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POLICY RESEARCH WORKING PAPER

Rural Finance for Growth and Poverty Alleviation

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To promote agricultural —
and hence economic —
growth, Pakistan must make
more credit available to
agricultural smallholders, the
rural nonfarm sector, and
women. Subsidizing interest
rates is not the way to help
marginal borrowers. Instead,
they can be helped through
fixed-cost subsidies and self-
selected targeting.

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Summary findings

Pakistan's rural sector accounts for more than 70 percent of employment, and roughly two-thirds of rural employment is in agriculture. Less than a third of rural households get loans, only 10 percent of which are from institutional sources. Pakistan's credit institutions are not helping the country accelerate agricultural growth and reduce poverty.

To improve performance in the rural economy and efficiency in financial institutions, rural credit markets must be liberalized. The government needs to initiate the following reforms:

- Produce and price controls must be replaced by prudent regulation and supervision, combined with policies to stabilize the economy.
- Commercial banks must operate in a competitive environment. They must be allowed to set interest rates for rural lending that cover their transaction costs.
- Credit must be made available to support productivity growth for agricultural smallholders and small producers of the rural nonfarm sector, where Pakistan's growth potential lies.
- Credit must be made available to women and to the rural poor for consumption-smoothing and for sustainable income-generating activities.

Policy should be directed at developing a market-based financial system for rural finance, but because of market failures to support disadvantaged groups, a special-

priority program may be needed to get credit to women, smallholders (with 10 acres or less), and the rural nonfarm sector (small-scale nonfarm activities such as livestock, fishery, forestry, and rangelands, and industrial microenterprises).

Subsidizing interest rates is not the way to help marginal borrowers. Instead, they can be helped through fixed-cost subsidies and self-selected targeting. Nongovernmental organizations (NGOs) should be encouraged to help, keeping in mind such NGO success stories as the Grameen Bank in Bangladesh and Badan Kredit Kecamatan (BKK) in Indonesia.

Commercial banks should be encouraged to lend on other bases than the mortgage and passbook system. They could experiment with wholesaling credit through input suppliers, marketing agents, and NGOs. They should consider lending for such downstream agricultural activities as agroprocessing.

The biggest challenge facing rural finance is the restructuring of cooperatives. The next important step for the Agricultural Development Bank of Pakistan would be a portfolio audit — the results of which will determine next steps, such as major restructuring of its portfolio and changing its ownership. To improve rural financing, the system of property rights, title, and default enforcement must also be strengthened, among other reforms.

This paper — a product of the Agricultural and Natural Resources Division, South Asia, Country Department I — is part of a larger effort in the region to analyze major issues of agricultural growth and rural development in Pakistan and working with the government in developing a strategy to address those issues. Copies of the paper are available free from the World Bank, 1818 H Street NW, Washington, DC 20433. Please contact Clydina Anbiah, room T7-020, telephone 202-458-1275, fax 202-522-1778, Internet address canbiah@worldbank.org. April 1996. (56 pages)

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**RURAL FINANCE FOR GROWTH AND POVERTY ALLEVIATION
IN PAKISTAN**

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A. Summary

The rural sector in Pakistan accounts for more than 70 percent of total employment, and about two-thirds of rural employment is in agriculture. A healthy and well-functioning rural finance system can help in achieving two policy objectives: accelerating agricultural growth and reducing poverty. In Pakistan today, however, existing credit institutions are not helping to attain these objectives. Investment in agriculture is low, and productivity growth in agriculture therefore is stagnant.

A picture of rural finance is available from the 1985 credit survey and other previous surveys. According to these surveys, many households have been credit constrained, and no credit institutions target the poor. Less than one-third of rural households have obtained loans, and only 10 percent of these borrow from institutional sources. Among informal sources, family and friends dominate, and landlords and moneylenders account for a small and declining portion. Because average loan size from formal sources is much larger than that from informal sources, formal sector credit accounts for a larger portion of agricultural debt than its share of households. Although the informal sector share is declining, it remains high in comparison with other Asian countries.

Virtually all institutional credit is for production and investment purposes, whereas about half of informal credit is for consumption. Both the formal and informal sectors disburse mostly short-term loans (78 percent and 96 percent, respectively), but more than half of formal sector loans are long term in value terms.

The informal sector has a far superior record in loan repayment, and most recovery are made from regular sources of income. Distress sales are uncommon. Most formal loans are land mortgages, whereas virtually all informal loans are backed by a personal guarantee. Informal sector interest rates are higher and more variable than formal rates. The informal sector relies on its own funds, while the formal sector is funded predominantly by the State Bank of Pakistan (for the Agricultural Development Bank of Pakistan and the cooperatives) and by deposits (in the case of the commercial banks). Formal sector loans go mostly to large farmers, despite targets for small-farm lending. These targets are easily evaded by proxy loans and one-man cooperatives.

According to the 1990 IFPRI survey, credit accounts for a greater proportion of the expenditure of poor households. Interest rates on informal loans from sources other than friends or relatives are particularly high. Since informal loans are predominantly for consumption, it is not clear that these loans help recipients escape poverty.

The importance of credit availability can be seen by the fact that mean input expenditures per hectare are significantly higher for farmers with credit, regardless of their level of assets. Higher input expenditures are presumably associated with higher productivity growth.

The demand for credit in rural areas arises from agricultural investment, consumption smoothing by households, and nonfarm investment. These components are reflected in the demand for credit to the extent that these requirements cannot be financed from farm savings. Farm savings consists of self-financed investments, bank deposits, and cash holdings. The savings rate in 1983 - 93 was almost 8 percent, which represents an increase over the savings rate in the 1970s. The increase can be traced to higher incomes, remittances from abroad, and rising land values.

Agricultural investment averages around 7 percent of agricultural valued added or gross domestic product (GDP) and it is estimated that an additional one percent agricultural growth is associated with investment of 2 percent of agricultural GDP. With these parameters, the annual institutional credit need for agriculture (production and investment credit) under the present growth scenario (4 percent annual growth rate) will be about Rs. 15.4 billion annually, which is about the same amount delivered by institutional sources in recent years. Thus, on aggregate, credit does not appear to be a constraint and the situation seems to have improved over earlier years (in the 1973 and 1985 rural credit surveys, the estimated gap between credit availability and need was estimated at 7 to 1 and 3 to 1 respectively).

But the credit situation faces several serious problems. First, as discussed next, the existing institutions delivering formal credit are facing a serious financial crisis and cannot be sustained. Second, as discussed earlier, the present rural finance system does not cover adequately the smallholders, who will be very important for future growth. Third, an increase in the growth rate of agriculture will increase the demand for credit. It is estimated that a 1 percent increase in agricultural output will create a demand for credit of 0.6 percent of agricultural GDP, assuming that farmers continue to self-finance and borrow from non-institutional sources at their previous rate (which would make the total investment up to 2 percent of agricultural GDP associated with a one percent additional growth of agricultural GDP). But while more rapid growth in agriculture raises the demand for credit, it will also raise incomes and thus the

ability to self-finance. Even with this increase in own resources, the total demand is expected to be greater. Furthermore, capital-intensive strategies to enhance agricultural productivity will create additional demand for credit.

Additional sources of demand for credit are production credit requirements of nonfarm business and of livestock activity and consumption credit requirements of the poor. Rural women's need for credit are also presently not met. The present rural finance system is inadequate for these needs and will be more so in the future unless major policy reforms (as outlined later) are undertaken.

Rural Credit Sources

The Agricultural Development Bank of Pakistan (ADBP) was designed to provide supervised credit for smallholders, with the goal of doorstep credit provision coupled with technical guidance. It provides short-, medium-, and long-term loans. Long-term loans can (in principle) be given for nonagricultural purposes. Acceptable collateral is reasonably broad (movable and immovable property, guarantees, assets, and crop hypothecation). The ADBP has concentrated on long-term lending, which has financed purchases of tractors and tubewells. Loans go mainly to medium and large holders. Marginal farmers and the landless are almost completely excluded from ADBP lending. Lending procedures are dominated by the passbook system, and few smallholders are able to obtain passbooks. Loan evaluation (if it takes place at all) is based on technical factors rather than financial viability. Among the ADBP's serious weaknesses are illiquidity (foreign benefactors have withdrawn funding and there is no deposit base), abysmal loan recovery rates, high administrative expenses, because of overstaffing, and subsidy dependence.

Commercial bank involvement in the rural sector is a relatively recent phenomenon, dating from government behest in the early 1970s. Targets were set for lending to smallholders, and small farm lending was further encouraged by an interest-free loan scheme that operated through most of the 1980s. The scheme was greatly abused, however, and since its abolition commercial bank lending to agriculture has declined. To combat abuses each union council was assigned a designated bank to make loans in that area, reducing financial intermediation services. Although the banks now account for about one-quarter of formal sector credit to agriculture, lending to agriculture represents less than 5 percent of their loan portfolio since agricultural lending carries a high cost for the banks.

The major success of the commercial banks has been their ability to mobilize deposits in the rural sector. As much as 30 percent of their deposits may come from rural areas, facilitated by a growing number of rural branches.

The cooperative sector is perhaps the most disappointing sector in terms of rural credit provision. Cooperatives arose as an alternative to rural moneylenders, and this early focus on credit provision has remained. Credit was provided to cooperatives by the cooperative banks, but many spurious cooperatives have been formed with the sole purpose of obtaining credit. The government has tried to broaden the role of cooperatives to organize the distribution of inputs and marketing of outputs (their traditional roles in other countries), but these attempts have met with little success. The Federal Bank for Cooperatives, at the apex of the system lends (via the Provincial Cooperative Banks) predominantly for short-term purposes. Recovery rates have varied by region. Although they are good in Punjab and Northern Areas (about 90% of the rescheduled loans), they are poor elsewhere.

The fundamental problem facing the cooperative movement is a lack of its autonomy. The cooperatives have been usurped for political purposes. The collapse of the Cooperative Finance Corporation, with Rs. 15 billion in rural deposits, has not helped matters. Particularly egregious abuses occurred during the interest-free loan period, when it was estimated that 61 percent of cooperative societies formed purely for the purpose of obtaining cheap loans. Loan evaluation and monitoring has been nonexistent.

The cooperative movement has disappointing coverage of the rural sector, primarily because of the requirement that members must own immovable property, which immediately excludes the 34 percent of farmers who are tenants. Two-thirds of villages have no cooperative society.

The lending structure of the cooperative movement leaves much to be desired. Provincial banks function as cashiers and have no role in loan evaluation or loan recovery. Portfolio management is extremely poor, and the Federal Bank for Cooperatives does not mobilize its own resources, relying on the State Bank of Pakistan for its funds.

The informal sector has been more creative in its lending practices. One popular structure is the Rotating Savings and Credit Association (ROSCA). ROSCAs are groups whose members each contribute a small, fixed amount each month to a pool, which is loaned to one group member. Eventually, each

member will be able to borrow from his or her group's pool. ROSCAs appear to be more common in urban areas.

Perhaps one-fifth of rural credit is supplied by marketing intermediaries. Rural enterprises in particular are often forced to rely on this type of credit, given the banks' preference for making agricultural production loans. Interest rates can be extremely high. Finance provided as part of a sharecropping arrangement is a declining component of informal finance, as are moneylenders.

Credit and the Poor

While poverty in Pakistan has declined, the concentration of the poor in rural areas is high and may have increased in the 1980s. Important sources of income for the poor are livestock, crop income, and nonfarm microenterprise income. Directed credit programs for the poor have not performed well because of targeting failures and high transaction costs. Agricultural growth alone can help the poor by creating job opportunities, but a group of destitute poor in rural Pakistan will require targeted assistance.

Certain programs have had particular success in credit delivery to the poor, especially the Aga Khan Rural Support Project (AKRSP). The program's three complementary components—economic, social, and technical—concentrate on incentives, organization, and skills at the village level. The program has an excellent repayment rate on loans. It is not clear, however, whether the AKRSP has raised net credit provision in the areas in which it operates or has simply displaced other sources. The program benefits from its small scale, and its skilled staff would be severely strained if the program was expanded. The AKRSP most likely would have to be integrated with other credit institutions if the program were broadened. Other NGO programs have also had some success, notably the Sindh Rural Worker Cooperative Organization and the Family Planning Association of Pakistan. A recently instituted self-employment credit scheme also has shown signs of success.

Bangladesh's Grameen Bank has some important lessons for NGO lending in Pakistan. The bank is able to target the rural poor through self-selection mechanisms, notably by making it compulsory for its borrowers to attend meetings (which have a high opportunity cost for richer farmers) and by offering only small loans. Credit is only one component of Grameen Bank's activities. The bank has done an excellent job in mobilizing rural savings, although loans still exceed the deposit base by a significant amount. Group-based lending and decentralization are the cornerstone of its success. Lending remains a high-cost activity for the bank, however, and its interest rates would have to rise in the absence of any subsidy.

B. Policy Recommendations:

The rural credit market must operate efficiently in order to facilitate better performance of the rural economy and help promote economic growth. To allow financial institutions to work efficiently, the rural credit markets must be liberalized. The government itself should not manage the financial institutions nor should it set interest rates. However, product and price controls must be replaced by prudent regulation and supervision. The strategy is to foster a liberalized rural financial market with strengthened role of the State Bank of Pakistan in prudential regulation as well as institutional development (with the help of NGOs) for providing rural credit services.

In particular, the government needs to initiate the following reforms of rural credit policies:

- Current policies will have to be replaced by prudent regulation and supervision accompanied by strong macroeconomic stabilization policies.
- A competitive environment must be set for commercial banks who then must be allowed to set interest rates for rural lending to cover their transaction costs.
- Credit must be made available to support productivity growth in smallholder agriculture and small producers of the rural nonfarm sector, since they are the sources of future growth in Pakistan.
- Credit also must be made available to the rural poor and to the women, for consumption smoothing and for sustainable income-generating activities.

Particular attention will have to be focused on credit provision to smallholders (those with 10 acres or less), the rural nonfarm sector, and women. Transaction costs of lending to these groups are extremely high because loans are typically small and risks are high. A commercial banking sector therefore may not be willing to undertake such lending. Commercial banks may also be unwilling to finance long-term projects or those with little financial payoff. Interest rate subsidies are not the way to help marginal borrowers. Instead, they can be helped through fixed-cost subsidies and self-selected targeting.

NGOs should be encouraged in this area, keeping in mind the lessons of NGO success stories in Pakistan and elsewhere (particularly Grameen Bank in Bangladesh and Badan Kredit Kekaratan (BKK) in

Indonesia). Key criteria that must be applied to any policy intervention in lending are adequate loan recovery rates, market interest rates, and mobilization of deposits. Another key feature common to successful financial services models is the lowering of transaction costs for both borrowers and lenders, often by establishing joint liability groups to reduce risks and transaction costs. Such programs may provide the greatest scope for policy action for donors and the Government.

Commercial banks are able to mobilize resources to rural areas but, as noted earlier, are not oriented in or willing to take the risk of agricultural or rural lending. Commercial and large farmers may be able to borrow from commercial banks once government interference and interest rate regulations are removed. However, institution development for certain disadvantaged groups may appear prudent because of market failures. Thus, while policy should generally be aimed toward a market-based financial system for rural finance, a focused priority program for rural finance for smallholders, small-scale non-farm activities and micro-enterprises could be undertaken without jeopardizing either the growth or the efficiency of the financial system.

Prioritizing certain rural activities might be necessary for a number of reasons. First, the long-term potential gains from certain economic activities do not translate into short-term gains for the actors. Second, some activities for example, physical and social infrastructure have substantial economic benefits but are not commercial in nature. Third, the urban-industrial background of the financial institutions, with their heritage of asset-based rather than project-based lending, predisposes them to an orientation that may not be effective for certain groups of rural producers. Finally, in a free market economy industrial and financial interests tend to coalesce, marginalizing nontraditional, smaller, and nonurban borrowers.

The three priority sectors for targeting are the smallholders with 10 acres or less; nonfarm activities in the agriculture sector of a noncommercial nature (for example, livestock, fishery, forestry, range lands); and microenterprises in the industrial sector. These three sectors deserve special attention in the interest of poverty reduction, broad-based and balanced development, slowdown of rural-urban migration, and meaningful linkages between the rural economy and the urban economy.

