Informal Lenders and Rural Finance in China: A Report from the Field

Li Zhou and Hiroki Takeuchi

Modern China 2010; 36; 302
DOI: 10.1177/0097700409360745

Modern China
36(3) 302–328

DOI: 10.1177/0097700409360745
http://mc.sagepub.com

Informal Lenders and Rural Finance in China: A Report from the Field

Li Zhou[1] and Hiroki Takeuchi[2]

Abstract

Chinese farmers need loans. It's hard for them to borrow from formal lenders like banks or even the rural credit cooperatives. Thus, to satisfy their financial needs, farmers borrow from informal lenders. While farmers have benefited from the post-Mao reform in many respects, financial reforms of the past three decades have failed to create an effective system in which farmers can borrow from formal lenders. To create an effective and efficient financial system that can meet farmers' needs, it is necessary for informal lenders to play an active role in rural finance. China's rural finances face four key problems: asymmetric information, a lack of collateral, the unique structure of costs and risks, and the nonproductive use of loans. Informal lenders have an advantage in solving these problems. This article proposes the creation of a financial system in which informal lenders play an active role in lending to farmers and formal and informal lenders cooperate with each other. It develops the argument based on the first author's field research in the provinces of Guangdong, Henan, Jilin, Shaanxi, Shandong, and Shanxi.

Keywords

rural economy, financial reform, informal lenders

[1]Renmin University of China, Beijing, China
[2]Southern Methodist University, Dallas, TX, USA

Corresponding Author:
Li Zhou, School of Agricultural Economics and Rural Development, Renmin University of China, No. 59, Zhongguancun Street, Beijing 100872, China
Email: zhouli@ruc.edu.cn

The emergence of microfinance in developing countries has attracted increasing interest from scholars and practitioners (e.g., Morduch, 1999; Patten, Rosengard, and Johnston, 2001; Ramirez, 2004; Schreiner, 2003). Much of the literature on microfinance in developing countries has debated whether, how, and to what extent microfinance contributes to economic growth and alleviates poverty (e.g., Khandker, 2005; Montgomery and Weiss, 2005). The literature on microfinance in rural China has often emphasized how the institution of microfinance fits the unique characteristics of China's rural communities (e.g., Park and Ren, 2001; Zhou, 2006b).

There is no doubt that Chinese farmers (*nongmin*) need loans.[1] If farmers have access to small amounts of capital, they can make small-scale investments in agriculture or adjust the seasonal fluctuation of their incomes from agriculture. Moreover, they need loans to cope with large expenses, often unexpected, such as sudden sicknesses, ceremonial occasions (e.g., funerals or weddings), and higher education for their children. In short, they may need to borrow to continue their daily lives.

This article explores how the existing financial system in rural China has (or has not) worked to meet farmers' needs for loans. How has the series of financial reforms during the post-Mao period (Zhou and Hu, 2002) influenced financial systems in rural areas? These reforms have focused mainly on the development of formal lenders. However, this is not sufficient. It is also necessary for rural areas to have a unique financial system using informal lenders. We discuss the unique characteristics of rural finance and assess the post-Mao financial reforms from the perspective of rural finance.

Formal and Informal Lenders in Rural China

Throughout this article, we distinguish formal and informal lenders based on their status under the monitoring of the financial authorities. Formal lenders perform financial activities under the oversight of the financial authorities, and have workers employed exclusively by the financial institution and its branches for its business activities.[2] We describe all the lenders engaged in financial activities without the government's approval as informal lenders.

The following is a short list of the financial activities performed by informal lenders: (a) casual borrowing and lending (*linshixing jiedai*), including financial activities among individual people (*qinyou jiedai*), especially among relatives; (b) professional lending (*zhiyexing fangdai*) by private lenders such as middlemen (*yinbei* and *qianzhong*—especially in Zhejiang and Fujian) (Tsai, 2002), pawn brokers (*diandanghang*), cooperative foundations (*hezuo jijinhui*), and other lenders that make small loans; (c) tied credit (*kunbang* *xindai*), including loans from local merchants or entrepreneurs to rural residents for agriculture; (d) mutual lending (*xianghu jiedai*) and small-group finance (*xiaozu jinrong*), including schemes for small lending (*xiao'e xindai*), tontines (*hehui*), and mutual finance (*zijin huzhu*); and (e) shareholding loans (*guquanxing jiedai*) for purposes such as investment in rural industry. Although formal lenders are sometimes involved in these activities, they are not conducted by the people working professionally for them in their offices or with their organizations.[3]

Activities by formal lenders in China's rural areas include (a) cooperative finance (*hezuoxing jinrong*) mainly by the rural credit cooperatives (RCCs: *nongcun xinyong hezuoshe*); (b) commercial finance (*shangyexing jinrong*) mainly by the Agricultural Bank of China (ABC: Zhongguo nongye yinhang); (c) policy finance (*zhengcexing jinrong*) such as loans for poverty relief (*fupin*) by the Agricultural Development Bank (Nongye fazhan yinhang); (d) postal savings banks (*youzheng chuxu yinhang*), which were established in 2006 and have since attracted a large amount of savings in rural areas; and others including village-and-township banks (*cunzhen yinhang*), small-amount lending companies (*xiao'e daikuan gongsi*), and mutual finance cooperatives (*zijin huzhushe*). Among the formal lenders, the RCCs provide more than 90 percent of the money that is lent to rural borrowers. Though the RCCs have been officially established as informal lending institutions, they are categorized as formal lenders based on this article's definition because they have been regulated and monitored by the government since their introduction.[4] Their activities are like commercial finance though they have been nominally established to engage in cooperative finance. Indeed, they have faced the same problems as those faced by nominally formal lenders such as the ABC in conducting rural finance.

Key Problems of China's Rural Finance

Of the three factors of production—capital, labor, and land—capital is usually scarce in developing countries, especially in rural areas. The Chinese countryside is no exception and a lack of capital has been a bottleneck for rural development. In the Chinese domestic economy, capital is more abundant in urban areas than in rural areas. Because many rural areas, especially agricultural ones, cannot expect foreign investment, theoretically the key to solving capital scarcity in the countryside is capital transfer from banks to rural areas. However, because formal lenders do not play a role in urban-to-rural capital transfers, in reality capital is distributed to farmers mainly by informal, rural lenders. Therefore, if the informal lending structure deteriorates, farmers will suffer from a lack of access to loans, capital scarcity in the countryside will increase, and inequality between urban and rural areas will be exacerbated.

The lack of capital has a negative effect on China's rural development in various ways. First, the lack of effective and efficient investment due to the scarcity of capital lowers the productivity of agriculture. Second, a certain level of frequency of investment is needed to maintain agricultural production. Third, capital is needed for the development of rural industry, a major source of economic growth in rural areas. Moreover, the lack of effective and efficient financial systems in rural China widens intra-rural inequality between rich and poor villages. If rural areas do not have a financial system that gives farmers opportunities to borrow, capital will flow from agricultural to industrialized villages. To make matters worse, under the relaxation of migration controls during the post-Mao reform, labor can also move from poorer to richer villages. Thus, poor villages, where currently labor is abundant though capital is scarce, will lose *both* capital and labor without an improved financial system. Moreover, if farmers can migrate from their villages, the lack of an effective and efficient financial system may hinder the development of rural industry and lead to a decline of agricultural production.

Can the extension of formal lenders that the central government has implemented nationally in both urban and rural areas meet the needs of China's farmers? There are four problems that may hinder formal lenders. We believe that what rural finance needs is a system incorporating the roles of informal lenders, and it should be different from the financial system in urban areas.

