, 2013: 70). The marketization reform brought about fluctuations in grain prices, which affected peasants' behavior in production. In the early 1980s, grain output greatly expanded for three years in a row, but a turning point came in 1984 when grain prices began to fall, resulting in a reduction in grain output in 1985 and stagnant grain production for four consecutive years until 1989, when output began to rise again (Du, 2005: 151). Unfortunately, this situation did not last long. After 1995, the prices of rice and wheat declined, reaching their lowest point in 2000, which, combined with an increasing agricultural tax burden during this period, led to greater inputs of labor and capital investment in agricultural production yet with little increase in income. Consequently, in 1995–2000, many peasants abandoned their contracted farmland and migrated to urban areas in search of work. According to statistics, abandoned farmland in Lujiang county, where Wu village is located, in the year 2000 reached 5,609.5 hectares, accounting for 9.26 percent of the total arable land of the county (Editorial Committee, 2010: 341). The situation was similar in Wu village. During 1995–2000, a large number of peasants left in search of work in urban areas while leaving behind their contracted farmland. By 2003, abandoned farmland in Wu village reached nearly 2,000 *mu*, accounting for 30 percent of the total arable land.

In that situation, some peasants who stayed behind in the village began to gather up and cultivate abandoned farmland without paying land rent while the agricultural taxes and fees were still paid by the households to which the land had been contracted. The original contractors acquiesced, or even readily agreed, since leaving farmland fallow would lower its fertility and reduce its productivity. Therefore, migrant peasant workers have been more than willing to "give" farmland to their relatives or neighbors so as to keep the land arable. To avoid having to pay agricultural taxes and fees, many migrant peasant workers even returned their contracted farmland to the village committee for re-contracting. Thus, some peasants in the village have had the opportunity to enlarge the land they work and to become middle peasants. Many of the features and characteristics of middle peasants can be in seen the example of the five middle peasant households in Yangjiawan natural village. Table 2 provides some information about their personal experience in becoming middle peasants.

From the five cases mentioned in Table 2 we see that middle peasants emerged in the 1990s in small numbers, with each household managing farmland on a small scale. For example, in the early 1990s, only Wang Dafu in Yangjiawan natural village, who managed nearly 20 *mu* of farmland, could be regarded as a middle peasant. All the other peasants farmed their own contracted land only. The rise of middle peasants at that time was constrained by two major factors. The first was the limited use of machinery in agriculture production. At the time, the general pattern was double cropping of rice with most of the work done—inefficiently—by hand. Most

Table 2. Middle Peasants in Yangjiawan Natural Village

Householder	Age	Family manpower	Scale and process	Agricultural machinery
Yang Guoguang	53	Yang's wife stays with their daughter who is studying in the county seat, but returns to the village to assist Yang in farming when necessary. Yang hires several laborers during the busy season (i.e., transplanting, reaping)	Before 2006, they farmed 5 *mu* of contracted farmland and did odd jobs in the slack season. After transferring-in farmland within the natural village, they cultivated 30 *mu* in 2006, 80 *mu* in 2008, and 100 *mu* in 2013.	The family bought 1 medium-sized and 2 small tractors 2006, and a harvester and a carried sprayer in 2012, at a cost of 10,000 *yuan*.
Wang Dafu	63	The couple both farm.	In the 1990s they began to gather up and cultivate abandoned farmland in the natural village, expanding the land they farmed to 30 *mu* in 2005 and 50 *mu* in 2008.	The family bought 1 small walking tractor in 1995, 2 small tractors in 2005, and 1 medium-sized tractor in 2008.
Yang Dongshan	56	The couple both farm.	They began to work the farmland of a brother in 2003, and farmed around 10 *mu*. Since 2008, they have expanded the land they work to 30 *mu*.	The family bought 1 small walking tractor in 2004 and 1 small tractor in 2010.
Yang Haijun	62	The couple both farm.	Before 2008, Yang worked outside the village and his wife farmed their contracted farmland; in 2008 Yang returned to the village and took over 30 *mu* of relatives' farmland.	The family bought 2 small walking tractors in 2008.
Yang Jianshe	56	Yang farms and does odd jobs during the off season.	In 2003, they began to farm their brothers' and nephews' farmland of 20 *mu* without expanding the scale.	The family bought 1 small walking tractor in 2003.

Source of data: Same as Table **1**.

peasants had trouble cultivating more than their contracted land since they had to harvest the ripe rice and transplant the new crop within a very short time. Second, the commercialization of agriculture increased market risk and led to fluctuations of grain prices at low levels over the long term. Around the year 2000, the price of early rice and late rice fell to 70 yuan/50kg, and as a result, peasants made little money by raising grain, and even faced the risk of loss at times.

After 2003, with the adjustment of the national macro-economic policy as well as the abolishment of agricultural taxes and fees, the grain market system was basically established. Thereafter, the grain market was stable and grain prices steadily rose. Peasants were motivated to expand the scale of their operations and both the number and scope of middle peasants increased rapidly. This is precisely what happened in Wu village, where middle peasants expanded the scale of their agricultural operations. Many peasants who used to work exclusively on their own contracted land actively participated in land transfers and developed into middle peasants. In Yangjiawan, the number of middle peasants increased from one to five within half a decade. These households expanded the scale of their operations year after year with the purchase of agricultural machinery and an ever-increasing investment in agricultural production.

In this sense, agricultural commercialization has been an important mechanism for the rise of the middle peasant. The market risk arising from the commercialization of agriculture accelerated the non-agricultural transfer of the rural labor force, creating conditions for the appearance of the middle peasant. Although a greater agricultural market risk also limits the development of middle peasants, with the basic stability of the grain market in the new era, there has been a rapid expansion of the ranks of the middle peasants. The steady development of the agricultural commodities markets has become an important driving force for the expansion of the middle peasant phenomenon.

Essential Features of the Middle Peasant Economy

Unlike the Marxist tradition and scholars like He Xuefeng (2011) which emphasize the class nature of the middle peasant group, this study focuses on its significance to agricultural economics. Therefore, this section analyzes its essential features with respect to land, capital, and manpower.

First, a middle peasant household generally cultivates land on a large scale—over 15 *mu*—which has mainly been transferred from migrant relatives or neighbors within the natural village. Because of the principle of reciprocal relations 互惠关系, most middle peasants pay little or no rent for transferred-in farmland. However, since both the blood relations and geopolitical relations of peasants rarely extend beyond the limits of the natural village, middle peasants are constrained by the limited farmland that is available within the natural village and by their family's labor capacity. As a result, few of them are capable of cultivating more than 100 *mu*. As Table 1 shows, about 60 percent of the middle peasants in

Wu village cultivate between 15 to 50 *mu* of farmland. In general, 15–50 *mu* is a scale which most couple can cope with. More than 50 *mu* requires more labor capacity than most households can bear. In addition, the average amount of farmland of the sixteen natural villages in Wu village is 368 *mu*, while there are six middle peasants (see Table 3) in each natural village on average. Since the transfer of land is highly related to villagers' blood and geopolitical relations, and since villagers always have similar relationships in local society, 15–50 *mu* of farmland is an appropriate scale for a middle peasant.

