

Large Farms and Small Businesses
The difficult path toward development in rural China

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Abstract

The “Chinese Economic Miracle” of sustained growth since the 1970s has been thoroughly explored by many economists. So, too, has the obvious dichotomy between China’s urban industrial sector and its rural agrarian economy. What has kept China’s industrial development from migrating outward from its cities and into its countryside? When will the industrial revolution in Chinese agriculture begin?

This paper examines a series of obstacles to the development of an industrial agricultural system in selected communities in China, contrasting government’s goals for development with a realistic assessment of the economic characteristics of China’s rural areas. The first section of this paper addresses the development of China’s modern agricultural system, and the systems of land trading utilized by rural Chinese. The second section examines the impact of formal and informal financing on the development of rural businesses, as well as the development of a microfinance market in China’s rural areas. Together, analysis of these issues demonstrates that China’s government must address issues of property rights, access to capital, and social welfare if agricultural industrialization is to be encouraged.

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PREFACE

My sincerest thanks to Dr Shirley Cassing and Dr. Dong Guoli, under whom I wrote two papers that generated a substantial portion of this thesis, and with whose advice this thesis progressed from a vague idea to a tangible document. Thanks also to Mark Collins for his patient and insightful comments as editor, and his advice throughout the process as my academic advisor. Finally, to Dr. Rawski and Dr. Connolly, both of whom provided helpful criticism after this thesis was first presented.

Throughout the paper, many acronyms are used to add brevity to my sentences, and a variety of Chinese terms are used for precision. For reference, a list of these acronyms and terms is given on the following page.

LIST OF ACRONYMS AND TERMS

ABC: Agricultural Bank of China

BRIC Nations: Brazil, Russia, India, and China

CBRC: China Banking Regulatory Commission

HRS: Household Responsibility System

jin: a traditional Chinese measure of weight, equal to approximately 0.5 kilograms

MFI: Microfinance Institution

mu: a traditional Chinese measure of land area, equal to approximately 1/15 hectare

PBOC: People's Bank of China

RCA: Rotating Credit Association

RCC: Rural Credit Cooperative

RCF: Rural Cooperative Foundation

RMB or *yuan*: renminbi, the unit of Chinese currency.

ROSCA: Rotating Savings and Credit Association

SME: Small- and Medium-sized Enterprise

SOE: State-Owned Enterprise

1.0 SECTION

1.1 CHINA'S RURAL REFORMS

After the Communist Revolution and the redistribution of agricultural land from landowners to peasant farmers, China underwent two more landholding reforms: collectivization in the early 1950s, and the Household Responsibility System (HRS) in late 1970s.¹ Modern Chinese agricultural villages still operate under a version of the HRS. These villages are generally characterized by a grouping of houses near a large area of contract land, which is divided evenly among villagers. Family size thus determines the size of contract land per household, measured in *mu* (a Chinese measurement of area; one *mu* equals approximately one-fifteenth of one hectare). The average cultivated land per household was 6.69 *mu* in 1986 and 6.99 *mu* in 1992.² The "Communiqué on Major Data of the Second National Agricultural Census of China," conducted by China's State Statistics Bureau in 2006, can be used to estimate a more recent figure for average cultivated land per household. The Communiqué reports that China had a total of 121.78 million hectares of cultivated land and 18.4 million farming households in 2006. Dividing the total cultivated land area by the total farming households provides a rough average

¹ Fu and Davis, "Land reform."

² Ibid. 124

of 0.661 hectares, or 9.91 *mu*, of cultivated land per farming household in 2006. The increase of cultivated land per household is likely due to HRS reforms in the 1980s, which allowed rural households engaged in non-farm businesses to sublease their land. It may also be due to the informal "land circulation" in which villagers often engage.³ It is also important to note that the figures for 1986 and 1992 are average cultivated land per household, and the figure for 2006 is average cultivated land per *farming* household, which may be a subset of the "households" referred to in the 1986 and 1992 figures. For the purposes of this paper, a rough estimate of 0.661 hectares per household is acceptable; however, it must be noted that average contract land holdings per household among the villages surveyed were less than this estimate, at 0.39 hectares (5.85 *mu*) in Anhui and 0.265 hectares (3.95 *mu*) in Tingbei.

Under the HRS, farmers were issued contractual rights to the use of their land, but not to the land itself. Furthermore, farmers were not allowed to transfer these rights among themselves. However, though the transfer of land-use rights was forbidden, many farmers engaged in "land circulation" whereby villagers working as migrants or otherwise unable to farm their contract land loaned or leased their land to other villagers through informal verbal agreements.⁴ These kinds of property-rights transactions are relatively common, and have been occurring in China for many years.

³ Dong et al., "Models of Land Leasing."

⁴ Ibid.

1.2 THE DECISION

In October 2008, the government of China released "The Decision on Major Issues Concerning the Advancement of Rural Reform and Development," which stated the government's intention of forming property-rights markets in rural China in order to encourage large-scale farming and boost the rural economy. Though it has been referred to as a "land reform," the Decision does not represent a change in the law, or a change in the distribution of land under the HRS—indeed, it stresses that the policy of collective ownership of land shall not change. Rather, the Decision is a statement of the government's attitude toward rural development. It describes many of the government's goals for the development of China's rural areas, including doubling rural per-capita incomes by 2020, protecting farmers' rights to the use of their contract land indefinitely, steadily increasing the minimum prices for agricultural products, and equalizing the rights and benefits of rural and urban citizens.

The Decision also lists the party's goal of establishing and improving property rights markets, to allow farmers to "sublet, lease, swap, or transfer" their property rights, and states: "Places where conditions permit may develop major professional and family farms, farmers cooperatives, and other professional large-scale operations."⁵ By stressing tight controls on the amount of land available for construction, narrowing the scope of land requisition, as well as stating that land trade "cannot and must not harm the land contract rights and the interests of farmers," the Decision emphasizes the government's goal of maintaining land for agricultural

⁵ Communist Party of China (CPC) Central Committee, "Decision," Section 3B.

use.⁶

Given these goals, the Decision suggests that the government intends to turn the existing contract land into a bank of tradable land shares, of which each rural household has a stake. In order to maintain the government-mandated “minimum arable land area” of 1.8 billion *mu*, very little land currently being used for agriculture can be converted to non-farm purposes⁷. This implies that the now-tradable land-use rights will be traded among farmers almost exclusively for the purpose of expanding farm size. Indeed, as an analysis of the Decision on China's official governmental website states, farmers "will now be permitted to lease their contracted farmland or transfer their land-use right" to "boost the scale of operation for farm production and provide funds for them to start new businesses."⁸

Larger farms, more businesses, higher incomes and a better quality of life for rural citizens are already evident in the village of Tingbei (in Jinshan district in southwest Shanghai). Due to its proximity to a major metropolitan area, Tingbei has already undergone significant economic development. In 2005, the government appropriated a great deal of Tingbei's farmland for industrial development. As industrial jobs became available, villagers began to engage in more formalized land circulation, allowing certain village members to control comparatively large tracts of land—land lessees in Tingbei used an average of 16.14 hectares (242 *mu*) of farmland, over twenty times the national average. As a larger village, Tingbei has retained a village structure consisting of twenty-six "production teams" each made up of approximately 60 households. When formalized land circulation became common, most villagers transferred their land use rights to their production team leader. This highly organized, pyramidal land circulation

⁶ Ibid., Section 3C

⁷ Jiang, “China liberalizes.”