First, there is a problem of asymmetric information between formal lenders and rural borrowers. While the asymmetric information problem exists between lenders and borrowers in any financial market, it is more severe and occurs in a unique way in China's rural areas. Formal lenders often find it hard to figure out how a farmer uses loaned money. In general, if borrowers use loans for purposes other than those specified when applying for the loan, they tend to fail to pay back their debt (Stiglitz and Weiss, 1981). Thus, from the perspective of formal lenders, lending to farmers is risky. Additionally, farmers do not have a habit of recording their financial transactions. Moreover, often there is no official record of their credit history. Like farmers, entrepreneurs of rural industry often do not keep records of their financial transactions, or keep poor records. According to the first author's field research in rural villages in the provinces of Jiangsu and Zhejiang, although many enterprises keep financial books, the records of their financial transactions appearing in those books are often inconsistent and contradictory.[5] More interestingly and importantly, each enterprise keeps multiple books, using them for different purposes such as paying tax, borrowing money, and keeping records for themselves.

The numbers are inconsistent among the books but consistent with their purposes for each situation. The real numbers may exist nowhere other than in the manager's brain. Thus, it is difficult, if not impossible, for formal lenders to acquire accurate information about potential borrowers. To make matters worse, the current legal institutions do not stipulate punishment for default. In short, asymmetric information aggravates the moral hazard problem, causes adverse selection of borrowers, and increases credit risk in rural finance.

However, the factors causing the asymmetric information problem for formal lenders is an advantage for informal lenders. The rural community is a society in which people know each other well and interact with each other on a daily basis. Informal lenders, living in the community for a long time, have relatively accurate information about local residents' financial activities. When informal lenders make a decision on a loan, they rely on their personal relationship with borrowers, rather than on the official records appearing in the books.

Second, the lack of appropriate collateral is a problem in lending to farmers. One way to alleviate the asymmetric information problem is to demand collateral when making a loan contract. Creditors lend money on security, taking collateral to offset the risk of default. At the same time, debtors do not have full responsibility of repayment when they fall into default and assume only a limited obligation of repayment. Risks still remain though a loan contract is a means to alleviate the asymmetric information problem between borrowers and lenders.

The list of potential collateral that farmers may provide includes land, a house, labor, and agricultural machinery. However, these items do not work as collateral for formal lenders. For example, labor cannot be collateral because it cannot be transacted when debtors are in default. Land also cannot be appropriate collateral under the current ambiguous property rights institutions of land ownership. The value of a farmer's house or agricultural machinery is usually so low that neither is useful for collateral. In short, farmers cannot provide collateral that formal lenders can accept. Along with a lack of collateral, formal lenders hesitate to lend to farmers because they cannot solve the asymmetric information problem. By contrast, informal lenders can take land, a house, labor, or agricultural machinery as collateral. Therefore, they can hedge the risk of lending.

Third, lending to farmers has a unique structure of costs and risks. In rural China, the small household has been the unit of agricultural production since Deng Xiaoping started the post-Mao reform in 1978. At present, the average cultivated land area per household is only 7.6 mu.[6] Small-scale farming yields low agricultural revenue. At the same time, farmers periodically need to make small-scale investments to maintain agricultural production. Thus, the loan that an individual borrower needs is usually small. At the same time, because farmers' incomes are low, they do not have sufficient savings to meet unexpected expenses. Moreover, they are vulnerable to a decrease in their incomes due to natural disasters or the fluctuation of the prices of agricultural products.

Thus, formal lenders find it risky to lend to farmers. The low income of farmers raises the probability of default. More important, the seasonal fluctuation of agricultural incomes makes repayment even less predictable. Furthermore, farmers do not have sufficient collateral to satisfy formal lenders' criteria. These characteristics fail to meet the conditions that formal lenders require in order to make a loan: safety, liquidity, and profitability (Hoff and Stiglitz, 1990). Therefore, rural finance in which none of these conditions is met is a business with high risks from the perspective of formal lenders.

Fourth, farmers use borrowed money for nonproductive purposes such as covering sudden expenses in their daily lives. For thousands of years, the goal of living for Chinese farmers has been to avoid starvation. Living conditions in rural areas are often so tight that farmers often need to borrow to meet daily expenses. The dependence on agriculture, which is influenced by natural conditions such as weather, enhances the need to borrow to meet their daily expenses. This nonproductive use of loans does not increase the borrower's income in contrast to the case where a borrower uses the loan for investment. Therefore, formal financial institutions are often concerned about the ability of farmers to repay loans and hence refuse to lend to them. Rural China is not alone in this regard; empirical studies have suggested similar cases in other developing countries such as Nigeria (Udry, 1994), Pakistan (Aleem, 1993), the Philippines (Agabin, 1988; Floro and Ray, 1997; Larson, 1988), Thailand (Siamwalla et al., 1990), and Vietnam (Tra Pham and Lensink, 2008).

Historically, farmers spent most of their borrowed money for nonproductive uses. For example, according to research by Jinling University, in 1934–1935 more than 90 percent of rural loans were spent on nonproductive use such as meals and ceremonial occasions (Peng, Chen, and Yuan, 2008) (see Table 1).[7] In particular, tenant farmers (*dian nong*) spent as much as 94.2 percent of the amount they borrowed on nonproductive uses. Semi-tenant farmers (*ban-dian nong*) spent 11.6 percent of loans on productive uses, more than landed farmers (*zigeng nong*), because they had to borrow for investing in their own land. Landed farmers did not have to borrow for agricultural investment because they already had sufficient money for that purpose.

Table 1. Farmers' Use of Loans, 1934–1935 (Percent)

	Average	Landed Farmers	Semi-Tenant Farmers	Tenant Farmers
Productive uses	8.4	7.4	11.6	5.8
Nonproductive uses	91.6	92.6	88.4	94.2
Meals	42.1	25.6	43.9	60.3
Weddings and funerals	18.1	21.5	12.7	20.3
Other nonproductive uses	31.4	45.5	31.8	13.6

Source. Peng, Chen, and Yuan, 2008.

Table 2. Farmers' Use of Loans, 1995–1999 (Percent)

	1995	1996	1997	1998	1999
Loans for daily expenses	35.7	42.3	48.3	41.3	45.9
Loans for productive uses	54.3	46.6	40.4	45.7	44.3
Loans for other uses	9.9	11.1	11.3	12.9	9.8

Source. Wen, 2001.

Currently, farmers spend a smaller percentage of borrowed money on nonproductive uses than in the 1930s, but the portion spent on nonproductive uses is still large. According to Wen Tiejun (2001), 35–45 percent of rural loans were used for daily expenses in 1995–1999 (Table 2). Wen's research covers 41 villages in 24 counties from 15 provinces, in coastal, central, and western regions. Interestingly, the ratio of loans used for daily expenses increased in this period. This might be because farmers' incomes have stagnated since the 1994 fiscal reform, which had negative effects on the economy in agricultural areas, and farmers have had to rely more on loans to cover their daily expenses.

In sum, the four issues discussed here make it difficult for formal lenders to play an active role in rural finance. Mutual trust between borrowers and lenders is a necessary condition for any financial system to work, and trust exists between farmers and informal lenders based on long-term personal relations in China's rural communities. Thus, the four issues that make it difficult for formal lenders to loan suggest that incorporating informal lenders is the key to creating an effective and efficient rural finance system in China.

Because of the difficulty in solving the asymmetric information problem, transaction costs of rural finance are generally high. However, high transaction costs give comparative advantage to informal lenders over formal lenders.

Formal lenders prefer large-scale, highly profitable loans to small-scale loans lacking transparency and appropriate collateral (Berger et al., 1999). Thus, they prefer lending to industry, urban borrowers, and big companies. As a result, a financial system based on formal lenders tends to have a "financial urban bias" (Chandavarkar, 1985). Therefore, to solve this problem, it is necessary for a rural financial system to incorporate informal lenders.