Second, there has been some increase in capital investment though such investment is still small and has mainly been confined to the purchase of small and medium-sized agricultural machinery. In Wu village, very few small peasants own farm machinery, but several families tend to share a small cultivator or rent machinery from others when necessary. But a middle peasant usually owns 3 small or medium-sized tractors (known as "the standard" among middle peasants) at a cost of around 2,000–3,000 yuan and 8,000 yuan respectively. Medium-sized tractors are mainly used for plowing and ditching, while small tractors are used for small-scale land leveling, hauling, etc. In addition, peasants usually have a small

Table 3. Distribution of Middle Peasants in the Natural Villages of Wu Village

Natural village	Number of households	Farmland of the natural village (*mu*)	Number of middle peasant households	Farmland of middle peasants (*mu*)	Proportion of middle peasant farmland in each natural village (%)
Keguai	81	380	7	286	75
Yangjiawan	50	270	5	230	85
Shengli	47	234	5	157	67
Zhoujiawan	93	491	5	270	55
Xujiawan	72	346	6	280	81
Wangjiagou	40	258	7	196	76
Meixi	86	408	6	310	76
Ludong	76	403	6	198	49
Meijiawan	60	372	8	232	62
Nanqiao	51	355	6	206	58
Liuwan	75	433	4	204	47
Wuwan	99	472	8	318	67
Lijiawan	88	410	5	258	63
Duanjiawan	45	274	4	179	65
Qiaojiawan	97	470	10	380	80
Xiguai	56	342	6	196	57
Total	1,115	5,900	98	3,900	66

Source of data: Same as Table 1.

tractor to meet unexpected needs. In any case, the total value of three tractors is no more than 15,000 yuan.

It is unnecessary for a middle peasant to own large agricultural machinery such as large tractors, harvesters, and so on, which cost around 100,000 yuan each. For those who cultivate less than 100 *mu*, such an investment is really irrational and unnecessary. A large tractor works quickly: it can cultivate 60 *mu* per day while a medium-sized tractor can cultivate 20 *mu* at best. But a large tractor performs poorer at leveling land and weeding when comparing with small and medium-sized tractors. As for harvesters, most peasants prefer to hire a large harvester (at about 60 yuan per *mu*), rather than to buy one themselves.

Third, the manpower of middle peasant households mainly consists of the family members; in most cases, only the couple. Aside from this, there is a domestic division of labor. Generally speaking, the husband undertakes the major heavy agricultural work, while the wife is responsible for housework, including cooking, cleaning, feeding the chickens, ducks, pigs and so on. During the busy farming season, the wife also assists the husband with the farm work. By using small agricultural machinery, this domestic labor division between husband and wife does not interfere with finishing most of the jobs required, and there is no need to search for extra help. But in the busy farming seasons (primarily, sowing and harvesting time), there might a need for help in order to finish on time. Exchanging labor and mutual help with neighboring peasants are the most common solutions. For example, if a middle peasant helps his neighbors with land leveling and ditching after finishing his own work, the neighbors would offer help in return during harvest time.

The above-mentioned three aspects of factors of production describe the main features of the middle peasant economy. The middle peasant economy emerged in the wake the migration of rural manpower into non-farm work. Its essential features consist of the system of mutually beneficial land transfers within the village, small-scale investment in machinery, and the full use of family labor. This also demonstrates that in the formation of the middle peasant economy, the allocation of land, labor, and capital do not exhibit the characteristics of capital accumulation. To a certain extent, the rise of the middle peasant economy can be seen as the spontaneous adjustment or even upgrading of the small peasant economy under changing man-land relations.

The Non-Capitalization Mechanism of Household Production, Community Reciprocity, and the Middle Peasant Economy

According to Chayanov (1996: 41–62), peasant household production differs from capitalist production in that peasants do not hire any labor outside the family and work in order to meet the family's consumption needs, while capitalist production is profit-driven and is characterized by the rapid and active expansion of production. Polanyi (2007: 37–58) defined production for the purpose of meeting the family's

consumption needs as household production. He believed that household production is different from profit-oriented production since the former follows the principle of self-sufficiency while the latter aims to maximize profits through market exchange. The theories of both Chayanov and Polanyi can mislead people into thinking that the idea of agricultural production aiming to meet household consumption is solely a question of subsistence, and that only production for the purpose of market exchange can meet the needs of commercialized agriculture (Huang, 2014b). However, in practice household production and commercialized agriculture may not be mutually exclusive. Rather, participating in market exchange is a reasonable choice for peasants to meet household consumption needs in the context of agricultural commercialization. Research by Huang (1992; 2000) has demonstrated that the development of commercialized agriculture can strengthen the principle of household-based production. Since the 1980s, not only has agricultural commercialization in China deepened, but the production practice of the middle peasant, namely, household-based production, has been strengthened and has contributed to an expansion of production.

Household Production and the Self-exploitation of Family Manpower

The expansion of the middle peasant economy, driven by the agricultural commodity market, has not led to agricultural capitalism-ization, but rather has evolved along the lines predicted by Chayanov. That is, the self-exploitation of family labor has been strengthened alongside the expansion of the scale of production so as to meet growing family consumption demands.[4] The following three cases offer a picture of labor and agricultural management of the middle peasant at different scales.

Case 1

Zhou Zhiping, male, sixty-two years old, together with his wife manages 30 *mu* of farmland (including his own contracted land of 7 *mu*). His elder son got married and the new couple works outside the village, leaving their 4-year-old child to be looked after by Zhou and his wife; the younger son is single and also works outside. Lacking specialized skills, Zhou has never worked outside the village. In 1996, he took over several abandoned farm plots in the natural village and cultivated more than 10 *mu* without paying any rent. At that time, little machinery was used in farming; Zhou relied on oxen instead. In 2005, Zhou got more farmland from his migrant relatives and neighbors, and the land he worked expanded to 30 *mu*. Then

[4] It is worth noting that, according to Chayanov, as the pressure to meet the family's consumption needs increases, the self-exploitation of the family labor usually implies diminishing returns for each unit labor. However, in the middle peasant economy, the expansion of the scale of farmland has changed this situation. As the result, the self-exploitation of family labor will increase gross output as well returns per unit of labor (a subject discussed later in the article).

he sold his cattle and bought two tractors—one with 6 horsepower and the other 15—at a cost of 10,000 *yuan*. Since then, he has paid rent to his relatives and friends for their contracted land at the rate of 50 kg of rice per *mu*.

Seven *mu* of the farmland Zhou manages is devoted to double-cropped rice, while the rest is in rice-wheat rotation. In addition, he has 2 pigs, 20 chickens, 20 ducks, and 0.5 *mu* of vegetables in a private plot. His wife is responsible for housework, gardening, raising their grandchild, and feeding the pigs, chickens, and ducks. She has little free time, so the farm work is mainly undertaken by Zhou alone, without hiring any workers. He plows with his own tractor and does the seed sowing, insecticide spraying, and fertilizing work on his own. During harvesting, he always hires a harvester; during sowing and harvesting his wife assists him in the field.

Labor input:[5] For an experienced peasant such as Zhou, working 1 *mu* of double-cropped rice needs 12 labor days, so 7 *mu* of double-cropped rice requires 84 labor days. Similarly, 1 *mu* of japonica rice and 1 *mu* of wheat need 5 labor days and 4 labor days respectively; thus, cultivating 23 *mu* of rice-wheat farmland needs 207 labor days. Hence farming 30 *mu* needs a total of 291 labor days a year, including 50 labor days shared with his wife.

Zhou Zhiping's annual household income is around 30,000 yuan. The family is basically self-sufficient, with many of its living costs kept in check by the vegetables, grain, meat and eggs that the family produces. The family has a net income of 20,000 yuan a year after subtracting the expenses for raising the grandson, the cost of maintaining social relations 人情开支, and paying utilities. Zhou Zhiping also saves money for his younger son, and wishes to support his marriage, which could cost 200,000 yuan (including the cost of the ceremony and building a house).