⁸ An, “China Extends.”

allowed almost all of the contract land for each production team to fall under the control of a single person or household, who either farmed the land himself or acted as a "land broker," redistributing large, contiguous patches of land to migrant farmers from other provinces. In exchange for land-use rights, each household was provided with rents in the form of grain (500 *jin* per *mu* per year), money (550 RMB per *mu* per year) or a combination of both (500 *jin* and 100 RMB per *mu* per year).

In Tingbei, this style of land circulation had been formally undertaken for a period of three years. The length of these land contracts (formal or informal) and the size of contiguous farmland have combined to allow for industrialization to occur: one production team leader interviewed owned his own tractor, and another migrant farmer borrowed or rented industrial machinery. The use of large industrial equipment, like tractors, is still rare in many of China's rural areas, where agriculture is labor-intensive and hand tools or small machines are the primary agricultural tools.

Though Tingbei would seem a model for development under the Decision, it is actually an example of the reforms of the Decision applied in reverse: economic development came to Tingbei, and because of that development, team leaders were able to acquire long-term leases of great amounts of land "very easily, without much negotiation" as one production team leader said. But the situation in the villages of Lixing, Guanji, and Shuangfu, in Anhui province, was quite different from that of Tingbei. These villages display an underdevelopment of industry and businesses, and the landholdings per farming household are extremely small. Though most of the villagers interviewed in Anhui had heard of the Decision, they were ambivalent about its effect on land circulation in the area, and many stressed that they needed their land to live and could not lease it permanently without some guarantee of social welfare.

Can the Decision prompt these villages to develop like Tingbei? Again, the Decision states that farmers "will now be permitted to lease their contracted farmland or transfer their land-use right" in order to "boost the scale of operation for farm production and provide funds for them to start new businesses." These statements imply that by entering a property-rights market and transferring their land use rights, farmers will be able to boost the scale of farm production (a land lessee's incentive-to-trade) or be able to start a new business with the funds generated by leasing their land (a land lessor's incentive-to-trade). Owing to these incentives, farmers should enter into property-rights markets on their own or join markets set up by the government.

If, however, the converse is true, that a property-rights market will *not* enable farmers to expand the scale of their operation, or will not provide enough funds to start a new business, it follows that farmers will not enter a property-rights market. If a property-rights market does not fit within economic and societal restrictions of China's rural economy, or cannot overcome those restrictions, farmers will not enter the market, and the Decision will have little or no effect on the rural economy.

1.3 SOURCES OF INCOME FOR RURAL HOUSEHOLDS

The government's goal of using land-usage rents as a source of start-up capital for rural businesses suggests that the government believes a lack of capital to be a main reason for the underdevelopment of rural businesses. It further suggests that the government believes farm

and non-farm work to be mutually exclusive. In actuality, because of the family-centric structure of China's rural households, most farming households are capable of deriving income from many sources outside of agriculture, especially side businesses and migrant work. In many households with non-farm sources of income in Anhui, farming of the contract land was regarded as a *secondary* source of disposable income. These households did not tend to circulate the rights to their property if they (or members of their immediate family) continued to live in the village for some or all of the year.

In some households with non-farm sources of income—especially households with immediate family members working as migrants—the family members remaining in the village had farmed, were farming, or were planning to farm additional pieces of land outside of their contract land. Larger families tend to benefit from multiple sources of income, since families with many grown members are able to derive more income from working children, as well as leaving some members to live in the village and farm the contract land. Large families with now-grown children are also likely to have been granted more land during the last HRS re-division, meaning that their contract land is comparatively large. Multiple sources of income may thus provide enough capital for industrialization and acquisition of new land, making these families likely candidates for further expansion of agricultural production under the Decision. One female farmer interviewed in Anhui, whose grown daughters provided her with additional income from their work as migrants, had already purchased a tractor and planting machine. Though she currently farms only 10 *mu* (she recently returned 4 additional *mu* to returning migrants), she claimed she would farm as much as 500 *mu* if she could. Another villager ran a successful carpentry business from his home, and paid other villagers to plant and harvest his crops. Additionally, due to the security provided by his carpentry business, he was able to plant

sugarcane instead of the more secure, and less profitable, crop of wheat. The risk he took proved to be profitable, but these kinds of risks or investments are not possible without a second source of income for security. Multiple-income households are, therefore, more likely to pursue agricultural industrialization and acquire additional contract land.

Two types of single-income households were observed in Anhui: farming households and migrant households. The farming households earned less income, on average, than the multiple-income households. If they farmed additional land, it was loaned to them, either by neighbors or from relatives, instead of being rented. These observations suggest that farming households may not have excess capital enough to rent additional land. Further, if these farming households are incapable of generating a second source of income, due to lack of skill, capital, or social welfare, these households will not be free to lease their land to other villagers. Single-income farming households are effectively excluded from land circulation, and instead, the land available for circulation will come from single-income migrant households.

Land circulated by migrant households possesses certain characteristics that serve as barriers to the formation of a land market: since migrant work is by nature unstable, the land-use contracts between migrants and farmers are verbal, informal, and, most importantly, impermanent. Several villagers reported returning land to migrants who had come back to the village. These migrants rely on the impermanence of land circulation in order to offset the risks inherent in migrant work: if the more profitable but unstable migrant work falters, the migrants can return to the village and make a living with their land. This behavior indicates that land in China's rural areas has two distinct values: land-as-social-welfare and land-as-production-capital. The value of land-as-social-welfare (the security of income and food, however meager, that land provides) is extremely high, explaining why villagers in Anhui were so reluctant to sell

their land contract, or rent land for a long or definite period of time. However, the value of land-as-production-capital is quite low, so much so that most of the circulating land in Anhui was loaned for free when the contract-holders could not use it.

When migrants did engage in land rental, very low rents further emphasized the low value of land-as-production-capital. Naturally, other factors also influence rental rates (including *guanxi* (relationship)-based circulation, where charging high rents would be rude or improper), but of most importance is the possibility that the demand for land-use rights is highly elastic, and thus farmers are unwilling or unable to pay high rents for land-use rights. A high elasticity of demand poses serious problems for a property-rights market, since migrants require high rents to extend the term of lease of their land (the high rents taking the place of the land-as-social-welfare) and due to the inherent risks of farming, farmers may be unable or unwilling to pay those rents.