Certain institutional changes are required. Commercial banks should be encouraged to lend on a basis other than mortgage and the passbook system. They may also experiment with the idea of wholesaling credit through input suppliers and marketing agents as well as through NGOs. The banks should also consider lending for downstream agricultural activities such as agroprocessing. The system of property rights, title, and default enforcement also needs to be strengthened.

The restructuring of the co-operatives is the biggest challenge facing rural finance. The restructuring must be based on pooling resources through savings, financial viability (through the formation of larger groups), group-based responsibility for loan repayment, extension of co-op activities to the nonfarm sector, self-selective membership mechanisms, and proper monitoring and control of membership criteria and member activities.

The next important step for the Agricultural Development Bank of Pakistan (ADBP) would be a portfolio audit. Based on the results of this audit, the next steps will have to be worked out. These steps may include drastic actions (such as liquidation) or major restructuring of its portfolio (such as transferring bad loans to a collection agency) along with changing ADBP's ownership by selling its shares to the private sector. The share of the government could be reduced over time with the private shareholders increasing their role in the management. The new ADBP, working under SBP regulations and supervision, will be able to diversify the portfolio between farm and non-farm activities.

A new bank can be developed to service smallholders, small non-farm borrowers, and especially women, who are left out of the formal financial and cooperative systems, based on lessons learned from Grameen Bank about the success of group-based lending where formal markets fail. Such a bank can succeed in Pakistan if organized and run by an independent management with government support.

The government of Pakistan may also create a "Poverty Alleviation and Small Farmers' Development Fund" which may provide subsidized funds to the above mentioned specialized bank for smallholders but also to NGOs, commercial banks and cooperative banks who will provide financial service to the poor, the small holders, and women. The objectives of these subsidized funds, provided for only limited periods of time, would be to develop institutions to provide credit to the targeted group. The ultimate borrower, however, will pay market interest rate.

Chapter 1. Introduction

The availability of adequate rural credit is central to an improved economic climate for economic growth and poverty alleviation in Pakistan. In 1995, 88 million of Pakistan's estimated 128 million people (69 percent) resided in rural areas. Of the 34 million employed Pakistanis, 24 million (71 percent) have rural jobs¹. Women's employment opportunities are also greater in rural areas. Women constitute 6 percent of the total rural labor force compared to 2.4 percent of the urban work force. Rural employment does not simply mean agricultural employment. In fact, only 64 percent of rural employment is in agriculture; 12 percent is in services and the remaining 24 percent is distributed, more or less equally, in manufacturing, construction, and trade. The rural financial system must respond adequately to the demands of each of these components.

The most important objective for rural finance must continue to facilitate farmers' access to inputs and improved technology, and thereby accelerate agricultural productivity growth. Pakistan's past agricultural performance has been quite good. The sector has grown by more than 3 percent a year for the past thirty years. However, the country is now in a phase in which future growth will be sustained only by high productivity growth. On this measure of performance, Pakistan's agricultural sector has lagged behind. In terms of productivity measured by output per unit of a single crop, growth has been much lower than that in comparable countries such as India and Egypt. For example, in the past decade, wheat yields in the Indian Punjab increased 2.9 percent per annum, and yields in all developing countries were up 2.7 percent per annum. In Pakistan, by contrast, the increase was only 1.6 percent. There is large yield variation among different types of farmers in Pakistan. For wheat and rice, the yield gap between "progressive" farmers and others is 30 percent and 50 percent, respectively. Furthermore, recent studies show that total factor productivity (which compares an index of all outputs with an index of all inputs) in Pakistan has stagnated or even declined in the post-Green Revolution period.

The factors that determine agriculture productivity growth include soil quality, availability of irrigation, prices for outputs, access to inputs, information on new technologies and markets, the incentive structure embedded in the land tenure system, farmers' educational levels, and rural infrastructure. Agricultural credit has the crucial role of facilitating access to inputs, particularly those embodied in new, high-yielding technologies. When credit is easily available, farmers switch quickly to new technologies and achieve rapid productivity growth. But a number of features may affect farmers' access to credit, such as small farm size and tenancy arrangements that result in poor collateral. When this happens, aggregate productivity growth is retarded because, as in Pakistan, poor access to credit results in a large yield gap between the "progressive" (typically medium-sized) farmers and the laggards (typically small owner cultivators and tenants). An

¹ The numbers given in this paragraph are taken from: Pakistan Economic Survey, 1994-95. Women's labor force participation data are based on the 1987-88 Rural Labor Force Survey. The rural employment breakdown is taken from the 1992 Labor Force Survey.

improved financial market would lower the risk of lending to smallholders and improve their access to new inputs, and would therefore contribute to productivity growth.²

The rural financial system in Pakistan, furthermore, has to address the special needs of the disproportionately large number of poor households located in rural areas. Policy-directed lending to the poor is justified because of the market's failure to correctly assess the risk in lending to the poor and to manage that risk. The poor may not be able to satisfy the collateral requirements grounded in individual property rights. On the other hand, policy-directed credit based on group lending spreads risk and appeals to social responsibility for contract enforcement. This results in better management of risk and renders the poor more creditworthy. Furthermore, lending to the poor is also an important equity objective both because reduction in income inequality per se is often a social goal and because poverty reduction contributes to political stability and thus facilitates growth.

According to the 1987-88 household income and expenditure survey, 85.8 percent of the country's total population in poverty live in rural areas. This is consistent with a more recent finding that household income in rural areas is 35 percent lower than income in urban areas. The poor are found among small cultivators (owner-cultivators on marginal lands and tenants), landless agricultural workers, small livestock owners, and nonfarm workers. Rural finance directed at these households must be affordable and sustainable and, more importantly, must reach the truly needy. However, the development of rural credit market in Pakistan has been "considerably distorted" (Mellor, 1995). The result is a fragmented credit market that varies in development and density by region, as examined by Malik (Credit Use, Poverty and Role of Institutional Rural Credit: the Case of Pakistan, IFFPRI, 1993.)

In addition to farmers and the rural poor, there is a large community of non-farm rural households engaged in microenterprises. Their credit needs for income generating activities are substantial and are currently not being met satisfactorily. Given this sector's contribution to overall economic growth and employment generation, it is important that credit be made available.

This paper argues that a properly designed rural finance system in Pakistan must have the following objectives:

² It has been argued that when market imperfections exist, lenders face the problem of managing the risk of loan default (J.D. Von Pischke, Finance at the Frontier Debt Capacity and the Role of Credit in the Private Economy. The World Bank, 1992). Some view credit as a process of intermediation rather than as a production input and argue for improving this process through the market mechanism (Dale Adams, D. Graham and J.D. Von Pischke, Undermining Rural Development with Cheap Credit. Westview, 1984). However, neither financial intermediation nor higher interest rates will resolve the problems of asymmetric information and imperfect enforcement that prevail in developing countries (Karla Hoff and J. Stiglitz, "Introduction: Imperfect Information and Rural Credit Market - Puzzles and Policy Perspectives". The World Bank Economic Review: 4(3) 1990.

- Access to credit should not be hampered by policy or market failures to restrict productivity growth in agriculture. When small farmers constitute the bulk of the farming community, as they do in Pakistan, institutions need to be created that overcome market failure due to the high risk and high transaction costs associated with lending to such farmers.
- Credit should be available to the rural poor for consumption smoothing as well as to promote sustainable income generation activities.
- Policy interventions that create special lending institutions to meet the first two objectives should be subject to conditions that ensure financial survivability by reducing and ultimately eliminating their dependency on subsidy. The conditions are adequate recovery of loans, market interest rates, and mobilization of deposits.
- When scarce credit is targeted at special groups of farmers or the rural poor, transparent criteria must be established to continuously evaluate targeting performance.
- Credit must be made available for non-agricultural rural activities such as micro-enterprises in rural manufacturing.

The paper is structured as follows. The rest of this chapter presents a profile of Pakistan's rural credit. Chapter 2 evaluates the credit need of farmers and the performance and lending practices of the formal and informal sources of rural credit. Chapter 3 presents a profile of rural poverty in Pakistan and reviews the credit components of the special programs for employment generation, income support, and poverty alleviation. Finally, chapter 4 estimates the current need for rural credit by major categories of rural households and then recommends cost-effective policies for delivering credit to these groups.

The Rural Credit Profile

A detailed profile of the rural financial market, based on rural credit surveys, helps to pinpoint its strengths and weaknesses. The last comprehensive rural credit survey was undertaken in 1985. Other assessments based on smaller samples have broadly corroborated the conclusions of the 1985 survey. The most recent of these is the survey carried out by the International Food Policy Research Institute (IFPRI) with USAID funding. IFPRI conducted several rounds of interviews of rural households in selected districts to elicit information on rural consumption, production, and employment patterns. Although the sample was not randomly drawn and the coverage was relatively small, the survey findings provide many useful insights into the rural credit market in Pakistan.³

Six policy-relevant dimensions of the credit profile are discussed in this chapter. These are (a) the importance of rural credit to agricultural performance, (b) the coverage of farmers by the rural credit system, (c) differences between institutional and noninstitutional credit sources with respect to (d) costs and (e) objectives, (f) the differences in access to

³ This discussion is adapted from Joachim von Braun, Sohail Malik, and Manfred Zeller (1993), Credit Markets, Input Support Policies and the Poor: Insights from Africa And Asia.

credit sources by rich and poor households, and finally (g) the lending practices of different sources that affect household access.

Credit is Important For Increasing Productivity in Agriculture

The importance of farm credit to agricultural productivity growth is well established in many countries. Two recent studies in Pakistan corroborate these results. Sohail Malik, Mohammed Mushtaq and Manzoor Gill ("The Role of Institutional Credit in the Agricultural Development of Pakistan", Pakistan Development Review, Winter 1991) estimate the relationship between the log of farm output and the log of institutional credit using household level data in the 1985 Rural Credit Survey. They estimate a coefficient value of 0.15 which is statistically significant at 99 percent level of confidence. Earlier, Habib Zubeiri ("Production Function, Institutional Credit and Agricultural Development in Pakistan", Pakistan Development Review Spring, 1989) using more aggregate data, had not found a statistically significant correlation between farm output and institutional credit. However, the relationship between credit and purchase of inputs such as seeds and fertilizer was found to be statistically significant. These inputs, in turn, are significantly correlated with productivity growth.

The rural credit survey carried out by IFPRI also provides direct evidence on the differences in input expenditure among farmers with and without access to rural credit. Table 1.1 below shows that all farmers (regardless of asset size) who have access to rural credit, spend more on farm inputs compared to farmers who do not have access to credit. On average, input expenditure by farmers with access to credit is 37 percent higher than those without access.

Table 1.1. Input Expenditures for Households with and without Access to Credit by Asset Quintiles
(US\$ per hectare)

Household Type	Asset Quintiles					Overall
	Lowest	Second	Third	Fourth	Highest	
Without credit	48.17 (5.51)	45.10 (3.65)	48.02 (3.13)	55.12 (3.64)	67.62 (4.57)	53.30 (1.80)
With credit	59.08 (3.05)	66.34 (8.23)	61.36 (6.19)	81.33 (8.69)	112.69 (13.76)	72.84 (3.45)
T-test	-1.72**	-2.70*	-2.12*	-3.29*	-3.76*	-45.43*
No. of households	216	219	218	216	211	1,080

Notes: Dollar expenditures per hectare are computed using \$1 = Rs. 21.28

Figures in parenthesis are standard errors of respective means

* and ** indicate that the difference of means is statistically significant at the 5% and 10% level, respectively.

Source: IFPRI, Pakistan Panel Survey, Round 13, 1990 cited in Von Braun, Malik, and Zeller (1993)

Rural Credit Reaches Few Rural Households

Despite the importance of credit in increasing agricultural productivity, few rural households are able to obtain credit. A striking finding of the rural credit survey is that institutional sources (the Agricultural Development Bank, commercial banks, and cooperatives) provide credit to only a small proportion of rural households. The 1985 survey reports that there were 9.24 million rural households in Pakistan, of which 5.18 million were farming households and 4.05 million were nonfarm households. Only 32 percent of the households (2.95 million) reported taking loans, and 27 percent reported outstanding debt. Of households that borrow, a mere 10 percent (240,000 households) borrow from institutional sources (ADBP, 76 percent; commercial banks, 17 percent; and cooperative societies, 6 percent). The remaining borrow from noninstitutional informal sources (friends and relatives, 67 percent; landlords, 11 percent; factories, 2 percent; and money-lenders, 2 percent). The total outstanding debt of all farm households at the time of the survey was Rs. 25,076 million. Thirty-two percent of this amount was owed to formal institutions and the rest to the informal sector. The average debt per household owed to institutional sources was Rs. 32,955 -- nearly 4.5 times more than the average debt of Rs. 7,390 from noninstitutional sources. Comparison with selected Asian countries by Mellor in Some Issues in Institutional Finance for Agricultural Development: International Evidence and Implications for Pakistan, PIDE, 1995 shows that the percentage of borrowings of farm household from institutional sources were higher for Philippines, Thailand and India than for Pakistan.

Noninstitutional Credit is Expensive yet Remains the Predominant Mode of Rural Finance

While the share of noninstitutional credit declined in recent years from 89 percent of total rural credit in 1973 to 62 percent in 1990, it remains the predominant mode of rural finance (table 1.2). This pattern is similar to that of many other Asian countries (see table 1.3).

The IFPRI survey shows that the cost of credit varies significantly depending on the credit source (Table 1.4). The average interest rate charged by formal sources in 1990 was 12.8 percent. The average interest rate charged by friends and relatives, at 14.3 percent, was only slightly higher, but the rate charged by informal sources was as high as 33 percent. Although the rate varies across different sources, there is little variation in the rate paid by rich and poor borrowers. Thus, it appears that the neither the formal nor the informal sources vary their rate according to the assets owned by borrowers; instead, the assessment of risk is on other criteria.

Table 1.2. Institutional and Noninstitutional Sources of Credit
(percentage of total farm credit)

<u>Year</u>	<u>Institutional Sources</u>	<u>Noninstitutional Sources</u>
1973	11	89
1985	27	73
1990	38	62

Source: Rural Credit Survey 1973, 1985; Agricultural Census, 1990.

Table 1.3. International Comparison of the Share of Informal Rural Credit

	<u>Informal credit share</u> (percentage)	<u>Reporting year</u>
Philippines	71	1978
India	70	1972
Bangladesh	63	1974
Pakistan*	73	1985
Malaysia	62	1986
Thailand	52	1985
Indonesia	52	1985
South Korea	50	1981

Pakistan data are from the 1985 rural credit survey. The Agricultural Census 1990 reports informal credit at 62 per cent.
Source: P.B. Ghate, Asian Development Review (1988) Vol. 6: 64-85.

Table 1.4. Mean Interest Rates on Positive Interest Rate Loans and the Proportion of Loans with Non-zero Rate to Total Loans (1990)

Asset Quintiles	Loans from Institutional Sources		Loans from Friends and relatives		Loans from Noninstitutional Informal sources		Other	
	Mean Interest Rate	% Share of total loans	Mean interest rate	% Share of total loans	Mean Interest Rate	% Share of total loans	Mean Interest Rate	% Share of total loans
Lowest	11.1	66.7	10.0	0.5	30.0	0.2	10.7	0.5
Second	11.5	53.8	20.0	0.4	24.8	1.0	13.9	1.8
Third	11.9	73.9	0.0	0.0	18.0	0.3	12.0	3.1
Fourth	12.6	73.1	0.0	0.0	57.2	0.7	13.0	7.8
Highest	12.9	81.9	0.0	0.0	31.3	1.5	13.1	19.1
All Groups	12.8	76.8	14.3	0.2	32.9	0.7	13.0	5.7

Source : IFPRI, Pakistan Panel Survey, Round 13, 1990, cited in Von Braun, Malik, and Zeller (1993).

Institutional and Noninstitutional Credit Sources Serve Different Needs

Most (94 percent) of institutional credit is for agricultural production and investment (Table 1.5). Nearly half (47 percent) of noninstitutional credit is for consumption. The requirement for nonfarm business credit remains unsatisfied, according to the 1985 rural credit survey. Projecting their future credit requirements, borrowers estimated that their credit requirement for farm activities would constitute 56 percent of total need; their requirement for direct consumption, 24 percent; and their requirement for credit to finance nonfarm business investments, 20 percent.

