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***Giving Credit Where Credit Is Due:
The Changing Role of Rural Financial
Institutions in China***

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**Giving Credit where Credit is Due:
The Changing Role of Rural Financial Institutions in China**

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Introduction

Efficient use of available financial resources is important for achieving high rates of economic growth, especially in developing countries where such funds are highly scarce. Financial institutions potentially play an important role in directing resources to their most productive use. Through their greater size and scope, they often are better able than informal institutions to safeguard deposits, diversify portfolio risk, provide liquidity to borrowers and depositors, and achieve economies of scale in the provision of financial services. There is strong evidence that greater financial intermediation (credit as a share of GNP) accompanies higher incomes (Gertler and Rose, 1996). In many developing countries, however, highly regulated rural financial institutions (RFIs), usually state-owned, have failed to provide effective financial intermediation for rural communities (Fry, 1995). Thus, many rural residents in developing countries, especially the poor, rely on self-financing and informal lending to pay for inputs or investments or to smooth income shocks (Ghate, 1992).

How have RFIs performed in China during the reform period? In China, the majority of the population reside in rural areas, rural incomes and rural saving have grown markedly during the reform period, and rural enterprises have been the most dynamic sector of industry (Jefferson and Rawski, 1994). These characteristics of Chinese economic development suggest that many funds are being generated and used in rural areas. High rural savings also has been credited for allowing the government to avoid inflationary financing of policy loans to state-owned enterprises (MacKinnon, 1994).

Given the importance of rural finance to China's macroeconomy and to the welfare of millions of rural households, it is surprising that there is very little empirical information about the performance of China's rural financial institutions and their changing role in a dynamic, growing economy.¹ While there have been major reforms in China's financial sector, China's financial markets have been liberalized at a much slower speed than other sectors (Tam, 1994).

This paper examines the changes in China's rural financial sector and the performance of China's RFIs by analyzing a unique data set from a 1996 survey of villages and RFIs in 6 Chinese provinces (Zhejiang, Sichuan, Hubei, Shaanxi, Shandong, and Yunnan).² The survey provides information on the savings and borrowing behavior of households as reported by village leaders as well as information from RFIs in the same locality on the sources and uses of funds and various aspects of financial performance. Such data permits a rich description of rural financial services from the perspective of both users and providers and makes possible an evaluation of competition among different RFIs that coexist in the same locality.

The paper attempts to address the following set of questions. How have economic changes altered the demand for and supply of financial resources in rural China? What has been the role of different rural financial institutions in intermediating between borrowers and lenders in the rural economy and between the household and non-

¹ Previous work includes Feder et al. (1989), Cheng (1992), and Xu et al. (1994).

² In all provinces but Yunnan, 32 villages were surveyed. Eight counties were chosen in each province, two townships in each county, and two villages in each township based on a stratified sampling frame. Survey forms were given to each Rural Credit Cooperative, Agricultural Bank, and Rural Credit Foundation in each township surveyed. In Yunnan, 24 villages were surveyed in four counties but no information was collected from RFIs.

household sectors? How has the orientation of RFIs changed with financial reforms, and how well have RFIs performed (profitability, repayment, etc.)? To what extent has financial intermediation increased in rural areas? How has competition caused by the entry by new quasi-governmental financial institutions affected the performance of traditional state financial institutions?

To answer these questions, the paper is divided into two main sections. The first examines changes in the demand and supply of funds in rural China by examining in detail village survey data. We examine in turn household savings behavior, borrowing behavior, and the role of informal credit. The second section focuses on the performance of the three main rural financial institutions in China—the Agricultural Banks of China (ABCs), the Rural Credit Cooperatives (RCCs), and the Rural Credit Foundations (RCFs). We provide an overview of the changing roles of these institutions, examine the orientation of each institution by looking at data on sources and uses of funds, compare and contrast various aspects of performance and behavior of the three institutions, assess the extent of financial intermediation of RFIs, and evaluate the effect of new competition from RCFs on the performance of RCCs. A final section concludes.

Changing Supply and Demand for Funds in China's Rural Areas

It is impossible to understand the changing role of rural financial institutions in China without an awareness of the changes in the supply and demand for financial resources in rural areas that have accompanied rapid economic development. Table 1 summarizes data on per capita income and economic structure for the surveyed townships

in 1988 and 1995. Real income per capita grew 21 percent on average during this period, with the most rapid increases occurring in Zhejiang, Hubei, and Shandong. In contrast, real incomes were relatively stagnant in Sichuan and had fallen in real terms in Shaanxi and Yunnan. In all 6 provinces, the share of gross output value accounted for by industry increased; on average the industrial share of output for the sample townships rose from 35 percent in 1988 to 53 percent in 1995. In 1995, the rank order of provinces by this measure of industrialization was as follows: Zhejiang 75 percent, Sichuan 62 percent, Shandong 57 percent, Hubei 47 percent, Shaanxi 41 percent, and Yunnan 29 percent (Table 1). Despite ranking second in level of industrialization, Sichuan has the fourth highest income per capita after Zhejiang, Shandong, and Hubei.

Savings Behavior of Households

Several trends regarding the savings behavior of rural Chinese households are evident from a comparison of savings estimates by village leaders for 1988 and 1995. First, a higher percentage of households appear to be saving money, or at least placing funds in financial institutions. As seen in Table 2, village leaders reported that on average 29 percent of households save in RFIs in 1988, but this figure jumped to 50 percent in 1995. Second, while the average savings of households grew in each village in real terms, this growth was due more to greater numbers of households saving than to higher average savings by the households that save. Appreciable growth in the real average savings (of savers) only appears in the fast growing provinces of Zhejiang and

Shandong. Overall, the sample villages exhibit somewhat higher rates of savings in 1995 than those reported in national statistics.³

The primary deposit institution used by households in our sample were the rural credit cooperatives (*xinyongshe*). From Table 3, we see that across the six provinces, roughly 62 percent of savings were deposited in rural credit cooperatives, followed by 18 percent in ABCs and 8 percent in RCFs. In Sichuan, Shandong, Zhejiang, and Yunnan the average shares of savings held in locally established rural credit foundations (*hezuo jijinhui*) are 22, 10, 6, and 6 percent, respectively.

Borrowing Behavior of Households

As seen in Tables 4 and 5, between 1988 and 1995 the reasons for household borrowing changed markedly in some regions. In the richer provinces of Zhejiang, Shandong, and Hubei, the percentage of households borrowing money to fund purchases of fertilizer or livestock fell substantially, as did the average loan size for each of these activities. In the poorer provinces of Shaanxi, Yunnan and Sichuan the incidence of borrowing for the purchase of fertilizer and livestock also fell, but not by as much. Households in these poorer regions still need to borrow money to finance many of the on-farm production related purchases that farmers in more affluent regions are able to self-finance.

³ Data from State Statistical Bureau (SSB) China Statistical Yearbook (1996) indicate that the real value of savings of rural households has grown but that the rate of savings has remained relatively constant. The per capita savings rate was 16.7 percent in 1988 and 14.8 percent in 1995, compared to 13 percent and 20 percent for the sample villages in six provinces (calculated based on data on savings per household, number of households in the township, and township income per capita). Thus, while the SSB reports a slight decline in rural household savings rates over the period, households in the survey villages reportedly are saving at higher rates.

While Zhejiang and Shandong exhibited a fall in borrowing for on-farm related expenses between 1988 and 1995, there has been a tremendous rise in the value of loans for business activities. While Table 4 indicates that the number of households getting loans for these activities has not changed much, a look at the real value of average loan amounts in Table 5 reveals that, especially in rich areas, there has been an explosive increase in the amount borrowed for these purposes. In Zhejiang, the average value of small business related loans jumped from 3350 yuan in 1988 to 9200 yuan in 1995 (deflated to 1988 yuan), while in Shandong average small business loans jumped from 1400 to 9000. In the other provinces of our sample, only Sichuan witnessed a sizable increase in the real value of loans for small business activities. Even though the value of loans in Sichuan also tripled in real terms, the size of the average small business loan remained under 2000 yuan in 1995.

Zhejiang also stands apart from other provinces in that it witnessed a rise in the real value of borrowing to cover medical expenses and for household construction. While the other five provinces witnessed no increase in the scale or value of borrowing to cover the costs of illness, there was nearly a four-fold increase in the average loan size jumped from 590 to 2300 yuan in Zhejiang (Table 5). This could be explained by greater demand for medical services when incomes rise, or better access to credit for non-productive purposes when incomes are higher. In either case, this result suggests that as incomes rise, financial institutions may play a greater role in financing consumption loans.