Case 2

Jin Musheng, male, forty-five years old, farms 50 *mu*, only 2.5 *mu* of which is his own. His son is nineteen years old and is studying at a technical school in Hefei, Anhui, and his 6-year-old daughter is attending preschool. As an uneducated couple, Jin and his wife have stayed home farming and have never worked outside their village; the only time they've been to the city was when they took their son to school in Hefei. In 2000, Jin took over some abandoned farmland and cultivated 30 *mu* with a small tractor. In 2006, the land he worked grew to 50 *mu* and he and his wife started to pay rent of 200 yuan per *mu*, and later on, they bought a medium-sized tractor, which cost them 9,000 yuan.

Jin, together with his wife, usually plants 10 *mu* of double-cropped rice and rice-wheat on the remaining 40 *mu*. In the spring, Jin raises about 600 ducks in the rice paddy, and about 700 geese in the summer. The couple does the farmwork all by themselves, and never hires any laborers. Thus they have little free time during the day. In addition, Jin often catches fish and prawns in the river in the evening.

[5] In this article, one labor day equals 6 hours of work.

Labor input: As in the case of Zhou, working 10 *mu* of double-cropped rice requires 120 labor days, and working 40 *mu* of rice-wheat rotation needs a total of 360 labor days; raising ducks and geese each requires three months, or in total about 180 labor days. Therefore, the couple needs to input 660 labor days a year in total.

The Jin family's total income is about 70,000 yuan and its annual net savings are around 30,000 yuan after deducting the school expenses of the two children (about 30,000 yuan), and 10,000 yuan for social contacts and living expenses. As the family house is an old cottage built in the 1980s, Jin plans to build a two-story building next year, which may cost about 200,000 yuan.

Case 3

Liu Hua, male, fifty-three years old, works 100 *mu*. Both of his sons are married, and they and his daughters-in-law are working outside the village, leaving two grandchildren at home, an 8-year-old and a 4-year-old. Liu has remained in the village farming ever since late the 1970s and early 1980s when the household responsibility contract system was introduced. In 1995, he got some abandoned contract farmland from a production team and cultivated 40 *mu* of farmland in total, and bought a small cultivator. In 2003, he bought a small tractor. Later on, in 2007, he expanded the farmland to 70 *mu* and bought a large cultivator, which cost him 8,000 yuan, and in 2011, he bought a carried sprayer for 1,000 yuan and expanded the land he worked to 100 *mu*, all from the production team, for which he pays 50 kg of rice per *mu* annually.

Liu Hua uses the rice-wheat rotation system on his 100 *mu* of farmland. His wife does not help with the farming since she has to take care of the two grandchildren. Since his wife is responsible for looking after the children, doing the housework, growing vegetables and raising chickens, Liu undertakes most of the farm work alone. They may hire a few laborers when necessary.

Labor input: Working 100 *mu* under the rice-wheat rotation system needs a total of 900 labor days. Hired hands provide 10 labor days for sowing, 20 labor days for fertilizing, and 10 labor days for harvesting, making a total of 40 labor days. Liu does the rest of the farm work, which totals around 860 labor days.[6]

[6] This means that Liu Hua has to work 14 hours a day on average all year round when the average manual labor work day is around 6 hours. There are two reasons for these long working hours. First, labor input in agriculture is not evenly distributed. In slack farming seasons, the work is easy, and a peasant can complete one day's workload, such as draining water from the rice fields, with little effort. However, during the busy farming season, a unit of labor is equal to several times the workload in the slack farming seasons, since more heavy manual labor is needed during this time. Second, Liu works hard. He works in the fields almost every day; as he put it, "as long as you want to do it, there is always work to be done in the field everyday." Liu's strength is far beyond that of ordinary people. For example, he rarely takes a rest when working in the fields. Other people would be exhausted after spraying insecticide for a whole day and would need one or two days of rest to recover, but Liu Hua can still work as usual after a day of spraying insecticide. However, very few peasants can bear the heavy workload of someone like Liu.

Liu's annual family income is about 80,000 yuan. After deducting 20,000 yuan for daily expenses and the cost of the two grandchildren's education, Liu nets 60,000 yuan. In 2006, Liu built a two-story house, which cost him 240,000 yuan, 40,000 yuan of which was borrowed from others, but he paid off the loan in 2010. In 2010, Liu spent more than 300,000 yuan building houses for each of his sons, while the sons contributed 100,000 yuan each.

From these three cases, it is clear that middle peasant production mainly depends on the labor of the couples themselves, and that the intensity of labor rises in step with the expansion of the scale of operations. Although these peasants own some small and medium-sized agricultural machinery, which helps them cope with the expanded scale of operations, the increased investment in machinery does not reduce the labor input. On the contrary, the input of labor has increased. This is because the small and medium-sized agricultural machinery as auxiliary production tools not only effectively improves working efficiency, but also promotes the self-exploitation of the peasants' labor. In Case 2, in the beginning Jin Musheng owned one small tractor, but as the scale of production expanded, he had to hire others with tractors to do the plowing. But after he bought a large tractor, he could do all the work by himself without hiring anyone. In these three cases, the annual input of manual labor increased to 291, 660, and 860 days respectively as the scale of production expanded from 30 *mu* to 50 and 100 *mu*, not counting the input of labor in family sideline production and housework. This implies that middle peasants are virtually full-time laborers throughout the year, and sometimes engage in very intensive labor.

Most middle peasants in Wu village do not have to hire laborers except those who cultivate about 100 *mu* of farmland or more. But even in these cases, the number of hired hands is very small. As shown in Case 3, laborers hired by Liu Hua accounted for less than 5 percent of the total labor input, while Liu's annual labor time amounted to 860 labor days. Obviously, this means that he more or less did the work of three persons.

For middle peasants, hiring workers to handle production is inefficient, not only because of the high cost, but also because it is hard to supervise hired hands. Take double-cropped rice planted in Wu village as an example. Generally, the average gross income from planting double-cropped rice is higher than that from the rice-wheat cropping rotation pattern, which could be more than 120 yuan per *mu*.[7] But double cropping of rice requires more manual labor, especially in early August, when the late

[7] In Wu village, the total output of double cropped rice is about 900 kg per *mu* (including 400 kg of early rice and 500 kg of late rice), which yields an income of 2,340 yuan based on a purchase price of 2.6 yuan/kg. In the case of rice-wheat cropping rotation, the yield of japonica rice is about 600 kg per *mu*, which is equivalent to an income of 1,560 yuan, and the wheat yield is about 300 kg per *mu* (this low yield is because Wu village is low-lying and thus susceptible to flooding), equivalent to an income of 660 yuan based on a purchase price of 2.2 yuan/kg. Therefore, the total income of rice and wheat is 2,220 yuan per *mu*. In this sense, when compared with the rice-wheat cropping rotation, planting double-cropped rice results on average in 120 yuan per *mu* of additional income.

rice must be planted by hand after reaping the early rice in late July. But the maximum workload that one couple can bear is around 7–10 *mu* of double-cropped rice; anything more than that will require hiring help, which is costly. Because the number of laborers available during the busy season is limited and the highest temperatures are reached in July and August, the wages of a laborer are 160 yuan for completing a workload of 1 *mu*. In addition, laborers receive three meals a day and alcohol and tobacco, driving the total cost up to 200 yuan, which can offset the increased income from planting double-cropped rice, and even result in a decrease of average income by 80 yuan per *mu*.

In short, in the pattern of the middle peasant economy, making full use of family labor (even when the intensity of the work far exceeds the norm) rather than hiring labor is a rational choice for maximizing the family's income from labor. In addition, this production mechanism centered on the self-exploitation of family labor also limits the scale of middle peasant farming. That is, the scale cannot be so large that the labor needed exceeds what the family can provide. That is why land worked by middle peasants in Wu village generally stands at around 15–50 *mu*. In a few exceptional cases, if sufficient labor is available, the scale can expand to 100 *mu* (such as in the case of Liu Hua).