Table 1.5. Institutional and Noninstitutional Borrowing by Purpose, 1985
(percentage of total borrowing)

Source	Farm	Agriculture Nonfarm	Business	Industry	Consumption
<u>Institutional</u> (Rs 7,472 million)	94	2	3
<u>Noninstitutional</u> (Rs. 20,519 million)	39	3	10	..	47

Source: 1985 Rural Credit Survey.

Note: The figures do not add up to 100 because of rounding

The duration of credit from different sources reported in the 1985 survey is presented in Table 1.6. Both institutional and noninstitutional credit sources lend primarily to short-term borrowers. The table also shows that only institutional sources do significant medium- and long-term lending.

Table 1.6: Distribution of Loans by Term (percentage)

Category	Short term	Medium term	Long term
By number of borrowers			
Institutional	78	10	11
Noninstitutional	96	4	-
By loan amount			
Institutional	32	16	52
Noninstitutional	90	9	-

Source: Rural Credit Survey, 1985.

Richer Rural Households Have Better Access to Cheaper Institutional Credit Whereas Poorer Households Depend Mainly on Expensive Noninstitutional Sources

The IFPRI survey substantiates that credit is important to all rural households. Fifty-seven percent of the surveyed households use credit, which finances 17 percent of household expenditure on farm inputs, farm capital, and consumption. Not surprisingly, there is an inverse correlation between household wealth and credit use (Table 1.7). This table shows the shares of various types of expenditure financed through borrowing by the five asset quintiles. Thirty-three percent of the expenditures of poor households are financed through credits compared with 11 percent for richer households. This pattern is observed regardless of whether credit is used for the purchase of inputs or capital assets or to finance consumption. Poor households rely mainly on informal, more expensive, credit sources (Table 1.8). Only 1 percent of their total credit is from formal sources, compared with 98 percent from friends and relatives and other informal sources. Richer households, by contrast, obtain most of their credit (58 percent) from formal sources.

Rich farmers' superior access to institutional sources is also corroborated by the 1985 rural credit survey. It shows that within the crop sector, the major part of credit is preempted by large farmers. About 60 percent of small and subsistence farmers do not borrow at all. Of those who borrow, 90 percent have recourse only to the informal market. Because of the enormous expansion in availability since 1973, there has been some improvement in the smallholders' access to institutional credit. The evidence is distorted, however, due to the abuses associated with interest-free loans from 1979 to 1988. These loans were generally preempted by large farmers, who either used the names of smallholders to obtain loans or understated the size of their own holdings.

Table 1.7 Proportion of Expenditure Met Through Credit by Asset Quintiles and Use of Credit

Asset quintile	Proportion of Expenditure Met by Credit (%)				Proportion of Credit-Using Households to Total Households
	Input	Capital	Cons. Inc Food	Total	
Lowest	47.65 (39.89)	37.33 (4.53)	31.86 (54.96)	32.89 (100.00)	58.67
Second	30.90 (22.75)	65.21 (26.65)	30.09 (50.59)	27.88 (100.00)	54.19
Third	17.16 (13.86)	44.90 (27.53)	24.37 (53.98)	21.05 (95.37)	58.25
Fourth	12.56 (18.37)	10.56 (13.33)	21.17 (68.30)	12.65 (100.00)	58.80
Highest	17.61 (37.41)	14.30 (23.39)	14.88 (39.20)	10.74 (100.00)	55.52
All households	22.15 (27.67)	23.34 (19.78)	22.70 (51.57)	17.02 (100.00)	57.05 ^(a)

Note : Figures in parentheses are percentage shares of credit used for each category out of the total credit.

(a) This sample of households differs from the households covered in the 1985 Rural Credit Survey.

Source : IFPRI, Pakistan Panel Survey, Round 13, 1990, cited in Von Braun, Malik, and Zeller (1993).

Table 1.8 Source of Loans by Asset Quintile

Asset Quintiles	Institutional		Noninstitutional			
	Percentage of Credit from Formal Sources	No. of Loans	% Credit from Friends and Relatives	No. of Loans	% Credit from other informal Sources	No. of Loans
Lowest	1.05	3	31.43	201	67.51	585
Second	4.83	13	49.53	249	45.63	396
Third	12.60	23	48.33	244	39.07	308
Fourth	29.62	52	35.44	174	34.95	285
Highest	58.36	116	20.10	139	21.54	263
All households	32.16	207	32.39	1007	35.45	1837

Source : IFPRI, Pakistan Panel Survey, Round 13, 1990, cited in Von Braun, Malik, and Zeller (1993).

Poor Households' Access to Institutional Finance is Constrained by Complex Procedures and Nontransparency

Table 1.9 compares the principal lending practices of institutional and noninstitutional sources of credit. It is clear that noninstitutional sources have much simpler, more flexible procedures than institutional sources. For example, as much as 76 percent of institutional credit was against the security of landed property and 21 percent against personal surety. In contrast, 96 percent of the borrowing in the noninstitutional market was on personal surety, 2 percent was backed by land, and 1 percent by agricultural produce. Institutional credit has not been weaned away from land mortgage despite of the best efforts of policymakers and success stories from other systems operating on personal or group guarantee (such as Grameen Bank in Bangladesh). The informal market advanced Rs. 19.7 billion on personal surety, while institutions advanced only Rs. 1.7 billion. Financial accommodation on this count by the informal market was eleven times the coverage by the institutional credit system.

Conclusion

This brief review of the rural credit profile suggests the following:

- Even though rural credit is very important for productivity growth, rural households have inadequate access to the financial market; more than two-thirds of the households do not or can not borrow.
- Rural financial intermediation is thin. Institutional credit covers only 36 percent of the rural credit market. Institutional sources do not mobilize large savings in rural areas, and noninstitutional, informal sources generally generate their own funds for on-lending.
- Large farmers preempt the major part of crop credit, particularly from institutional sources.
- Smallholders are dependent mainly on the more expensive noninstitutional market, which offers small loan amounts and caters mainly to their consumption and other short-term needs.
- Complex procedures and lack of transparency make it difficult for poorer households to borrow from institutional sources of credit.
- Credit is mainly for agriculture and within agriculture, primarily for the crop sector; very little credit is provided for livestock, fishery, and forestry. Hardly any formal credit reaches small business enterprises in rural areas, which has retarded diversification of the rural economy and prevented rural employment generation sufficient to discourage rural-urban migration.
- Institutional credit is currently not being directed toward rural poverty alleviation.

Table 1.9 A Comparison of Institutional and Noninstitutional Credit Markets (1984-85):

	Institutional Market	Noninstitutional Market
Number of borrowers	400,000	2 million
Total credit	Rs 18 billion	Rs 33.4 billion
Principal players	ADBP (55%) Commercial banks (29.4%) Cooperatives (15%)	Friends & relatives (58%) Marketing intermediaries (16%) Landlords (8.1%) Money lenders (2.4%) Factories etc.(4.8%)
Average interest rate (1973)	Mean 8.16 (%); SD 1.82	Mean 15.43 (%); SD11.63
Source of funds	<u>ADBP</u> : SBP & foreign sources (87%) Equity & retained earnings (12%) Deposits (1%) <u>Commercial Banks</u> Deposits (92%) <u>Cooperatives</u> : SBP (78%) deposits (18%) Equity & retained earnings (4%)	Mainly own funds
Collateral requirement	Stringent with complex procedures	None
Flexibility	Regulated terms	Very flexible terms
Subsidy	ADBP subsidy at 32%	None
Loan recovery	Below 50 percent	Excellent
Cost of credit delivery	9.1 percent for ADBP	Negligible transaction costs

Source: 1985 Rural Credit Survey

Finally, a word on the financial viability of Pakistan's rural credit market. The viability of a financial system is reflected in repayment of outstanding credit. At the time of the 1985 survey, 82 percent of the credit was due for repayment but only 38 percent had been paid off. Noninstitutional sources, with repayments at 61 percent, fared better. That repayments can be improved through tighter supervision can be seen in the evidence that most repayments (87 percent) are made from regular sources of income and not through distress sales. This means that if properly supervised, borrowers can manage to pay. Distress sales of property account for only 8 percent of total repayments.

Chapter 2. Rural Credit Requirement and Credit Delivery

The demand for rural credit stems from agricultural production (investment and production credit), consumption smoothing especially by poor households (consumption credit) and investment needs of rural households engaged in livestock rearing and microenterprises. This demand is then met by institutional and non-institutional sources. This chapter estimates, in part A, the annual agricultural credit requirement of farmers from institutional sources, and then discusses how this is met. The delivery of credit by the non-institutional sources is discussed in Part B. The credit requirement of poor households (for consumption smoothing as well as for agricultural production), rural women and households engaged in microenterprises are discussed in Chapter 3.

A: Institutional Credit

Demand for Institutional Credit and Credit Availability

Investment Credit

The requirement for institutional credit for agriculture is calculated as the difference between credit needed to support a given level of agricultural growth and other available sources of financing. Although it would be desirable to distinguish between farmers' own savings and informal sources of credit, data do not permit such a distinction. However, the important differences between informal and formal sources will be pointed out based on the findings of various rural credit surveys.

The demand for agricultural investment credit⁴ is associated with growth in agricultural GDP. Between 1979/80 and 1993/94 agricultural GDP grew at a steady 3.6 percent per year. The ratio of annual investment to GDP in the agricultural sector averaged 6.8 percent in 1979 - 88, and to 6.9 percent in 1988 - 93.

Using these figures, it is calculated that 1 percent agricultural growth in recent years has been associated with agricultural investment of about 2 percent of agricultural GDP. This investment demand was met partly through farmers' own savings and partly by borrowing from institutional sources. (Informal sources of credit lend only small amounts for investment purposes.) The analysis of savings presented in the Appendix shows that 60 to 70 percent of farm investments are financed by farmers through their own savings.

⁴ Given the price (interest rate) demand for credit is determined by rate of return from the use of credit. Requirements, in contrast, are estimated by indirect methods such as from the gap between total finance needed for optimal use of inputs and funds available from our resources

Box 2.1. Alternative Approaches For Estimating Farm Credit Requirement

The State Bank of Pakistan uses a direct approach to estimate the need for credit in agriculture (Report on Preparation of Estimates of Agricultural Credit Requirements, State Bank of Pakistan, 1989 edition). The methodology for this direct approach was devised in 1973-74. For estimating short term loans, the procedure involves a detailed breakdown of crops sown and the key inputs used for those crops. Assumptions are then made regarding the proportion of inputs that the farmer purchases. These estimates are revised periodically. Revisions were carried out in 1978-79 and in 1983. In 1987 again a committee was constituted to revise the estimates based on farm surveys carried out by the Punjab Economic Research Institute (PERI). For example, the 1987 committee revised up the estimates of percentage of acreage for which seed is purchased for nine crops. Similarly revisions were also made for electricity charges, for cost of tractor hire and for pesticides. For long term loans, similar revisions are carried out for key investments such as land and water course improvement, tubewells, open wells/Persian wheels, threshers and other farm machinery. In order to capture differences in credit needed across farm size, periodic adjustments are also made for the weights of small, medium and large farms in total farmed acreage.

How well does the indirect approach of this report approximate the direct approach of by the State Bank in its credit allocation decisions? This report argues that growing at the trend rate of 4 percent, the projected 1992-93 agricultural GDP of Rs. 350 billion would be associated with a credit requirement (from institutional sources) of Rs. 15.5 billion. The actual credit disbursed by institutional sources was Rs. 15.4 billion. Thus the two approaches yield almost identical estimates. However, note that this is for the projected agricultural GDP. Because of monsoon flooding, the actual 1992-93 agricultural GDP was estimated at a considerably lower Rs. 297.8 billion, Thus the actual credit allocation was considerably higher than that required by actual GDP. But this is ex-post. What matters is the ex-ante estimate and for that the two approaches give very similar results.

Another comparison between the two approaches may be made on the basis of total credit requirement of the farm sector. Using the direct method, the State Bank estimates the 1995/96 farm credit requirement for investment (medium and long term requirement) at Rs. 29.3 billion or 6.8 percent of the projected agricultural GDP (estimated at Rs. 453 billion if agriculture grows by 4 percent over its 1994/95 value). This report's indirect method estimates the requirement for investment credit at a somewhat higher 8 percent. The big difference in the two approaches is for production or short term credit. The State Bank method estimates it at nearly twice the investment credit while this report, following evidence from other countries, estimates it at half the investment credit requirement.

However, the demand for credit may be higher given that some borrowers may shift to institutional sources if credit is available at rates lower than prevalent rates in the informal market. Although no such recent estimates are available, the rates in the informal market are generally higher than what is charged by institutional sources. But one could argue that if credit is available to borrowers at a reasonable rate of interest, though not subsidized, the amount of credit demanded from institutional sources is bound to increase as the rate of interest will be lower than the rate charged in the informal market. Such empirical issues can be resolved through further studies of the informal credit market.

Given these parameters, several alternative scenarios may be constructed to estimate the demand for formal agricultural credit. The scenarios are driven by assumptions regarding agricultural growth rates, the propensity for informal financing of investment, and the capital-output ratio in agriculture. The results are presented in Tables 2.1 and 2.2. Table 2.1 assumes that 1 percent growth requires a ratio of investment to agricultural GDP of 2 percent, whereas Table 2.4 assumes a ratio of 3 percent. The first column in each table gives three assumed agricultural growth rates. The next three columns estimate the needed credit for investment assuming investment is financed through informal sources (farmer's own savings plus borrowing from informal sources) at rates of 5, 6 and 7 percentage points. The nine estimated values in the three columns are the needed agricultural investments as a percentage of agricultural GDP, assuming different combinations of agricultural growth and rates of credit for informally financed investment. Thus, in Table 2.1 (which assumes capital output ratio of 2:1), 4 percent growth in agriculture requires total investment of 8 percent of the agricultural GDP. If non-institutional sources (own savings and borrowings from informal sources) provide 5 percentage points of these, the requirement for institutional credit is calculated to be 3 percentage points.

Table 2.1. Annual Credit Requirement from Institutional Sources for Agricultural Investment
(Percentage of 1992-93 Agricultural GDP)
(Assuming 1 percent growth requires investment/Ag. GDP rate 2 percent)

Agricultural growth rate	Assumed percentage points of investment financed through non-formal sources		
	5	6	7
4	3	2	1
6	7	6	5
8	11	10	9

Source: Authors' estimates

The needed investment credit can be calculated in (1994-95) rupee values by multiplying the by the projected 1995-96 agricultural GDP of Rs. 449.1 billion (assuming that the agriculture will grow at 4% per annum between 1994-95 and 1995-96). This yields total investment credit need from institutional sources of Rs. 13.47 billion.

Production Credit

According to the 1990 agricultural census of Pakistan, investment on inputs such as fertilizers and insecticides constituted about 10 percent of total annual investment in agriculture. This underestimates the share of production expenditures to total investment because seeds, purchase of water, and hiring of implements; and labor are not, included. The evidence from other countries in the region suggests that total expenditure on inputs

constitutes about half the investment expenditures. For simplicity, it is assumed that farmers self-finance (or borrow from informal sources) 65 percent of the required production credit need. Production credit required from institutional sources may now be calculated as half of the required investment credit or 1.5 percent of the agricultural GDP. For projected 1995-96 agricultural GDP of Rs. 449.1 billion, this is calculated to be Rs. 6.74 billion.

Total credit needed from institutional sources for 1995-96 is a simple addition of the estimated investment and production credit need of Rs. 20.21 billion.

How robust are these estimates of required institutional credit? One way to check this is to compare the estimates with the actual lending done by the institutional sources in the recent past (see also Box 2.1). Table 2.2 and 2.3 and the accompanying figure show the annual agricultural growth rate and the associated disbursed institutions agricultural credit as a share of agricultural GDP between 1989-90 and 1994-95. Ignoring 1992-93 when agricultural GDP fell sharply due to monsoon flooding, the average annual growth rate of agriculture was 5.05 percent and average annual disbursed credit as a percentage of agricultural GDP was 5.54. The recent actual experience shows that 1 percent agricultural GDP growth is associated with institutional credit to agricultural GDP rate of 1.12 percent. This report estimates (Table 2.1) that 4 percent growth rate would require institutional credit/agricultural GDP rate of 3 percent (under the assumption that 5 percentage points of investment is financed through non-formal sources). The two estimates are close.