Since the 1970s, major formal lenders in the Chinese countryside, such as the ABC and the RCCs, have played a role in capital flow from rural to urban areas. For these formal lenders, the loan–deposit ratio in rural areas was approximately one half in the 1980s and two thirds in the 1990s. In 1995, only 22 percent of farmers' deposits were turned into loans to farmers, which means that farmers' money was transferred to urban areas. This number was improved to 27 percent in 2002 and to 31 percent in 2003, but it was still low (*Zhongguo jinrong nianjian*, 2003, 2004). By contrast, informal lending accounts for 85 percent of the amount lent to farmers (Zhou, 2006a). This result is ironic because the central government has often discouraged or even banned farmers from using informal institutions. The central government has promoted financial reform focusing on formal lenders. However, the reality is that formal lenders have not been effective in rural areas. The next section will compare the functions of formal and informal lenders and explore their strength and weaknesses.

How Formal and Informal Lenders Solve the Key Problems

As we have discussed, an effective and efficient financial system in the Chinese countryside is one that will solve the four problems identified above. Informal lenders are at an advantage in providing financial services in rural areas compared with formal lenders. Informal lenders have uniquely effective ways to reduce transaction costs and avoid risks. Thus, the development of informal lenders is indispensable to the creation of an efficient and effective system in rural finance.

As discussed in the previous section, in China it is difficult for formal lenders to obtain the necessary information on borrowers to avoid risk. And it is also difficult to obtain appropriate collateral, which otherwise may solve the asymmetric information problem. Studies on microfinance in China and other developing countries suggest that formal lenders do not play an active role in loans for farmers (e.g., Ray, 1998: 504–40; He Guangwen, 1999; Hoff and Stiglitz, 1990, 1997). This problem occurs because formal lenders do not have a way to ensure repayment of their loans to farmers, especially loans used for noninvestment purposes such as daily expenses. Therefore, lenders cannot hedge risks when they lend to farmers. Moreover, because lenders face such risks, they set high interest rates for rural finance.

The first author's field research suggests malfunctions by formal lenders in rural China. It especially reveals the malfunctions of the RCCs, which have been established as major lenders to farmers. According to the first author's field interviews, farmers suggest the following reasons for why the RCCs do not function as reliable lenders:[8]

1. The RCCs are not familiar with social networks in the community, do not trust farmers, and do not believe that farmers will repay.
2. The RCCs often demand collateral or demand village cadres or other local residents cosign on loans to farmers. Cosigners then cannot borrow from the RCCs until the original borrower has repaid.
3. When they do not have appropriate collateral or cosigners, farmers need personal connections to borrow from the RCCs. To use personal connections, they have to pay a kickback to the lender who has handled the loan.
4. The RCCs are willing to lend only to entrepreneurs or rich farmers. They are not willing to lend to poor farmers, who need the loans to cover their daily expenses.
5. The RCCs consider lending to farmers risky because agricultural revenue fluctuates depending on the season and is influenced by natural conditions.
6. Because of the difficulty in hedging the risks of lending to farmers, the RCCs do not follow the state's regulations that oblige the RCCs to lend to rural households. Instead, they use funds for lending to urban residents or for other purposes unrelated to rural development.

These alleged problems suggest that the RCCs have failed to solve the four key issues discussed in the previous section. Moreover, state regulations are not strictly enforced and the RCCs use the funds deposited in rural areas for purposes other than needs of farmers or rural development. Furthermore, the RCCs sometimes engage in illegal acts such as demanding kickbacks for their lending.

The first author's field research in Guangdong province suggests that the ABC has also failed to function as an effective lender.[9] The interviewees employed by the ABC point out the costs and risks of lending to farmers,

Table 3. Supply of Financial Services in Three Rural Areas in Guangdong Province, 2002 (10 Million *Yuan*)

	Humen Town, Dongguan	Lianghua Town, Huizhou	Meixi Town, Meizhou
Service providers (formal institutions)	RCCs, ABC, Others[a]	RCCs ABC	RCCs
Loans by formal institutions	8,606,968	2,791	1,240
Loans for agriculture	200,466 (2.3%)	2,345 (84.0%)	572 (46.1%)
Loans for industry and commerce	2,466,393 (28.7%)	400 (14.3%)	535 (43.1%)
Loans for real estate	1,717,896 (20.0%)	0 (0.0%)	0 (0.0%)
Loans for other objectives	4,222,213 (49.1%)	46 (1.6%)	133 (10.7%)

Source. The first author's field research.
Note. RCC = rural credit cooperative; ABC = Agricultural Bank of China.
a. Others include the Industrial and Commercial Bank of China, the Bank of China, the China Construction Bank, the Guangdong Development Bank, and the Dongguan Commercial Bank.

saying that agricultural incomes are unpredictable because farmers' incomes are influenced by natural conditions and the volatile market prices of agricultural products. Therefore, although the central government requires the ABC to lend to rural households, the ABC is not an effective lender in rural areas. Ironically, the ABC is more active in loans in urban areas, especially lending to large corporations.[10]

Table 3 shows the supply of financial services in three towns in Dongguan, Huizhou, and Meizhou in Guangdong in 2002. First, the amount that formal lenders lent was much higher in rich and industrialized Humen than in the other two less industrialized towns. In other words, formal lenders loan where the ratio of lending for agricultural purposes is very low. Interestingly, the ABC withdrew from Meixi, the poorest and most agricultural town of the three, in 1999. By contrast, residents in Humen have access to various formal lenders in addition to the ABC and the RCCs. In sum, residents in industrialized areas have access to loans from formal lenders because they do not spend their loans on agriculture, while residents in agricultural areas do not have access to loans from formal lenders precisely because they spend their loans on agriculture.

Moreover, research conducted by the School of Agricultural Economics and Rural Development at Renmin University of China reveals that rural households borrowed little from the RCCs in 2002. Among about 900 rural households in the three provinces of Shaanxi, Shandong, and Shanxi, only 16 percent borrowed from the RCCs—22 percent in Shaanxi, 6 percent in Shandong, and 23 percent in Shanxi (Ma, 2003). This observation is consistent with the view that formal lenders play a limited role as effective lenders in rural areas. While formal institutions have failed to lend to farmers, informal lenders have an advantage in meeting the financial needs of farmers.

First, informal lenders are at an advantage in solving the asymmetric information problem. They reside in the local village communities and interact with potential borrowers on a daily basis. Thus, informal lenders have information about the conditions in their local villages that influence the ability to repay, including agricultural production, the business of rural industry, and even kinship structures of each household. For example, Mr. Q is an informal lender in a village of Yutai county, Shandong province.[11] His borrowers are concentrated within 1–2 kilometers of his house. He evaluates borrowers based on mutual personal trust from his long-term observations of and interactions with them. However, this does not mean that he grants loans easily. He said, "I am very careful when making a decision on lending. I never make a verbal promise. I also never make a contract while drinking."

Informal lenders usually live in the same village community as borrowers. This long-term relationship between informal lenders and borrowers helps informal lenders solve the asymmetric information problem. For example, Mr. Q says that he has known most of his borrowers for more than twenty years. The asymmetric information problem can be easily overcome in this kind of situation. Moreover, informal lenders have each local resident's record of repayment and other credit information. Thus, they have a good sense about when borrowers will repay based on each borrower's financial condition and the local patterns of agricultural production.

Village community networks also bring another advantage to informal lenders. Social sanctions may work when a borrower fails to repay. In a small community like a Chinese village, residents care about their reputation and they have a strong incentive to avoid an act such as default that will lower their reputation. This "reputation mechanism" works when the size of a social network corresponds with the size of a financial market. This mechanism does not work for formal lenders because their financial market is bigger than the size of a social network.