Where do households go to get loans? In Table 6, we present the rank orderings of loan sources in order of importance for different economic activities. For all activities,

the two principle sources of loans are the RCCs and private individuals lending at no interest, followed by private loans at interest, and then other banks and RCFs. RCCs were the most important source for loans to raise livestock or to run a small business, while private, no-interest loans were most important for fertilizer loans (generally a small amount), loans for medical expenses, and loans for household construction (both consumption loans). These rankings for different activities are virtually identical in 1988 and in 1995, which suggests that financial institutions have not altered their market orientation a great deal over time with respect to household loans.

The Role of Informal Credit

Confirming this picture of little change in the relative importance of different sources of loans for different activities, we find little change over time in the percentage of total borrowing that households obtain from the formal financial sector. When asked to answer the question, "What percentage of loans taken by households in your village are from friends, relatives, and other informal sources?" the average response was 68 percent in 1995 compared to 64 percent in 1988, a slight increase (Table 7).⁴ Surprisingly, the share of private loans was highest in richer, faster growing regions where financial institutions are generally more developed (73 percent in Zhejiang and 84 percent in Shandong in 1995). In such areas, both the demand and supply of funds are greater, so a rising share of informal loans is not inconsistent with more developed financial institutions.

⁴ Shares are reported as percentage of the number of loans, not the value of loans. If the size of formal sector loans are increasing more quickly than private loans, the share of loan value from formal RFI's could be increasing.

In addition to the slight increase in the share of private lending in all provinces except Shandong, growth in private lending markets can be seen in the larger proportion of private loans that are now interest-bearing. The number of villages reporting positive interest rates for private lending jumped from 42 villages in 1988 to 82 in 1995. The most developed private lending market is in Zhejiang where 37 percent of private loans were interest bearing in 1995. Overall, 15 percent of private loans in the sample carry an interest rate in 1995, nearly a 70 percent increase over 1988. Where informal loans used to come from family members and not bear interest, it is now becoming more common for rural households to borrow and lend informally on a commercial basis. Such developments are important for efficient intermediation because zero-interest loans often occur among segmented groups of individuals. The share of informal lending reported here for China is high when compared to findings for other countries in Asia (Ghate, 1992).

The Changing Role of Rural Financial Institutions in China

Overview of Shifting Roles

As mentioned earlier, rural China is currently serviced by a diverse group of formal financial institutions, including branches of the Agricultural Bank of China (ABC), the Rural Credit Cooperatives (RCCs), and Rural Credit Foundations (RCFs).⁵ These institutions differ in terms of size, number, and their role in the rural economy. A main branch of the ABC is found in nearly every county of China, each of which is

⁵ Rural residents may also save some funds in other specialized banks, the post office, or other quasi-government institutions, or invest shares in local or distant enterprises.

complemented by deposit-taking savings banks (*chuxu suo*) at the township level. In total, the ABC has over 20,000 *chuxu suo* nationwide at the township level (or about 40 percent of townships). RCCs are considerably more numerous. There are over 50,000 township-level RCCs operating as independent accounting units, nearly an equal number of subordinate RCC sub-branches (*xinyong fenshe*) and savings banks, and over 200,000 credit stations (*xinyong zhan*). The RCCs have historically had a close administrative relationship with Agricultural Banks, although recent reforms have tried to increase their independence.⁶ We can not provide an estimate of the number of RCFs, the newest of financial institutions, but their numbers are considerably smaller than those for the RCCs, and they tend to be concentrated in a select number of provinces. The RCFs are quasi-government organization organized at the township level and loosely supervised by the Ministry of Agriculture.

Each of the villages that we surveyed reported an RCC serving the township (Table 8), and for 67 of the 80 townships in which we surveyed both villages and financial institutions, the RCC provided balance sheet information. While more than 80 percent of the villages reported being served by an outlet of the ABC (Table 8), balance sheets for local ABCs were filled out in only 25 of 80 townships.⁷ In 29 of 80 townships, a form for an RCF was filled out, a sampling rate very close to the reported frequency of

⁶ The government has planned to establish a new Cooperative Bank (*hezuo yinhang*) beginning in 1998 to link RCCs nationwide and to separate them from the Agricultural Bank.

⁷ In some townships, institutions refused to participate in the survey. More often, forms were not filled out because the institution did not exist in the township. Some of the ABCs serving villages are not located in the same township as the village and so could not surveyed.

RCFs in the sample.⁸ Overall, the ratio of forms from different institutions mirrors reasonably well the distribution of institutions in the surveyed townships.

We can get a sense of the relative importance of the three institutions in rural areas by comparing the average amount of total funds per capita and loans per capita provided by each of the three institutions in the townships in which they operate. The total funds per capita in 1988 and 1995 were 593 yuan and 662 yuan for ABCs, 217 yuan and 359 yuan for RCCs, and 0 and 78 yuan for RCFs (all deflated to 1988 yuan). The value of outstanding loans per capita in 1988 and 1995 were 350 yuan and 243 yuan for ABCs (a sharp drop), 103 and 189 yuan for RCCs, and 0 and 67 yuan for RCFs. Weighting these estimates by the number of institutions per township provides an overall estimates of funds and loans per capital for the three institutions combined. Total funds per capita increased from 367 yuan in 1988 to 535 yuan in 1995 while loans per capita grew from 196 yuan to 259 yuan during the same period.

These statistics suggest that the role of China's rural financial institutions and their inter-relationship has changed over time. All three RFIs depend heavily on the household sector as a source of funds. As seen in the opposite trends for loans per capita, the role of RCCs as an intermediary has grown rapidly relative to the ABCs, perhaps in response to changes in the rural economy (or changing goals of local cadres). The rapid growth of rural household savings and declining reserve requirements have helped to free the RCCs from their formerly subordinate role to the ABCs. Greater household supply of funds (as well as demand) has also been the driving force behind the recent rise of RCFs.

⁸ Villages in 33.7 percent of townships report having an RCF, see Table 8.

Early on in the reforms, a relatively high percentage of loanable funds of the RCCs went to households. In other words, household deposits largely recirculated back to the households to help finance growing working capital and fixed investment demand in agriculture. As household incomes rose, savings also rose. At the same time, the need for funds for rapidly growing rural enterprises and failing state-owned enterprises in the economy increased. The financing needs of agriculture also may have declined in relative terms as households were increasingly able to self-finance much of their working capital needs. As a result, the net contribution of the household sector to the pool of loanable funds rose. A general trend thus has been for the recirculation of funds back to the household sector for agricultural purposes through the RFIs to decline, and the intermediation of funds from the household and rural sectors to the non-household and urban sectors to expand. As reported above, by 1995, less than half of the total funds per capita in RFIs were lent back to rural areas. In the process, the role of the RCCs and RCFs has expanded relative to the ABCs.

Agricultural Banks

The Agricultural Bank of China, one of China's four specialized banks, was re-established in 1979 to support the production and distribution of agricultural commodities (Xu et al., 1994). Much of its lending has been to state distribution units such as local grain bureaus (*liangshiju*) and supply and marketing cooperatives (*gongshaoshe*). The bank has the largest branch network among specialized banks. Institutional reforms during the 1980s increased profit incentives for state managers, linked loan amounts by

individual branches more closely with deposits, and broadened the scope of permissible uses of funds. In particular, beginning in the mid-1980s, all specialized banks were allowed to compete in offering loans to all sectors of the economy and an interbank loan market was established which permitted banks to borrow and lend to other banks and approved nonbank financial institutions.⁹ By the mid-1990s, the Agricultural Bank had become China's fourth largest bank.¹⁰

Data on sources and uses of funds by surveyed Agricultural Banks confirms a marked shift in the orientation of Agricultural Banks from 1988 to 1995 (Table 9). Non-deposit sources of funds fell from 44 percent in 1988 to 21 percent in 1995, reflecting rapidly rising savings deposits and government efforts to make local branches more self-reliant in financing their own portfolios. ABCs became increasingly dependent on household deposits, whose share of total deposits grew from 43 to 68 percent on average from 1988 to 1995.¹¹ During the same period, the average share of deposits from RCCs fell from 40 percent to 21 percent, consistent with greater independence of RCCs and/or RCC financial distress (fewer available funds to hold as reserves).