Table 2.2 Institutional Credit Disbursement (Rs. million)

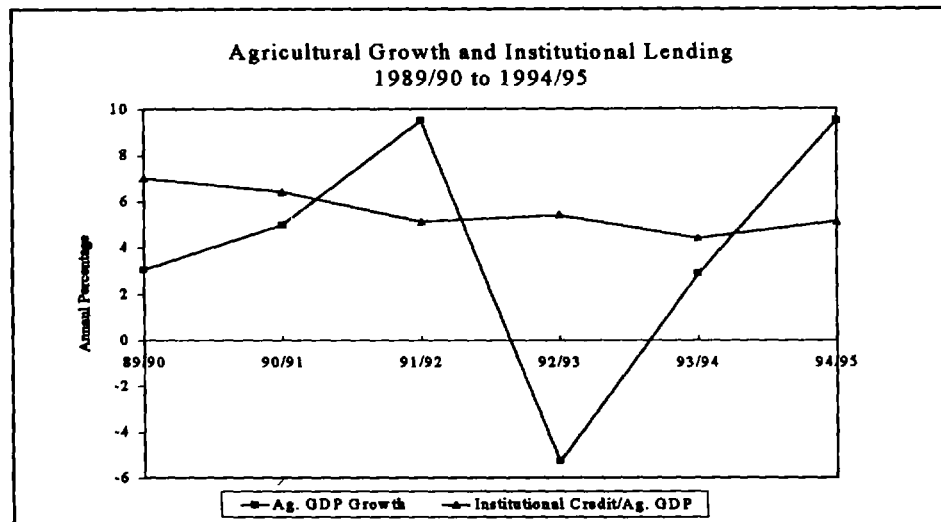
	ADBP	Tocavi	Cooperatives	Commercial Banks	TOTAL
1980/81	1,0066.6	8.6	1,128.3	1,816.1	4,019.6
1989/90	9,389.9	35.6	815.1	3,629.5	13,890.1
1990/91	8,323.9	56.3	3,017.5	3,517.6	14,914.8
1991/92	6,996.4	56.3	3,247.0	4,179.6	14,479.3
1992/93	8,643.4	50.8	2,978.0	4,526.5	16,198.1
1993/94	8,989.3	---	2,621.5	4,063.3	15,647.1
1994/95	8,293.9	---	2,076.3	2,849.18	13,849.4

Source: State Bank of Pakistan

Table 2.3 Agricultural Growth & Institutional Lending (Percentage)

	Agricultural GDP Growth	Institutional Credit/ Agricultural GDP
1989/90	3.03	7.0
1990/91	4.96	6.4
1991/92	9.5	5.1
1992/93	-5.29	5.4
1993/94	2.86	4.4
1994/95	9.49	5.1
average excluding 1992/93	5.05	5.6

Source: Government of Pakistan: Economic Surveys and State Bank of Pakistan



If the agriculture growth target is set at a much higher rate of 8 percent (the upper bound growth scenario), more capital-intensive technology will be required, pushing the investment/GDP rate to 3 percent (Table 2.4). Assuming that the proportion of self-financed investment changes modestly (about two percentage points of the needed credit) the investment credit required from institutional sources would be 17 percent of agricultural GDP (Table 2.4). Total credit needed from institutional sources thus would depend on various factors and could vary between 3 to 17 percent of agricultural GDP under alternative assumptions.

**Table 2.4. Annual Credit Requirement for Agricultural Investment (Percentage of 1992-93 Agricultural GDP)
(Assuming 1 percent growth requires investment/Ag. GDP rate 3 percent)**

Agricultural growth rate	Assumed percentage points of investment financed through non-formal sources		
	5	6	7
4	7	6	5
6	13	12	11
8	19	18	17

Source: Authors' estimates

An important finding of this report is that at least in the 1989-90 to 1994-95 period, farmers have not been credit constrained. the sector has grown at a healthy annual average rate of 5.1 percent (ignoring the abnormal year, 1992-93) supported by institutional disbursed credit of 5.6 percent of the agricultural GDP, which is close to the required rate to support growth. Yet the 1985 survey, based on farmers' direct response to questions, estimates the gap between credit need and availability at 3:1. Although a considerable improvement over the 1973 survey, which reported the gap at 7:1, it is considerably larger than that reported in Table 2.4. There may be several explanations. First, farmers may want to shift credit demand from the more expensive non-institutional sources to the cheaper institutional ones. Second, farmer estimates of credit need may be based on best farmer practices. Yet another explanation is that smallholders with poorer access to credit from formal sources may indeed be credit constrained.

The critical policy issues thus are: (i) continuing to make credit available at current levels (or higher levels if a faster rate of growth is desired) while ensuring the financial survivability of the lending institutions; (ii) ensuring that credit reaches the smallholders as well so that they can emulate the best practice farmers; and (iii) providing for the credit needs of non-farm business enterprises, women in rural areas, households engaged in livestock business and the rural poor. The next section and chapter III review the existing practice and institutional arrangements concerning these issues and then chapter IV outlines the policy interventions to achieve these policy objectives.

Credit Delivery Practices of Institutional Sources

Agricultural Development Bank. The Agricultural Development Bank of Pakistan was established in 1961 by merging the Agricultural Development Finance Corporation (1952) and the Agricultural Bank of Pakistan (1957). The ADBP's charter is to modernize Pakistan's agriculture and promote the growth of the cotton industry in rural areas.

The ADBP's sources of funds are:

- State Bank of Pakistan,
- Multinational credit agencies (the World Bank, International Development Association, International Fund for Agricultural Development, and the Asian Development Bank).
- Bilateral sources, particularly the OECF of Japan
- Mobilization of deposits

The ADBP's principal sources of funds are the State Bank of Pakistan and the aid-giving agencies. The first credit was given to the ADBP by the World Bank in 1965/66. The executive head of the ADBP is its chairman, who is assisted by executive directors. The bank has seventeen divisions and fifty-one regional offices and 334 branch offices.

The bank provides short-term, medium-term and long-term loans. Short-term loans (six to eighteen months) are primarily for the purchase of agricultural inputs. Loans for poultry farming are also given through this window. Medium-term loans (eighteen months to five years) are given to purchase tractors and pumping sets, and for sheep and goat farming, dairy farming, beekeeping, and sericulture. Long-term loans (five to ten years) are for the purchase of tubewells and agricultural machinery such as tractors, harvesters, sprinklers, and drilling equipment. Long-term loans are also given for nonagricultural activities such as poultry farming, warehousing, forestry, orchards, tea plantation, and fisheries.

The collateral for ADBP loans include immovable property, installed machinery, land leased for ninety-nine years, movable property (for example, farm machinery), bank guarantees, government guarantees, insurance policies, saving certificates, and crop hypothecation. Personal guarantees are also accepted. The rate of interest is 13.5 percent for general credit and 17 percent for project credit.

The majority (56 percent) of ADBP's lending is long term, which has contributed to the mechanization of agriculture. The bank's long-term loans have helped purchase 303,889 tractors and 83,171 tubewells at costs of Rs. 5.3 billion and Rs. 3.7 billion, respectively. During 1992/93, the bank advanced Rs. 4,797 million as long-term

credit (compared to commercial bank lending of only Rs. 356 million). In 1993/94 ADBP's long-term lending rose to Rs. 5,019 million. The current lending level covers about 17,000 tractors and 2,400 tubewells. In fact, the fortunes of the local tractor industry are shaped by ADBP lending policies. The emphasis on tractor loans is so prominent that the bank uses the number of non-tractor loans as a measure of diversification, which actually dropped from 64 percent to 53 percent during 1989-94.

The ADBP pioneered supervised credit in Pakistan. The scheme, designed mainly for smallholders, combines the provision of credit with extension work giving technical guidance and advice on disciplined repayment. The main delivery agents are Mobile Credit Officers, young agricultural graduates with rural background who provide a link between the bank and its farmer clients. Each Mobile Credit Officer is assigned fifteen to twenty villages. There are 1,450 Mobile Credit Officers, and most villages are covered by this program.

ADBP's principal target market consists of the 679,000 small and medium farmers owning less than 25 acres, who account for 90 percent of the farming community and 64 percent of the total cultivated area. The ADBP disburses loans to 100,000 borrowers each year. In any given community, the ADBP serves only 17 percent of the farmer's more than 60 percent of its loans are given to medium-size farmers owning more than 12.5 acres.

ADBP's experience with targeting credit to smallholders and landless tenants (maximum of two hectares of irrigated and four hectares of rainfed land) has been very limited and coverage has been modest. One reason may be the emphasis on the passbook system, which is used in the case of 83 percent of all lending, compared with 21 percent for the nationalized commercial banks. Very few marginal farmers have been able to get passbooks because of bureaucratic problems. Recently, Kissan Bank windows were started for smallholders. But in the absence of procedural changes, the target of 60 percent lending to this group may not be achieved.

The bank has also started to provide credit to women. For this purpose thirty-four female Mobile Credit Officers and twenty-seven female Village Assistants have been inducted. Lending for microenterprises has also started.

Despite the promising design of the ADBP and its many innovative schemes, it has not performed well as a viable financial institution. A review commissioned by the World Bank in August 1993 identified the following weaknesses:

- **Liquidity.** In 1990/93 the ADBP benefited from several cash inflows that propped up its liquidity. The State Bank of Pakistan (SBP) lent Rs. 8.5 billion and subscribed for Rs. 1.2 billion in shares. Foreign debt administered by the SBP led to a net cash inflow of Rs. 2.9 billion. More recently, however, the ADBP's

benefactors have started to pull back. Three of the foreign agencies providing funds to the ADBP have suspended drawdowns. The SBP has increased pressure to improve deposit mobilization. Despite these pressures, the ADBP's deposit-taking decreased in recent years. This implies that the ADBP will have to improve loan recoveries to sustain disbursements.

- Loan Recoveries . The ADBP's loan recovery rate deteriorated from 55 percent in the year 1990 to below 50 percent in 1993, despite a campaign to improve recovery led by the ADBP chairman. Loan recovery in Punjab is 67 percent, but it is an abysmally low 27 percent in Baluchistan. Extensive rescheduling takes place, which distorts recovery rates and erodes security cover. Given little likelihood of improving recovery rates, a policy of more aggressive write-offs needs to be pursued to improve recovery. The principal problem of repayment of loans under general credit is slow payment due to over elaborate procedures and documentation. Because interest is not charged on past dues, profitability of the portfolio is eroded. Project loans, which comprise 15 percent of the total loans outstanding, were meant to encourage agribusinesses but are financial failures. This has resulted in a ban on project lending since 1992.

The analysis of ADBP's project loans portfolio shows a dismal picture. As of April 1993, 42 percent of the loans amounting to Rs. 2.9 billion, were classified as "sick" or had been referred to the Banking Tribunal. Recoveries from those loans before reschedulement fell from 19.8 percent in 1991 to 14.6 percent in 1992 and continue to fall.

Personnel and Administration. Portfolio performance is affected by the quality of administration and staff employed by the ADBP. Instead of upgrading staff quality, the bank has continued to increase the number of staff. The result is a deterioration in portfolio performance despite the increase in administrative expenses. In the period 1989-92, the ADBP expanded its loan book by 31 percent and increased its branch network by 20 percent. However, while the net margin in this period increased by 25 percent, administrative expenses increased by a hefty 56 percent. The bank has also suffered from a high turnover of senior management. Since 1988, the Bank has seen through 8 chairmen with an average tenure of less than a year each.

The additional administrative expenses have been absorbed by the head office where staffing increased by 16 percent in 1989-92. The ratio of salaries to total expenses increased by 68 percent in 1989-92 (3 percentage points higher than the ratio in commercial banks). The real challenge is to reverse the staffing situation so that an increasing number of employees are involved in income generation and loan recovery. ADBP management acknowledges that "the large-scale promotions made in the past few years without reference to the vacancies or actual requirements and without minimum qualifications of graduation for officers have deteriorated operational efficiency in the bank."

An important lesson from international experience is that standard financial ratios (such as return on equity and return on assets) are not reliable indicators of the economic soundness of agricultural credit institutions because of the endemic subsidies (such as replenishment of equity, cheap loans, and rediscounts from the central bank) that prop up these ratios. Thus institutions can continue to enjoy a good public image even though their sustainability is in serious doubt. To evaluate the true health of a financial institution, a subsidy dependency index (SDI) is used. The SDI shows by how much the current interest rate on agricultural loans would have to increase to truly cover the cost of lending, assuming all incoming funds and services were charged market rates.⁵ Several financial intermediaries were reassessed using the SDI. Thailand's BAAC performed the best, showing an SDI of 26 percent in 1988 (a 26 percent increase in the on-lending rate from 11.9 percent to 15 percent would permit BAAC to become self-financing). The Jamaican Agricultural Credit Bank is the other extreme. Even though the bank looked very healthy on conventional financial criteria, the SDI index had a value of 312 percent in 1991 (nominal interest rates of 10 percent would have to be raised to 41.2 percent for the institution's financial viability).

The SDI for the ADBP was 31.4 percent in 1988 (table 2.5). It fell to 25.5 percent in 1990 and then increased to 36.2 percent in 1992. It fell in 1990 because ADBP raised Rs. 5.6 billion on the interbank market, which reduced the amount borrowed at a subsidized rate. The interbank borrowing was partly repaid in 1991 and fully repaid by June 1992 through increased borrowing at a concessionary rate from the SBP. This increased the SDI in 1992. The implication of this movement in SDI is that the interest rate that the ADBP should have charged on its lending to eliminate the subsidy was 15.5 percent in 1988 and 16.6 percent in 1992, compared with the actual rates of 11.8 percent and 12.2 percent that the ADBP charged.

Table 2.5. ADBP Subsidy Dependency Index (in percentage)

	1988	1989	1990	1991	1992
SDI	31.4	29.6	25.5	31.6	36.2
Rate charged on loans	11.8	11.9	11.9	12.5	12.2
Rate needed to eliminate subsidies	15.5	15.4	14.9	16.5	16.6

Source: Authors' estimates

⁵ See J. Yaron (1992), Assessing Development Finance Institutions: A Public Interest Analysis. World Bank Discussion Paper 174.

The net profit of the bank declined from Rs. 301 million in fiscal 1989 to Rs. 193 million in fiscal 1994. As a proportion of total assets, the decline in profitability is more marked - from 9.3 percent to 0.5 percent.

Historically, the ADBP has been used as an instrument for distributing agricultural subsidies rather than as a financial institution that operates in accordance with sound commercial guidelines. Staffed principally by agriculturists, the bank assesses development projects on technical and engineering grounds rather than evaluating their economic and financial viability. As a result, loan recovery has declined and bad or doubtful debt has increased. Given a low deposit base, the bank is increasingly dependent on subsidies from the State Bank of Pakistan. With the state bank gradually cutting back on concessionary lending, the ADBP's financial viability appears bleak.

Commercial Banks. Commercial bank lending in rural areas is a recent phenomenon in Pakistan. Prior to independence in 1947, there were two sources of institutional credit for rural areas: "taccavi" loans advanced by the government to provide relief in times of calamity and distress, and cooperative credit. Both institutions catered mainly to agricultural credit needs. After independence commercial bank activity picked up momentum in the urban areas first. Their involvement in agriculture was largely confined to the financing of marketing operations, with commodity stocks as collateral. Natural hazards, volatility of production, the high cost of lending to smallholders, and the difficulties of collateral inhibited loaning for agriculture. The first significant change came in 1972, with the promulgation of the Banking Reforms Act, which assigned the SBP the role of increasing the flow of credit to the agricultural sector. The SBP set targets for lending to agriculture, imposed penalties for default, and ensured a 50 percent subsidy on losses on such lending. An Agricultural Credit Advisory Committee was set up to work out farmer credit requirements, based on the cost of inputs, estimates of farmers' savings, and availability of credit from the informal market. The system of personal surety as collateral was introduced as was the use of passbooks as authentic evidence of landholding. The Agriculture Produce Rules, promulgated in 1973, stipulated that 70 percent of institutional lending should be for smallholders with holdings of 12.5 acres or less, 20 percent for farmers with holdings between 12.5 and 50 acres, and 10 percent for large farmers.