In the middle peasant economy, maximizing the income generated by the family's own labor will effectively ease the growing pressure on the household's consumption budget. In the three cases discussed above, the income from the family's labor is mostly saved, apart from whatever is spent to meet the family's daily consumption needs. This remaining income is not immediately invested in expanded agricultural reproduction but is saved for some important household matters, such as children's education, marriage, building houses, and so on. Such consumption is essential to the reproduction and development of the family, which in most cases eats up all of the household's savings.

The above discussion also shows that, in the middle peasant economy, the household's consumption needs constitute an important impetus for middle peasants to continuously intensify the self-exploitation of their own labor. As Chayanov (1996: 49) noted, peasants are driven by household consumption needs to input labor, and they will expand their production capacity as such demand grows.

Therefore, the middle peasant will always rationally arrange the cropping structure and scale of operations according to the labor capacity of the family, following the fundamental principle that no labor should be hired or at least that the use of hired labor should be minimized, thus maximizing profit via ceaseless self-exploitation of family labor so as to meet the family's growing consumption needs.

How does the middle peasant expand reproduction? According to Marx, in peasant household production, the surplus is completely consumed by household consumption, and thus this mode of production can only maintain simple reproduction, and lacks the conditions for expanding reproduction. Contrary to this prediction, however, in the rise of middle peasants in Wu village we see that the expansion of the scale of production is a fact. Clearly, there is a distinctive reproduction mechanism behind this phenomenon.

Community Reciprocity and Expanded Reproduction of the Middle Peasant Economy

The rise of middle peasants in Wu village, especially their expanded reproduction, does not present a process of increasing capital accumulation nor the continuous expansion of the scale of production. Rather, it is the reciprocal assistance within the village that underpins the rise of middle peasants and their expanded reproduction.

In rural society, a natural village is a society of acquaintances where the essential internal relationships are built on blood and geography: "the combination of blood relationships and geography constitutes the original status of the community" (Fei, 2006: 58). Although the large-scale rural-to-urban migration of peasants has breached the limits imposed by geography, the natural village still remains a society of acquaintances (Gui and Yu, 2011). In such a society, people interact with each other in accordance with the basic principle of community reciprocity. In engaging in agricultural production and living in local society, there are many things that individual peasants cannot handle on their own, such as weddings and funerals, building houses, irrigation and harvesting, etc. These can only be carried out with the cooperation and assistance of other villagers. In Wu village, when there is a funeral or a wedding, all the village members will give a helping hand by buying food, cooking, arranging the venue, serving relatives and friends coming from outside the village and so on. In addition, community reciprocity is embodied in peasants' daily life and agricultural production, such as exchanging labor, assistance with daily work, caring for children, exchanging food, temporary lending of money or tools, and so on. Unlike the relations of commodity exchange under market conditions, this reciprocal relationship is multifaceted and long-term: "giving and receiving sustains mutual assistance and cooperation between people" (Fei, 2006: 60). In this sense, rural society constitutes a stable human-relationship-based circle of mutual help.

It is under this reciprocal-assistance relationship in the village that middle peasants came into being and expanded the scale of production. A major part of middle peasants' farmland comes from the reciprocal transfer of land within the village. The normal pattern is that migrant peasants and left-behind elders who are unable to farm, and who have no working-age family members aside from those who work outside the village, transfer their contracted farmland to middle peasants either rent free or for only a small amount of grain. In Wu village, before the rural tax and fee reform in 2004, since there was little money to be made from farming, middle peasants did not need to pay rent or assume the agricultural taxes and fees for transferred land. After the tax and fee reforms, incomes for farming began to rise and people who transferred land began to ask for rent, which was usually paid in kind, such as 25 kg or 50 kg of rice per *mu*. For instance, Xu Xinbao, a middle peasant in Xutun natural village, farms a total of 70 *mu*, of which 9 *mu* is of his own and the rest has been transferred to him by his relatives and neighbors in the village (see Table 4).

Table 4. Farmland Transferred to Xu Xinbao

Transferor	Area of farmland (*mu*)	Date of transfer	Reason for transfer	Relationship to Xu Xinbao	Rent
Xu Shuman	5.5	2003	The whole family was working outside the village.	Brother	None
Xu Shude	4.5	2000	The whole family was working outside the village.	Brother	None
Xu Changping	9	2006	The son left the village for work while the elders remained home.	Cousin	250 kg rice
Xu Pinsheng	3	2006	The whole family was working outside the village.	Nephew	200 kg rice
Xu Hui	10	2010	The whole family was working outside the village.	Neighbor	50 kg rice per *mu*
Xu Qiang	2	2011	The elders could only farm 1 *mu* (to meet their own consumption needs).	Neighbor	50 kg rice per *mu*
Wang Qingfa	1.5	2010	The elders could only farm 1 *mu* (to meet their own consumption needs).	Neighbor	50 kg rice per *mu*
Wang Zhen	7.5	2000	The whole family was working outside the village.	Friend	None
Wang Lin	9	2007	The whole family was working outside the village.	Neighbor	50 kg rice per *mu*
Wang Maohua	9	2011	The whole family was working outside the village.	Neighbor	50 kg rice per *mu*

Source of data: Same as Table **1**.

There are five middle peasant households in Xutun natural village where Xu Xinbao lives, farming 80, 40, 20, 20 and 50 *mu* respectively. Like Xu, they also received the farmland via transfers from their relatives and neighbors. Based on the closeness of the relationship, the rent on transferred land follows a "differential pattern" 差序格局 whereby brothers and neighbors who are on especially good terms do not require rent while cousins, uncles, or other neighbors require a rent of 25 to 50 kg of rice per *mu*. However, the rent is not the result of bargaining. Rather, it is more symbolic, as a "gift" given to those who provide the land by the middle peasants after their income from labor has been boosted. As Xu Xinbao said, "We didn't discuss the rent beforehand. Although they said we were acquaintances and there was no need to be so serious, I paid the rent the same as others paid." Xu usually pays the rent (rice) during the New Year. Although Xu's brothers and childhood friends do not accept rent, he still gives them 50 kg of rice and vegetables he has grown at New Year's for use during the Spring Festival. In addition, Xu often helps some older men in the production team. For example, he helps the old men with plowing and transporting, and also with some other urgent matters.

For migrant peasants, transferring farmland to middle peasants avoids abandoning the land, while the oldsters who are left at home can also be cared for. In this sense, the social benefits of land transfers are far greater than the negligible income from rent. In this way, land transfers have become a new basis for mutual benefit in the village. In addition, reciprocal relationships within the community constitute a stable trust mechanism. Although the two parties involved in a land transfer have no contract regarding lease terms and rent, there is no market risk at all. Furthermore, the rent is usually paid after the rice harvest (usually around the Spring Festival), which implies that it is unnecessary for middle peasants to invest much in order to expand reproduction. Therefore, due to the operation of the human-relationship reciprocity mechanism in the village, middle peasants are able to expand the scale of production and increase the family's income from labor throughout the year at a very low cost.

Thus, in the pattern of farmland transfers with the middle peasant as the core, there is no capitalized operation in which "farmland is priced in money and exchanged in the market" (Zhou, 2007: 281). As farmland transfers are embedded in the internal reciprocal relationships in the rural community, the optimal allocation of land resources achieved in this process has clear community boundaries, which reflect the optimization of benefits to the community.