On the uses side of the ledger, the average share of funds devoted to loans fell from 72 percent in 1988 to 56 percent in 1995, reflecting new portfolio opportunities. In particular, outlending to the interbank market grew from 9 percent to 20 percent of total uses.¹² The extent to which the ABCs lending directly reaches rural communities can be

⁹ Profit retention by Agricultural Banks first began in 1983 in the form of 3-year contracts. Since 1988, the Agricultural Bank, unlike other specialized banks, has operated under a contract responsibility system. Income tax and other targets are agreed upon with the finance bureau, and residual profits are retained by the Agricultural Bank.

¹⁰ Preliminary paper draft by Nick Lardy (1997).

¹¹ Household deposits include those from nonagricultural households in the township.

¹² During the same period, the share of funds raised by borrowing from the interbank market fell from 21 percent to 11 percent on average, so that the ABCs in the sample switched from being net borrowers to net

seen in the importance of loans to township and village enterprises (TVEs) and to households (hereafter referred to as rural lending). In 1995, TVE and household loans accounted for 30 and 10 percent of total loans on average, shares which are slightly higher than in 1988 when average shares were 27 and 2 percent, respectively. Thus, in share terms rural lending increased but still accounted for much less than half of total lending. Rural lending continued to be heavily biased towards TVEs rather than households, although this bias lessened slightly over time.¹³ Overall, this description of sources and uses of funds of ABCs indicates a more commercial orientation in which rural households are becoming an increasingly important source of funds but most of those funds are being channeled not back to households, but to non-rural uses.

Rural Credit Cooperatives

RCCs are the most numerous of the RFIs, and historically have been the major depository for rural household savings. Prior to reform, their role as an intermediary in the rural economy was very limited. Per capita financial savings in the countryside were low. More importantly, a high percentage of RCC deposits were held in the ABC in the form of required reserves. Even as late as 1986, RCC deposits in the ABC were equivalent to more than half of all deposits in RCCs. Thus, RCCs primarily were a mechanism for channeling rural household savings to the ABC and the state in order to support government interests in collective agriculture, industry, etc. While a small share

lenders to the interbank market. This switch is consistent with growing profit opportunities offered by non-bank and other financial institutions.

¹³ Household loans include those to nonagricultural households in townships, implying that rural lending is overstated.

of the national aggregate, these reserves represented an important source of funds for the ABC branches serving rural areas.

Table 10 provides a breakdown of the sources and uses of funds of surveyed RCCs. Deposits are the most important source of funds for RCCs, in 1995 averaging 83 percent. RCCs take deposits from households and from an assortment of collective sources, including TVEs. Deposits from the household sector are clearly the most important, and in 1995 were the source of three quarters of RCC funds. By comparison, deposits from the collective sector were less than 10 percent. The other two major sources of funds are own capital, and borrowing from the PBC. Between 1988 and 1995, we observe a small increase in the role of deposits, with all of that coming from an increase in the role of household deposits.

RCCs funds, on the other hand, are allocated between loans, deposits in the PBC, and other purposes. More than half of all funds go to loans, with loans to the household sector slightly outweighing those to the TVEs. On the other hand, almost a quarter of their funds are made up of deposits in the ABC and PBC. The residual, which represents nearly 20 percent of their funds, include funds invested in the inter-bank market, securities, and other kinds of investments. A comparison of the estimates for 1988 and 1995 suggest a slight decline in the percentage of total loans going to households. We also observe a marked difference across provinces, with the percentage considerably higher in the lower income areas where agriculture remains the major activity. For example, the average percentage of loans going to households is highest in Shaanxi (75 percent in 1995), but lowest in Zhejiang (13 percent). Thus, both the time-series and

cross-section suggest that as incomes rise, households are less likely to tap the RCC as a source of finance.

Rural Credit Foundations

By the mid-1990s, rural credit foundations (*nongcun hezuo jijinhui*, or RCFs) emerged as a new and dynamic financial institution in rural China. The first rural credit foundation in China was established in 1988 in Sichuan Province by a township agricultural official (*jingguanyuan*) as a way to better manage village collective funds. RCFs are quasi-state financial institutions organized at the township level under the administrative supervision of the Ministry of Agriculture.¹⁴ According to the survey data, collective funds are the most important source of initial capitalization of RCFs (55-60 percent of funds), followed by household contributions. For some RCFs established more recently, TVEs and township governments also were important sources of starting capital.¹⁵

The prevalence of RCFs varies greatly across provinces. RCFs have the longest history and are most common in Sichuan, where over 80 percent of townships had RCFs

¹⁴ Officials at township agricultural monitoring stations (*nongye jingji guanli zhan*) organize RCFs, usually drawing staff from township officials and village accountants. Each RCF has a charter of rules, a board of directors (*lishihui*) with a chairman (*lishizhang*, usually a township leader or agricultural monitoring official), and a managing director (*yewu zhuren*). Loans of 50,000 to 100,000 yuan require approval from the county agricultural monitoring station. Some areas also have county level RCFs (*lianhehui*, or united RCFs) whose main purpose is to guarantee the security of township RCFs by brokering funds from other township RCFs. Beginning in 1994, new county level RCFs were prohibited because their lack of direct lending to households made it difficult to justify them as farmer service organizations (rather than new financial institutions). County RCFs established before 1994 were allowed to continue operation. In 1993, the province ruled that only the Agricultural Bureau could administer RCFs and that approval by the Agricultural Bureau was a requirement for legal operation.

¹⁵ In 5 RCFs in the sample, TVEs were major contributors, accounting for about 40 percent of initial capital. In 11 cases, township governments were important, accounting for 34 percent of funds on average.

by 1996.¹⁶ In the six provinces sampled, the percentage of surveyed townships reporting RCFs was 69 percent in Sichuan, 50 percent in Shandong, 38 percent in Zhejiang, 25 percent in Yunnan, 13 percent in Hubei, and 6 percent in Shaanxi (Table 7). Most of the RCFs in Sichuan were established in the late 1980s and early 1990s; RCFs in Shandong started in the early 1990s as well. In Zhejiang RCFs were not established until 1993-1995.

The stated goal of RCFs is to meet the demand for funds by agricultural households and to support the three *nong*'s – *nongcun* (village), *nongye* (agriculture), and especially *nonghu* (rural households). Originally, fixed capital loans and loans to TVEs were prohibited. With greater capitalization, loans to TVEs eventually were permitted. Because officially they are not financial institutions, RCFs cannot take deposits (*cunkuan*) or make loans (*daikuan*), but instead collect shares (*rugu zijin*) and allow borrowing (*jiekuan*). Interest rates in principle are subject to the same restrictions as RCCs, although in practice these regulations are sometimes flouted. Most profits are distributed to shareholders as dividends (*fenhong*), which combined with interest payments generally makes the realized return on shares higher than from bank deposits. The non-official status of RCFs originally exempted them from having to pay taxes, but at least in Sichuan, this exemption ended in 1995.

RCFs have expanded rapidly in the regions where they have been introduced because of the strong support of local communities. Township officials, who often take a strong role in the organization and management of RCFs, prefer the greater independence

¹⁶ Interview with official in charge of RCFs, Ministry of Agriculture, Sichuan Province, April, 1996.

of RCFs as a source of funds for local development when compared to state banks that are subject to credit plans and other regulations. Rural households are attracted by the higher returns and greater access to funds. On the other hand, concerns facing RCFs include difficulty in earning profits given new tax obligations and modest operating scale, influence of township leaders in biasing lending to enterprises or other government revenue-generating projects, inability to diversify risk through institutional linkage with other RCFs, and uncertain legal status.¹⁷

RCF expansion has relied on capital infusion from rural households. Although the majority of initial capital often comes from village collective funds, new capital mostly comes from households. 1995 data on RCFs shows that the average share of fund sources from household shares was 44 percent, compared to 27 percent from collectives, 19 percent from other sources (including firms), and 9 percent from government organizations. However, RCFs in Zhejiang have a very different structure of fund sources than in Sichuan and Shandong; household shares account for only 22 percent of funds, less than both other shares and collective shares.

The strong orientation of RCFs to rural lending and to household lending, in particular, can be seen in the structure of fund use (Table 11). In each of the provinces with surveyed RCFs, the percentage of total loans going to households in 1995 is higher in RCFs than in RCCs. In Sichuan and Shandong, RCFs lend more funds to households than to TVEs while the opposite is true for RCCs. Only in Zhejiang do TVEs receive more RCF loans than do households. There is some concern that "other loans," a

¹⁷ There is no legislation on regulations governing RCFs that provide legal status. RCFs are legitimized only by a state circular supporting their operation.

significant category in Zhejiang and Sichuan, may include loans to township governments or other loans made on a non-commercial basis. Nonetheless, despite differences in the structure of sources and uses of funds in different parts of the country, RCFs appear to be oriented more toward meeting the credit needs of rural households than the older state financial institutions.