The Banking Reforms Act spurred agricultural lending by commercial banks, which reached Rs. 13,81.2 million by 1978, a quantum jump of sixteen times the starting level of Rs. 85.7 million. The second phase of agricultural lending by commercial banks began in 1979/80 with the introduction of interest free loans for smallholders. Under pressure of demand, disbursements gathered great momentum. The peak level reached in 1986/87 was eighty-five times the starting level of 1972/73. But this lending was abused, and the government abolished the scheme in June 1988, promising to establish a Grameen Bank-type of institution for the rural poor.

The result was a sharp decline in commercial bank lending, which fell to Rs. 3,052.0 million in 1988/89 and stabilized at Rs. 4,063.3 million in recent years.

The commercial banks currently disburse 26 percent of the institutional credit for agriculture, compared with 57 percent by ADBP and 17 percent by cooperatives. However, as a proportion of their total portfolio, agricultural lending is only 4.9 percent. In June 1994 total outstanding advances were Rs. 303,623 million, while advances outstanding against agriculture were Rs. 14,810 million (State Bank of Pakistan Annual Report, 1993/94).

Commercial bank lending to agriculture has been largely to meet SBP policy directives. To curb abuses of the interest free-loan program, the lead bank system was introduced in 1987. Under this system, each union council was assigned a designated bank that had the exclusive right to extend agricultural loans in that union council. This change in policy explains the sharp decline in lending from Rs. 7.3 billion in 1986/87 to Rs. 5.2 billion in 1987/88. With the discontinuation of interest free-loans, lending fell further, to Rs. 3.2 billion in 1988/89, a reduction of 58 percent over two years.

While the principle of lead banking is a safeguard against multiple lending, it reduces commercial bank financial intermediation, since nonlead branches are restricted only to deposit-taking. It also introduces an element of monopoly in banking.

To improve the speed of credit delivery and ensure linkages between credit extension and technical guidance, the Pakistan Banking Council introduced the Supervised Agricultural Credit Scheme in 1987. Initially, the scheme was to cover 107 tehsils using Mobile Credit Officers. But progress has not been satisfactory.

Commercial bank lending to agriculture has certain distinct features. First, and most important is that funding sources are not concessional lines of credit from the state bank (unlike cooperatives and the ADBP) but instead consist of their own deposits. Second, there is a significant measure of cross-subsidization, because interest rates on agricultural loans have generally been mandated to be lower than those for commercial loans. Third, as a result of the supervised credit scheme, commercial banks now have 3,000 rural branches. Finally, commercial banks have provided effective financial intermediation in rural areas. They have been able to mobilize savings from rural respondents, whereas other institutions have functioned solely as disbursement windows. It is estimated that 29 percent of commercial bank deposits are taken in rural areas. In view of these characteristics, commercial banks could be the central pillar in the design of a viable rural financial system.

Cooperative Credit. The cooperative movement in the Indo-Pakistan subcontinent started in 1904 with the promulgation of the Cooperative Credit Societies Act. Its basic objective was to provide an alternative to village

money-lenders, who had been the only source of credit. Registrar Cooperative Societies were created under this statute and empowered powers to register, audit, and supervise cooperative societies. Promotional work was also entrusted to the registrar.

Under the Cooperative Societies Act of 1912, the government extended the scope of the movement beyond agricultural credit. Functionally, the role of the societies was extended to the supply of inputs such as seed, manure, and implements, and to the marketing of agricultural produce. Geographically, the movement was expanded to urban areas for procurement of goods. Cooperative societies were federated into a secondary structure (central cooperative banks) at the district and tehsil level. These in turn were dovetailed into a provincial structure to form provincial cooperative banks.

Pakistan inherited the conceptual framework of the cooperative movement, as well as the organizational structure, from British India. The post-independence history of the cooperative movement can be divided into five phases. In the first phase (from the creation of Pakistan to 1955) the cooperative movement was shaped by the response to the mass migration of the trading and industrial community to India following the partition of the subcontinent. Cooperatives began to support activities such as processing of agricultural raw materials, procurement and distribution of foodgrains and consumer goods, and financing of trade. Even in this early phase, the cooperative movement came to be dominated by urban businessmen, who set up many spurious societies to obtain credit from cooperative banks and thus diverted resources from rural areas. The second phase (1956 to 1961) was a period of readjustment following the withdrawal from commercial activities.

The third phase (1962 to 1966) saw a revival of the cooperative movement. In 1962 the government issued a new policy that gave cooperatives the added role of organizing the distribution of farm inputs and the marketing of output. Cooperatives were also expected to encourage farm mechanization to promote rural industry and handicraft. A high-powered Cooperative Development Board was set up as an autonomous entity with five official and six unofficial members. The board acquired a few industrial units and extended loans at concessional rates to a number of cooperatives set up by influential people. After strong public reaction to the "capitalist cooperatives", as they came to be called, the government abolished the board in 1966.

In the fourth phase (1966 to 1976) the number of cooperative societies increased from 16,848 to 29,528. Most of the societies were agricultural cooperatives (23,000), whose membership totaled 1.2 million. The tier of the central cooperative banks was abolished, leaving only the provincial cooperative banks and the primary societies in the provinces. At the apex was the Federal Bank for Cooperatives (FBC), whose establishment in 1976 marks the beginning of the fifth phase. FBC has a dual charter of financing provincial cooperative banks and regulating their activities, and promoting the cooperative movement. The provincial cooperative banks are the principal customers of the FBC. With a network of 220 branches, these banks cover the country's 118

administrative districts. At the primary level there are 62,681 cooperative societies, with a total membership of nearly 3.5 million (Table 2.6).

Table 2.6 Cooperative Membership (1994)

PROVINCE	COOPERATIVES	MEMBERS
Punjab	46,729	2,234,453
Sindh	3,998	747,670
NWFP	7,242	405,472
Baluchistan	752	36,856
Azad Kashmir	3,757	41,327
Northern areas	383	16,466
Total	62,861	3,482,244

Source: Federal Bank for Cooperatives (1994).

By June 1994 the FBC had lent Rs. 30.8 billion, of which only Rs. 458 million was for the medium term. Cooperative credit is essentially for short-term purposes, mainly to finance agricultural inputs. The annual level of lending has been about Rs. 3 billion in the last three years. The disbursement of medium-term credit during this period has been less than Rs. 20 million on average.

In principle, recovery of loans should not pose a problem, because loans are guaranteed by provincial governments. Yet lending in Sindh was suspended for five years, and in Baluchistan for ten years because of persistent default. The NWFP also defaulted in 1994, and loan operations had to be suspended. The recovery rate in the Punjab (which receives 90 percent of loans) and the Northern Areas, however, has been satisfactory (about 90 percent in 1993/94 after scheduling), which has helped to sustain FBC lending operations. Loans amounting to Rs. 1058 million outstanding against Sindh (Rs 419 million), NWFP (Rs 560 million), Azad Kashmir (Rs 56 million) and Baluchistan (Rs 23 million) had to be rescheduled.

Notwithstanding good recoveries in some provinces, the profitability of the cooperative banks is low. In 1993/94 the FBC made a profit of only Rs. 10.8 million. But this is because the bank operates on the basis of a service charge, which was as low as 1.49 percent in 1993/94.

The FBC's low level of profitability is not the main problem, however. Instead, it is that continuous experimentation and extensive changes have eroded confidence in the cooperative movement. Since 1947 the movement has passed through three periods of debasement and corruption. In the 1950s the movement was deflected from its primary constituency, smallholders. In the early 1980s interest-free loans were usurped by the prosperous rural elite. A survey conducted by the Punjab Economic Research Institute, concluded that 61 percent of the societies were fictitious and 73 percent of the loans were bogus. Moreover, the smaller farmers were inflating their farm size to get larger loans and the bigger farmers were trimming their holdings to become eligible for the largesse.

In the early 1990's the Cooperative Finance Corporations collapsed after taking deposits of Rs. 15 billion from mostly rural residents and then investing the funds in risky ventures for the personal gain of cooperative organizers. These cooperatives were actually real estate companies that had managed to register as cooperative societies. The government is endeavoring to provide relief to the quarter million people who were affected by this fraud.

The cooperative movement also suffers from several institutional weaknesses, that have eroded the movement's credibility :

- Uneven Coverage. Nearly 63,000 cooperative societies are located in 15,000 villages, while 30,000 villages have none. Moreover, 34 percent of farms are cultivated by tenants, who cannot join credit cooperatives because they do not own immovable property (a membership requirement).
- Highly Subsidized Rates. Although interest-free lending was halted in 1988, the cost of cooperative credit is still very low. A 14 percent rate is charged for production loans, with a 4 percent rebate for prompt payment.
- Absence of Professional Management. here remains no mechanism to ensure that only genuine societies are registered. The entire cooperative credit system lacks the professional capacity to appraise, prioritize, and recover loans. The audit function is not being performed by the Provincial Cooperative Department, which does not have adequate staff, and the provincial cooperative unions have no funds for education and training of society members

- **Weak Provincial Banks.** The provincial banks are unable to function as lending agencies. The functions of scrutinizing loan applications, fixing priorities, determination of allocations, and sanctioning loans are performed by the Provincial Cooperative Department. The provincial banks function merely as cashiers of the department. Recovery powers are also with the department, not with bank managers. Recoveries are subject to a preemptive right by the FBC. Recoveries must be passed on to the FBC within thirty days, while the provincial banks advances disbursed prior to the establishment of the FBC remain blocked in overdues. The credit received by these banks from the FBC is guaranteed by the provincial governments, but their own loans to the primary societies have no such security.
- **Poor Portfolio Management.** No criteria exist for determining bad debts. According to one internal estimate, provisions cover only 36 percent of the loans that have been overdue for ten years. Provincial banks have not written off any agricultural loan for the last ten years. The system of classifying loans into performing and nonperforming does not exist in the provincial banks. Recoveries are often affected through the mechanism of sanctioning fresh loans, thus providing a false picture of the viability of operations.
- **A Weak Apex.** The FBC's organizational structure is flat, with all major functionaries reporting directly to the chief executive. It is concentrated on loan disbursement and recovery, and has no orientation for research or development of cooperation. Its board is large and unwieldy, and staff are in a low state of morale, accentuated partly by the frequent shifting of top management. In 1994 eight managing directors came and left in succession. In terms of financial resources the FBC is totally dependent on the state bank, which makes it insecure and uncertain. The chain of this debilitating dependence goes down to the primary level, rendering the entire structure fragile.
- **No Financial Intermediation.** The FBC has functioned mainly as a conduit for cheap credit provided by the State Bank of Pakistan. It does not mobilize its own resources. With the present lending rate of 1.5 percent, this may not possible.

A comparison of the lending practices of the ADBP, commercial banks, and cooperatives is shown in Table 2.7

Although the cooperative movement has been successful in many countries, including Taiwan (Box 2.2), Pakistan's experience with rural cooperative credit has been less than satisfactory. Such movements must

be supported from the top, but they cannot be managed from the top. They must grow from the grass roots, if they are to survive on their own strength.

Box 2.2. A Success Story in Rural Credit Cooperatives:

Taiwan's Township Farmer Associations

The Taiwanese cooperative system consists of 280 Township Farmer Associations serving virtually all farming families. Largely as a result of this scheme, farm productivity in Taiwan is among the highest in the world. Interest rates charged by the associations are positive and cover the cost of funds. By 1970 these associations were mobilizing 30 percent more funds from members than they were relending. A 1992 study carried out by Ohio State University rates the Taiwanese scheme very highly on four important criteria: number of people served, participants' transaction costs, loan recovery, and number of deposits to agriculture. The surplus, which continues to expand, is being on-lent to other sectors of the economy.

As in Korea and Japan, the Taiwanese system was initiated with U.S. assistance soon after the Second World War (1948). A Sino-American Joint Commission on Rural Reconstruction (which became the Council of Agriculture after U.S. involvement ended in the 1970s) was established to help promote economic growth. The program initially used targeted subsidies but later began to loosen up. Apart from rural finance, important objectives of the commission were to carry out comprehensive rural land reform and to promote more participatory rural government by establishing farm cooperatives. These institutional changes acted as a catalyst in channeling the already high rural savings of a progressive Chinese rural community to support agricultural growth.

Table 2.7 Comparison of Lending Practices of Institutional Sources of Credit

	<u>ADBP</u>	<u>Commercial Banks</u>	<u>Cooperatives</u>
Purpose of the loan (1991-92)	25% production & 75 % development loans.	78% productions loans	NA
Credit targeted at subsistence framers	42.8%	76.7%, but surveys show many of these to be proxy loans for big landlords	96.6%, but surveys show that many coop societies were one man operations.
Collateral requirement	Tangible security required for medium term loans	63% of disbursement through personal sureties, passbooks (land) also common	land and other immovable property
Loan recovery rate	60%	NA	Good in Punjab & Northern areas (about 90% of the rescheduled loans). Loan operations were suspended in Sindh and NWFP.
Treatment of default	Laws exist on paper but not enforced	Existing laws not enforced	Existing laws not enforced. Special Coop Tribunals proposed to improve enforcement.
Supervision of credit utilization	In theory, 1400 MCO's are supposed to supervise credit closely, MCO's in turn are monitored by credit officers	A small number of Agricultural officers results in inadequate supervision	Poor coordination between provincial government departments and the Federal Coop Bank renders supervision inadequate.
Cost of credit delivery (estimated)	9.1%	18.6 %	15.8%

Source: Agricultural Statistics of Pakistan, 1991-92 and various other sources.

B: Informal Credit

The credit needs of the majority of rural enterprises are met in large part by informal credit sources, based essentially on personal contact and local sanction. The informal market can be divided into four categories. Socially based arrangements, commercial arrangements, a land-based system, and money lenders

Socially Based Arrangements. One-third of noninstitutional credit comes from friends and relatives who do not charge interest and operate on the basis of reciprocity.

Friends and relatives sometimes operate through a committee system. These committees (also called *bisis*) are common in developing countries. Termed ROSCAs (Rotating Savings and Loan Associations) in the economic literature, their local nomenclature varies from country to country. These committees, which are more popular in urban areas, enforce the discipline of compulsory savings. In India and Cameroon some of these committees have evolved into banks.

ROSCAs are fairly simple structures. A leader takes the initiative and organizes a small group of people (from six to forty) who regularly pool savings in an agreed amount. The collection is offered to each member in turn, interest free. The leader generally takes the first collection. He or she receives no other compensation. Leaders sometimes take a commission in exchange for responsibility for preventing default.

In Pakistan two types of committees are common: ordinary committees and discount-based committees. Ordinary committees correspond to the basic structure of ROSCAs. Members pool their savings and receive the money in rotation, the leader taking the first collection. The draw is commonly on a monthly basis. Members continue to pay the regular contribution until the cycle is completed and all have received the proceeds from one collection.

The discount-based committee, also called the auction-based committee, is organized in the same manner as the ordinary committee, but the basis of disbursement is the lowest bid at a regular auction. The difference between the amount collected and that disbursed is shared equally by committee members, who usually use this profit to reduce their contribution. Those who do not participate in the auction get the committee fund at the end.

A third institution, called the lucky committee, although banned, continues to operate illegally in some places. It operates essentially as a lottery. The amount to be drawn every month is lower than the monthly collection and announced in advance. The difference between the collection and the disbursement goes to the organizer. The disbursement is made by drawing lots, and the winner does not pay any future contributions. Those who are not lucky will get their disbursement at the end. The organizer makes a sizable monthly profit. The committee thus becomes a business venture and ceases to be a purely savings instrument. The excitement of the lucky draw replaces the regularity and predictability of the ordinary committee.

Commercially Based Credit. This type of credit is linked with the supply of inputs or the purchase of output, and is common among the farming community. The marketing intermediaries who extend the credit may be commission agents (*arhtis*) or village traders or shopkeepers. According to some estimates this channel provides 25 percent of rural credit. About 17 percent of the noninstitutional credit for farmers comes from this source, and with more organized marketing its importance may increase. Microenterprises usually use this type of credit.