However, the transfer of farmland relying on reciprocal relationships in the community also limits the expansion of middle peasants. The reciprocal relationships in the community are based on natural villages as the basic unit, rather than being trans-regional (Wang, 1997: 136). Therefore, it is difficult for middle peasant to transcend the geographical scope of the village. Furthermore, there are typically several middle peasants in a natural village, all of whom must rely on their networks and relationships in the natural village to expand reproduction, which is another important reason why the farms of the middle peasants of Wu village are

generally on a scale of 15 to 50 *mu*. Xutun natural village, for example, has a total of 346 *mu* of arable land, of which 280 *mu*—81 percent of the total—is worked by six middle peasants, while the remaining 66 *mu* is managed by more than ten elderly householders in the village. According to Xu Xinbao, the arable land in Xutun village has already been "carved up" and it is impossible to expand the scale of production.[8] Obviously, community reciprocity is local, and this sets limits on the expansion of the reproduction of the middle peasant economy.

Non-Capitalization of the Middle Peasant Economy

As mentioned above, it is family labor and community reciprocal relationships rather than capital investment that have boosted agricultural production and expanded reproduction, and thus given rise to the middle peasant economy. The middle peasant economy thus entails a non-capitalized process of production. In this process, increased investment in small and medium-sized machinery and paying land rent do not change the production mechanism of the middle peasant economy. Small and medium-sized agricultural machinery strengthen the self-exploitation of family labor instead of replacing it. Land rent does not change the reciprocity involved in land transfers, but instead strengthens community connections since rent acts as a "gift" circulating in the community. Therefore, the self-exploitation of family labor and community reciprocity also restrict middle-peasant capitalization.

Is it possible for the middle peasant to break through the barrier of household production and community reciprocity, and leap forward into capitalist farming? The key is whether the middle peasant can turn the production surplus into capital and expand the scale of production beyond the boundaries of family labor and community relations so as to achieve continuous accumulation and the expansion of the capital surplus.

As we have noted earlier, many middle peasants in Wu village gradually expanded the land they worked from about 10 or 20 *mu* to 30 or 50 *mu*, and a few even to 100 *mu*, which seems to suggest that may be possible to expand middle peasant production even more. But overall, the middle peasants in Wu village have generally maintain a scale of production at 50 *mu* or less, which is within the scope of a workload that family members can bear, and also does not involve establishing contacts and relations beyond the boundaries of the community. Any further expansion of the scale of production would need larger-scale land transfers across community boundaries, for instance, and could involve a completely competitive market in land transfers. However, this would require higher transaction costs and

[8] There are two reasons why Xu Xinbao has up to 70 *mu* of farmland to plant. First, Xu has more relatives and friends than most other villagers. Second, he has steadfastly remained in the village farming and began to transfer in land much earlier than others. Having many relatives and friends and having started to transfer in farmland early are also two important reasons why other large-scale middle peasants of Wu village have relatively more transferred land.

higher rent. In addition, an absolute expansion of the scale of production would entail higher expenses: hiring more workers, greater investment in machinery and other agricultural means of production, and so on. In short, a great deal of money would be required to meet the need for capital for land, labor, and machinery.

However, as mentioned previously, the purpose of the production of the middle peasant is solely to meet the family's consumption needs, hence almost all of the family's income is spent on household consumption such as children's education, marriage, building houses, and so on, with only a small amount left over for productive investment such as the purchase of small and medium-size agricultural machinery (not more than 10,000 yuan). Furthermore, due to the limited agricultural surplus, the middle peasant often needs to save money for years to meet these family needs. Therefore, under the basic principles of household production in the middle peasant economy, there is very little surplus that could be turned into capital. In essence, then, the middle peasant economy can be regarded as a non-capitalism-ized form of economy.

The Middle Peasant Economy and Agricultural Development

It seems very difficult to connect peasant-family production for the purpose of meeting the family's consumption needs with "development." According to Marx and Smith, small peasant family household production would result in diminishing marginal income and stagnation in agricultural growth. Philip Huang (1992: 11–12) pointed out that during the economic transformation in rural China, due to the pressure of "lots of people and little land," small peasant households had to continuously input family labor even though with very low marginal returns, which finally led to involution, or "growth without development." The result was a great deal of rural surplus labor and low levels of income. That, combined with agricultural involution, was the root cause of the slow or even non-development of agriculture in China over the long term. Overall, under the condition of "1.3 *mu* per capita and no more than 10 *mu* per household," it was difficult to change the involutionary nature of China's agriculture (Huang, 2006). However, the rise of the middle peasant economy might present a possibility for change. The increase in the opportunities for employment of rural labor, the growth of peasants' income, and the improvement of the organization of peasants, all of which have come with the middle peasant economy, have fundamentally changed the involutionary reality of agriculture in China, creating the possibility of at last achieving real agricultural development.

Expansion of Rural Employment and the Growth of Peasants' Income

The industrialization launched in the 1980s has had an important influence on the rural economy. The increase of non-agricultural employment opportunities made rural labor a relatively scarce resource, the income per unit of labor began to increase significantly, and peasants families increased their income via migrating to urban

Table 5. Scale of Farming in Wu Village by Age Group

Age group (years)	Households (number)	Farmland (*mu*)	Average scale per household (*mu*)
30–39	2	105	52.5
40–49	20	1,025	51.2
50–59	32	1,200	37.5
60–69	39	1,450	37.1
70–79	5	120	24
Total	98	3,900	39.8

Source of data: Same as Table **1**.

areas for paid jobs, all of which provided a possibility for the rural economy to achieve real development and prosperity. But industrialization did not completely solve the problem of surplus labor in rural society. At present, there is still a large population which cannot be absorbed by industry and commerce in the cities but can only continue to carry on small-scale farming to support the family in the village. Thus, the development of the rural economy brought about by industrialization has not fundamentally changed the involutionary reality of agriculture.

Generally, among the migrant peasant workers from Wu village, only those who are young and skilled can find stable employment and earn a good income. For those who have no specialized skills or are over the age of 50, it is usually hard to find a steady job. Instead, as a rule, all they find is temporary and unskilled work on construction sites, and most of them still have to farm in order to maintain a livelihood. Only rarely can peasants over the age of 60 find non-agricultural employment. In any case, they still have sufficient labor capacity to farm on a moderate scale. The middle peasants in Wu village mainly consist of these types of persons.

The majority of middle peasants in Wu village are in their 50s and 60s (only two middle peasants are under the age of 40) (see Table 5). People this age have a very hard time finding employment in the labor market, yet they are still able to farm on a scale of 20–50 *mu*.

In recent years, what used to be the prevailing peasant economy pattern of "1.3 *mu* per capita and no more than 10 *mu* per household" has changed since the contract farmland for each household has been reduced to about 5 *mu* per household as a result of the children living apart from their parents. In this sense, where grain is still extensively planted, such a small scale of farmland for each household greatly limits the development of their labor capacity, leaving them in a state of "underemployment." Taking rice production as an example, with the universal use of small agricultural machinery, rice cropping per *mu*, from sowing to harvest, requires 6 labor days at most. So householders who manage less than 5 *mu* of

contract farmland only need to put in less than 60 labor days a year in planting double-cropped rice or rice and wheat in rotation. Even taking into consideration the labor involved in household sideline production such as growing vegetables, raising chickens, and so on, the amount of work of a household would be less than 100 days a year. Hence the saying among the peasants that "There are twelve months in a year—three months for farming, three months for the Spring Festival, and the remaining six for leisure."

Therefore, the expansion of the scale of production entailed in the middle peasant economy will greatly improve the use of the manpower of those who are farming in the village and provide more opportunities for agricultural employment.