Comparing the Performance of China's Rural Financial Institutions

In this section, we summarize information on various aspects of the performance of the three financial institutions introduced above, exploiting detailed survey information on profitability, cost structure, and repayment performance.¹⁸ We find significant contrasts in the performance of different institutions, which likely are related to differences in institutional structure, regulatory environment, and market orientation.

Profitability. The differences in profitability across institutions and over time are striking (Table 13). ABCs have shown a marked deterioration in profitability (measured by before-tax profits as a share of total fund sources), falling from over 6 percent in 1988 (but with a high standard deviation) to 0.4 percent in 1995. The profitability of RCCs, on the other hand, has increased slightly, from 0.9 percent in 1988 to 1.2 percent in 1995. However, the variance of profitability has widened. Profitability increased in Sichuan, Hubei, and Shaanxi, but fell in Zhejiang and Shandong. In 1995, 15 of the 54 RCCs for which profit data is available reported negative before-tax profits compared to 3 of 37 in 1988. The frequency of loss-making is slightly greater than for ABCs (5 of 20 ABCs

¹⁸ While information on the sources and uses of funds for ABCs and RCCs can be found in published statistical yearbooks, information on profits, costs, and repayment are not generally available.

reported losses in 1995). Finally, RCFs by far are the most profitable of the three institutions in 1995, with an average profitability of 4.7 percent (including dividends). Zhejiang RCFs are particularly profitable, reporting an average profitability of over 10 percent. The exceptional profitability of RCFs help explain their rapid growth. The fact that reported taxation rates in 1995 measured as a share of gross income on average was only 1.8 percent for RCFs but 4.5 and 4.4 percent for ABCs and RCCs only exacerbates the profitability differences.

Interest rates and spreads. One key determinant of profits is the reported spreads between the cost of funds and the return to funds. The most important determinants of these costs and returns are the interest rates for deposits and loans. In Table 14, we report mean values and standard errors for loan interest rates, the cost of funds, and spreads for RCCs and RCFs.¹⁹ A few observations are worth note. First, the RCFs charge the highest annual interest rate on loans on average (20 percent), followed by RCCs (18 percent) and ABCs (15 percent). They also have a higher cost of funds (13 percent versus 11 percent for RCCs).²⁰ The measured spread turns out to be comparable (7 percent for both RCFs and RCCs). Finally, the spacial variability of the loan interest rates, which might reflect the extent to which RFI's adjust rates to local market conditions, is much higher for RCCs and RCFs than ABCs, which is consistent with their being less strictly regulated.

¹⁹ For ABCs we only report loan rates. The cost data was too incomplete to calculate accurate measures of the cost of funds as was done for RCCs.

²⁰ This result is a tentative one because we constructed a cost of funds for RCCs from reported interest costs and value of deposits. This measure can be biased when the term structure of deposits changes, often in response to changing expectations about inflation, because the Chinese financial accounts are done on a cash accrual basis (Lardy, 1997).

Repayment performance. Survey data makes possible calculation of two measures of loan repayment rates. First, respondents were asked to estimate timely repayment rates for TVE and household loans (repayment rates). Second, we report the amount of overdue loans as a share of total outstanding loans (overdue loan rate), which may include loans other than to TVEs and households.

Average 1995 repayment rates for TVE loans were 81 percent for ABCs, 89 percent for RCCs, and 76 percent for RCFs (Table 15). For household loans, the repayment rates were 82 percent for ABCs, 85 percent for RCCs, and 82 percent for RCFs. For ABCs and RCCs, repayment rates have risen moderately since 1988 on average. By these measures, repayment rates appear lowest for RCFs and highest for RCCs, but reported measures mask great variation in reported rates in different regions.

Overdue loan rates paint a different picture of loan performance. For 1995, the overdue loan rate for ABCs averaged 20 percent, for RCCs over 30 percent, and for RCFs only 10 percent. The low overdue loan rate for RCFs could partly be due to the fact that many RCFs were recently established and so have not had much time for overdue loans to accumulate. For both measures of loan repayment, it is unclear whether loans that are refinanced are counted as repaid, which would make reported rates misleading. It is somewhat reassuring that measured correlations between the two repayment measures for each institution are of the right sign. Such correlation is highest for RCCs.

In examining regional variation in repayment performance, the two provinces that stand out are Hubei and Zhejiang. Hubei's RCCs have an extraordinarily high average

overdue loan rate of 68 percent in 1995, and RCC repayment rates are below average (47 percent for TVE loans, 69 percent for households). Zhejiang's RCCs, on the other hand, have a much lower average overdue loan rate than the other provinces (12 percent, 4 percent median), and enjoy the highest repayment rates (95 and 93 percent for TVE and household loans). The RCFs in Zhejiang also have the lowest average overdue loan rate (6 percent) and highest average repayment rates (97 percent for TVE loans, 95 percent for household loans) of the three provinces for which data is available. Also, RCFs in Sichuan have significantly lower repayment rates than other provinces (55 percent for TVE loans, 70 percent for household loans).

Cost structure. Two interesting observations can be made from comparing the cost breakdown for the different types of financial institutions (Table 16). Costs are divided into four categories: interest costs, office expenses, wages, and other costs. First, office expenses have risen gradually over time for ABCs and RCCs, perhaps reflecting the use of office expenses as a way to circumvent fixed wage regulations or distribute profits. Second, the relatively large share of office expenses and wages for RCFs compared to ABCs and RCCs suggests that RCFs have yet to achieve scale economies which might make them more competitive as they grow.

Guarantors and Collateral Requirements. In China, financial institutions often require either collateral or a guarantor as a prerequisite for awarding a loan. The percentage of loans with such requirements for different institutions is reported in Table 17. RCF requirements are stricter than those of RCCs, with almost no loans being exempted from collateral or guarantor requirements (3 percent versus 19 percent for

RCCs). In fact, 45 percent of loans require both collateral and a guarantor, which is almost never the case for RCC loans, whether they be to individuals or to TVEs. ABC collateral and guarantor requirements are more demanding than those of RCCs, but less demanding than those of RCFs. The strict requirements for RCF loans likely reflect their greater commercial orientation and concern with maintaining financial solvency. Given the stringent requirements, some households, especially the poor, may have difficulty accessing credit from RCFs.

In looking at differences in loan requirements across provinces, it is notable that RCCs in Hubei and Sichuan, which had the highest overdue loan rates, also have the largest share of loans with no collateral or guarantor requirements. Also, RCCs in rich areas are not more likely to use collateral rather than guarantors, which might be expected since more household should be able to meet collateral requirements. In fact, for individual loans it is the richest provinces (Zhejiang and Shandong) that have the highest percentage of guarantor loans.

Enforcement. One indicator of the effort that financial institutions make to enforce repayment is the incidence of lawsuits, repayment by loan guarantors, and seizures of collateral. However, it is difficult to interpret the relationship between enforcement frequency and loan repayment because enforcement actions, on the one hand, may both reduce delinquent loans by signalling the willingness of financial institutions to enforce repayment, and, on the other hand, be a response to large numbers of delinquent loans.

Evidence on enforcement actions taken by RCCs and RCFs in the past three years is reported in Table 18. Actions by ABCs are not reported because of the low response rate. In general, enforcement actions against individuals are much more common than against enterprises. The vast majority of RCCs report taking enforcement actions of some kind, with lawsuits drawing the most responses and having the highest average incidence. The number of responses and average response for actions against individuals were the following: 48 of 67 RCCs reported an average of 29 lawsuits, 36 RCCs reported an average of 10 guarantor repayments, and 23 RCCs reported an average of 23 collateral seizures. The two provinces in which RCCs are most likely to resort to enforcement actions, Hubei and Shandong, are also the two in which the RCCs are facing the most difficulty earning profits. These data suggest that RCCs are not passively accepting loan defaults, but are exerting some effort to collect loans.

For RCFs, the enforcement action eliciting the most responses was guarantor repayments (12 of 30 RCFs reported an average of 5 guarantor repayments). In all cases, the average frequency of enforcement actions was lower for RCFs than RCCs, which could be explained by fewer delinquent loans or by the fact that number of the RCFs were less than three years old.