Credit from suppliers are quite popular even though the difference in prices for cash terms and credit terms may be substantial, implying a high rate of interest. While farmers can get production loans from institutional sources to cover the cost of inputs, microenterprises have to depend on market channels. Most of them purchase their raw material on credit for up to a month. Interest rates show a wide variation, from 2 percent to 15 percent per month, and are implicit in the excess prices charged on credit-based purchases. According to a survey conducted by Development Research and Management Services for the World Bank Project on Microenterprises, the difference in prices can frequently be between 10 percent and 15 percent.

Buyers sometime make advance payments to producers to help them purchase raw materials. Although this payment is disguised as an advance, there is an implicit interest rate, which can be as high as 15 percent a month. This arrangement is reversed in case of the parchi system. The parchi is basically an IOU given by a buyer who does not wish to make a cash payment. Instead, the buyer issues a parchi at a higher price. The parchi indicates the quantity, price, date of payment, and aggregate amount. Parchis can be discounted in the market. The implicit rates are between 2 and 7 percent per month. The period of maturity varies between twenty and sixty days. Confidence in the viability of the borrower is critical, because there is no legal recourse.

Land Based Credit Arrangements. Land-based credit is the informal instrument used by tenants and subsistence farmers. It is widely used in Sindh, Baluchistan, and Southern Punjab. The credit is extended by the landlord for purchase of inputs and for consumption. No collateral is required, but conventionally the credit constitutes the first charge on the produce. According to the 1973 rural credit survey interest rates for this type of credit were about 60 percent higher than institutional rates. About 11 percent of informal finance comes from this source. With the decline of feudal influence, its importance may diminish over time.

Money Lenders. Since independence, professional moneylenders have not been a significant part of the credit system in the rural areas. According to a survey of five Asian countries credit comes from moneylenders averages only 6 percent of rural credit. In Pakistan the proportion is even smaller. The rate of interest varies from 2 to 4 percent per month, and interest has to be paid monthly. Moneylending is considered an unworthy profession and its importance is declining.

Informal credit generally has a low transaction cost and a short transaction time. There are no procedural rigors the lag between agreement and disbursement of credit is minimal, no collateral is required, and documentation is minimal. At the same time, there are no standard terms and conditions, and there is great variation in interest rates and maturity periods. Interest rates are usually twice institutional rates. Interest rates can be usurious where competition from the formal market is weak. Due to growing availability of formal credit, the rates of interest for informal credit are believed to be declining, although firm data are not available. Where commodity transactions are involved, interest charges are generally not explicit but are embedded in prices.

The informal credit market is not regulated. There are no reserve ratios or prudential regulations. The lender is responsible for his own viability. Legal recourse on default is rare, which is one reason why loans are small and short term. The room for freedom helps the informal market to respond effectively to changing needs.

The informal market is undergoing structural changes in response to the evolving socioeconomic landscape. The role of landlords and moneylenders is declining. The share of market intermediaries is increasing as commercialization of agriculture proceeds apace.

The informal market does not distinguish between production and consumption. The institutional market does not cater to consumption, and the informal market fills the vacuum.

The main limitations of the market pertain to scale, space, and time. The market is segmented from the national financial system, reducing its capacity for financial intermediation. Informal finance is essentially a local phenomenon depending on local contacts. Its fragmented and local character is both its strength and weakness. Freedom from regulation is also a double-edged source. The market gains flexibility, adaptability, and resilience but it loses protective legal mechanisms.

The informal sources do not provide term finance for investment, housing finance, being a major exception.

The informal market is responsive to vicissitudes. It caters to temporary gaps in consumption, immediate unforeseen contingencies, and emergent situations. In a healthy economic system, the institutional market should circumscribe the use of the informal market as a lever in the balance of economic power.

Chapter 3. Rural Credit for Poverty Alleviation

Policy-directed credit to the rural poor is justified on grounds of the equity objective as well as the markets' failure to assess the risk of lending to the poor and develop instruments for managing that risk. Access to policy-directed credit can help the poor by enabling them to acquire assets and support consumption in times of distress. The policy response has been to provide cheap credit to poor households because it is believed that the poor cannot afford market interest rates, institutional lenders are too cautious, and professional moneylenders are exploitative. However, the international experience with government schemes to provide cheap credit to the rural poor is not very encouraging (reviewed in World Development Report 1990). Only 5 percent of poor farmers in Africa and 15 percent in Asia and Latin America have had access to such credit. Surveys carried out in Pakistan show that the poorest farmers obtain less than 6 percent of their credit from formal sources (see Tables 1.8 and 1.9).

The problem is twofold: First, targeting the poor has been difficult, so much of the subsidized credit has leaked to the relatively richer rural households. Second, because transaction costs of lending to the poor are high, the subsidy for such cheap credit becomes large and renders the programs unsustainable. Thus many countries, including Pakistan, have sought to create special vehicles for delivering credit to the poor in the form of direct income transfers or credit for income-generating activities. This chapter presents a profile of the rural poor in Pakistan and then reviews the existing mechanisms for delivering credit to them in order to derive lessons for policy reform.

A: Rural Poverty Profile

Pakistan's record in poverty reduction compares well with the star economic performers in Asia (Table 3.1). Between 1962 and 1984 poverty in Pakistan fell from 54 percent to 23 percent. The evidence on rural poverty, however, is mixed. Although the percentage of rural households in poverty has declined in recent years, rural areas now account for a greater proportion of the poor than in the past. The number of households in poverty declined from 21.1 percent to 15.5 percent between 1984/85 and 1987/88 (Table 3.2). However, 85 percent of all poor households reside in rural areas, a slight increase compared to 1984/85. Figure 3.1 presents a regional perspective of the concentration of the poor in rural areas. Table 3.2 also reports an index of poverty, which shows that the concentration of the poor in rural areas increased from 1984/85 to 1987/88.

Table 3.1 Change in Poverty Incidence (percentage)

<u>Country and period</u>	<u>Poor population in initial year</u>	<u>Poor population in final year</u>
Pakistan (1962-84)	54	23
India (1972-83)	54	43
Thailand (1962-86)	59	26
Malaysia (1973-87)	37	15
Indonesia (1970-87)	58	17

Source: World Bank, World Development Report 1990.

Table 3.2: Incidence of Poverty in Pakistan

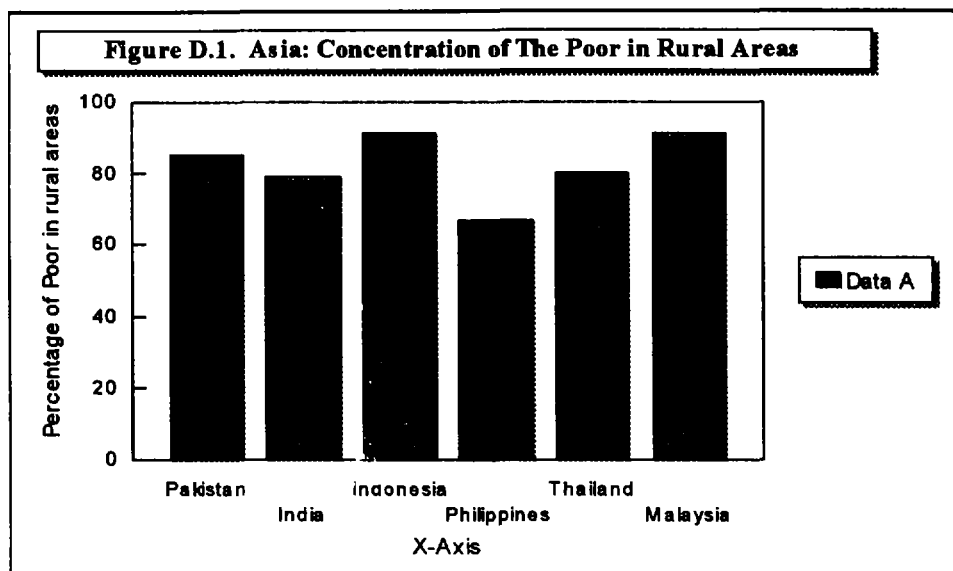
	<u>Head count</u>	<u>Percentage share poor</u>	<u>Percentage share populn.</u>	<u>Index^a</u>	<u>Headcount</u>	<u>Percentage share poor</u>	<u>Percentage share populn.</u>	<u>Index^a</u>
Overall	18.3	100.0	100.0	100	13.1	100.0	100.0	100
Rural	21.1	83.21	72.17	115	15.5	85.82	72.61	118
Urban	11.1	16.79	27.68	61	6.8	14.18	27.53	52

^a Percentage share of poor households divided by the category's share of total households.

Note: The poor in 1984/85 are defined to be those households whose incomes are below that required to meet expenditures of Rs. 150 per capita needed to consume 2,550 calories. The poverty line for 1987/88 is adjusted for the price increase.

Source: S.J. Malik, Poverty in Pakistan, July 1991, IFPRI, Washington, D.C.

Agricultural credit for productivity growth would in itself help alleviate rural poverty by increasing rural incomes and creating nonfarm rural income opportunities. However, there remains a large group of the rural destitute in Pakistan who need credit to engage in sustainable income-generating activities. This group of the rural poor constitutes about 20 percent of the rural population.



Characteristics of the Rural Poor

The largest concentrations of the rural poor are among the landless (45 percent) and among tenants and marginal landowners (46 percent). Livestock constitutes the most important source of income for the rural poor (28 percent), followed by crop income (24 percent) and nonfarm microenterprise (20 percent) (Table 3.3). Rural poverty alleviation programs would have to focus on these principal sources of income to lift the poor out of poverty. Indirectly, of course, a credit program for agriculture would increase crop incomes as well as income from farm labor. However, credit programs for rural microenterprises and to support consumption for the very poor would still be needed.

Table 3.3 Income Sources of the Rural Poor (percentage)

	Share of income
Livestock	28
Crops	24
Nonfarm enterprise	20
Wages and salaries	18
Remittances	7
Other sources	3

Source: Aly Alp Ercelawn, "Poverty in Rural Pakistan: A Study of Villages" In I. Nabi, The Quality of Life in Pakistan: Studies in Social Sector Economics (Vanguard), 1986.

B: Programs for Credit Delivery to the Poor

Non-governmental Organizations

Bangladesh's Grameen Bank, perhaps the most successful NGO credit program for rural poverty alleviation, has inspired similar efforts not only in other developing countries, such as Malaysia and Indonesia, but also in the United States. The salient features of Grameen Bank are reviewed in Box 3.1.

In Pakistan there are about 12,000 registered NGOs. Of these, 6,000 exist on paper only and 3,500 are religious NGOs (deeni madarassas, for example). About 100 NGOs are engaged actively in economic and social welfare. Foremost among these is the urban-based Orangi Project, which gives technical assistance and institutional and financial support to Karachi's slum dwellers. But of greater interest for rural financial markets is the Agha Khan Rural Support Project (AKRSP).

Agha Khan Rural Support Program

The AKRSP started in 1983 in Gilgit, a remote, mountainous northern area of Pakistan, to tackle the problems of poverty and destitution. The program has three components. At the core is the economic program, which aims to change the incentive structure to get more effort from households and thereby increase incomes. Complementing the economic program are the social and the technical components. The former focuses on changing village organization structures to accommodate technical and economic change; the latter provides skills and techniques needed for social and economic renewal.

By most criteria, the AKRSP has been an outstanding success (Table 3.4). It has succeeded in all three program components. The credit operations are based on on-lending of funds borrowed by AKRSP or received from donors. Repayment rates are very high and default is negligible (only 1.7 percent of short-term loans and 1 percent of medium-term loans are in default). Fertilizer purchase and marketing operations account for 87 percent of the short-term credit provided by the AKRSP. Medium-term credit is used for land development and purchase of agricultural machinery.

The AKRSP started its credit program with a loan from Habib Bank, which was on-lent interest free, but there was a penalty of 1 percent per month in case of default. Since 1988 a service charge ranging between 10 and 15 percent is levied on all loans.

It is not clear whether the directed credit under the AKRSP program achieved significant additionality in credit disbursement. What is more, the AKRSP mandate may be too broad. Its economic and social program will in the long run expand the demand for credit and hence will drain the program's scarce managerial staff. The best program design might well be a two program types: trade off between a focused program on credit that does not provide the technical and

organizational support needed for economic uplift, and a broader program that works in tandem with existing credit institutions to streamline their operations and ensure that borrowers put credit to its best use.

Table 3.4. AKRSP Performance in Selected Areas

	1983	1988	Percentage change
No. of Village organizations	131	993	658
Women's organizations	10	248	2,380
Training courses conducted per year	4	37	825
Projects identified	363	1346	270
Projects completed	23	514	2,135
Rural households benefiting (percentage)	12	52	5,100
Deposits by village and women's organizations (Rs millions)	0.8	51.3	6,312
Credit disbursed annually (Rs millions)	1	34.6	3,360
Credit recipients (thousand households)	4.7	61.0	1,198

Source: World Bank, "The Agha Khan Rural Support Program in Pakistan: A Second Interim Evaluation." Washington, D.C., 1990.

Family Planning Association of Pakistan. The Family Planning Association of Pakistan (FPAP) has provided loans to some 2,000 women for income-generating activities since 1984 at twenty locations. Each year interest-free loans are offered to five to seven women in each location. Loan recipients are selected by local women's committees based on their personal knowledge of applicant's circumstances and attitudes. The loans from Rs. 500 to Rs. 1,000 have a six to seven month term and are repaid in monthly installments of Rs. 50 to Rs. 100. Borrowers pay a nominal monthly membership fee until the loan is repaid in full. Monthly fees are used for skill training for applicants. Loans are made principally for goat rearing, poultry farming, food preservation, tailoring, and small businesses.

The FPAP also operates a UNDP-funded credit and training program at three locations. Women receive loans for preselected activities based on their skills, market potential, and FPAP's experience in the area. Women are encouraged to form a loose cooperative with a nominal membership fee. They hold regular meetings and are given training in their respective activities. The loan was from Rs. 5,000 to Rs. 10,000 at each location. This program has been running very successfully, with negligible defaults. Beneficiaries have also expressed their satisfaction with the loan scheme, and some are now contributing Rs. 500 to Rs. 15,000 per month to their family income.

Box 3.1 Bangladesh's Grameen Bank: A Model Program to Serve the Rural Poor

The success of Bangladesh's Grameen Bank in meeting the credit needs of the rural poor is due in large part to the bank's ability to control the often high transaction costs of lending to this segment of the market. Grameen Bank overcame this problem through a group-based lending program that uses peer pressure to monitor and enforce contracts and to screen good borrowers from bad.

The bank targets poor landholders with less than 0.50 acres. It lends for natural disasters and provides loans for food storage and capital recovery in addition to providing loans. Borrowers are required to attend weekly meetings and participate in other welfare activities. Because the opportunity cost of the meetings is high and loan amounts are small (US\$65 for the first loan rising to a maximum of US\$250 for subsequent loans), large farmers and other rural rich are excluded from the program. The Bank's principal target group is women (who constitute 94 percent of total bank membership and receive 80 percent of total lending). Along with loans, they receive training in maternal health, nutrition, and child care as part of the Bank's comprehensive social development program.

Started in 1983, Grameen Bank has grown in terms of both members and outstanding loans in a short time. In 1994 there were 1,045 Grameen Bank branches covering 2 million members in 35,000 villages (more than half the villages in Bangladesh). Between 1985-1993, its membership increased 960 percent to 1.8 million members, 98 percent of whom are actually borrowers. Total loans outstanding increased from taka 244 million in 1985 to taka 11 billion in 1994. The bank also has mobilized rural savings, which increased from taka 115 million in 1985 to taka 8.97 billion in mid-1993. The bank has a loan recovery rate exceeding 95 percent. The program drop out rate is low, and borrowers, on average, save 19 percent of the loan amount they receive.

Leadership was vital in the bank's early stages. But what has mattered in the longer run are features that have ensured the institution's financial viability such as group-based lending and decentralization, which facilitate close contact with borrowers and ensures their financial viability. These institutional characteristics allow a quick assessment of loan recovery performance and branch profitability. These features, combined with greater on-lending and an increase in the lending rate from 16 to 20 percent, have reduced the bank's subsidy dependency index from 1.66 percent in 1987 to 0.73 percent in 1993. To eliminate the bank's subsidy dependency, on-lending interest rates would have to increase from 16 to 28 percent, given 1993 figures.