Looking at Table 6, we see that as the scale of production expands from 20 *mu* to 100 *mu*, the household's labor input increases from 210 to 860 labor days. Even though agricultural production is seasonal, middle peasants input labor throughout the year, achieving almost full employment all year round, which has fundamentally changed the situation where rural manpower once could not be fully employed. In addition, with the increase of labor input time, the annual income from the labor of the peasant family has also increased from about 20,000 yuan to 80,000 yuan, which is close to or even more than the annual income of the young people who are working outside the village. Most middle peasants who manage 20–50 *mu* of farmland have a stable household annual income of 20,000–50,000 yuan, which is roughly equal to the income of a migrant peasant worker and is enough to guarantee a decent life in their village. More importantly, unlike migrant peasant workers, who have to face separation from their family members, the middle peasant can enjoy a more complete family life. In short, the rise of the middle peasant economy has greatly alleviated the problem of the surplus of rural manpower and the resulting low growth of peasants' income, thus reversing the long-standing agricultural involution.

Peasant Cooperative Organizations and the Reorganization of Agricultural Production

Ever since the implementation of the household contract responsibility system, agricultural production in Wu village has been decentralized and unguided, based on the independent management of individual peasant households. But in recent years, alongside the migration of young and middle-aged people into the cities while many older men and women who are illiterate have been left behind, there has been a spate of problems concerning rice pest control and other issues, such as using the wrong pesticide, having no idea about how to control the dosage, etc. This has not only decreased output, but also led to pesticide poisoning accidents in some cases. In order to solve these problems, in 2009 a plant protection service cooperative, led by the Wu village committee, was established to help villagers control plant diseases and insect pests.

The Wu village committee applied to the County Agricultural Bureau for financial support and got 20 sprayers, including 14 knapsack sprayers and 6 carried

Table 6. Labor Input and Income Distribution of 10 Middle Peasants in Wu Village

Middle peasant	Age	Farm size (cropping structure)	Annual average labor input (labor days)	Family annual income (thousand yuan)
Yang Jianshe	56	20 *mu* (10 in double-cropped rice & 10 in rice-wheat rotation)	210	18
Zhou Zhiping	60	30 *mu* (7 in double cropped-rice & 23 in rice-wheat rotation)	291	23.1
Mei Huaqiang	65	40 *mu* (5 in double-cropped rice & 35 in rice-wheat rotation)	375	43.2
Jin Musheng	45	50 *mu* (10 in double-cropped rice & 40 in rice-wheat rotation; raises 600 ducks & geese	660	70
Wang Dafu	60	50 *mu* (10 in double- cropped rice & 40 in rice-wheat rotation)	480	50
Mei Guoqiang	53	55 *mu* (5 in double- cropped rice & 50 in rice-wheat rotation)	510	50.15
Zhou Benlin	53	60 *mu* (8 in double- cropped rice & 52 in rice-wheat rotation)	564	50.6
Xu Xinbao	59	70 *mu* (7 in double-cropped rice & 63 in rice-wheat rotation)	651	60.2
Xu Jimin	49	80 *mu* (10 in double-cropped rice & 70 in rice-wheat rotation)	750	70.17
Liu Hua	53	100 *mu* in rice-wheat rotation	860	80

Source of data: Same as Table 1.

sprayers. In addition, the committee spent 5,000 *yuan* for protective clothing, masks, gloves and other protective equipment as well as for the maintenance of the sprayers. The cooperative mainly comprises middle peasants. It is managed by a council of twenty members—four village cadres and sixteen middle peasants (one from each of Wu's natural villages). The cooperative set up two points for the

observation of pests and diseases, and hired three agricultural technicians from the County Agricultural Bureau to provide supervision. The technicians regularly provide information on diseases and insect pests to the cooperative based on results from the observation points, and provide specific technical guidance on when to spray pesticides, what pesticides to use, appropriate pesticide dosages and application methods, and so on. Based on that guidance, the cooperative buys pesticides and carries out unified pest control work.

The prevention and control work is carried out mainly by disease and pest control teams, which the cooperative has set up in each natural village. Each team consists of three members from middle peasant households and is led by the cooperative director of the natural village. The prevention and control costs, including the cost of the pesticides and a service charge, are borne by the peasants. Pesticides are purchased by the cooperative at a price slightly below the market level. The service charge, 20 yuan per *mu*, is for the services provided by the operators who carry out the work. The cooperative does not charge any other fees.

Compared with pest and disease control done by individual peasants on their own, the work carried out by the cooperative is more scientific, rational, and effective. In applying pesticides on their own, many peasants think the more pesticide the better, and often fail to properly use pesticides according to the specific circumstances surrounding plant diseases and insect pests. They may spray pesticides seven or eight times during each cropping cycle at a cost of 72–86 yuan, while the cooperative, if it were to handle pest control, would apply pesticides five times, at a cost of only 66 yuan (including the cost of the pesticides and the service charge) per *mu* of rice. Moreover, peasants usually spray chemicals after plant diseases and insect pests have already taken hold, while the cooperative puts more emphasis on monitoring and prevention. Therefore, the cooperative is able to control pests and diseases in a timely and effectively manner.

The plant protection cooperative in Wu village plays a crucial role by providing uniform prevention and treatment, and reducing peasants' tendency to blindly apply chemicals. Thus it effectively promotes the prevention and control of diseases and pests and increases grain output. Since its establishment, the cooperative has expanded year by year, and in 2012 for the first time covered all the arable land in the village. In addition, the cooperative regularly organizes training in agricultural technology in counties and townships, and many educated and skilled middle peasants attend such sessions and then teach other peasants after returning to their village.

In Wu village, peasants' cooperative projects extend far beyond the scope of professional plant protection services. For example, Xu Xinbao initiated an alliance with some middle peasants to sell grain, hoping to strengthen their bargaining position with grain dealers. They succeeded in getting 0.1 yuan per kg more for the rice they sold, thus to some extent thwarting dealers from forcing down the price.

The significance of the cooperatives in Wu village lies in the fact that the middle peasants are the core, and thus the problem of the organizational foundation of the

cooperatives has been solved. After the rural reforms of the 1980s, how to reorganize the peasants to develop agricultural production has been a difficult problem. At one point, expanding peasant cooperatives to achieve "vertical integration" from production to processing to marketing was considered a possible solution. However, under the constraint of low agricultural output value, it is difficult for scattered individual peasants to spontaneously create cooperative organizations, leading Cao Jinqing (2000: 166–67) to conclude that "peasants are good at splitting but not good at uniting." Furthermore, since the main manpower has migrated out of the countryside, what is left are oldsters, women, and children, making cooperation among peasants even more difficult. Many local governments began to actively encourage the development of cooperative capital in the countryside (Tong and Wen, 2009; Feng, 2014), however, this always leads to the problem of a "discrepancy between the name and the reality" when it comes to cooperative systems (Xiong, 2009). In other words, the obstacle to peasants' organizations lies in the structural difficulty of matching the main body of the organization with its organizational capacity. However, in the case of the middle peasant economy, this difficulty can be readily solved. The decreasing investment and increasing profit resulting from scale production make middle peasants eager and able to cooperate. In addition, the increased efficiency and benefits brought about by real cooperative relationships also strengthens their faith in the efficacy of cooperation. Having a cooperative organization with middle peasants as the main body, moreover, makes it is easier to organize small peasant producers. For example, in Wu village some middle peasants have cooperated with small peasants and interconnected the whole village into an agricultural service network. This pattern of cooperation effectively solves the problem of joining up the top-down agriculture technology extension system with scattered peasants.

To summarize, the rise of the middle peasant economy has profoundly changed the pattern of the organization of agricultural production in the village. What has made this reorganization possible is the establishment of peasant cooperatives with middle peasants as the main body.