When informal lenders loan to farmers, what they take as security for lending depends not on a borrower's credit record but on strength of the lender's trust in the borrower. Mr. Q holds different items in trust when lending money, depending on his personal relations with the borrower. If it is a small loan such as 2,000–4,000 yuan, he usually holds nothing in trust. However, when he does not have sufficient trust in a borrower, he requires a guarantor. If the amount ranges from 4,000–10,000 yuan, he will require a guarantor. If the amount exceeds 10,000 yuan, he will require two guarantors. In any case, the guarantor must be someone he knows well and trusts.

When a local feed factory borrowed 20,000 yuan from Mr. Q in 2005, the director and another member of the local RCC became guarantors. Though the factory failed to repay by the due date, Mr. Q did not worry about the loan, saying "I know that the factory can repay at any time if I demand repayment. The factory is managing its money well. I know the situation of the factory. And if the factory really fails to repay even when I demand repayment, then I will seize its pig feed." Because Mr. Q is a farmer and merchant managing an agricultural store, feed works as collateral. This example shows how an informal lender can succeed in lending to rural residents. The key is that informal lenders can link their lending with other market-oriented commercial trades—in this case, Mr. Q's agricultural business. In other words, successful informal lending does not contradict the market mechanism but is interlinked with other market activities—in this case, the commodity market of feed. In sum, the reputation mechanism and the connection with other markets are key elements in the effectiveness and efficiency of informal lenders.

Second, informal lenders are at an advantage in their ability to accept a wider range of potential collateral. It is difficult for rural borrowers to find conventional collateral, which a borrower mortgages to a lender for money. Farmers can place a mortgage on their use rights to land, their house, their trees, their agricultural products in the field, their livestock, and so on. However, Chinese law and regulations prohibit formal lenders from accepting this kind of collateral. Informal lenders, on the other hand, can accept such collateral.

Informal lenders accept unconventional collateral not only because they can link the financial market with some other rural market but also because they can link the financial market with social networks in the village community. By using social networks to solve the asymmetric information problem, they can reduce the transaction costs of lending to farmers. They can also reduce the risk of lending by creating a joint liability system based on social networks. Moreover, because informal lenders themselves are farmers and/or store managers dealing with agricultural products, they find unconventional collateral useful. With this mechanism, a financial system with informal lenders can solve the asymmetric information problem and the lack of conventional collateral.

Third, informal lenders are at an advantage in handling the unique structure of costs and risks of rural finance. Because they live in the same village community as borrowers and are often farmers themselves, they are familiar with the particular local conditions of agricultural products. Thus, based on local information about cycles of agricultural production and about natural conditions, they can offer flexible seasonal interest rates and adjust their repayment schedules. By contrast, formal lenders do not have this flexibility because they are not familiar with agriculture. Moreover, lenders and borrowers are sometimes engaged in common business deals or are trading commodities with each other in the rural community. By linking repayment schedules with market activities, informal lenders can offer flexible terms of lending and hedge their risks.

The first author's field research suggests that informal lenders can more easily find *appropriate* interest rates than formal lenders. Note that we do not mean that interest rates of informal lenders are *lower* than those of formal lenders. Actually informal lenders' interest rates are generally *higher* than formal lenders' rates. This is a necessary consequence of the high risks and costs of rural lending. However, because informal lenders can accept a variety of things as security, farmers can borrow from informal lenders more easily and repay more easily. A borrower has a variety of means to repay an informal lender. For example, as well as repaying with money, a borrower can repay an informal lender with labor. Though interest rates for repaying with labor may be higher than repaying with money, borrowers sometimes find it more convenient to repay with the former. In sum, the flexibility of the means for repayment makes informal lenders more effective and efficient lenders.

An example from the first author's field research reveals that in a village in Shandong province, the annual interest rate of informal lenders was 12–18 percent in 1995. In 1996–1998, when the whole nation faced inflation, the interest rate reached 36 percent. In each year, the interest rate of informal lenders was higher than that of formal lenders. The maximum annual interest rate set by the central government for banks was 15 percent in 1996 and 11 percent in 1998. This regulation on the maximum interest rate also applied to lending by the RCCs. Interestingly, the maximum rate did not change much with the fluctuation of the inflation rate. The regulated maximum rate was still 11 percent in 2005. This suggests that formal lenders cannot change interest rates flexibly according to economic conditions while informal lenders can. As a result, formal lenders have to set an interest rate lower than an appropriate level, especially when inflation occurs. Thus, the lack of flexibility in setting interest rates causes inefficiency and the accumulation of deficits for the ABC and the RCCs. In other words, informal lenders have an advantage by reflecting more accurately the risks and costs of lending.

Informal lenders also enjoy lower costs for monitoring borrowers because they do not have to assume the cost of checking borrowers' credit records. Another example from the first author's field research in 2004 illustrates this.

In Lishu county in Jilin province, a local informal lender, the Baixin Mutual Financing Cooperative, only incurs 300 yuan per year in costs: 200 yuan for transportation costs and 100 yuan for the purchase of receipt books. Because volunteers are engaged in the lending service, it does not have to pay for labor. As another example, an informal lender in Lankao county in Henan province has almost no administrative costs. Labor is all volunteer and the institution only pays for paper and pens. No lenders of this institution rely on revenue from interest for a living, so the means for repayment can be made flexible in order to fit a borrower's situation. Informal lenders can also alleviate the risks of lending. For example, Baixin Mutual Financing Cooperative invested in the improvement of local irrigation facilities to lower the risk of losses by natural disaster. An informal institution in Lankao county also invested in projects to advance technologies to prevent vermin. These examples suggest that informal lenders invest for rural development.

Fourth, informal lenders are at an advantage in lending for noninvestment use of loans. Farmers seek to borrow for urgent expenses in their daily lives such as a sudden sickness, a funeral, or a wedding. It is difficult for formal lenders to meet this kind of demand. Formal lenders assume that loans should be invested in productive activities such as purchasing machinery to increase agricultural productivity. By contrast, informal lenders can meet a borrower's urgent financial need in various ways such as mutually beneficial credits (*huhui jiaoyi*), where relatives and close friends accommodate each other with a loan often with no interest; allocation fund lending (*tongchou jijin daikuan*), where an autonomous institution lends from its reserve fund; and interlinking trade (*hulianxing jiaoyi*), where an informal lender links lending with labor or transactions in agricultural or commercial products. Informal lenders are motivated to deal with urgent loans partly because of rural communities' norm of helping each other.

The first author's field research in the provinces of Henan, Jilin, and Shandong in 2004 found that most of the loans made by informal lenders are for nonproductive use. It also found that the norm for a lender to be responsive to a borrower's urgent financial needs is still powerful in rural communities. While informal lenders, like formal lenders, are not willing to lend to those who they think do not have an ability to repay, their lending actually covers most of the urgent financial needs in the community. Because informal lenders can reduce costs and lower risks of lending for nonproductive use, they can lend to a wider range of borrowers.

For example, 47 percent of the loans of Baixin Mutual Financing Cooperative are for nonproductive uses (20 percent for weddings, 13 percent for sickness of family members, 7 percent for going to cities to work, and 7 percent for paying off other debts). Twenty-seven percent of the loans for

Table 4. Structure of Savings and Lending in Rural China in the 1930s and 1990s (Percent)

	1930s						
	Banks	Cooperatives[a]	Pawn Brokers	Other Non-Banks	Stores	Private	Others
Savings	0.4	0.7	7.4	1.1	25.6	61.2	3.6
Lending	2.4	2.6	8.8	5.5	13.1	67.6	
	1990s						
	ABC	RCCs	Other Banks	RCFs[b]	Other Non-Banks	Private	Others
Savings	19.8	61.9					18.3
Lending	3.6	30.6	1.8	0.6	2.4	61.0	

Sources. He Guangwen, 1999; Yu, 2001: 59.
Note. RCC = rural credit cooperative; ABC = Agricultural Bank of China.
a. Cooperatives (*hezuoshe*) in the 1930s were informal institutions.
b. RCFs stands for rural cooperative foundations (*nongcun hezuo jijinhui*), which are also informal institutions.

nonproductive uses are interest-free. The first author's interviews at two mutual financing cooperatives in Henan found that they mainly lend for weddings, health care, and education. Moreover, Mr. Q gives consumer loans to quite a few local borrowers without interest. He does not collect interest because of the social pressure for him not to do so. This has contributed to his good reputation and high respect.