Financial Intermediation

With economic development, financial intermediation often increases and for the reasons cited in the introduction, financial institutions often come to play a larger role in intermediating between borrowers and lenders. In the rural sector, the primary source of

surplus funds is usually the household sector. Savings deposits are not the only financial instruments available to these households, but next to physical assets such as housing are the most important form in which rural households hold their rising real wealth. The experience throughout post-WWII Asia has been for savings rates to rise in the household sector. Thus, as real incomes rise, increased savings are often channeled to borrowers through formal financial institutions.

How important then are the RFIs? What can we say about their changing role over the eight year period that we are examining? What about their relative roles? A commonly used measure of financial sector intermediation is the ratio of total funds, or more narrowly, deposits or loans in financial institutions to GNP or national income. An expanding role of financial institutions with economic growth will be reflected by a rise in this ratio over time, and will signal their role in intermediating between a diverse groups of borrowers and lenders. This ratio can be constructed separately for each type of financial institution, and can be calculated for the entire sector. The advantage of the latter is that it permits an assessment of the changing role of financial institutions within the broader financial sector.

Construction of such an index for the entire rural financial sector poses some difficulty. National data for the RCFs have not been reported. Moreover, a detailed breakdown of ABC data for rural and urban areas currently does not exist.²¹ Drawing on balance sheet information for the three major rural financial institutions, however, here we provide some very tentative estimates for 1988 and 1995 for the areas surveyed.²²

²¹ ABCs also lend to urban households and to enterprises and state trading agencies that may reside primarily in urban areas.

RCCs were not established until 1988, and so we only report the data for RCCs and ABCs for that year. Measured as a percentage of income, funds in the ABCs and RCCs were almost equal and averaged 36 percent. Because a portion of the funds in the ABCs were actually redeposits of the RCCs, their combined total is slightly lower. Still, in 1988 the sum of the funds at the disposal of the two institutions for lending and other purposes was nearly two-thirds of total income. Loans by themselves, on the other hand, were 21 and 17 percent, respectively, or 38 percent combined. Viewing the loans as a stock, they reflect the ratio of accumulated financial assets of these institutions to income. Because much of the loan portfolio of these institutions is relatively short term, the ratio also reflects the role of these institutions in providing working capital that helps finance current economic activity. The remaining funds were largely divided between deposits in the PBC and other uses that were not explicitly identified.

We perform similar kinds of calculations for 1995. As described earlier, measured on a real per capita basis, the total funds in the three institutions show a marked increase over this seven year period from 367 yuan per capita to 535, or an increase of 46 percent. Adjusting for RCC deposits in the ABC reduces the 1995 figure to 510 per capita, but actually increases the growth over the comparable figure in 1988 to 51 percent from 46 percent. Since per capita incomes in the sample grew only thirty percent, these estimates suggest that funds taken on by these institutions were increasing more rapidly

²² We calculate this ratio separately for each of the institutions, and for the entire rural sector, using as weights the percentage of townships reporting each of the respective financial institutions. As a numeraire, we use real township income in 1988 and 1995, respectively. The average number of financial institutions per township calculated using data from the village form is slightly larger than that calculated for these three institutions alone. In other words, we are missing information on a small segment of the formal financial sector. As a result, our estimated intermediation indices have a slight downward bias.

than incomes. Measured as a percentage of income, our index of intermediation shows a pronounced increase from 66 percent in 1988 to 77 percent in 1995. The growth of loans, however, was much less rapid, and over the same period grew only 32 percent, only slightly faster than income growth. This discrepancy between total funds and loans largely reflects the sharp decline in real per capita lending carried out by the ABC, which swamped the impressive increases by the RCFs and RCCs. Thus, in both 1988 and 1995, total lending by the three institutions remained around forty percent of income.

At this time we do not have a complete picture of the overlap between the ABC and the RCFs and RCCs in their lending and deposit-taking activity. As a result, we do not know if the growing intermediation by the RCCs and RCFs is simply substituting for that formerly carried out by the ABC, or if it represents a greater increase in intermediation directed towards the rural sector. If a constant, but much higher percentage of ABC activity is directed to activity outside the rural economy than the more locally-focused RCCs and RCFs, our estimates for 1988 and 1995 suggest that the local financial intermediaries are currently playing a much more important role in facilitating local economic activity than they were in 1988. The ratio of loans by the RCCs and RCFs to income, for example, rises sharply from 16.8 percent in 1988 to 27.4 percent in 1995. On the other hand, if a high and increasing percentage of ABC lending and investment is outside the rural sector, the growth in the RCCs and RCFs becomes less impressive, and is simply compensating for a shift in the portfolio of the ABC. In such a case, only qualitative differences between the financial institutions in their financial intermediation could be the source of a changing role for the financial sector as a whole.

It is suggestive that in townships in which they operate, on average the percentage of households getting loans from RCFs is much higher than from ABCs despite the small relative size of the RCFs (15 percent versus 3 percent, Table 19).

Competition

We do not want to underestimate the extent of these qualitative differences. Our earlier discussion of the RCCs and RCFs alluded to potential differences in their behavior and the foci of their lending activity. Indeed, a case can be made that the introduction of the RCFs into the rural sector was largely a result of a growing disaffection of some local leaders with the behavior of the RCCs. What has been the interaction between the two? What implications does the introduction of the RCFs and their rapid subsequent growth have for the rural sector?

In principal, entry or the threat of entry of new firms into a market has desirable properties. Much has been made, for example, of the impact of the entry of non-state owned enterprises on the behavior of SOEs. Entry typically lowers profits and dissipates rents. In the context of a reforming economy, therefore, entry of new firms into an industry must eventually precipitate either fundamental changes in how existing firms behave and increases in efficiency, or their exit.

Do we see such changes in behavior in the rural financial sector? If so, what is the mechanism and what are its implications? Competition between RCCs and RCFs would primarily be for deposits and for potential borrowers. Our earlier analysis of lending rates, cost of funds, etc. suggest considerable differences among and between

these two institutions, leading us to believe that there are margins on which institutions can compete for funds. The ability to pay dividends, for example, enables RCFs an opportunity to pay higher effective interest rates. In Table 20, we compare the growth of funds between 1994 and 1995 in RCCs in those townships with and without an RCF. The contrast is striking both in the aggregate and at the provincial level. In those townships with RCFs, the rate of growth of funds in RCCs was only 2.1 percent as compared to 17.9 percent in those localities not facing competition from an RCF. In Zhejiang, funds in RCCs facing competition from RCFs actually declined. RCFs appear to be drawing funds away from the RCCs. As seen in Table 12, just from 1994 to 1995, funds of RCFs grew 22 percent on average, and household shares grew at an average rate of 77 percent!

What about profitability? Aside from increasing the cost of funds for RCCs, profitability can also be affected by the quality of borrowers. If RCFs are able to find and attract better borrowers, it leaves RCCs with a riskier pool of potential borrowers, and thus possibly lower returns. In Table 20, we also report profitability calculations for RCCs with and without competition from RCFs. The results are not as strong as in the case of deposits, but for the entire sample we observe significantly higher profitability in RCCs without competition than with. On average, in those townships without an RCFs, profitability of RCCs was 1.8% measured as a percentage of total funds; in those with, profitability was zero.

More extensive analysis of these data is required, but preliminary results suggest that the RCFs are having an important effect on the rural financial sector. There are a

number of possible outcomes. On the one hand, continued entry of the RCFs may force changes in the behavior of the RCCs, notably, their lending behavior, as a prelude to improving their balance sheets. This might take the form of reduced lending for pet projects of local governments, and/or increased concerns with repayment and enforcement. More generally, it may spark wider institutional reform and the search for new governance structures for the RCCs. A case can be made that the superiority of the RCFs follows from such differences. Failure to do so could lead to a problem analagous to that faced by the specialized banks, namely, a portfolio with a high percentage of non-performing loans. On the other hand, it could lead to a move by some local governments to restrict the entry of RCFs in order to protect the market for RCCs.²³

Conclusion

What is the picture that emerges from this detailed description of rural financial institutions in China? One of the main objectives of this paper has been to describe how economic changes are affecting rural credit markets in China and how rural financial institutions are responding. The data suggests that intermediation by RFIs has increased, but that the role of informal credit, including zero-interest loans, remains substantial. It does not appear that for most activites, households are any more likely to turn to RFIs for loans than in earlier periods.