Reconstruction of Agricultural Management Entities and the Possibility of Sustainable Agricultural Development

Another significant factor in the middle peasant economy is the reconstruction of agricultural businesses, or management entities 经营主体, making possible the sustainable development of agriculture. At present, with the massive migration of rural labor to urban areas and an agricultural labor force consisting mostly of oldsters and women, there has been public concern over the management of agriculture in the future.[9] As a result, the Chinese government has encouraged capital to enter the countryside to spur development of large-scale agricultural production,

[9] During the annual "two sessions" in March 2012, fifteen academics jointly raised the issue that in the future, no one may want farm, an issue that has aroused widespread concern in society (http://news.xinhuanet.com/edu/2012-03/19/c_122849415.htm).

and hence to create a new type of agricultural business entity. Obviously, this implies distrust of the agricultural production capacity of the existing rural labor force, and it also ignores the rise of the middle peasant economy in the rural areas as well as its effects on agricultural development.

As mentioned earlier, the middle and old-aged labor force, usually in their 50s and 60s and based on the family unit, still has enough capacity to engage in agricultural production at the scale of 20–100 *mu*. And thus the middle peasant economy formed on this basis can effectively solve the problem of abandoned farmland in the village. In Wu village for example, farmland managed by middle peasants accounts for 66 percent of the total farmland of the village, the rest being accounted for by individual small peasant households. As a result, the village has very little abandoned farmland. In short, the problem of abandoned farmland that Wu village confronted after the mid-1990s has been completely solved.

Speaking of middle peasants in general, due to their potential for self-exploitation, an expansion of arable land always leads to an increase of income from family labor. Middle peasants are thus strongly motivated to maintain and expand the scale of agricultural production, and actively carry out agricultural production and investment, cooperating in production, and learning new agricultural technologies. The achievements wrought by cooperation in Wu village fully demonstrate that middle peasants have great potential and advantages in organizing cooperation in production as well as learning about and promoting agricultural technology. Furthermore, the introduction of the middle peasant economy has played an important role in driving and guiding small peasant production and organization. As the Wu village experience shows, during the process of agricultural production, middle peasants can be directly helpful to individual small peasants, but also when small peasants ride the coattails of middle peasants, they can change the unorganized character of production which leads to loss of efficiency. Therefore, the rise of the middle peasant can both compensate for the problem of the "absence" of rural labor caused by large-scale migration, and effectively overcoming the disadvantages of small-scale production and lead small peasants to engage more effectively in agricultural production. From the perspective of agricultural development, the rise of the middle peasant contributes to the reconstruction of the agricultural management entities. As representatives of the new productivity in the countryside, the middle peasants have been the main engine for agricultural development.

In view of China's basic national conditions wherein the small peasant economy will persist for a long time, agricultural development driven by the middle peasant does not undermine the stability of the peasant economy. The agricultural production pattern composed of middle peasants and small peasants can succeed in achieving self-improvement and the development of peasant economy. At the same time, it can also help prevent excessive class differentiation and the semi-proletarianization of peasants, the latter often regarded as an inevitable consequence of agricultural development driven by capital.

Possible Effects of the Middle Peasant Economy on the National Economy

The rise of the middle peasant economy entails another prospect for the development of small-scale agriculture in China: in ordinary villages where people live by raising staple grain, the middle peasant economy with its moderate scale of operations, spontaneous and reciprocal land transfers, and reliance on family labor, can achieve a spontaneous transformation and development of the small peasant economy, expand agricultural employment, increase the income of peasants, improve the organizational capacity of peasants, and finally achieve the development of agriculture and prosperity in rural society.

The middle peasant economy fully demonstrates the potential for development in rural society. This development differs from increasing peasants' income by sending rural laborers to the cities at the cost of a loss of the means of production and subsequent rural decline. It also differs from the capital-led development pattern of large farms, which always leads to a capitalism-ized distribution of the agricultural surplus and class differentiation in the countryside. The middle peasant economy instead leads to agricultural and rural development with peasants as the main body, which will have a significant impact on the development of the national economy.

Since the reform and opening up, China has adopted an export-oriented development strategy to develop manufacturing industry by relying on the comparative advantage of cheap labor, and on this basis has achieved rapid economic growth over the last several decades. At the same time, there has been a large-scale migration of rural manpower to the cities, resulted in an urbanization rate (based on place of residence) of 53 percent in 2013. However, considering the large population of China, there are still about 630 million people, including 250 million agricultural producers, who live in rural areas (see http://data.stats.gov.cn/workspace/index?m=hgnd). These agricultural producers are mainly middle-aged and older peasants, as well as a few younger people without skills or with skills that can hardly meet the requirements of urban industry. Therefore they have to live by farming. However, the small-scale cultivation of grain limits the extent to which their agricultural labor capacity can be brought into play, and the low returns to small-scale cultivation also lead to a subsistence-level income. The rise of the middle peasant economy has substantially expanded employment opportunities for these left-at-home rural laborers and has significantly increased their family income, thus enabling them to overcome the obstacles to developmental and achieve social stability in the countryside. In addition, since China is still at the lower end of the international industrial chain, mainly represented by low-value-added and low-profit labor-intensive industries, migrant peasant workers in the cities receive poor benefits and low wages. This situation will remain unchanged until China achieves an industrial transformation and rises to the high-value-added and high-profit end of the industrial chain (He, 2014). Therefore, nowadays migrant peasant workers rarely find stable employment and welfare. They have to

work in the cities when they are young and return to villages and take up farming when they grow older. An alternative path is for the younger people to work in cities while their parents farm back home, thus creating a small-scale economic system which could be characterized as "half worker and half peasant" (Huang, 2006; He, 2014). In this sense, 260 million migrant peasant workers come to work in cities not once and for all, but instead circulate between urban and rural areas. Since villages form the base for peasants making this sort of "round-trip migration" between urban and rural areas, the middle peasant economy is important for maintaining a stable village life and production system. The middle peasant economy maintains the fertility of the land and facilitates farming, and reproduces the system of reciprocity of the village as a community of acquaintances, thus enabling migrant peasants to return home to continue their stable and orderly village life after they fail to settle down in the cities. And as the life cycle brings about changes in different households, some middle peasants will quit farming when they grow older and weaker, which will enable returned migrant peasant workers to take over and seamlessly become middle peasants. In this regard, there can be a positive interaction of peasants between urban and rural areas, which will turn the countryside into a reservoir and stabilizer for China's modernization and will provide a buffer for social conflicts and instability during China's industrial transformation.

Conclusion

Based on an analysis of the micro experience of the middle peasant economy in Wu village, Anhui, this article has explored the prospects and possibilities for the development of small-scale agriculture in China. The middle peasant economy, which emerged in the context of the commercialization of agriculture and the large-scale migration of rural laborers, features a reciprocity system of land transfers within the villages, small-scale capital accumulation, and full use of family labor. Commercialized agricultural production in the middle peasant economy has not led to the capitalism-ization of production, but instead has strengthened the self-exploitation of family labor along with the expansion of the scale of production to meet growing household consumption demands. In addition, because of the reciprocal transfer of farmland within the village, it is unnecessary for middle peasants to invest much money in expanded reproduction. Thus, in the context of household production and community reciprocity, the middle peasant economy is a non-capitalism-ized form of economy. In this form, the increasing employment opportunities for rural laborers, the growth of peasants' income, and the improvement of the organization of peasants have all fundamentally changed the involutionary reality of agriculture in China, making possible the further development of the Chinese peasant economy. The middle peasant economy carries out agricultural and rural development with peasants as the main body, fully embodies the potential for rural development, and acts a reservoir and stabilizer in alleviating social conflicts during the process of modernization.