We have seen how informal lenders are at an advantage in solving the four problems discussed in the previous section. Informal lending has continued in rural China for more than two thousand years. It does not contradict the market mechanism; indeed informal lenders use the market mechanism in a better way to select borrowers, monitor repayment, and give borrowers incentives to repay. Moreover, the fact that informal lenders have other jobs—such as farming and managing stores—helps make them effective and efficient lenders.

Rural Finance with Chinese Characteristics: Policy Implications

In both the 1930s and the 1990s, more than 60 percent of lending in rural China was from private lenders (*siren*) (see Table 4).[12] While more than 60 percent of rural savings was deposited in private lenders in the 1930s, more than 60 percent of rural savings was deposited in the RCCs in the 1990s. In the 1990s, almost 20 percent of rural savings was deposited in the ABC, while 80 percent of rural savings was deposited in formal lenders. Only 1 percent of rural savings was deposited in formal lenders in the 1930s.

According to the first author's field research in Meizhou in 2002, one of the local RCCs received an administrative instruction to lend to rural residents from the central bank, the People's Bank of China (Zhongguo renmin yinhang). However, after receiving the instruction, the RCC only lent 400,000 yuan to local rural residents out of 20 million yuan deposited by local residents. A director in the RCC said, "We are only willing to lend to township-and-village enterprises (TVEs: *xiangzhen qiye*) [implying that the TVEs include local private enterprises and other forms of non-state enterprises]. We are reluctant to lend to farmers. If we lend to a farmer, we will have to set a very high interest rate. We make loans in rural areas merely because higher authorities [indicating the regulating divisions of government] have demanded we do so."

Since the 1990s, international microfinance programs have entered the Chinese countryside to solve the demand–supply gap of rural finance. Many of the programs have been based on the Grameen model of Bangladesh and have led to unprecedented large-scale government initiatives for introducing microfinance in rural China. How has the government's involvement in microfinance worked? Park and Ren (2001) analyze China's microfinance based on household survey data, classifying it into three models: nongovernmental organization (NGO) programs, NGO–government mixed programs, and government programs. They evaluate microfinance programs on three criteria: targets (reaching the poor), sustainability (being financially sound), and impacts (generating benefits). They find that nongovernmental programs perform better than the other two types on all three criteria while government programs perform the most poorly. The surveyed NGO programs and mixed programs on average charge an annual interest rate of 16 percent, which does not appear to deter poor borrowers. The government programs nominally charge a much lower interest rate of 3 percent on average. However, Park and Ren (2001) estimate that the real interest rate increases to 15–20 percent on average if one includes the opportunity costs caused by the requirement for borrowers to attend weekly meetings with lenders.[13] According to the responses by the lenders in Park and Ren's (2001: 44–45) survey research, the appropriate interest rate to make microfinance sustainable is 20–32 percent and the reason NGO and mixed programs can maintain interest rates lower than the level they consider sustainable is because of subsidies by the government. Thus, there is no evidence that the government's involvement in microfinance programs has had a positive effect on the performance of the programs. Moreover, newly established microfinance can provide lower interest rates because of the government's subsidies.

Some successful microfinance in other countries such as the Banco Solidario in Bolivia and the Bank Rakyat Indonesia (BRI) provided loans with high annual interest rates: 48 percent for the Banco Solidario and 34 percent for the BRI in 1998.[14] Moreover, the Banco Solidario and the BRI sustain business by making profits with loans to rich borrowers (Montgomery and Weiss, 2005; Morduch, 1999). The Grameen Bank in Bangladesh is an exception, as it operated with a relatively low interest rate of 20 percent for small loans in 1998 and lent to poor borrowers (Khandker, 2005).[15] Previous studies suggest that informal lenders in China's rural finance provide loans with low interest rates of 8–15 percent, even lower than the Grameen Bank's (Zhou, 2006b; Zhou and Lin, 2005). These lower costs are possible because informal lenders are at an advantage in overcoming the four problems discussed in the previous section. In short, from the comparison with microfinance in other countries, one can see that informal lenders should play an important role in an effective and efficient financial system.

Since 2006, the Chinese central government has loosened regulation of rural finance, acknowledged informal lending, and legalized informal lenders. However, in the process of legalization, it imposed requirements that all lenders should have an office in a fixed location, at least one employee working primarily for lending service, and a certain organized way of operation. With this requirement, the costs of informal lenders have increased and some of them can no longer sustain their financial services. For example, the Baixin Mutual Financing Cooperative went into the red in 2007 when it had to establish an office and increase the number of paid workers. During the reform, the central government has also encouraged commercial banks to establish village-and-township banks (*cunzhen yinhang*) and lending institutions specializing in small loans. Although we need to wait for more empirical research on this issue, there are reported cases where the new formal lenders have failed to meet farmers' financial needs and have run deficits.[16]

The examples in this article suggest the importance of informal lenders in creating an effective and efficient financial system in rural China. However, the central government has focused on the extension of formal lenders in rural areas. This policy is based on the assumption that informal lenders are inefficient because they cannot make long-term loans. Indeed, the World Bank (1989) suggests that informal lenders generally do not provide long-term loans, their lending tends to be small-scale, and they have to face high risks and low profitability. Ironically, in rural China it is formal lenders that have faced the problems of high risks and low profitability.

Informal lenders' problem is the lack of economic and political support. One reason informal lenders focus on small loans is that farmers' needs for loans are for nonproductive uses and hence each loan is a small amount, but another reason is that informal lenders do not have sufficient financial resources. Moreover, the central government's attitude toward informal lenders has been at best reluctantly tolerant, mostly discouraging, and sometimes prohibitive. The regime's skepticism about informal lenders is not baseless. Indeed China's rural areas have historically been subject to abuses by informal lenders and it is crucial to build a system that will deter lenders from engaging in usury (Zhou, 2006a). In sum, informal lenders have certain advantages over formal lenders; however, to create an effective and efficient financial system, we should consider how to finance informal lenders while preventing the problem of usury.

Creating a system combining formal and informal lenders is the key for the rural financial system to work effectively and efficiently. Formal lenders should play an active role in funding informal lenders. Informal lenders should play an active role in overcoming the four problems peculiar to China's rural finance. Relations between formal and informal lenders should not be conflictual and contradictory but cooperative and complementary. A question naturally arises about how to create a financial system that links formal and informal institutions in rural finance.[17] In this article, we propose a system linking formal and informal lenders and call it the vertical cooperation model.

There are four key problems that make the creation of an effective and efficient financial system difficult. The central government intends to solve these problems, but the extension of formal lenders to rural areas does not solve them. Thus, it is necessary to establish a financial system where informal lenders play a crucial role. In this model, the central government's role is to supply financial resources from formal to informal lenders. In other words, the central government's role is turning a horizontal competitive relationship between formal and informal lenders into a vertical cooperative one.