One development that could alter this pattern is the recent entry of RCFs into China's rural financial markets. The RCFs appear more focused on lending to rural

²³ The fate of RCFs recently has become the topic of intense debate among policy makers in China, especially in provinces such as Sichuan where they have reached greater scale (authors interview, Ministry of Agriculture, Sichuan Province, April 1996).

households. They also are very dynamic, earning high profits, growing quickly, operating in a very commercial manner (strict collateral and guarantor requirements) which has resulted in a healthier portfolio (fewer overdue loans). In areas where they are operating, RCFs have had a pronounced effect on the fund growth and profits of RCCs, the institution which has traditionally dominated China's rural credit markets. RCCs, too, have increased their role in intermediation in rural areas, while the ABC branches have sharply reduced rural lending. Continued reforms of the rural financial sector—for example, the establishment of the Cooperative Bank next year—promise to change the nature of competition in the sector. Growing competition will lead to financial pressures on state financial institutions that are likely either to force further reforms to improve their competitive position or to lead to new restrictions on competition. Growing difficulties in earning profits by some ABCs and RCCs as well as substantial overdue loan rates suggest that these pressures are already very real.

How these issues resolve themselves will have important implications for rural economic development in China and for economic growth in China. Much more empirical work is needed to evaluate the extent to which rural financial institutions are fulfilling or might fulfill their potential as intermediaries that can channel financial resources to their best use in rural China.

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Table 1
Income Per Capita and Economic Structure of Surveyed Townships
(unweighted means)

Province		Income Per Capita		Percent Change in Income p.c.	Industry Share of GVO	
		1988	1995		1988	1995
Zhejiang	mean	731	1266	79	0.41	0.75
	s.d.	444	662	79	0.29	0.26
	obs.	13	15	13	10	15
Sichuan	mean	494	456	-1	0.37	0.62
	s.d.	229	206	23	0.27	0.37
	obs.	14	15	14	12	13
Hubei	mean	398	585	50	0.29	0.47
	s.d.	134	218	42	0.20	0.28
	obs.	11	14	11	11	14
Shaanxi	mean	368	292	-17	0.37	0.41
	s.d.	121	90	24	0.25	0.30
	obs.	15	16	15	16	16
Shandong	mean	579	781	39	0.36	0.57
	s.d.	151	181	31	0.19	0.25
	obs.	14	14	13	13	14
Yunnan	mean	456	351	-19	0.27	0.29
	s.d.	264	214	20	0.26	0.35
	obs.	11	11	11	6	8
Total	mean	506	629	21	0.35	0.53
	s.d.	270	462	54	0.24	0.31
	obs.	78	85	77	68	80

Note: GVO is measured as the sum of industrial output value and agricultural output value.

Table 2
Household Savings by Province
 (weighted by # of HHs in village, 1995 values deflated to 1988 RMB)

Province		% of HHs w/Sav in '95	Avg. Sav. of HHs w/Sav. '95	Avg. Sav. of all HH in '95	% of HHs w/Sav in '88	Avg. Sav. of HHs w/Sav. '88	Avg. Sav. of all HH in '88
Zhejiang	mean	58	8162	4396	40	4851	2713
	s.d.	33	10791	5318	29	6016	5469
	obs.	31	30	30	30	28	28
Sichuan	mean	50	1177	716	30	1042	421
	s.d.	27	1116	1035	20	1196	792
	obs.	31	31	31	27	26	26
Hubei	mean	50	1936	1139	26	2029	734
	s.d.	25	1084	1127	24	2442	1219
	obs.	32	32	32	27	26	26
Shaanxi	mean	42	775	346	21	759	183
	s.d.	25	438	296	15	357	161
	obs.	30	30	30	30	28	28
Shandong	mean	50	2291	1571	29	1577	621
	s.d.	27	3161	2879	19	1407	794
	obs.	28	28	28	27	27	27
Yunnan	mean	45	990	478	25	1002	329
	s.d.	24	765	522	24	784	477
	obs.	22	22	22	20	18	18
Total	mean	50	2729	1532	29	2098	970
	s.d.	27	5548	2972	23	3462	2816
	obs.	182	181	181	180	171	171

Table 3
Destinations of Household Savings in Financial Institutions in 1995
(unweighted, in percent)

Province		RCC	ABC	Other Banks	RCF	Other
Zhejiang	mean	62	17	6	6	3
	s.d.	30	23	13	14	11
	obs.	32	32	32	32	32
Sichuan	mean	58	11	3	22	3
	s.d.	24	18	6	23	7
	obs.	32	32	32	32	32
Hubei	mean	57	17	11	1	11
	s.d.	29	18	19	2	24
	obs.	32	32	32	32	32
Shaanxi	mean	69	20	5	1	6
	s.d.	28	23	12	2	14
	obs.	32	32	32	32	32
Shandong	mean	56	27	3	10	5
	s.d.	26	24	7	16	8
	obs.	32	32	32	32	32
Yunnan	mean	73	16	5	6	0
	s.d.	30	24	13	16	1
	obs.	24	24	24	24	24
Total	mean	62	18	5	8	5
	s.d.	28	22	13	16	14
	obs.	184	184	184	184	184

Table 4
Percent of Households Engaged in Different Activities that
Finance the Activity with Loans

Year & Province		Fertilizer	Livestock	Small Business	Illness	Constr.	Other
1988							
Zhejiang	mean	18	19	40	35	67	6
	s.d.	27	34	43	43	38	14
Sichuan	mean	33	28	28	44	56	0
	s.d.	25	33	35	39	42	0
Hubei	mean	44	25	21	39	73	12
	s.d.	26	35	31	36	31	29
Shaanxi	mean	43	29	50	56	52	56
	s.d.	21	30	42	32	30	32
Shandong	mean	21	14	38	18	40	45
	s.d.	16	19	46	26	33	41
Yunnan	mean	18	41	10	37	49	30
	s.d.	26	35	25	36	43	41
Total	mean	30	25	32	38	56	25
	s.d.	26	32	39	37	38	36
1995							
Zhejiang	mean	13	13	47	42	59	8
	s.d.	23	28	42	42	37	21
Sichuan	mean	25	23	37	42	59	0
	s.d.	25	33	37	37	41	2
Hubei	mean	28	11	15	34	68	12
	s.d.	18	21	24	35	37	29
Shaanxi	mean	37	26	50	58	55	52
	s.d.	22	26	34	29	34	33
Shandong	mean	13	8	41	16	40	45
	s.d.	12	17	40	26	35	42
Yunnan	mean	17	26	10	33	56	27
	s.d.	24	35	26	34	39	40
Total	mean	22	18	34	37	56	24
	s.d.	23	28	37	36	38	36

Note: For Zhejiang, Sichuan, Hubei, Shaanxi & Shandong there are 32 observations, for Yunnan, there are 24 observations.

Table 5
Average Loan Amount of Households Receiving
Loans, by Activity (in 1988 prices)

Year & Province		Fertilizer	Livestock	Small Business	Illness	Constr.	Other
1988							
Zhejiang	mean	91	101	3350	586	3375	234
	s.d.	110	176	5866	762	3223	609
Sichuan	mean	90	167	697	336	878	0
	s.d.	47	213	1002	416	1006	0
Hubei	mean	153	157	455	572	1847	194
	s.d.	130	249	1083	826	1943	521
Shaanxi	mean	146	274	1044	628	1319	884
	s.d.	79	259	1369	712	1476	1174
Shandong	mean	162	152	1353	506	1250	903
	s.d.	89	210	3602	477	1192	1050
Yunnan	mean	105	690	42	284	1225	871
	s.d.	160	521	141	441	1409	2148
Total	mean	125	238	1205	494	1667	499
	s.d.	109	332	3138	639	2033	1120
1995							
Zhejiang	mean	71	54	9239	2277	5648	516
	s.d.	112	109	15905	3554	4995	1450
Sichuan	mean	60	113	1714	303	1115	2
	s.d.	45	145	5868	345	950	12
Hubei	mean	101	68	547	619	1939	229
	s.d.	93	121	1022	904	2033	536
Shaanxi	mean	119	270	1014	857	1213	874
	s.d.	55	290	1080	802	964	703
Shandong	mean	107	97	9004	612	1546	1162
	s.d.	76	165	27727	653	1581	1150
Yunnan	mean	78	292	191	288	1288	502
	s.d.	103	308	507	334	1344	1055
Total	mean	90	143	3767	849	2161	550
	s.d.	85	218	13961	1721	2922	1004

Note: For Zhejiang, Sichuan, Hubei, Shaanxi & Shandong there are 32 observations, for Yunnan, there are 24 observations.