The logic of agriculture development embodied in the middle peasant economy is different from the pattern predicted by mainstream theory, namely that capitalist agriculture will irreversibly replace the small peasant economy. Rather, the logic is more akin to the development model of "vertical integration" in a new agricultural structure as described by Huang. Huang and others were correct in pointing out the potential and prospects for endogenous development of peasant agriculture in the context of a market economy (Huang, 2010; Gao, 2011, 2012). However, they focused on the new agriculture under the "hidden agricultural revolution," while ignoring the changes in traditional grain planting and other alternative routes to further development. The rise of the middle peasant economy shows the potential and prospects for ordinary villages where staple grain crops are the main products, and it will enlighten agricultural reform in China, where grain production dominates agriculture at present and in the foreseeable future as well.

References

Cao Jinqing 曹锦清（2000）黄河边的中国（China along the Yellow River）. 上海： 上海文艺出版社.

Chayanov, Alexander 恰亚诺夫（1996）农民经济组织（The theory of peasant economy）. 萧正洪译， 北京： 中央编译出版社.

Chen Baifeng 陈柏峰（2012）“ 中国农村的市场化发展与中间阶层——赣南车头镇调查”(The marketization of China's rural development and the middle class—Based on a survey of Chetou township in southern Jiangxi). 开放时代 3: 31–46.

Chen Yiyuan 陈义媛（2013）“资本主义家庭农场的兴起与农业经营主体分化的再思考——以水稻种植为例”(Rethinking the rise of the capitalist family farm and the differentiation of agricultural operation units—the case of rice production). 开放时代 4: 137–56.

Du Runsheng 杜润生（2005）杜润生自述： 中国农村体制变革重大决策纪实 (Du Runsheng's statement: documents on important decisions on institutional change in rural China). 北京： 人民出版社.

Editorial Committee of the Lujiang County Local Gazetteer 庐江县地方志编纂委员会（2010）庐江县志 (1986–2005) (Gazetteer of Lujiang county, 1986–2005). 合肥： 黄山书社.

Fei Xiaotong 费孝通（2006）乡土中国 (From the soil: the foundations of Chinese society). 上海： 上海人民出版社.

Feng Xiao 冯小（2014）“农民专业合作社制度异化的乡土逻辑——以 ‘合作社包装下乡资本’为例”(The local logic of alienation in the system of peasant cooperatives—Based on a case study of "cooperatives packing the flow of capital into the villages"). 中国农村观察 2: 2–17.

Gao Yuan 高原（2011）“市场经济中的小农农业和村庄： 微观实践与理论意义” (Small peasant farming and villages in a market economy: micro-practices and theoretical implications). 开放时代 12: 113–28.

——— (2012) “小农农业的内生发展路径——以山东省聊城市耿店村为例” (The internally generated path of development of small peasant agriculture: the example of Gengdian village, Liaocheng city, Shandong province). 中国乡村研究 9: 172–94.

Gui Hua 桂华 and Yu Biao 余彪（2011）“散射格局： 地缘村落的构成与性质” (Scattered social structure: the composition and properties of geopolitical villages). 青年研究 1: 44–54.

He Xuefeng 贺雪峰（2011）“取消农业税后农村的阶层及其分析” (An analysis of rural social classes after the abolition of agricultural taxes). 社会科学 3: 70–79.

——— (2014) “论中国式城市化与现代化道路” (On the Chinese path of urbanization and modernization). 中国农村观察 1: 4–12.

Huang, Philip C. C. 黄宗智（1992）长江三角洲的小农家庭与乡村发展 (The peasant family and rural development in the Yangzi delta, 1350–1988). 北京： 中华书局.

——— (2000) 华北的小农经济与社会变迁 (The peasant economy and social change in north China). 北京：中华书局.
———(2006) “制度化了的‘半工半耕’过密型农业” (Institutionalized involutionary agriculture with “half workers and half cultivators”). 读书 2: 30–37.
———(2010) 中国的隐性农业革命 (China’s hidden agricultural revolution). 北京：法律出版社.
——— (2014a) 明清以来的乡村社会经济变迁：历史、理论与现实（卷一）(Social and economic change in rural society since the Ming and Qing dynasties: history, theory, and reality, vol. 1). 北京：法律出版社.
——— (2014b) “‘家庭农场’是中国农业的发展出路吗?” (Are “family farms” the way to develop Chinese agriculture?). 开放时代 2: 176–194.
Lenin, Vladimir 列宁（1984）列宁全集（第三卷）(The collected works of Lenin, vol. 3). 中央编译局编译，北京：人民出版社.
Lin Huihuang 林辉煌（2012）“江汉平原的农民流动与阶层分化:1981—2010——以湖北曙光村为考察对象” (Social mobility and class differentiation of the peasants of the Jianghan plain, 1981–2010—Based on a survey of Shuguang village, Hubei). 开放时代 3: 47–70.
Ma Xiaohe 马晓河 and Cui Hongzhi 崔红志（2002）“建立土地流转制度，促进区域农业生产规模化经营” (Establish the land circulation system and promote scale management of regional agricultural production). 管理世界 11: 63–76.
Marx, Karl 马克思（1975）资本论 (Das Kapital). 中央编译局译，北京:人民出版社.
Polanyi, Karl 波兰尼（2007）大转型：我们时代的政治与经济起源 (The great transformation: the political and economic origins of our time). 冯钢、刘阳译，杭州：浙江人民出版社.
Smith, Adam 亚当斯密（2009）国富论 (The wealth of the nations). 郭大力、王亚南译，上海:上海三联书店.
Sun Xinhua 孙新华（2013）“农业企业化与农民的半无产化——工商企业流转农地对农村生产关系的再造” (Agricultural enterprization and the semi-proletarianization of peasants: reconstruction of production relations in rural society after transferring land to industrial and commercial enterprises). 待刊稿.
Tong Zhihui 仝志辉 and Wen Tiejun 温铁军（2009）“资本和部门下乡与小农户经济的组织化道路——兼对专业合作社道路提出质疑” (Capital and departmental capital to the villages and the route to the small peasant household economy—doubts about the specialized cooperatives route). 开放时代 4: 5–26.
Wang Mingming 王铭铭（1997）社区的历程 (The course of the community). 天津：天津人民出版社.
Xiong Wansheng 熊万胜（2009）“合作社：作为制度化进程的意外后果” (Cooperatives: an unintended consequences of institutionalizing processes). 社会学研究 5: 83–109.
———(2013) 体系：对我国粮食市场秩序的结构性解释 (System: a structural interpretation of the order of the grain market in China). 北京：中国政法大学出版社.
Yang Hua 杨华（2012）“‘中农’阶层：当前农村社会的中间阶层——‘中国隐性农业革命’的社会学命题” (The “middle peasant” stratum: the intermediate stratum in contemporary rural society—the sociological thesis of “China’s hidden agricultural revolution”). 开放时代 3: 71–87.
Zhang Hongyu 张红宇（2012）“现代农业与适度规模经营” (Modern agriculture and a moderate scale of management). 农村经济 5: 3–6.
Zhang Qian 张谦（2013）“中国农业转型中地方模式的比较研究” (Comparing local models of agrarian transition in China). 中国乡村研究 10: 5–35.
Zhang Zhonggen 张忠根 and Huang Zuhui 黄祖辉（1997）“规模经营：提高农业比较效益的重要途径” (Scale management: an important way to increase agricultural comparative benefits). 农业技术经济 5: 4–6.
Zhou Cheng 周诚（2007）土地经济学原理 (Elements of land economics). 北京：商务印书馆.