1.4 FURTHER BARRIERS TO AGRICULTURAL INDUSTRIALIZATION

The Decision stresses "boosting the scale of operation" as one of its tenants for reforming China's rural areas, implying industrialized agriculture as its eventual goal. "Boosting the scale of operation" allows individual households to produce more agricultural products and thus earn higher incomes, and to achieve such an increased scale of household production requires some degree of industrialization.⁹ However, extremely small plots of land, distributed over many

⁹ CPC "Decision," Sections 4C and 4D.

individual households, serve as a threefold barrier to land accumulation and a scale of agricultural production sufficient to support the costs of industrialization:

- The small average size of contract land (5.85 *mu* per household in the villages surveyed in Anhui) means that a farmer who acquires the property rights to another farmers contract land is only likely to expand his scale of production by a very small degree-- even doubling the size of the average contract land only increases average farm size to around one hectare.
- These small plots of contract land are distributed to many individual households, each of whom may have different reasons to lease or not to lease their land. Acquiring enough total land to merit industrialization will thus require a series of transactions, complicating and increasing the transaction costs of acquiring land.
- Even if a farmer can afford to collect land sufficient to merit industrialization, he may not be able to acquire enough contiguous land to make efficient use of industrial tools (tractors, combines, planting machines, etc). His land may instead be a series of small, disconnected plots, separated by plots belonging to other villagers.

Because migrant households are likely to be reluctant to give up the rights to their land permanently or for a definite period of time, farmers may not be willing to undertake the expense and risk of industrialization. It is a catch-22; if a villager is unable to industrialize he will not be willing to acquire additional land, and if he cannot acquire additional land he will not industrialize.

The barriers described above were clearly evident in Anhui. Land lessees in the villages surveyed in Anhui used, on average, 4.84 *mu* (0.322 hectares) of additional land, making the total amount of land used by land lessees only 0.75 hectares. Information gathered in villager

surveys indicated that most land lessees did not have contiguous land, and only one farmer interviewed used industrial equipment. Furthermore, all occupied, able households surveyed in Anhui retained their contract land. Villagers too old or infirm to farm their own contract land loaned their land to family members and benefited from their use of the land. Indeed, most land circulation occurred through informal land circulation, usually between relatives or neighbors. Many villagers working as migrants preferred to enter into these temporary loans of their land, passing their land to others while they work as migrants. When migrants returned, their land was passed back to them. Only one land lessee among the villagers interviewed in Anhui paid rent for his additional land, at a rate of 100 RMB per *mu* per year (which, he indicated, was the typical rate of rental among the farmers in the area). This rental, however, was also informal, without a verbal or written agreement specifying how long the land lessee would have control of the land, a situation which the villager indicated was also typical.

In short, even if a villager is willing to lease his or her land, entry into a property-rights market is not realistic for all villagers. The households most capable of acquiring additional land and expanding their scale of agricultural operation are those households with multiple sources of income, either from migrant work or from existing rural businesses. And households eager to engage in agricultural industrialization are rarer still. In a 2009 paper published in *China Agricultural Economic Review*, Chern and Snyder examine the rural household income generated by China's estimated 120 million internal migrants, and find that while remittances do increase consumption of non-durables, they have little impact on the purchase of durable goods.¹⁰ This suggests even multiple-income households, the households most capable of agricultural

¹⁰ Chern and Snyder, "The impact of remittance income," 41.

industrialization, are largely unable or unwilling to overcome the barriers to agricultural industrialization and invest in agricultural equipment.

These structural barriers to aggregate land accumulation and agricultural industrialization, if left unchecked, may disable the push for rural development set forth in the Decision. While the intentions of the Decision are bold, the creation of a property-rights market may not fulfill the goal of "providing funds to start new businesses" or "boosting the scale of operation." Instead of supporting the rural economy and generating new businesses, the Decision may only support further development of existing businesses and, more likely, the migrant economy.

1.5 CETERIS PERIBUS: POSTMORTEM TRANSACTIONS AND THE TWO-PERIOD MODEL

Though the value of land-as-social-welfare remains high in Anhui, the migrant economy itself may offer a solution to the problem of property-rights trade without requiring any further governmental intervention. Most multiple-income households surveyed in Anhui drew a secondary income from grown children working as migrants. It is to those children that the land would be passed when the contract holder dies. However, it is likely that given the time these children have had to develop alternate sources of secure income, they may not value the social welfare of their contract land as highly as their parents. Thus, as more and more contract holders pass away (the average age of contract holders in Anhui was around 50 years old) more and more "undervalued" land will become available for trading. Since the low value of land-as-

production-capital is not likely to change, the opportunity cost of transferring land-use rights will also be low, allowing farmers remaining in the village to begin to acquire inexpensive, long-term leases on land available “post-mortem”

With the potential for post-mortem transactions comes a two-period model of contiguous-land accumulation. Though post-mortem transactions will allow farmers to acquire additional plots of land, these transactions do not guarantee that those plots will be contiguous and thus will not promote industrialization on its own. However, large and contiguous plots of land can be achieved, and industrial farming realized, over two periods. In the first period, farmers in villages undergoing post-mortem transactions may have the opportunity to acquire several plots of non-contiguous land, up until they are unable to profitably expand the size of their farmland further without industrialization. Once a farmer's total land area reaches this maximum workable non-contiguous area, he will cease adding land to his total farmland area. Even if given more land, the opportunity cost of keeping the land (and letting it lie fallow) is greater than or equal to the opportunity cost of giving or renting the land to another farmer in the village. As farmers begin to acquire additional land, and cannot industrialize, the production capacity of land (how "good" the land is) is more valuable than where the land is located. Even though the land in question is all a part of the same village contract land, and should share relatively similar characteristics, there is no incentive to trade even slightly better non-contiguous land for slightly worse contiguous land. The first period ends when a handful of individual farmers each possess their maximum amount of non-contiguous land.

As farmers acquire more land and reach the limit of non-industrial production, the comparative value of contiguous land increases. Contiguity, since it allows for industrialization, becomes more important than inherent production capacity. Since the total number of buyers and

sellers in the market is reduced to only a handful of farmers, negotiation is easier and these second period of trading may begin, with these farmers trading plots of land among themselves. As farmers begin to consolidate their land, industrialization becomes more economically feasible, even without an increase in total land area per farmer.

Though post-mortem transactions and the two-period model will allow for industrial agriculture to develop, the process is a slow one, requiring perhaps thirty to forty years until large, contiguous pieces of land are under the control of single households. Furthermore, postmortem transactions and land accumulation does not address the development of rural businesses. The Decision has laid the foundation upon which large, industrial farms may be created. However, the government must focus on the development of rural businesses directly if industrial agriculture is to be rapidly achieved. Capital from land rents will not be enough – an additional influx of capital to China’s rural areas must be encouraged. China’s state-run banking system, however, may not be best institution to carry out the task.

2.0 SECTION II

2.1 FORMAL AND INFORMAL FINANCING IN CHINA

Historically, China's formal financial institutions (state-run banks and credit programs) have had little success in reaching China's rural poor, focusing instead on financing larger state-run and private businesses in China's cities. But most businesses in China are not state-run corporations or large private firms, nor do they rely on the state banking system for financing. The vast majority of private businesses in China rely on informal finance, known as "curb markets," for start-up and working capital needs.¹¹ These small- and medium-sized enterprises (SMEs) play an important role in development, especially in China's rural areas.¹² Though the state attempts to monopolize the supply of credit to the economy, SMEs and rural households are often excluded from formal credit sources and must look to the informal finance market for credit. Formal finance in China's rural areas may take the form of:¹³

- Formal financing from state-run banking institutions (especially the Agricultural Bank of China),
- "*Wearing a red hat*," a Chinese phrase that describes the practice of larger private businesses affiliating with a state owned industry in order to get the access to capital they

¹¹ Tsai, "Beyond Banks."