Table 6
Importance of Different Sources of Funds for Select Uses
(as Ranked by Village Leaders)

Use	1988 Ranking			Private (No Interest)	Private (Interest)
	RCC	RCF	Bank		
Fertilizer	2 (2)	5	4	1 (4)	3
Livestock	1 (4)	5	4	2 (2)	3
Small Business	1 (6)	5	4	2	3
Illness	2	4	4	1 (6)	3
Household Construction	2	5	4	1 (6)	3

Use	1995 Ranking			Private (No Interest)	Private (Interest)
	RCC	RCF	Bank		
Fertilizer	2 (1.5)	5	4	1 (4.5)	3
Livestock	1 (3)	4	5	2 (3)	3
Small Business	1 (6)	5	4	2	3
Illness	2	4	5	1 (6)	3
Household Construction	2	4	5	1 (6)	3

Note: number of top rankings in parenthesis

Table 7
Private Borrowing

Province		1988			1995		
		Private as % of Total Borrowing	% Private Loans w/Interest	Average Interest Rate	Private as % of Total Borrowing	% Private Loans w/Interest	Average Interest Rate
Zhejiang	mean	71	27	2.4	73	37	2.0
	s.d.	29	37	1.3	31	38	0.5
	obs.	28	28	16	32	32	24
Sichuan	mean	59	4	1.2	58	7	1.5
	s.d.	23	16	0.4	27	18	0.5
	obs.	31	31	6	32	32	9
Hubei	mean	55	11	2.3	68	17	2.4
	s.d.	26	23	1.2	25	22	0.8
	obs.	32	32	11	32	32	21
Shaanxi	mean	58	2	2.5	63	8	1.8
	s.d.	27	7	1.8	28	19	0.3
	obs.	32	32	4	32	32	11
Shandong	mean	85	5		84	9	1.5
	s.d.	20	19		22	20	0.4
	obs.	29	29	0	30	30	11
Yunnan	mean	53	0		56	8	1.8
	s.d.	29	0		33	26	0.3
	obs.	16	16	0	18	18	3
Total	mean	64	9	2.1	68	15	1.9
	s.d.	28	23	1.2	29	27	0.6
	obs.	168	168	37	176	176	79

Table 8
Percent of Townships with Each Type of Financial Institution

Province	RCC	ABC	RCF	Other Banks	Other Fin. Inst.	Avg. Total # of Inst.
Zhejiang	100	87.5	37.5	43.8	12.5	2.8
Sichuan	100	50	68.8	37.5	31.2	2.7
Hubei	100	87.5	12.5	43.8	50	2.8
Shaanxi	100	93.8	6.2	50	43.8	2.6
Shandong	100	100	50	31.2	50	3.1
Yunan	100	83.3	25	25	8.3	2.4
Total	100	83.7	33.7	39.1	33.7	2.7

Table 9
Agricultural Banks Composition of Sources and Uses of Funds, 1988 and 1995 (in percent)

Sources	Total Deposits	Of which:				Of which: TVEs	Of which: Other Firms	Of which: RCCs	Of which: RCCs (risk)	Interbank loans	Other
		Households	Households	Other Firms	RCCs						
1995	mean	79	67	3	1	8	12	11	10		
	s.d.	26	13	4	2	6	11	24	17		
	obs.	27	27	27	27	27	27	27	27		
1988	mean	56	43	5	5	17	22	21	23		
	s.d.	29	21	6	6	14	20	31	26		
	obs.	23	23	23	23	23	23	23	23		

Uses	Total Loans	Of which:				Including: TVE loans	Of which: Fixed Capital	Of which: Households	Of which: RCCs	Interbank Lending	Other
		Working Capital	Working Capital	Households	RCCs						
1995	mean	56	68	30	3	10	0	20	24		
	s.d.	33	23	26	6	14	0	28	30		
	obs.	27	27	27	27	27	27	27	27		
1988	mean	72	78	27	3	2	1	9	19		
	s.d.	29	25	27	7	3	3	19	26		
	obs.	23	23	23	23	23	23	23	23		

Note: Total deposits, total loans, interbank loans, and other are calculated as a share of total sources/uses of funds. Other categories are calculated as a share of total deposits or total loans.

Table 10
Rural Credit Cooperatives Composition of Sources and
Uses of Funds, 1988 and 1995 (in percent)

Sources		Total Deposits	Of which: Households	Of which: Collective	Own Capital	Other
1995	mean	83	10	90	8	11
	s.d.	17	13	13	10	18
	obs.	67	65	67	67	67
1988	mean	80	15	85	7	13
	s.d.	19	14	14	7	19
	obs.	57	52	57	57	57

Uses		Total Loans	Of which: HH Loans	Of which: TVE Loans	Of which: Other Loans	Deposits in PBC+ABC
1995	mean	60	43	35	21	21
	s.d.	18	37	34	24	14
	obs.	67	67	67	67	67
1988	mean	56	47	38	15	26
	s.d.	19	34	31	16	15
	obs.	51	51	51	51	51

Note: Total deposits, own capital, total loans, and bank deposits are calculated as a share of total sources/uses of funds. Other categories are calculated as a share of total deposits or total loans.

Table 11
RCFs Composition of Sources and Uses of Funds in 1995
(unweighted, in percent)

Sources		Collective Shares	Household Shares	Shares of Govt/Other Org	Other Shares
Zhejiang	mean	33	22	7	38
	s.d.	29	24	7	26
Sichuan	mean	21	54	10	15
	s.d.	29	37	19	22
Shandong	mean	36	39	11	14
	s.d.	29	36	15	29
Total	mean	27	44	9	19
	s.d.	29	36	16	26

Uses		Total Loans	Of which: HH Loans	Of which: TVE loans	Of which: Other loans
Zhejiang	mean	81	21	43	42
	s.d.	14	17	32	
Sichuan	mean	88	52	15	33
	s.d.	8	31	11	
Shandong	mean	82	47	28	14
	s.d.	10	19	22	
Total	mean	85	45	24	32
	s.d.	10	27	22	

Note: Number of observations: Zhejiang 6, Sichuan 14, Shandong 9, total 30.
All sources reported as a percentage of total sources of funds
Household and TVE loans reported as the percentage of total loans.

Table 12
Real Growth and Per Capita Levels of Sources and Uses of Funds in Rural Financial Institutions
(means in 1988 yuan, weighted by population and base values)

	1995 yuan per capita	1988 yuan per capita	Percent growth 1988 to 1995	Percent growth 1994 to 1995
ABCs				
Total funds	662	593	24	-30
Total deposits	381	244	69	15
Household deposits	237	103	138	29
RCC regular deposits	26	44	-48	-47
RCCs risk reserve deposits	55	51	18	10
Total loans	243	350	-26	4
Household loans	13	8	52	4
TVE loans	69	89	-17	-16
Interbank loans	156	79	89	107
RCCs				
Total funds	359	217	100	15
Collective deposits	39	31	45	0
Household deposits	259	117	105	12
Total loans	189	103	104	9
Household loans	37	36	22	6
TVE loans	117	60	137	9
ABC/PBC deposits	79	56	64	0
RCFs				
Total funds	78			20
Collective shares	15			-22
Household shares	46			77
Govt/other organization shares	6			-42
Other shares (including firms)	13			2
Total loans	67			22
Household Loans	27			29
TVE loans	17			-13

Table 13
Profitability and Taxation Rates of Financial Institutions

Year	Institution		Before-tax Profits		Taxation Rate As Share of Gross Income
			As share of fund sources	Number w/ profits<0	
1995	ABCs	mean	0.0042		0.045
		s.d.	0.02		0.13
		obs.	20	5	20
	RCCs	mean	0.012		0.044
		s.d.	0.049		0.039
		obs.	54	15	59
	RCFs	mean	0.047		0.018
		s.d.	0.056		0.049
		obs.	28	1	28
1988	ABCs	mean	0.064		0.019
		s.d.	0.15		0.026
		obs.	14	1	14
	RCCs	mean	0.0086		0.037
		s.d.	0.009		0.019
		obs.	37	3	43