What are the obstacles to creating a vertical cooperative relationship between formal and informal lenders? Since 1949, China has never had a financial system based on informal lenders. One reason the financial system has been designed based on formal lenders is the development plan skewed to industrialization based on the Soviet model during the Maoist period. The Maoist command economy transferred financial and other resources from rural to urban areas to develop heavy industries (Lin, Cai, and Li, 1994). This urban-skewed financial policy corresponds with the Lewis–Ranis–Fei model: In a two-sector (agriculture and industry) economy, agriculture should finance industry with residual profits to form capital accumulation at the first stage of development (Fei and Ranis, 1964; Lewis, 1954, 1955). As a result of the urban-skewed financial policy, an urban–rural dual economy was created during the Maoist period.[18] The large flow of capital from the agricultural to the industrial sector and from rural to urban areas has continued even during the post-Mao period. And formal lenders have monopolized channels of financial resources and services in rural areas and promoted the agriculture-to-industry and rural-to-urban capital flow (Zhou, 2003b, 2004).

During the post-Mao reform, the central government has given local governments an incentive to focus on short-term local economic growth by making economic growth one of the major criteria for the promotion of local officials (e.g., Edin, 2003; Whiting, 2004). As a result, local governments have taken advantage of the strategy of using formal lenders in rural areas to invest in rural industrialization, which has caused township governments to fall into debt (e.g., Li and Dong, 2004; Oi and Zhao, 2007; Ong, 2006; Zhang and Liu, 2004), instead of encouraging formal lenders to meet the financial demands of farmers. At the same time, informal lenders have paid additional costs because of the government's (both central and local) approach of discouraging or prohibiting informal lending (Zhou, 2003a, 2004; Zhou and Hu, 2002).

Therefore, under current conditions, informal lenders cannot exercise their advantages since they compete with formal lenders, formal lenders promote capital transfer from rural to urban areas, and the central government aims to shrink the roles of informal lenders and extend the roles of formal lenders in rural finance. However, as we have discussed, informal lenders are at an advantage in solving the key problems of China's rural finance while formal lenders cannot meet farmers' financial needs. Thus, suppression of informal lenders is not a strategy for creating an effective and efficient rural financial system. Rather, there should be a way to combine the functions of formal and informal lenders.

How would our proposed system work in the context of China's rural finance? Our model assumes that the central government adopts a policy of the industrialization of the national economy. Responding to the central government's policy, local governments compete for industrialization. In this process, formal lenders play an active role in financing industrialization in urban areas and to a lesser but significant extent in financing rural industrialization. However, formal lenders do not have an incentive to lend to farmers, but they do have an incentive to use savings collected in rural areas for investment in industrialization. Moreover, as long as formal and informal lenders compete to collect savings in rural areas, formal lenders will have an incentive to work on the central and local governments to discourage the activities of informal lenders. Therefore, if the relationship between formal and informal lenders is horizontal competition, then informal lenders cannot play an active and positive role in rural finance, the four key problems peculiar to China's rural finance will not be solved, and farmers will not have access to loans. Thus, a vertical linkage system promoting cooperation of formal and informal lenders is the key to creating an effective and efficient financial system.

While China's financial system during the Maoist command economy aimed to mobilize rural savings for urban industrialization, the financial reforms in 1996 and 2002–2004 nominally aimed to use rural savings for rural development (Zhou, 2004). However, the structure of capital flow from rural to urban areas has not changed. In this sense, post-Mao policies have also supported the continuation of China's urban–rural dual economy, where capital-scarce rural areas are a net supplier of capital.

Though formal lenders may play a significant role in rural industrialization, they cannot meet the financial demands of farmers. Farmers need a small amount of investment to maintain or improve the productivity of agriculture. Informal lenders may play a significant role in loans for investment in agriculture or nonproductive uses. However, it is difficult for the central government (or provincial or county governments) to monitor the activities of informal lenders. Therefore, when encouraging the development of microfinance, the central government regulates in order to "formalize" the informal lenders by requiring them to establish offices and hire more paid employees. However, these requirements are counterproductive for informal lenders as they raise their operational costs.

Based on this dilemma, we propose a model where formal and informal lenders both exercise their strengths. On this point, our model is different from many of the studies that suggest reform plans for rural finance from supply-side conditions (e.g., He Liping, 1999; Li Jian'ge, 2003; Xie, 1996, 2001). These reform plans highlight the importance of formal lenders because of their advantages in financing. However, few studies have looked at rural finance from demand-side conditions, especially the demand for loans by farmers. Since informal lenders have advantages for solving the problems of loans to farmers, our reform plan suggests that China's rural financial system should have a mechanism in which capital flows to informal lenders. In addition, we propose that the financial system should have a mechanism in which formal and informal lenders cooperate with each other. Formal lenders have advantages in terms of financing and the ease of the central government in monitoring them, while informal lenders have advantages in solving the peculiar problems of lending to farmers. Therefore, to create an effective and efficient financial system in rural China, it is necessary for formal and informal lenders to cooperate with each other and complement each other's roles.

Our model suggests an implication that previous studies have overlooked. He and Li (2004) suggest that studies of rural finance often reduce the issue to the problem of the RCCs. Though the reform of the RCCs is an important issue, the issue of overcoming the peculiar problems of lending to farmers will remain even if the RCCs are reformed. In this sense, if one focuses on the reform of the RCCs, one may lose sight of the bigger picture of China's rural finance.

We should instead consider the reform of the RCCs and the issues of rural finance in the larger context of the "three-rural issue" (*sannong wenti*). Satisfying the loan demands of 200 million scattered small households in rural China is one of the most difficult issues in the *sannong wenti*. The transformation of the relationship between formal and informal lenders from horizontal competition to vertical cooperation is the key to creating an efficient and effective financial system. Under the current system, capital flows from rural to urban areas, which has promoted economic growth in urban areas but left agricultural areas in poverty. However, a majority of the Chinese population still lives in rural areas. Without the creation of an efficient and effective rural financial system where farmers have access to loans, a majority of the Chinese people are left behind in the development and modernization of the whole nation. In this sense, rural financial reform based on a cooperative relationship between formal and informal lenders is necessary for China's sustainable economic growth.

Authors' Note

An earlier version of this article was presented at a conference on "Who Provides Public Goods in Rural China?" at the Center for Chinese Studies at University of California, Los Angeles, in May 2007.

Acknowledgments

We thank He Xuefeng, Philip Huang, Laotian, Yusheng Peng, and Vivian Zhan for their helpful comments, criticisms, and encouragement.

Declaration of Conflicting Interests

The authors declared no conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research and/or publication of this article:

National Social Sciences Fund of China (07CJY063), Philosophy and Social Science Program commissioned by the Ministry of Education (07JZD0009), Main Bidding Program of the National Social Sciences Fund of China (07&ZD048)

Notes

1. We translate *nongmin* as “farmers” though a *nongmin* does not own a large farm.
2. “Regulations on Qualification of Senior Managers in Financial Institutions” (*Jinrong jigou gaoji guanli renyuan renzhi zige guanli banfa*), issued by the People’s Bank of China on March 23, 2000, stipulates that the promotion of bankers should be approved by the financial authorities.
3. In this sense, lenders in many of the successful microfinance activities in other Asian countries, Latin America, and Africa fit this article’s definition of formal lenders.
4. In 2003, the State Council issued “Regulations on the Pilot Program to Deepen the Reform of Rural Credit Cooperatives” (*Shenhua nongcun xinyongshe gaige shidian fang’an*) stipulating that the RCCs be divided into three formal institutions: rural commercial banks (*nongcun shangye yinhang*), rural cooperative banks (*nongcun hezuo yinhang*), and rural credit unions (RCUs, *nongcun xinyong lianshe*). Since then, rural commercial banks have been administered under the same regulations as commercial banks. Rural cooperative banks and the RCUs have been nominally administered as cooperative financial institutions, but they are more heavily engaged in commercial finance compared with cooperative finance.
5. This field research was conducted in Yonglian village, Suzhou prefecture, Jiangsu province in 2004, and Ganyi village, Shaoxing prefecture, Zhejiang province from 2001 to 2004.
6. Fifteen mu is 1 hectare; 6.07 mu is 1 acre.
7. For studies on rural finance during the early twentieth century, see Huang, 1985; Li Jinzheng, 2000; and Wen and Feng, 1999.
8. The field research was conducted in the provinces of Henan, Jilin, Shaanxi, and Shandong in 2004. The first author interviewed 30 employees of the RCCs and 200 rural residents. The list of interviewees and the interview questions are available from the first author on request.
9. The field research was conducted in three areas of Guangdong—Dongguan, Huizhou, and Meizhou—in 2002. Dongguan represents a rich and industrialized area, Huizhou a medium-developed area, and Meizhou a relatively poor area. The list of interviewees and the interview questions are available from the first author on request.
10. The ABC has left rural areas for urban areas, especially since 1998. Before 1998, the ABC had a branch in every township and a service office in almost every village. However, in 1998, as part of the nationwide commercial banking reform,

the government abolished more than 20,000 branches, approximately 40 percent of the total.