¹² Lin and Sun, "Information, Informal Finance, and SME Financing."

¹³ Tsai, "Beyond Banks."

might not be able to get normally, or

- Rural Credit Cooperatives (RCCs), institutions set up in the 1950s in many of China's rural areas, now under the direction of the People's Bank of China

Alternatively, informal credit is available through:

- Rural Cooperative Foundations (RCFs), institutions set up by the Ministry of Agriculture for use by local governments,
- Rotating Credit Associations (RCA's) or Rotating Savings and Credit Associations (ROSCAs), two forms of self-managed, collective-pool financing that rural citizens set up among themselves,
- Pawnshops, legal stores which often use local funds as sources of illegal credit,
- Interpersonal loaning, through friends, relatives, or other private investors.

The legal status of informal sources of credit is determined by the People's Bank of China (PBOC), which tends to base their decision on (i) whether or not the lender is collecting and loaning money from the general public, and (ii) whether the lender is offering or charging interest rates above the mandated ceiling.¹⁴ Under these terms, interpersonal loaning is legal provided interest rates are at or below the mandated rate. However, if lenders collect from and lend to the general public at "usurious" rates, it is likely they will be shut down (as was the case with over half of the nation's pawnshops in 1996).¹⁵ Further, laws restricting private banking have also resulted in the closing or altering of numerous "money houses" in the post-Mao era.¹⁶

Strangely, the need for PBOC approval and a lack of inter-department communication has also resulted in informal financing through government programs: Rural Cooperative

¹⁴ Ibid., 8.

¹⁵ Ibid. 10-11.

¹⁶ Ibid. 21-22.

Foundations, set up by the Ministry of Agriculture, are not recognized as "financial institutions" by the PBOC. Since RCFs are not permitted to extend credit like formal financial institutions, euphemistic terms for comparable transactions are used: selling "shares" as deposits and extending capital use fees" as interest.¹⁷ Other difficulties appear when rural citizens attempt to provide some credit for themselves: rotating credit associations (RCA's, ROSCAs) in which groups of five to ten people each contribute to a collective pot which each member uses in turn, have numerous times been the subject of fraud.¹⁸

Attempts by banking authorities to ban various informal finance systems have been largely ineffective, since local officials frequently collaborate with private entrepreneurs in disguising or ignoring informal finance.¹⁹ However, as Lin and Sun demonstrate in *Frontiers of Economics in China*, informal financial markets fill an important niche in local credit markets.

2.2

THE FORMATION OF INFORMAL FINANCE MARKETS

Though it has been suggested that informal lending markets develop in response to repressive government policies (i.e., that a highly regulated formal financial sector cannot meet the demand for loans), Lin and Sun theorize that this is not the primary reason informal lending markets form. Instead, informal lending markets form in response to information asymmetry between formal lenders and informal lenders. Formal lenders tend to use "hard information"

¹⁷ Ibid., 12.

¹⁸ Ibid., 9.

¹⁹ Ibid., 39.

(income statements, balance sheets, credit ratings, etc.) and collateral to assess and mitigate the risks associated with lending. Since SMEs tend to be more opaque, lack hard information, and often lack collateral, they are passed up by formal lending institutions. Conversely, informal lenders—who are often in close proximity to or have a personal relationship with the borrower—can collect "soft information" and enforce repayment of loans through social means, eliminating the need for collateral. As a result, informal lenders have an advantage in lending to SMEs, and are thus more suitable for providing credit to the local market.²⁰

Lin and Sun model a credit market with heterogeneous borrowers and lenders by dividing potential borrowers into three categories: (a) low risk with collateral; (b) high risk with collateral; and (c) low risk with no collateral. They further divide potential lenders into banks, which cannot collect soft information and must use high interest rates and collateral to screen borrowers, and informal lenders, who can collect soft information and only use high interest rates to screen borrowers. Using these criteria, they model a credit market where (i) informal lenders are excluded and (ii) informal lenders are included. Lin and Sun find that when informal lenders are excluded, information asymmetry causes an inefficient distribution of loans. More loans go to high-risk borrowers with collateral, instead of going to low risk borrowers without the required collateral. Low risk borrowers without collateral either cannot get a loan or must pay the costs of acquiring collateral, which decreases profit and causes social deadweight loss. This decreases the number of projects funded, and reduces the potential benefit to the economy.²¹ However, when informal lenders are permitted to enter the market, there is a more efficient distribution of loans to borrowers and more low-risk projects are funded, increasing the value

²⁰ Lin and Sun, Information, Informal Finance, and SME Financing," 71.

²¹ Ibid., 77

added to the economy.²²

Giving further credence to informal lending markets, Turvey and Kong, in *UNU World Institute for Development Economics Research*, argue that the risks of lending in the absence of collateral can be minimized, and note that repeated experiments with banks built on the Grameen model show that lending on trust appears to work. This may be because of the periodic meetings and money management assistance built into Grameen-style loans, but game theory analysis undertaken by Turvey and Kong provide for economic confidence in trust-based lending. Their analysis shows that in trust-based lending, two games are played; one among the group of borrowers, and the other between the individual borrower and lender. If both of these games are repeated indefinitely, cooperation between borrowers and lenders (not defaulting) and among groups of borrowers (fulfilling one's role in the group) is the dominant strategy, and so Grameen-style trust-based lending can be a secure method for providing credit.²³

Given the studies by Turvey and Kong and Lin and Sun, it is clear that informal credit (or, at least, lending based on soft information) is beneficial to developing economies. And informal credit markets have proved to be essential to the development of many of China's urban areas, notably Wenzhou, in Zhejiang Province, where informal financing funds not only small start-ups but businesses of substantial size and market power.²⁴ But formal and informal lending both face different challenges in China's rural areas.

²² Ibid., 80

²³ Turvey and Kong, "Vulnerability, Trust, and Microcredit," 5.

²⁴ Lin and Sun, "Information, Informal Finance, and SME Financing," 70-71.

2.3

CHARACTERISTICS OF CHINA'S RURAL FINANCIAL SYSTEM

To better understand the challenges to development in China, it is informative to consider a breakdown of China's developmental sectors. In *Financial Sector Reform in China*, Tsai analyzes the characteristics of China developmental sectors and divides these sectors into four zones²⁵:

1. Extremely impoverished localities in remote areas where reform has stagnated and where private commerce and informal finance is virtually non-existent.
2. Areas with historically strong legacies of commune and brigade industries, where local governments channel most of the formal financing toward developing collective enterprises, while private businesses rely on unregistered forms of informal finance.
3. Areas with an early start on de-collectivization and private sector development, where local governments tend to be more lenient toward curb market activities.
4. Localities that must reform large state-owned enterprises (SOE's), where local governments are most likely to comply with campaigns to reduce informal finance and subsidize SOE's with the (more commonly) available formal finance.