Table 14
RFI Loan Rates, Cost of Funds, and Spreads in 1995

Province		ABC		RCCs		Cost of funds		Spread		RCFs		Cost of funds		Spread	
		loan rate	loan rate	loan rate	loan rate	Cost of funds	Cost of funds	Spread	Spread	loan rate	loan rate	Cost of funds	Cost of funds	Spread	Spread
Zhejiang	mean	0.16	0.17	0.09	0.08	0.22	0.16	0.06							
	s.d	0.01	0.03	0.03	0.04	0.03	0.03	0.04							
Sichuan	mean	0.16	0.17	0.11	0.05	0.20	0.13	0.06							
	s.d		0.02	0.06	0.07	0.02	0.03	0.02							
Hubei	mean	0.13	0.21	0.12	0.07										
	s.d	0.01	0.06	0.07	0.10										
Shaanxi	mean	0.16	0.18	0.11	0.07										
	s.d	0.00	0.01	0.03	0.10										
Shandong	mean	0.15	0.19	0.10	0.08	0.20	0.12	0.07							
	s.d	0.01	0.05	0.03	0.03	0.04	0.04	0.03							
Total	mean	0.15	0.18	0.11	0.07	0.20	0.13	0.07							
	s.d	0.01	0.04	0.04	0.05	0.03	0.03	0.03							

Notes: For RCCs, cost of funds is calculated as interest payments/deposits. It excludes observations for which the cost is greater than 0.30. For ABCs and RCFs, the cost of funds is the reported interest rate on deposits or shares. RCF cost of funds do not include dividend payments. The spread is calculated as the loan rate minus the cost of funds. For RCCs it excludes observations for which the absolute value of the spread is greater than .20. RCF loan rates and spreads exclude 3 observations for which the monthly interest was above 0.02. All rates are year-end rates.

Table 15
Loan Repayment Performance

		Zhejiang	Sichuan	Hubei	Shaanxi	Shandong	Total 1995	Total 1988
Overdue loan rate								
ABCs	mean	2	12	19	19	21	20	
	No. obs.	1	3	5	3	7	19	
RCCs	mean	12	25	68	29	22	30	
RCFs	mean	6	13	15		23	10	
	No. obs.	6	12	1		5	24	
TVE repayment rate								
ABCs	mean	98	63	93	45	83	81	67
	No. obs.	2	3	3	1	9	18	19
RCCs	mean	95	56	47	44	76	67	66
RCFs	mean	97	55	75		87	76	
	No. obs.	6	10	1		7	24	
Household repay rate								
ABCs	mean	100	95	48	86	94	82	75
	No. obs.	1	1	5	2	11	20	18
RCCs	mean	93	76	69	66	100	80	75
RCFs	mean	95	70	85		94	82	
	No. obs.	5	14	1		9	29	

Note: Overdue loan rate is the amount of overdue loans divided by the amount of total outstanding loans. Repayment rates are directly reported estimates of timely repayment. The number of observations in parenthesis

Table 16
Cost Structure of Financial Institutions
(unweighted, in percent)

			Obs.	Interest Costs	Office Expenses	Wages	Other
ABCs	1995	mean	20	80	11	7	3
		s.d.		28	18	14	11
	1988	mean	14	85	9	6	0
		s.d.		17	17	6	0
RCCs	1995	mean	63	75	12	7	6
		s.d.		11	10	6	8
	1988	mean	25	70	9	9	12
		s.d.		17	6	8	17
RCFs	1995	mean	29	65	14	14	7
		s.d.		24	10	21	12

Table 17
Guarantor and Collateral Requirements for Loans in 1996

	ABCs	RCCs	RCFs
TVE loan requirements			
Guarantor	32	41	31
Collateral	12	20	23
Guarantor and collateral	12	9	43
None	2	13	3
No. obs. reporting	29	47	22
Individual loan requirements			
Guarantor	37	43	29
Collateral	33	25	24
Guarantor and collateral	21	4	45
None	1	19	3
No. obs. Reporting	16	60	23

Table 18
Enforcement Actions for Loan Repayment Taken by RCCs and RCFs in Past 3 Years (1993-1996)

Province	Lawsuits		Collect from Guarantor		Seize Collateral							
	Enterprises	Individuals	Enterprises	Individuals	Enterprises	Individuals						
	Mean	Obs.	Mean	Obs.	Mean	Obs.						
RCCs	4.35	23	28.81	48	3.71	7	10.06	36	3.75	4	23.48	23
Zhejiang	6.43	7	6.36	11	4.5	4	6.56	9	11	1	20	2
Sichuan	1	3	11.75	8		0	3.89	9	1	1	5	6
Hubei	2.67	3	57	8		0	13.29	7	1	1	36	8
Shaanxi	6.67	3	34.55	11	1	1	17.71	7		0	29.33	6
Shandong	3.43	7	38.3	10	3.5	2	12.75	4	2	1	6	1
RCFs	1.75	4	6.4	5		0	4.83	12	1	2	6.4	5

Table 19
Indicators of Financial Intermediation by RFI's

Province	ABC's 1995		1995		1988		1994-1995		RCC's 1995		1995		1988		1994-1995		RCF's 1995		1995		1994-1995		
	Loans/GVO	Share of Households Receiving Loans	Loans/GVO	Share of Households Receiving Loans	Loans/GVO	Share of Households Receiving Loans	Loans/GVO	Change in Loans/GVO	Loans/GVO	Share of Households Receiving Loans	Loans/GVO	Share of Households Receiving Loans	Loans/GVO	Change in Loans/GVO	Loans/GVO	Change in Loans/GVO	Loans/GVO	Share of Households Receiving Loans	Loans/GVO	Change in Loans/GVO	Loans/GVO	Share of Households Receiving Loans	Change in Loans/GVO
Zhejiang	mean	4			26			0.3	6			9	12			1			0.4			1	0.1
	s.d.	4							7		16	13				1			0.5			1	0.9
	obs.	2		1	1	1	12	1	12	12	12	7	7	11	7	11	7	5	7	7	7	5	7
Sichuan	mean	56	0.02	108		10	15	21	10		21	10	10	2	2	2	21	2	2	2	2	21	1
	s.d.	92	0.02	115		8	25	24	8		24	6	6	2	2	2	29	2	2	2	2	29	1
	obs.	4	4	4	4	12	4	12	12	12	12	10	10	10	12	12	13	13	11	11	11	13	11
Hubei	mean	10	1	60		6	-6	30	6		30	8	8	1	0.2	1	7	0.2	0.2	0.2	7	0.1	
	s.d.	9	1	72		6	15	27	6		27	8	8	1	0.6	1	7	0.6	0.6	0.6	7	0.3	
	obs.	5	6	4	4	13	5	13	13	13	13	9	9	12	7	12	1	7	7	7	1	7	
Shaanxi	mean	40	4	54		31	15	37	31		37	19	19	8	8	8	15	1	1	1	15	1	
	s.d.	9	6	54		20	19	27	20		27	20	20	8	8	8	23	1	1	1	23	1	
	obs.	3	3	2	2	10	3	10	10	10	10	10	10	12	13	13	9	10	10	10	9	10	
Shandong	mean	5	6	33		8	1	31	8		31	10	10	1	1	1	15	1	1	1	15	1	
	s.d.	5	9	36		11	1	29	11		29	6	6	2	2	2	23	1	1	1	23	1	
	obs.	11	13	9	9	13	10	14	13	13	14	10	10	10	12	12	12	10	10	10	9	10	
Total	mean	18	3	55		12	4	25	12		25	12	12	3	3	3	15	1	1	1	15	1	
	s.d.	39	7	67		15	15	26	15		26	12	12	5	5	5	2	2	2	2	24	1	
	obs.	25	28	20	23	63	23	61	63	63	61	48	48	60	60	60	35	35	35	35	28	35	

Note: GVO, or gross value of output of the township is the sum of gross value of industrial output and gross value of agricultural output. Households receiving loans are the sum of households receiving cropping, livestock, living, and other loans. Share is calculated by dividing by number of households in the township.

Table 20
Impact of RCFs on Fund Growth and Profitability of RCCs

Province		Growth of Funds		Before Tax Profitability	
		With RCF	Without RCF	With RCF	Without RCF
Zhejiang	%	-7.7	10.2	0.3	0.7
	n	4	8	4	5
Sichuan	%	5.7	9.9	1	8.2
	n	8	5	8	4
Hubei	%	-4.4	11.6	-3.1	2
	n	2	10	2	10
Shaanxi	%	-1.7	10.5		1
	n	1	12		10
Shandong	%	5.6	60.3	-0.3	-0.8
	n	8	6	8	5
Total	%	2.1	17.9	0.3	1.8
	n	23	41	22	34