Source: Based on S. Khandker, B. Khalily, and Z. Khan. (1994). Is Grameen Bank Sustainable? HRO Working Paper No. 23, World Bank, Washington, D.C.

Sindh Rural Worker Cooperative Organization. The Sindh Rural Worker Cooperative Organization covers 153 villages with 5,000 members in 13 districts of the province. Each of the 153 cooperatives is self-financed and self-managed. The projects relate to physical and social infrastructure. It has a successful savings program and recently started credit operations.

Credit for Self-employment

The number of unemployed in the country in 1994 is estimated at 2.2 million. Of these, 63 percent, or 1.4 million, are in rural areas. To mitigate the rigors of unemployment and provide opportunities for entrepreneurship, a self-employment program was started in 1992. The following institutions participate in this scheme :

- National Bank of Pakistan
- Habib Bank Limited
- Small Business Finance Corporation
- Youth Investment Promotion Society
- Punjab Small Industries Corporation
- Sindh Small Industries Corporation

In addition, several institutions are operating their own small loans scheme with similar objectives. These are:

- First Women Bank
- Regional Development Finance Corporation
- Agricultural Development Bank of Pakistan

From mid-1992 to mid-1994 the Small Business Finance Corporation, Habib Bank Limited, and National Bank of Pakistan sanctioned loans worth Rs. 5.6 billion with the generation of an estimated 96,057 jobs. Investment cost per job is Rs. 58,000, which compares favorably with a cost of Rs. 459,000 per job created in the large and medium sector financed by IDBP, PICIC and NDFC (at a total cost of Rs. 6.88 billion for 15,000 jobs) in this period. Loan recovery, at 70 percent, is higher than the recovery ratio for larger industries.

Information on the rural component of this program is available only for the schemes of the Punjab Small Industries Corporation, which was designed for rural areas, and the Youth Investment Promotion Society, which maintains separate statistics for the rural areas. The Punjab Small Industries Corporation has so far advanced Rs. 1.6 billion for 6,110 projects and generated employment for 61,000 people. The total cost of these projects is Rs. 4.35 billion. Since its inception in 1987, the Youth Investment Promotion Society has sanctioned loans amounting

to Rs. 5.7 billion, providing employment to 63,000 people. Current annual lending is about Rs. 1 billion, with rural areas receiving 37 percent of this sum and 43 percent of jobs generated. The viability of these programs will have to be examined carefully.

The government recently approved an integrated program for self-employment with a maximum loan limit of Rs. 300,000 per individual, interest rate of 14.5 percent and repayment over five to seven years. The participating institutions would be:

- Small Business Finance Corporation
- National Bank of Pakistan
- Habib Bank Limited
- Youth Investment Promotion Society
- First Women Bank
- Regional Development Finance Corporation
- Agricultural Development Bank

In terms of investment cost per job and the diffusion of economic benefits, the program shows promise. The following points must be considered in its implementation:

- Separate data should be maintained for rural areas to permit a careful assessment of the impact of the program in rural areas.
- Equality of access should be ensured for rural applicants.
- Small industries corporations can be included in the program or ensured adequate credit to continue their schemes for self-employment.
- Future financing of the program can be linked with recovery and the ability to implement the schemes properly.

Chapter 4. Reform of Rural Credit Policy and Institutions

The rural credit market needs to operate efficiently in order to facilitate better performance of the rural economy and help promote economic growth. Inefficiencies in rural credit market arise partly due to asymmetric information and imperfect enforcement of loan contracts, and partly to misdirected government interventions. If the financial institutions are to play an important role in facilitating faster economic growth, the rural credit markets must be liberalized.

The strategy is to have a liberalized rural financial market with strengthened role of the State Bank of Pakistan in prudential regulation and institutional development (with the help of the NGOs) for rural credit services for small holders and the poor. The government must neither control the financial institutions nor set the interest rates. Instead, the government should shift the focus to prudential regulation and tighter supervision. At the same time, the financial institutions must liberalize themselves from traditional thinking and practices in rural finance and introduce innovative product design to suit the needs of small farm and nonfarm producers.

Rural financial liberalization along with prudential regulation and supervision is a first step toward promoting efficiency in the rural credit market. However, specialized programs and institutions would also be required to deliver credit to the small producers and the poor. But this should be done in a manner that the financial viability of the programs is ensured.

This chapter sets out the guiding principles for designing a rational rural credit policy, makes general policy recommendations regarding prudential regulations and supervision and suggest a prioritization of credit delivery; recommendations are also made for reorienting credit delivery practices of the existing financial institutions.

Guiding Principles for a Rational Rural Credit Policy

A rational rural credit policy would consist of the following elements:

- The government needs to replace the current policies that result in financial repression by policies for prudential regulation and supervision accompanied by strong measures for macro-economic stabilization.
- A competitive environment will have to be ensured for the commercial banks, who then must be allowed to set the interest rate to cover transaction costs of rural lending. This would enable them to serve better the financial needs of commercial and large-size borrowers in rural areas.
- Credit must be made available to support productivity growth in smallholder agriculture and small producers in the rural nonfarm sector. Because of small loan size, the transaction costs of lending are high for which commercial banks may not deliver credit to small producers. When smallholders constitute the bulk of the farming community

and small producers account for the majority of rural nonfarm producers, specialized institutions need to be created outside the government, with help from NGOs or private groups. These institutions will have to be innovative (such as use of group pressure to collect loan) and overcome the market failure that arises from high transaction costs of small loans.

- Credit must be available to the rural poor and women for consumption smoothing and for promoting sustainable income generating activities. Due to the perception that the poor and women are high credit risk and have no physical collateral, commercial banks may not advance loans to them, even if the banks are liberalized from traditional practices of rural finance. Specialized financial institutions may be necessary for meeting the credit needs of the rural poor and women.
- Unencumbered capital base is crucial to specialized financial institutions for providing credit to smallholders and the poor. This capital base can be built either by subscribed capital from the government or interested donors or from retained earnings from operations. Such capital will help to absorb the initial start-up cost. When the market fails to meet credit needs of the disadvantaged sector, paid-up capital for the initial period to subsidize transactions costs are necessary to develop such financial institutions. These funds should be given on such conditions that will ensure self-sustainability of these institutions. Ultimate borrowers will pay the market interest rate.
- The interest rate should never be subsidized (i.e., it should not be less than the market interest rate) even if the credit is targeted. Otherwise, the powerful and the more affluent in the society would divert these resources for meeting their ends. Exclusion of the nontarget households or sector, however, must be ensured through program design. For example, program participation should be made so expensive for the nontarget households that they find it unprofitable to participate in specialized financial programs targeted at the rural poor.
- The criteria for the inclusion of target households in the program of the specialized institutions should be such (e.g., small loans, group accountability and group pressure) that leads to self-selection. This is also necessary to promote loans only to those who will use credit productively and are able to generate income and hence, repay the loan. The self-selection procedure would promote borrowers' financial viability as well as loan repayment.
- Policy interventions that create special lending institutions to meet the credit needs of small producers (both farm and nonfarm) and the poor must be subject to conditions that require their financial viability by reducing their dependency on subsidized funds. The conditions are (i) adequate loan recovery, (ii) market interest rates, and (iii) mobilization of deposits.
- When scarce resources are targeted to special groups such as smallholders, small nonfarm producers, the poor, or women, transparent criteria must be established to continuously evaluate and monitor the performance of both the targeting agencies and their clients.

In sum, rural finance must be seen as an integral part of equitable development within a framework of macro-economic stability. The policy thrust should be towards financial liberalization but subject to prudential regulation and supervision by the State Bank of Pakistan (SBP). Subsidies should be transparent, sharply focused only to subsidize the financial and institutional costs and subject to phasing out. At any rate no lending should be undertaken at interest rates lower than those charged to the prime customers. The essence of a progressive policy lies not in pushing money at people but in the ability to improve their bankability and the productivity of their enterprise. Above all, the viability of the financial system must not be jeopardized for short-term political gains.

General Policy Recommendations

Prudential Regulations

The principle for the government to follow on rural finance is that it does not control either financial products or the interest rates. The government intervention in the rural credit market should be limited only to prudent regulation and supervision which will have to be ensured and enforced before liberalization policy is carried out. The prudential regulatory and supervisory policies include promotion of legal, administrative, and financial discipline, particularly the enforceability of contracts, timely recovery of loans and dues, restraints on use of personal discretion in financial dispensation, and full disclosure of business information to and by the financial institutions.

The need for prudential regulation and supervision arises from the role of the banks as trustees (because the money belongs to depositors and they do not have control over bank management). Prudential regulation and supervision can help avoid the collapse of the financial institutions for mismanagement and over-ambitious investments. Prudential regulation will restrict banks' entry on selective basis (licensing of banks), ensure adequate capital-deposit ratios, and maintain adequate liquidity in the system, adequate provision for bad loans, and early intervention system in cases of impending bank failures. These prudential policies must be supported by measures that provide adequate legal framework for loan recovery, make the bank management accountable, institute standards for audit by the State Bank, and provide government support to minimize loan delinquency and to prevent the chances of fiscal liability, the pressure for which emerges when such financial institutions go under.⁶

With such prudential regulatory and supervisory policies, the government must leave the banking system primarily in the private sector. Although public sector banking has facilitated the implementation of state policies, experience has proved that this could be done in the private sector more efficiently without hazard to viability. A liberalized system would be more conducive to innovation for resource mobilization and to competitive efficiency. The

⁶The overdues of the financial institutions have already accumulated to more than Rs. 80 billion. Even if some of the financial institutions may be privatized, the present setup has a major responsibility for ensuring adequate recovery. This is not merely a legal or administrative matter. The transition from default to discipline is more like a cultural change. It requires total transformation and government commitment. It is gratifying that the government has accepted the challenge and is mounting special efforts to effect recoveries. This effort must be continued.

financial institutions must be liberalized from direct government control. Since supervision and policy direction would vest in the State Bank, privatization would not conflict with the fundamentals of prudent credit and economic policies.

Prioritizing Credit Delivery

Once prudent regulatory and supervisory policies are established and effectively enforced, the government must leave the banking system primarily to the private sector. Although public sector banking has facilitated the implementation of state policies, experience has proved that the private sector can operate more efficiently, without hazard to viability. Although market forces are efficient in resource allocation and distribution, however, they do not always meet social objectives such as poverty alleviation. Commercial banks will continue to meet the credit needs of the richer 10 percent of rural households who own more than 25 hectares of land. In fact, the provision of financial services to this group will be more efficient and effective with the liberalization of interest rates. Some argue that large holders may need an access through a directed program, but this paper argues that if government intervention is withdrawn, large holders' access to credit from commercial banks would greatly improve. (See Box 4.1).

Box 4.1 Should there be Directed Credit For Large Holders?

Whether or not large holders would continue to have access to commercial credit in the absence of government intervention is a much debated issue in Pakistan. Those who argue against complete liberalization on grounds that this would completely dry up commercial credit to large farmers include bankers as well as farmers. The arguments are: (i) The Land Alienation Act that governs the terms under which agricultural land can be transferred renders it a poor collateral against the risk of default; this problem is further compounded by poor land registration practices; (ii) farming methods are not streamlined so that yield estimates and the risk of crop failure are hard to assess; unlike other sectors of the economy, it is hard to project income and profitability of the farming enterprise (as it currently stands); the absence of crop insurance further compounds this problem; (iii) the transactions costs of dealing even with the large farmers are high; farmers are widely dispersed and bank branches are not always conveniently located; moreover, land may be divided into several parcels spread over a large geographical area, which makes monitoring performance very difficult; and (iv) in Pakistan's political economy, large farmers are extremely - well connected, which renders loan recovery difficult and acquisition, of assets in case of default impossible. It is thus concluded that without government directed credit, no commercial bank would be willing to lend to large farmers. It is argued further that interest rates that incorporate a hefty risk premium would lead to the well-known problem of adverse selection since the more risky farmers will bid away loanable funds, secure that they cannot be dispossessed of their land.

The argument in favor of complete liberalization of commercial credit is that all of the hurdles listed above are in fact a consequence of paternalistic government intervention in rural finance. Nearly half a century of directed subsidized credit has promoted irresponsible borrowing habits. After liberalization, it may be that initially credit would be available only to those large farmers who have organized their farms along commercial lines. In time this would encourage others to follow similar practices to make themselves credit worthy. Those who choose not to modernize might be denied credit (or would have to pay a high risk premium to obtain it) and they would eventually have to sell land. This would contribute to the development of a market for land. Like any other asset, rates of return on land will then will be an important factor in land ownership, And like any other asset, income from land would be taxable. The agriculture sector then will come into the fold of the modern economy.

Priorities for certain disadvantaged groups, however, may appear prudent where the market does not adequately address their needs. A focused priority program for rural finance could be undertaken without jeopardizing the growth or efficiency of the financial system. Prioritization of rural activities may be necessary for a number of reasons.

First, the long-term potential gains from some economic activities do not translate into short-term gains for the actors. Second, some activities have substantial economic benefits but are not commercial in nature (for example, much of the physical and social infrastructure). Finally, the financial institutions' heritage of asset-based rather than project-based lending predisposes them to an orientation that may not be effective for certain groups of rural producers (such as assetless poor).

The priority sectors for targeting are (1) smallholders with ten acres or less; (2) nonfarm activities of a noncommercial nature such as livestock, fishery, forestry, and range lands; (3) microenterprises; and (4) rural and poor women. These sectors deserve special attention in the interest of reducing poverty, promoting broad-based development (through diversification of crops and rural economy), slowing of rural-urban migration, and establishing meaningful linkages between the rural economy and the urban economy.

The segment holding ten acres or less represents 70 percent of the farming community. There should be a special focus on this stratum because of their poverty and vast numbers. Similarly, the nonfarm community in agriculture, which includes landless tenants and marginal farmers, needs to be supported. Although this group contributes about 40 percent of agricultural GDP, it receives only 6 percent of agricultural credit. By the same token, microenterprises in rural areas, which account for 43 percent of the microenterprises in the country, should also be supported, because they have a vital role in poverty alleviation and the diversification of the economy. More importantly, within the group of rural poor, women are the marginalized group that needs specialized financial services. In addition to serving the credit needs of these groups, specialized programs would help promote overall economic growth through diversification of the rural economy and, consequently, risk reduction in rural financial intermediation.

How Much Targeted Credit? An Illustration

How much credit would be needed to support these priority groups? Total annual credit needed from institutional sources to support growth was estimated in chapter 2 at Rs. 15.4 billion (1993 Rs.) for the low-growth scenario and Rs. 69.8 billion for the high-growth scenario. However, only a small proportion of the needed credit would be policy directed, for smallholders, consumption smoothing, microenterprises, and women.

Smallholders: Smallholders operating farms of 10 acres or less contribute 40 percent of agricultural GDP. Assuming constant returns, their need for agricultural credit to support a 1 percent rate of agricultural growth would be the same as that of large holders. It is also assumed that small and large farmers have the same savings rate of 5 percent. The credit need for smallholders is then calculated to be 40 percent of the total credit needed to support a 1 percent rate of

agricultural growth. Thus, the needed policy-directed agricultural investment credit ranges from Rs. 4.2 billion to Rs. 24 billion to support agricultural growth ranging from 4 to 8 percent (table 4.1). The production credit need of smallholders is also calculated at 40 percent of the production credit need for all farmers, which yields Rs. 2.0 billion and Rs. 4.2 billion respectively, for the two growth scenarios. Thus, total agricultural credit need ranges from Rs. 6.2 billion to Rs. 28.1 billion. However, the associated budgetary support would be quite small because credit would not be lent at a subsidized lending rate but would involve higher transaction costs to target credit. The subsidy associated with the higher transaction costs would be around 10 percent of actual lending and would range from Rs. 620 million to Rs. 2.8 billion.