Though Tsai does not explicitly separate these zones along urban-rural lines, a brief analysis of her criteria shows that zones 3 and 4 tend to be urban or quasi-urban areas. Considering, then, zones 1 and 2, it become apparent that the challenges to developing each zone are quite different. In zone 1, which comprises China's poorest rural areas, the poor are

²⁵ Tsai, "Beyond Banks," 14.

concentrated in remote, mountainous regions where the only income-generating activities tend to be agricultural in nature. The largest financial institutions providing loans to rural households (the Agricultural Bank of China and RCCs) are generally incapable of reaching these isolated areas, further separating the poor from access to formal credit.²⁶

In the less-isolated zone 2, government involvement proves to be a double-edged sword. While greater governmental presence often allows for easier access to RCFs and RCCs, these rural financial systems are still part of the larger state-owned financial system focused on government projects and enterprises. Since China's official loan rates are often set below the market-clearing rates, leading to excess demand for credit and credit rationing, the amount of credit any one project can receive is limited. Further, local government officials often lean on financial institutions to lend to productive enterprises that will generate tax revenue, or projects that are in line with development goals, pushing small-scale entrepreneurial projects out of the credit market.²⁷ Thus, entrepreneurs tend to look to private financing for credit. Therefore, in zone 2 areas, then, RCFs generally extend credit to SMEs that conform with local government development plans, and private lenders extend credit to individual entrepreneurs who are without access to bank or RCF loans.²⁸

Besides these, investment in rural areas faces another structural challenge. As Llanto argues, "the main unrecognized challenge in rural finance is the problem of overcoming the systematic risks arising from the undiversified nature of local economies."²⁹ Rural areas in underdeveloped nations are largely undiversified economies (i.e., if revenues from agriculture decrease, so too do the revenues of rural businesses). Normally, investors mitigate risks by

²⁶ Park and Ren, "Microfinance with Chinese Characteristics."

²⁷ Ibid.

²⁸ Tsai, "Beyond Banks, 19.

²⁹ Llanto, "Overcoming Obstacles to Agricultural Microfinance," 31.

diversifying investments. But because of the closed-economy nature of rural areas, risks are correlated; a flood, drought, a drop in crop prices, etc., will affect the ability of virtually all rural citizens in an area to repay their loans, regardless of their business.³⁰ Because lenders do not escape the risks associated with agriculture by lending to shopkeepers rather than farmers, lenders are more likely to keep more money in liquid assets, and there are too few risk-reducing institutions present in rural areas to encourage the expansion of formal financing into agricultural areas.³¹

2.4 GOVERNMENTAL EFFORTS TO SUPPLY RURAL CREDIT

Throughout Asia, a great number of subsidized agricultural credit programs have failed because government banks were unable to sustain financial losses due to the non-repayment of loans.³² When credit is cheap, demand increases, and more loans are given out than can be repaid. In 1996, for example, the Chinese government convened a conference to reduce poverty and expanded its subsidized rural loan program. However, this expanded program was heavily criticized for failing to reach the poor (as low subsidized interest rates made the program attractive to wealthier households) and demonstrated an average timely repayment of only 50%.

In an effort by the government to maintain control over the rural credit market, state-run programs based on the Grameen model have been put in place in several provinces since

³⁰ Ibid., 31.

³¹ Ibid., 33-34.

³² Ibid., 25.

1996, using funds previously allocated for the subsidized loan program.³³ However, these microfinance programs, as well as other forms of rural finance, are still part of the larger state-owned financial system focused on government projects and enterprises. Formal financial institutions tend to exclude poor households because of high transaction costs (they live far away), lack of collateral, and the perception of high credit risks.

As Park and Ren note, early microfinance projects in China serve as examples of what can be achieved by well-run microcredit programs. But poorly-run microcredit programs, as well as constraining regulations on informal finance and interest rates, may do more harm than good. Though financing through RCC microcredit has increased, there is still evidence of a shortage of credit in China's rural areas: He and Li find that 84% of households surveyed indicated they needed loans.³⁴ This credit rationing is skewed away from the poorest households, since RCCs, responsible for distributing credit to rural areas, tend to divide farmers into categories based on credit level, and prefer to give loans to middle-income farmers.

Since RCCs are government run, the ceiling on interest rates for RCC loans is considerably lower than interest rates charged by other sources of informal credit. By offering these low-interest microcredit loans, RCCs tend to crowd out other sources of informal financing who recognize risk and charge a higher rate. This crowding-out leads to an under-financing of the low-risk no-collateral borrowers and social deadweight loss.³⁵

Recognizing the potential for informal finance to revitalize the rural economy, or perhaps

³³Park and Ren, "Microfinance With Chinese Characteristics," 43.

³⁴ He, G., and L. Li (2005). 'People's Republic of China: Financial Demand Study of Farm Households in Tongre, Guizhou of PRC.' ADB Technical Assistance Consultant's Report, Project 35412. Manila: Asian Development Bank, cited in Turvey and Kong, "Vulnerability, Trust, and Microcredit," 15.

³⁵ Turvey and Kong, "Vulnerability, Trust and Microcredit," 11.

simply legislating what it has been unable to ban, China's government has promised to reform many of its lending policies and programs. In 2005, the PBOC started to pilot credit-only microfinance institutions, or MFIs, with unregulated interest rates that averaged about 20%, compared to 8-12% for RCC loans.³⁶ In 2008, after the PBOC and the China Banking Regulatory Commission (CBRC) issued a joint directive declaring support for microlending, government officials in Zhejiang province designed a new pilot program to help microcredit lenders support SMEs. The project focuses on granting well-established private businesses (which have asset-liability ratios of 70%, have had positive profits for three years, and have posted profit of over 15 million RMB (2.2 million dollars)) legal license to provide credit at 0.9 to 4 times the benchmark loan rate.³⁷ The CBRC also expanded qualified microcredit lenders from rural credit unions to all banking institutions. But perhaps most significantly, the PBOC has proposed granting private lending legal status and is now formulating regulations for private loans. According to the deputy director of the PBOC's Research Bureau, the biggest breakthrough would be to allow individuals to lend their own capital—not re-lending loans from state banks. Surprisingly, banking authorities have even suggested that small lenders with no record of bad credit could be transformed into rural banks, making legal private banks a possibility in China's rural areas. Though the required registered capital, credit ceilings, and interest rates are still under study, by legalizing and regulating the private lending market the government proposes to clamp down on loan sharks and better protect the interests of lenders and borrowers.³⁸

In recent years, a burgeoning microfinance market has begun to develop in isolated areas across China, independent of China's formal banking institutions. These MFIs may be capable

³⁶ Ibid., 14.

³⁷ Hu, "Making Way for Microcredit."

³⁸ Cao, "China to legalize private lending"

of taking risks and lending to individuals who would otherwise be excluded from the formal finance system, while maintaining enough structure to lend enough funds to significantly impact the development of rural businesses or the expansion of agricultural production.