11. This report is based on the first author's field research conducted in 2005.
12. The data from the 1930s are based on field research in 22 provinces by the central government in 1934 (Yu, 2001). The data from the 1990s are based on He Guangwen's (1999) survey research of 365 households in 21 counties across the provinces of Hebei, Henan, Jiangsu, Shaanxi, and Zhejiang in 1996–1998.
13. Park and Ren (2001) survey the time for traveling and waiting, as well as for meeting with lenders. On average, the loan size is 1,000 yuan, the opportunity cost is 1 yuan per hour, a borrower spends 1.5–2 hours per week for meeting with a lender, and a loan cycle is 50 weeks, which makes the effective interest rate 15–20 percent.
14. The inflation rate in 1998 was 5 percent in Bolivia and 9 percent in Indonesia.
15. Bangladesh's inflation rate in 1998 was 5 percent.
16. For a case of the Chengxin Village-and-Township Bank in Jilin province, see *Zhongguo jinrong* (2007), 11: 72–73. For a case of the Shoujia Village-and-Township Bank, see *Xi'nan jinrong* (2007), 10: 30–32.
17. The World Bank (1989) also points out the importance of linking formal and informal lenders for finance in developing countries.
18. For a review of the emergence and development of China's urban–rural dual economy, see Huang, 2009.

References

AGABIN, MELIZA H. (1988) "A review of policies impinging on the informal credit markets in the Philippines." Working Paper 88–12, Philippine Institute for Development Studies, Makati, Philippines (June).

ALEEM, IRFAN (1990) "Imperfect information, screening, and the costs of informal lending: a study of a rural credit market in Pakistan." World Bank Economic Rev. 4: 329–49.

BERGER, ALLEN N., ANTHONY SAUNDERS, JOSEPH M. SCALISE, and GREGORY F. UDELL (1999) "The effects of bank mergers and acquisitions on small business lending." J. of Financial Economics 50 (Nov.): 187–229.

CHANDAVARKAR, ANAND G. (1985) "Fund gravity in cities of less developed countries." Finance and Development 2: 24–27.

EDIN, MARIA (2003) "State capacity and local agent control in China: CCP cadre management from a township perspective." China Q. 173 (Mar.): 35–52.

FEI, JOHN C. H. and GUSTAV RANIS (1964) Development of the Labor Surplus Economy: Theory and Policy. Homewood, IL: Richard D. Irwin.

FLORO, MARIA SAGRARIO and DEBRAJ RAY (1997) "Vertical links between formal and informal institutions." Rev. of Development Economics 1 (Feb.): 34–56.

HE GUANGWEN 何广文 (1999) "Cong nongcun jumin zijin jiedai xingwei kan nongcun jinrong yizhi yu jinrong shenhua" 从农村居民资金借贷行为看农村金融抑制与金融深化 (Control and deepening of rural finance seen from financial activities of rural residents). Nongcun jingji 10: 42–48.

HE GUANGWEN 何广文 and LI LILI 李莉莉 (2004) "Cong xitonglun shijiao kan nongcun jinrong gaige" 从系统论视角看农村金融改革 (Reform of rural finance from the perspective of system theory). Nongye xiandaihua yanjiu 12: 60–61.

HE LIPING 贺力平 (1999) "Kefu zhongxiao qiye yu jinrong jigou zhi jian de buduichen xinxi zhang'ai" 克服中小企业与金融机构之间的不对称信息障碍 (Overcoming the obstacles of the asymmetric information problem between small- and medium-sized enterprises and financial institutions). Gaige 2: 14–16.

HOFF, KARLA and JOSEPH E. STIGLITZ (1990) "Introduction: imperfect information and rural credit markets—puzzles and policy perspectives." World Bank Economic Rev. 4: 235–50.

——— (1997) "Moneylenders and bankers: price-increasing subsidies in a monopolistically competitive market." J. of Development Economics 52: 429–62.

HUANG, PHILIP C. C. (2009) "China's neglected informal economy: reality and theory." Modern China 35, 4 (July): 405–38.

——— [黄宗智] (1985) Huabei xiaonong jingji yu shehui bianqian 华北小农经济与社会变迁 (The peasant economy and social change in North China). Beijing: Zhonghua shuju.

KHANDKER, SHAHIDUR R. (2005) "Microfinance and poverty: evidence using panel data from Bangladesh." World Bank Economic Rev. 19: 263–86.

LARSON, DONALD W. (1988) "Market and credit linkages: the case of corn traders in the southern Philippines." Paper prepared for Citibank/ABT Associates on a Rural Financial Services Project for USAID, Manila.

LEWIS, W. ARTHUR (1954) "Economic development with unlimited supplies of labour." Manchester School of Economic and Social Studies 22, 2 (May): 139–91.

——— (1955) The Theory of Economic Growth. London: George Allen & Unwin.

LI CHANGPING 李昌平 and DONG LEIMING 董磊明 [eds.] (2004) Shuifei gaige beijing xia de xiangzhen tizhi yanjiu 税费改革背景下的乡镇体制研究 (Studies on the township regime under the influence of the tax-for-fee reform). Wuhan: Hubei renmin chubanshe.

LI JIAN'GE 李剑阁 (2003) "Nongmin jiuye, nongcun jinrong he yiliao weisheng shiye wenti de jidian yijian" 农民就业, 农村金融和医疗卫生事业问题的几点意见 (Several opinions on the issues of farmers' employment, rural finance, and medical and sanitation matters). Bijiao 7: 42–47.

LI JINZHENG 李金铮 (2000) Jiedai guanxi yu xiangcun biandong—Minguo shiqi Huabei xiangcun jiedai zhi yanjiu 借贷关系与乡村变动—民国时期华北乡村借贷之研究 (Debt and credit relationships and changes in the countryside: a study of rural debt and credit in North China during the Republican period). Shijiazhuang: Hebei daxue chubanshe.

LIN YIFU 林毅夫, CAI FANG 蔡昉, and LI ZHOU 李周 (1994) Zhongguo de qiji: fazhan zhanlüe yu jingji gaige 中国的奇迹: 发展战略与经济改革 (The China miracle: development strategy and economic reform). Shanghai: Shanghai sanlian shudian.

MA JIUJIE 马九杰 (2003) "Nongcun jinrong fengxian de chengyin, yingxiang yu guanli celüe" 农村金融风险的成因, 影响与管理策略 (Causes, influences and policies of rural financial risks). Guojia ziran kexue jijin yanjiu baogao 国家自然科学基金研究报告 (Research report of the National Natural Science Foundation). Unpublished.

MONTGOMERY, HEATHER and JOHN WEISS (2005) "Great expectations: microfinance and poverty reduction in Asia and Latin America." ADB Institute Research Paper Series, 63.

MORDUCH, JONATHAN (1999) "The microfinance promise." J. of Economic Literature 37 (Dec.): 1569–1614.