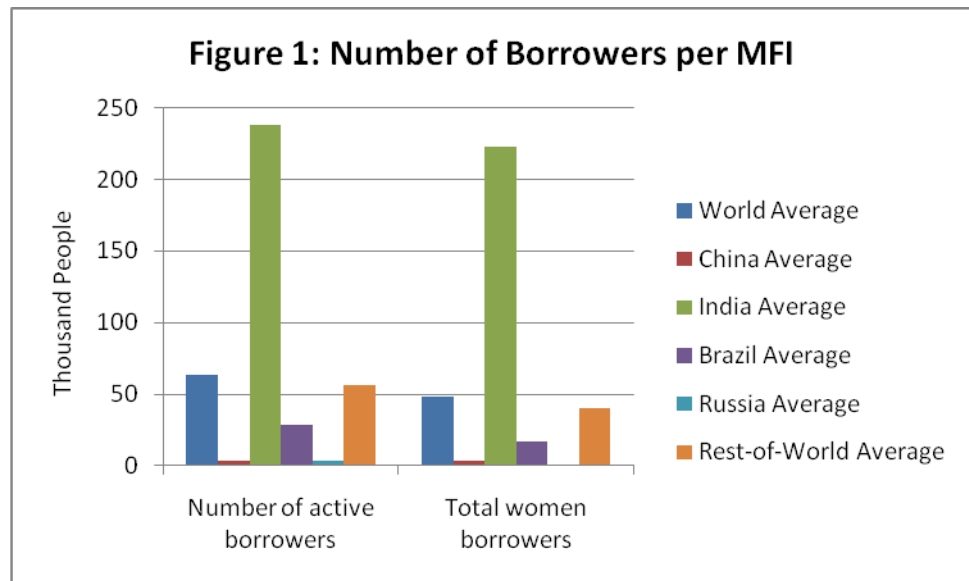
While the short-term impact of microfinance on poverty reduction is ambiguous, microfinance does offer the opportunity for borrowers to establish a credit history and develop or expand a business that may not have otherwise been funded. Microfinance programs may provide the first step on a journey out of poverty.³⁹ In Brazil, Russia, and India, microfinance programs have been in use for some time. When grouped with China, these nations make up the so-called BRIC nations, developing nations whose economies are growing at a very rapid rate. To understand the challenges faced by microfinance in China, it is useful to compare the microfinance market of China to the other BRIC nations.

³⁹ Economist, "A partial marvel."

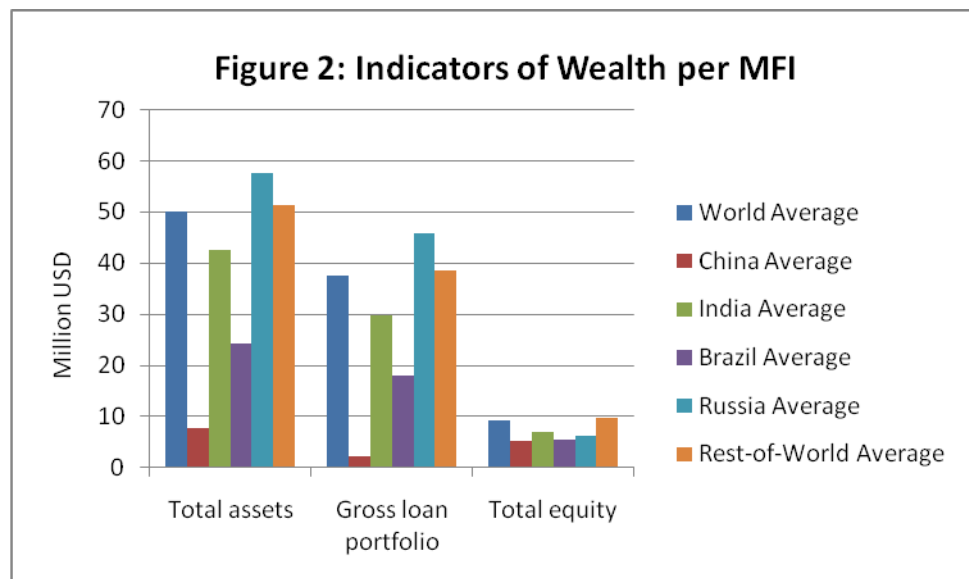
2.5 THE MICROFINANCE MARKET IN CHINA

Using data from MIXMarket.org for analysis, it is apparent that the microfinance market for China is young, small, and conservative. These factors work in tandem to reinforce one-another. In 2001,

only one MFI in China reported data on MIXMarket.org. By 2008, the total number of Chinese MFIs reporting data had grown to 11.



Comparing this change to that reported in the rest of the so-called BRIC nations, it is apparent that growth in the Chinese MFI market lags behind



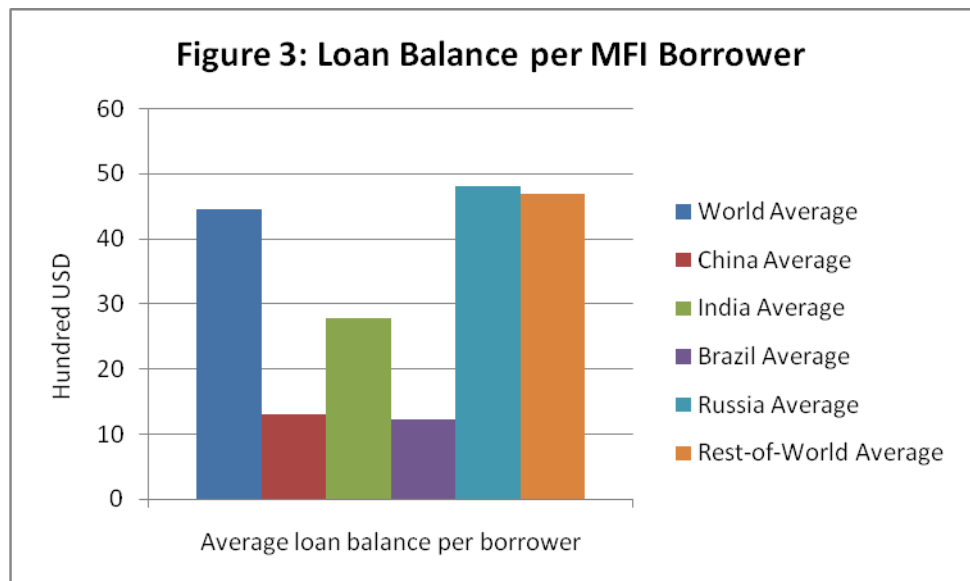
its closest analogs. For the same time period, Indian MFIs reporting data on MIXMarket.org grew from 10 to 65, Brazilian MFIs from 6 to 29, and Russian MFIs from 3 to 46. Naturally, the

MFIs reporting data on MIXMarket.org are not the only MFIs operating in the BRIC nations, but are a reasonable approximation for estimating the growth of the microfinance market as a whole.

While MFIs reporting data on MIXMarket.org have some presence in 43% of China’s provinces, over half of all MFIs reporting data in 2008 were located in just one province, Shanxi. Many other MFIs in China are devoted to assisting a specific county, town, or region within a province, limiting the reach of their lending activities. As a result, the average number of active borrowers in China is very small, compared to the other BRIC countries and the rest of the world (Figure 1). In addition, the average value of assets managed by a Chinese MFIs are also comparatively small (Figure 2).

Further, Chinese MFIs average loan amount per borrower tends to be relatively low (Figure 3). Of the BRIC countries, only Brazil tends to lend slightly lower amounts (but, to many

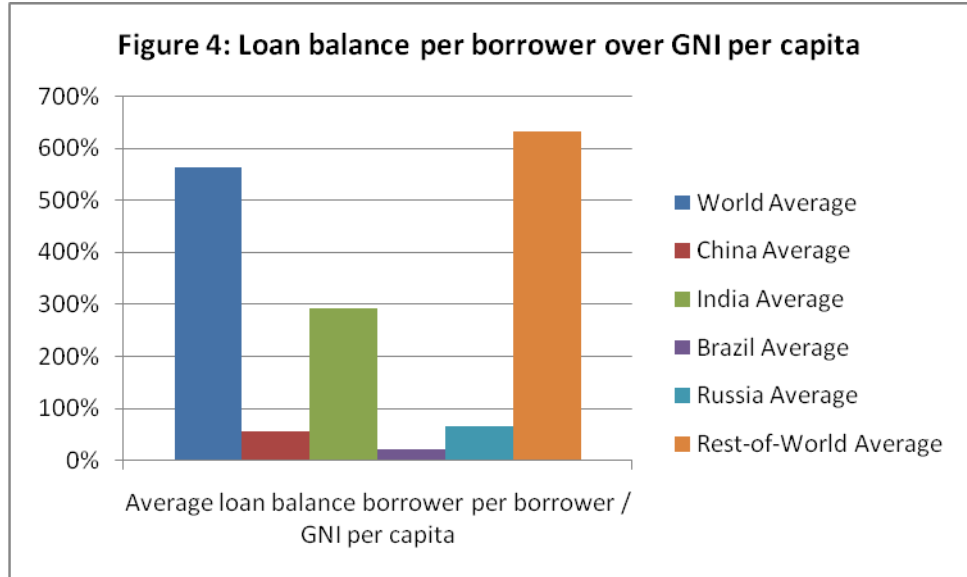
more borrowers). In addition, while India and China are closest to one another in terms of Gross National Income (GNI) per capita, Indian MFIs tend to lend amounts that far



exceed the average GNI per capita, while Chinese MFIs lend amounts equivalent to just over 50% of GNI per capita (Figure 4).⁴⁰ This indicates that, despite their similarities in terms of

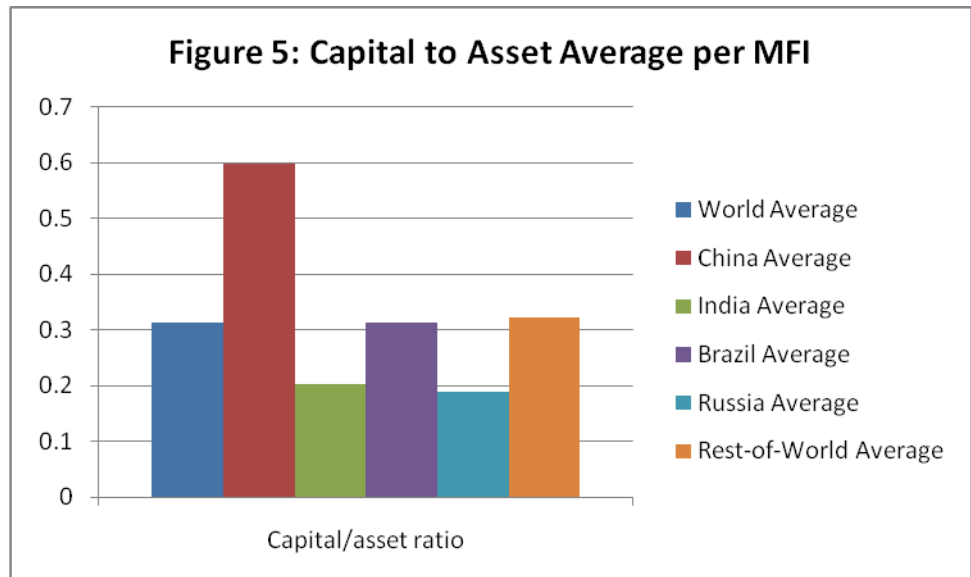
⁴⁰ GNI per capita, 2008 (USD): Russia, \$9,620; Brazil, \$7,350; China, \$2,770; and India, \$1,070. World Bank,

population and income levels, Chinese MFIs are not as willing (or not as able) to risk lending large amounts of money to the poor as are the MFIs in India.



The capital/asset ratio of Chinese MFIs indicates a reluctance to take risks associated with lending (Figure 5). High capital/asset ratios mean that Chinese MFIs are holding high capital and low assets, leaving a thick “cushion” in the event borrowers default. This, coupled with low loan amounts, indicate

that Chinese MFIs are largely unwilling to risk losing money, which in turn, implies the these MFIs will make conservative



loans and have low delinquency rates. While low delinquency rates are good for MFIs, overly-

“Gross national income per capita 2008, Atlas method and PPP.”

conservative lending practices diminish the potential for microfinance to make an impact on the lives of a great number of poor Chinese.

2.6 EFFORTS OF THE AGRICULTURAL BANK OF CHINA

The greatest source of rural credit, reaching the most rural citizens, may not come from microfinance, or individual lenders, or other small-scale rural banks, but from one of the largest banks in China. Beginning in 2007, the Agricultural Bank of China “strengthened its financial support to agricultural industrialization, countryside urbanization, and farming households.”⁴¹ It began pilot programs in 116 county-level branches, lending a total of 18.07 billion RMB to 122 corporate customers and 5,818 individuals, or the equivalent of 452,443.67 USD to each individual. Similarly, in 2008 the Bank reported lending 99,800 million RMB to 802,717 farmers, or an average of 18,215.13 USD per person. It must be assumed that these loans are not going to the same type of borrower as the loans from Chinese MFIs; it is a different class, based on different standards (recall the “soft information” vs. “hard information” lending patterns discussed in the earlier paper). However, the ABC also launched “Farmers Benefit ‘Kins’ cards,” in April 2008, which “[combine] the functions of self-service loans, revolving loans, fund remittance, fee payment agency service, and agro-related subsidy payment.” The 2008 Annual Report states that 8.1 million cards were distributed and 96% activated, with outstanding loans of

⁴¹ Agricultural Bank of China, “Annual Report 2007,” 27.

4,660 million RMB (an average of 599.28 RMB/cardholder, or 87.80 USD). The loans made through the Kins cards are much more closely aligned with the loan amounts made through Chinese MFIs. Comparing the ABC's Kins card to the data available on Chinese MFIs, the ABC's potential to impact China's rural poor seems much greater than that of China's MFIs. The ABC's national reach and 7.776 million potential borrowers mean that the ABC has the power to extend microcredit to .682% of China's total population.⁴² Though that figure seems small, Chinese MFIs currently reach just 0.00282% of the population. However, it is possible, as microcredit in China grows, that the reach of the Chinese MFIs may extend to a greater percentage of the population. India, with its dozens of MFIs and aggressive lending policies, is already reaching .876% of India's total population.