OI, JEAN C. and ZHAO SHUKAI (2007) "Fiscal crisis in China's townships: causes and consequences." Pp. 75–96 in Elizabeth J. Perry and Merle Goldman (eds.), Grassroots Political Reform in Contemporary China. Cambridge, MA: Harvard Univ. Press.

ONG, LYNETTE (2006) "The political economy of township government debt, township enterprises and rural financial institutions in China." China Q. 186 (June): 377–400.

PARK, ALBERT and CHANGQING REN (2001) "Microfinance with Chinese characteristics." World Development 29: 39–62.

PATTEN, RICHARD H., JAY K. ROSENGARD, and DON E. JOHNSTON, JR. (2001) "Microfinance success amidst macroeconomic failure: the experience of Bank Rakyat Indonesia during the East Asian crisis." World Development 29 (June): 1057–69.

PENG KAIXIANG 彭凯翔, CHEN ZHIWU 陈志武, and YUAN WEIPENG 袁为鹏 (2008) "Jindai Zhongguo nongcun jiedai shichang de jizhi—jiyu minjian wenshu de yanjiu" 近代中国农村借贷市场的机制—基于民间文书的研究 (Modern China's rural financial market system: a study based on private documents). Jingji yanjiu 5: 147–59.

RAMIREZ, ALVARO (2004) "The microfinance experience in Latin America and the Caribbean." Paper presented at the Workshop on Modalities of Microfinance Delivery in Asia: LAEBA Research Conference on Microfinance in Latin America and Asia, Asian Development Bank Institute, Manila, Oct. 4–8.

RAY, DEBRAJ (1998) Development Economics. Princeton, NJ: Princeton Univ. Press.

SCHREINER, MARK (2003) "A cost-effectiveness analysis of the Grameen Bank of Bangladesh." Development Policy Rev. 21 (May): 357–82.

SIAMWALLA, AMMAR et al. (1990) "The Thai rural credit system: public subsidies, private information, and segmented markets." World Bank Economic Rev. 4: 271–95.

STIGLITZ, JOSEPH E. and ANDREW WEISS (1981). "Credit rationing in markets with imperfect information." American Economic Rev. 71 (June): 393–410.

TRA PHAM, THI THU, and ROBERT LENSINK (2008) "House borrowing in Vietnam: a comparative study of default risks of formal, informal, and semi-formal credit." J. of Emerging Market Finance 7 (Dec.): 237–61.

TSAI, KELLEE S. (2002) Back-Alley Banking: Private Entrepreneurs in China. Ithaca, NY: Cornell Univ. Press.

UDRY, CHRISTOPHER R. (1994) "Risk and insurance in a rural credit market: an empirical investigation in northern Nigeria." Rev. of Economic Studies 61 (July): 495–526.

WEN TIEJUN 温铁军 (2001) "Nonghu xinyong yu minjian jiedai yanjiu: nonghu xinyong yu minjian jiedai keti zhu baogao" 农户信用与民间借贷研究: 农户信用与民间借贷课题主报告 (Research on credit for rural households and informal lending and borrowing: a report from the project group on credit for rural households and informal lending and borrowing). http://chinesetax.com.cn.

WEN TIEJUN 温铁军 and FENG KAIWEN 冯开文 (1999) "Jinfang chongdao jiu Zhongguo nongcun pochan de fuzhe—cong gongshang, jinrong ziben dui nongcun de guoliang boduo tanqi" 谨防重蹈旧中国农村破产的覆辙—从工商, 金融资本对农村的过量剥夺谈起 (Avoiding making the same mistake as the past bankruptcy of rural China: from the perspective of exploitation of the rural sector by industrial and financial capital in the countryside). Zhanlüe yu guanli 32, 1: 1–11.

WHITING, SUSAN H. (2004) "The cadre evaluation system at the grassroots: the paradox of party rule." Pp. 101–19 in Barry J. Naughton and Dali L. Yang (eds.), Holding China Together: Diversity and National Integration in the Post-Deng Era. New York: Cambridge Univ. Press.

World Bank (1989) World Development Report 1989. New York: Oxford Univ. Press.

XIE PING 谢平 (1996) Zhongguo jinrong zhidu de xuanze 中国金融制度的选择 (The choice of China's financial institutions). Shanghai: Shanghai yuandong chubanshe.

——— (2001) "Zhongguo nongcun xinyong hezuoshe tizhi gaige de zhenglun" 中国农村信用合作社体制改革的争论 (Debates about the reform of China's rural credit cooperatives regime). Jinrong yanjiu 1: 1–13.

YU YONG 于永 (2001) "20 shiji 30 niandai nongcun jinrong jiuji huodong de qishi" 20世纪30年代农村金融救济活动的启示 (Lessons from rural finance activities in the 1930s). Nei Menggu shida xuebao 1: 58–65.

ZHANG XIUYING 张秀英 and LIU JINLING 刘金玲 (2004) Zhongguo xibu diqu xiangzhen fuzhai wenti yanjiu 中国西部地区乡镇负债问题研究 (A study

of the township debt problem in China's western region). Beijing: Renmin chubanshe.
Zhongguo jinrong nianjian 中国金融年鉴 [China financial yearbook] (2003) Beijing: Zhongguo jinrong nianjian bianjibu.
——— (2004). Beijing: Zhongguo jinrong nianjian bianjibu.
ZHOU LI 周立 (2003a) "Gaige qijian Zhongguo guojia caizheng nengli yu jinrong nengli bianhua" 改革期间中国国家财政能力与金融能力变化 (Changes in China's fiscal and financial capacity during the reform period). Caimao jingji 4: 44–51.
——— (2003b) "Gaige qijian Zhongguo jinrongye de 'di er caizheng' yu jinrong fenge" 改革期间中国金融业的 "第二财政" 与金融分割 (The "second budget" of China's financial industries during the reform period and financial segmentation). Shijie jingji 6: 72–78.
——— (2004) Zhongguo ge diqu jinrong fazhan yu jingji zengzhang (1978–2000) 中国各地区金融发展与经济增长 (1978–2000) (Financial development and economic growth in China's regions, 1978–2000). Beijing: Qinghua daxue chubanshe.
——— (2006a) "You shengcun jingji kan nongcun gaolidai de biaoda yu shijian" 由生存经济看农村高利贷的表达与实践 (The presence and practice of rural usury as seen from the survival economy). Caimao jingji 4: 64–69.
——— (2006b) "Zijin huzhu yu qiongren shengji—7 sheng 11 jia nongmin hezuoshe diaocha" 资金互助与穷人生计—7省11家农民合作社调查 (Mutual financing and the poor: an investigation of eleven rural cooperatives in seven provinces). Dangdai Zhongguo yanjiu 94, 3: 155–60.
ZHOU LI 周立 and HU ANGANG 胡鞍钢 (2002) "Zhongguo jinrong fazhan de diqu chaju fenxi: 1978–1999" 中国金融发展的地区差距分析: 1978–1999 (An analysis of regional disparity in financial development in China, 1978–1999). Qinghua daxue xuebao 2: 60–74.
ZHOU LI 周立 and LIN RONGHUA 林荣华 (2005) "Xin yi lun nongcun lilü gaige chengxiao yu jingji jieshi—Mindong diqu diaocha yu longduan shichang fenxi" 新一轮农村利率改革成效与经济解释—闽东地区调查与垄断市场分析 (The new rural interest rate reform and its economic interpretations: research in the Mindong area and analysis of monopolistic markets). Caimao jingji 5: 7–13.

Biographies

Li Zhou is an associate professor in the School of Agricultural Economics and Rural Development at Renmin University of China.

Hiroki Takeuchi is an assistant professor of political science and a fellow of the John Goodwin Tower Center for Political Studies at Southern Methodist University.