⁴² Agricultural Bank of China, "Annual Report 2008," 79-81.

3.0 CONCLUSIONS

The extent to which these or other informal finance programs can effectively reach the poor and be financially sustainable depends on how cost-effectively they can be operated and on the extent to which interest rates accurately reflect the risks associated with borrowing. China's history of subsidizing loans and regulating interest rates has diminished the success of its microfinance programs and crowded out other sources of credit. Legalizing and regulating informal credit may thus prove to be disadvantageous to China's rural poor. If banking authorities place ceilings on interest rates that are too low, or make the criteria for legal status too great, lenders may exit the market instead of entering it, and RCCs and other government-run programs will not likely be able to replace the informal lenders. For now, informal finance's illegal status allows lenders to enjoy open entry and unregulated interest rates, and social forces provide some guarantee for loan repayment. Informal lenders, as well as MFIs, benefit from the ability to collect soft information about potential borrowers, giving them the capability to lend to low-risk, no-collateral borrowers who would normally be excluded from the formal financial system. This information allows lenders to loan without the need for collateral, allowing more projects to be financed and increasing the benefit to the economy (as well as individual borrowers). Further, informal lenders are able to enter into more isolated areas where formal finance infrastructure does not exist, and informal lending is better equipped to provide the flexibility needed when a borrowers' main source of income is based in agriculture. However,

despite these advantages, China's informal lending sector is currently very weak in terms of the impact it can make on rural development. Larger institutions, like the ABC, can do more to impact rural development, if the government uses policy to enable market participants, rather than hinder them.

There is no single solution for reform of China's rural sectors. As the issues surrounding the Decision illustrate, an immature property-rights market has contributed greatly to the slow pace of rural development. Left alone after the release of the Decision large-scale agriculture and small businesses development across China is inevitable, albeit gradual. Should the government desire to speed up this process of development, creating large farms and small businesses, China's rural areas must receive an infusion of accessible capital from supported sources, including government-run banks and independent MFIs.

4.0 OPPORTUNITIES FOR FURTHER RESEARCH:

The field research for this paper was conducted in 2008, shortly after the release of the Decision. Most villagers interviewed were ambivalent about the potential effects of the Decision. Further research should reassess rural citizens' confidence in the Decision and examine the real affect of this attitude on the theoretical models for development illustrated in this paper.

Further, as microfinance expands throughout the world, China has been largely cut-off from international lending organizations like Kiva, the world's first peer-to-peer international lending service. As a representative from Kiva explained, the microfinance organization has been unable to establish a presence in China due to strict regulations controlling the flow of money in to and out of China.⁴³ Future research should explore these limitations in detail, and address potential government actions to further open China's rural areas to international capital.

⁴³ Ali Carroll, email message to Kiva.org, September 24, 2009.

BIBLIOGRAPHY

- Agricultural Bank of China*. "Annual Report 2007." <http://www.abchina.com/en/hq/report.jsp/fid=20000021/sid=105001407/index.html>
- Agricultural Bank of China*. "Annual Report 2008." <http://www.abchina.com/en/hq/report.jsp/fid=20000021/sid=105001618/index.html>
- An Lu. "China extends rural reform and development in new Party document." *Gov.cn: The Chinese Central Government's Official Web Portal*. (2008): http://english.gov.cn/2008-10/20/content_1125699.htm
- Cao , Xiaofan. "China to legalize private lending in bid to ease rural credit pressure." *Chinaview.cn* (2009): http://news.xinhuanet.com/english/2009-03/04/content_10943730.htm
- Chern, Wen S, and Steve Snyder. "The impact of remittance income on rural households in China." *China Agricultural Economic Review* 1.1 (2009): 38-57. <http://www.emeraldinsight.com/1756-137X.htm>
- Communist Party of China (CPC) Central Committee. *The Decision on Major Issues Concerning the Advancement of Rural Reform and Development*"(personal translation). (2008).
- Dong Guoli, Li Li & Ren Jiping. "The Models of Land Leasing and Economic Performance in Contemporary China: Perspective from Property Rights and Principal-agent Theory." *Sociological Studies (Beijing, China)*. No.139 (2009): 25-63.
- Economist*. "A partial marvel." July 2009, 76.
- Fu Chen and John Davis. "Land reform in rural China since the mid 1980's." *Sustainable Development Department, Food and Agriculture Organization of the United Nations*. (2008): <http://www.fao.org/sd/LTdirect/LTan0031.htm>

- Hu, Yue. "Making Way for Microcredit -- Beijing Review." *Beijing Review* (2008):
http://www.bjreview.com.cn/print/txt/2008-08/03/content_140099.htm
- Jiang Yuxia. "China liberalizes rural land use to boost development." (2008): http://english.gov.cn/2008-10/19/content_1125095.htm
- Lin, Justin Yifu, and Xifang Sun. "Information, Informal Finance, and SME Financing." *Frontiers of Economics in China* 1.1 (2006): 69-82. <http://www.springerlink.com/content/4331nlk742011606/fulltext.pdf>
- Llanto, Gliberto M. "Overcoming Obstacles to Agricultural Microfinance: Looking at Broader Issues." *Asian Jopurnal of Agriculture and Development* 4.2 (2007): 23-40.
http://www.searca.org/ajad/archives/v-04/02/ajad_v4_n2_llanto.pdf
- MIXMarket*. "Microfinance Institutions" http://www.mixmarket.org/mfi/indicators/flatstore_mfi_mfdb_data.mix_diamonds__c%2Cbalance_sheet_usd.gross_loan_portfolio%2Cproducts_and_clients.total_borrowers/2008
- National Bureau of Statistics of China*. "Communiqué on Major Data of the Second National Agricultural Census of China." (2008): http://www.stats.gov.cn/was40/gjtjj_en_detail.jsp?searchword=agricultural+census+&channelid=9528&record=6
- Park, Albert, and Changqing Ren. "Microfinance With Chinese Characteristics." *World Development* 29.1 (2001): 39-62.
- Tsai, Kellee. "Beyond Banks: The Local Logic of Informal Finance and Private Sector Development in China." *Financial Sector Reform in China Conference Agenda*.
www.hks.harvard.edu/mrcbg/Conferences/financial_sector/BeyondBanks.pdf

Turvey, Calcum G., and Rong Kong. "Vulnerability, Trust and Microcredit: The Case of China's

Rural Poor." *UNU World Institute for Development Economics Research* 52 (2008): 1-

23. <http://www.wider.unu.edu/publications/working-papers/research->

[papers/2008/en_GB/rp2008-52/_files/79432575789367494/default/rp2008-52.pdf](http://www.wider.unu.edu/publications/working-papers/research-papers/2008/en_GB/rp2008-52/_files/79432575789367494/default/rp2008-52.pdf)

The World Bank. "Gross national income per capita 2008, Atlas method and PPP."

<http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>