Table 4.1. Smallholders Annual Need for Agricultural Investment
(1993 Rs. Billion)

Agricultural Growth Rate	Alternative Assumptions of Investment/Ag. GDP Required	
	2 Percent	3 Percent
4	4.2 billion	9.8 billion
6	9.8 billion	14.7 billion
8	15.4 billion	24.0 billion

Consumption smoothing. The need for consumption credit, as projected by respondents in the 1985 rural credit survey, is estimated to be 24 percent of total credit. For simplicity, it is assumed that this proportion holds for institutional credit as well. According to the 1985 survey, of the total rural credit needs 56 percent is needed for agricultural purposes and 44 percent for nonagricultural purposes. It is assumed that these proportions are the same for poor rural households. The total annual rural credit needed by poor rural households for agricultural purposes is thus estimated at Rs. 11.1 billion (Rs 6.2 billion/0.56) for the low-growth scenario. The consumption credit need of poor rural households provided by institutional sources can be estimated as Rs. 2.7 billion (24 percent of the total institutional credit need) under the low-growth scenario. Under the high-growth scenario, farm incomes would rise and the need for consumption credit would decline.

Microenterprises. The 1985 rural credit survey projects the credit need of rural enterprises at 20 percent of the total credit. Rural microenterprises' need for credit can be estimated as Rs. 2.2 billion under the low-growth scenario. Under the high-growth scenario, nonfarm business activities are likely to increase, resulting in greater need for credit finance.

Women. The 1991 Pakistan integrated household survey estimates rural female-headed households at 1.7 percent of households. This figure seems low; any case, it would not correctly reflect the contribution of women to household income. More recent work⁷ based on the 1989 AERC/World Bank study directly estimates the contribution of women to household income at 13.3 percent. Extrapolating from this figure, it is assumed that 15 percent of the agricultural GDP (countrywide) of the poorest 40 percent of rural households is contributed by women. Thus, women should receive at least 15 percent of the credit targeted at the rural poor or about Rs. 1.7 billion.

The total resources needed for targeted rural credit are estimated at Rs. 12.8 billion less than the amount (Rs 15.5 billion) these institutions currently lend to agriculture in their untargeted programs. At the 1993 level, the savings of Rs. 2.7 billion would be available to retire bad debt and make the institutions financially viable for targeted lending.

Table 4.2. Annual Policy-Directed Rural Credit Need Under Low-Growth Scenario
(1993 Rs. Billion)

Target group or purpose	Low growth scenario
Total targeted rural credit	12.8
Smallholders	6.2
Investment	4.2
Production	2.0
Consumption	2.7
Microenterprises	2.2
Women	1.7
Total	12.8

Source: Authors' estimates.

Recommendations for the Existing Financial Institutions

The major institutional players in rural finance are the commercial banks, the cooperative societies and banks, and the Agricultural Development Bank of Pakistan (ADBP). Due to various misdirected policy interventions, these institutions do not operate efficiently. Recommendations for improving the operations of each of these groups are made below.

⁷ Eshya Mujahid-Mukhtar and Noor-ul-Hassan (1992). "Female Participation in Household Activities: Some Assessment of the Socio-economic and Cultural Impact", Pakistan Development Review (Winter).

Private Commercial Banks.

In addition to immovable property, commercial banks can use moveable property as collateral. There is growing evidence that personal and less stringent collateral is equally dependable, for example, hypothecation of gold and jewelry, hypothecation of crops and machinery, and pledging of inventories and personal guarantees.

The banks may not rely entirely on the passbook system, which has had a negligible impact on rural lending.⁸ If passbooks are used as a form of guarantee for bank loans, a special program may have to be initiated for their speedier issue.

Commercial banks have to strictly follow SBP regulations credit discipline, adequacy of provisions for bad and doubtful debts, and improvement of debt-equity ratios. Adherence to these policies will improve financial security and help promote a better credit discipline.

Banks must be judged both on the resources they mobilize from rural areas and on the resources they channel to the rural sector. At present the commercial banks mobilize much more resources from rural areas than they lend to these areas.⁹ The banks must diversify their lending portfolios, advance loans for short-term production and long-term investment in both crop and noncrop production, and encourage investment in agroprocessing to support agricultural modernization. The commercial banks may also include extension services, such as linking production loans with use of fertilizers, pesticides, irrigation, and marketing of crops.

The commercial banks may experiment with wholesaling credit through input suppliers and marketing agents as well as through NGOs to reduce the transaction cost of commercial lending. Such a scheme would bolster lending in the rural sector.

Successful commercial lending is, of course, contingent on prompt and effective recovery of loans. Loan recovery requires a transparent system of property rights and effective enforcement of contracts. The legal procedures for loan recovery from defaulters should be fast and effective. The branch managers should have the authority to recover overdues as arrears of land revenue. The system of lending should be transparent so that defaulters of one bank are not rewarded by another bank. Without a proper and effective enforcement mechanism for recovery of loans, for example through disposing of land pledged as collateral, few commercial banks will be willing to lend to large farmers without intervention from the Government. Also, it may be argued that in the absence of such a framework, it is unlikely that commercial banks will cater to the credit needs of large farmers. The answer lies in improving the legal framework so

⁸Sixteen years after this system was introduced, nine percent of farmers have been provided passbooks, which constituted about 37 percent of farm loans.

⁹According to one estimate, the commercial banks provide only 12 percent of the resources they mobilize from rural areas on-lending (after keeping 35 percent as cash reserves).

that work on other assets of large farmers could be effectively used as collateral. Further research on measures to improve loan repayment behavior would be useful.

Cooperative Banks and Societies

The cooperative sector is by far the largest network in Pakistan, but, as discussed earlier, the cooperative movement has been subject to abuse by vested interests dominated by large and affluent farmers. The availability of finance at subsidized rates has sapped the capacity of the system to mobilize its own resources and to build up membership on the basis of cooperative principles.

The movement must be revamped and made subject to the tests of profitability and sustainability. Several principles are critical. First, the general principle of the cooperative movement must be to promote thrift and savings by pooling resources. This principle is now missing and must be the basis of reorganizing the cooperative structure. Second, the movement must be financially viable. The basic building block of the cooperative movement is the village-level cooperative societies, which are not financially viable. The basic societies, should be based instead on the Union Council level. Primary societies would ensure a membership of at least 500. But, given its size, it is better to have smaller societies based on the village which are then federated into the Union Council cooperative societies. This would allow small groups to monitor their performance and create group pressure to repay the loan.

Third, the village-level society must be responsible for repayment of loans to individual society members. If any society member defaults on a loan, the entire village society would become ineligible for further loans. Similarly, if any member fails to repay the Union Council-based society, the society should lose its registration. (A relevant example is the Bangladesh Rural Development Board's RD-12 project, where members of primary societies are organized in smaller 'solidarity groups').

Fourth, the village cooperative societies must be activity-based. They are now agricultural cooperative societies. The present structure must be broadened to include the noncrop sector, for example, livestock, fishery, and poultry. People involved in nonagricultural activities, such as microenterprises as well as ancillary services such as input supplies, processing, marketing, and storage should be allowed to form cooperatives. Artisans, tenants, and landless laborers should also be allowed to form their own societies. Section 17 of the Cooperative Societies Act must be amended to permit these changes.

Fifth, participation in village level societies must be self-selective so that the small groups formed at the village level are homogenous. Each village-level society meets weekly to collect mandatory deposits and conduct other society activities. Union-level meetings are held once a month to discuss loan proposals and the performance of the village-level societies. All transactions at the union level must be transparent, and no vested interest should be allowed to jeopardize the registration of the societies.

Sixth, more stringent criteria for registration of these societies should be set for minimum membership, deposits, and share capital.

Finally, the societies must be allowed determine the criteria for loan eligibility, loan appraisal procedures, and set loan ceilings, selection of activity, disbursement, and loan recovery.

The cooperative movement also needs to be restructured. The cooperative banks both at the provincial and federal level need to be reorganized in order to make them responsive to member needs. They must be subject to tighter financial discipline and must improve the quality of management through training staff, greater decentralization and autonomy, and improved performance incentives at the individual and institutional levels. Currently, the Provincial Cooperative Banks (PCBs) are simply acting as a credit disbursement agency of the Registrar of the Cooperative Department. For transparency in financial and administrative matters the Cooperative Department and the PCBs must be separated. The Cooperative Department should concentrate on its main functions of registration, regulation, audit, and dissolution. The PCBs should be headed by professional bankers and perform the regular banking, functions such as authorization and determination of loans, loan appraisal, establishing loan ceilings by activity, loan administration and follow-up, and loan recoveries.

Both the PCBs and the Federal Cooperative Bank must raise resources from external sources for on-lending. They currently rely exclusively on the State Bank of Pakistan. Currently, they rely only the SBP funds. The Federal Cooperative Bank receives credit from the SBP at 0.5 percent and passes it on to the PCBs at 3 percent. The PCBs charge 11 percent to society members with a margin of 8 percent. This margin is large enough for a bank to meet its cost of financial intermediation. However, due to the low loan recovery rate, the cost of intermediation is high. The PCB must increase the loan recovery rate to reduce the cost of financial intermediation. Emphasis should, be on attaining the long-term viability of these societies and the cooperative banks, not on using them to provide cheap credit to society members .

Agricultural Development Bank of Pakistan.

In 1993/94 the ADBP provided the largest percentage of institutional credit to agriculture (57 percent), with 26 percent given by commercial banks and 17 percent by cooperatives. Most ADBP loans (56 percent) are for long-term investment, which has contributed to agricultural mechanization. Although the ADBP was designed for smallholders, large and medium farmers are the principal beneficiaries of this bank. Smallholders receive less than 20 percent of the loans disbursed by the ADBP, while over 60 percent of its loans go to farmers owning more than 12.5 acres. However, the loan recovery rate is higher for smallholders (45 percent) than for large farmers (28 percent). As of April 1993, 42 percent of the ADBP's loan portfolio, amounting Rs. 2.9 billion, were classified as 'sick'. ADBP's cost of financial intermediation has also been high due to poor management practices. Consequently, the margin between interest income and the cost of financial intermediation has been negative or zero over the years.

The most important next step for ADBP is to carry out a thorough portfolio audit. A crucial starting point is in-depth audit of its loan, equity and liquid asset portfolio, covering not just the valuation and examination of the quality of the assets but an assessment of the credit and portfolio management policies and practices which determine the quality of the portfolio as well as an analysis of the regulatory and supervisory environments that influence the conduct of corporate policies and practices.

The portfolio audit is not intended to be a mere examination of the financial accounts, schedules and statements of ADBP although financial examination and audit techniques and methods will necessarily be employed to permit analysis and pass judgement on the financial condition and performance of the bank. Rather, the portfolio audit is meant to be a comprehensive, thorough and in-depth examination, analysis and assessment of the credit, portfolio management, financial management and risk management policies, operations and practices of the bank which directly bear on the condition and performance of its loan, equity and liquid assets.

The portfolio audit will provide an analysis and assessment of ten areas of ADBP's financial policy and operations:

- a. a description and an analysis of the performance, over 10 years, of the bank's loan, equity and liquid asset portfolios and the impact of the portfolio performance on the bank's overall financial condition and performance;
- b. an analysis and an assessment of the conduct of the credit and investment process and operations;
- c. an analysis and an assessment of the conduct of the portfolio supervision and management function;
- d. an analysis and an assessment of the management of the bank's credit, investment, liquidity, interest rate and foreign exchange risks; and
- e. an analysis and an assessment of the bank's financing.

Based on the results of portfolio audit, next steps for ADBP will have to be worked out. If the organization is not financially viable, drastic actions such as liquidation and transferring loans to collection agency will have to be considered. If a major restructuring of the portfolio (such as transferring bad loans to a collection agency) can lead to viability, it should be liberalized from government control by selling shares to the private sector. The government share could be reduced over time and private shareholders (including farmers' representatives) will then fully control its management. The new ADBP would work under the State Bank of Pakistan's regulation and supervision.

Specialized Programs and Institutions for Small Size Borrowers

The failure of commercial banks, cooperative banks, and the ADBP in reaching smallholders, the landless poor, and other small producers in rural areas clearly shows that there is a market failure in rural finance. The failure is due partly to high transaction costs and partly to weakness in program design. The experience of Grameen Bank in Bangladesh, and its replications elsewhere, clearly shows that it is possible to serve poor and small borrowers on a sustainable basis. However, subsidized funds are necessary not to subsidize interest rates, but to partially subsidize the costs of financial intermediation and institutional development. It takes about five years for a branch to function on its own.

The Grameen Bank experience shows that targeted credit can alleviate poverty as well as increase the human and physical capital of the poor (see box 3.1). Grameen Bank started with 60 percent of equity from the government. Over time, members bought shares, reducing the government share to 10 percent. Although outside the government, the bank is subject to regulation and supervision of the central bank.

Pakistan has been considering a Grameen Bank-type institution for smallholders and the poor in rural areas for more than six years. As a first step, the government could test the model in Pakistan on pilot basis. There is cause for optimism because group-based lending has proved successful where formal markets have failed. Such a bank therefore might work well with smallholders and other producers. Moreover, such a group-based bank can also be used as a platform for social intermediation and agricultural extension.

The GOP might also create a "Poverty Alleviation and Smallholders' Development Fund" to provide subsidized funds not only to the proposed specialized bank but also to NGOs, commercial banks, and the cooperative banks that provide financial services to the poor and smallholders. The purpose of these subsidized funds, which should be provided only for a limited time, will develop institutions to provide credit to the targeted group. Such fund thus would provide the start-up capital for many programs to operate on a competitive basis, which would otherwise not be possible. The ultimate borrowers, however, will pay market interest rate.

Appendix

Estimating Agricultural Savings

The three principal forms of agricultural savings estimated below are self-financed investments in agriculture bank deposits held by the noncorporate agricultural sector and currency holdings. The last ten years have seen an impressive increase in agricultural investments as measured in private fixed capital formation. The series reported in column 2 of Table 1 is a slightly adjusted version of the series reported in government statistics (Economic Surveys, various years). It assumes that official data underestimate actual capital formation by 10 percent due to inadequate coverage. The reported series reflects this adjustment. It shows (figure 1) that fixed capital formation hovered around 4 percent in 1974-80 and then increased rapidly between 1981 and 1984. In the last ten years (1985-94) the rate of fixed capital formation in agriculture has varied between 6 and 8 percent. Direct evidence on purchase of agricultural machinery and tubewells corroborates this trend.

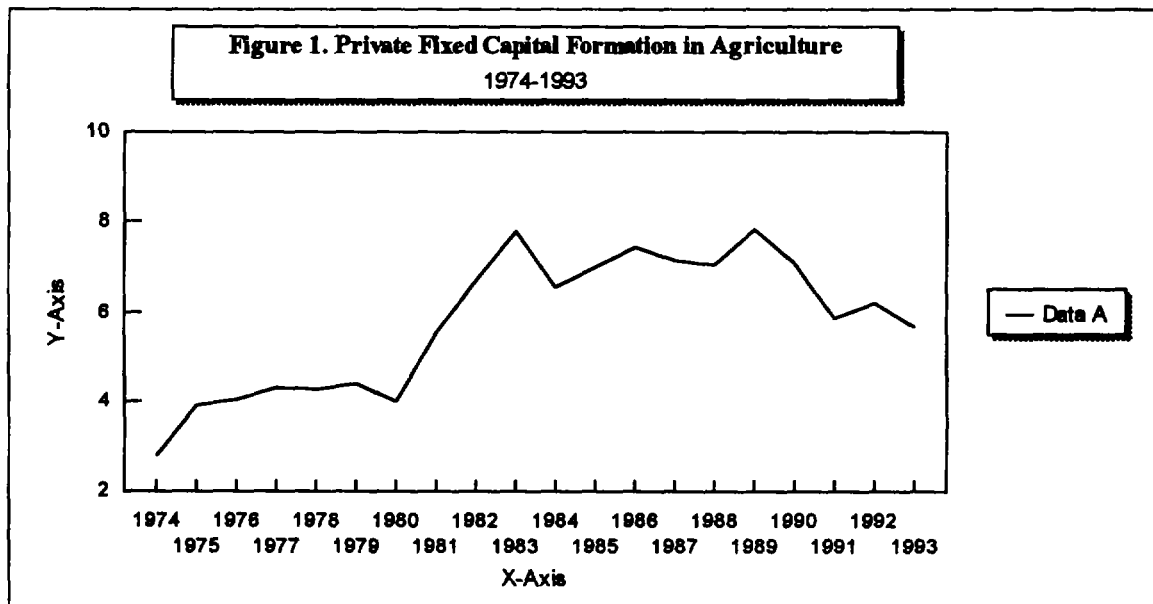
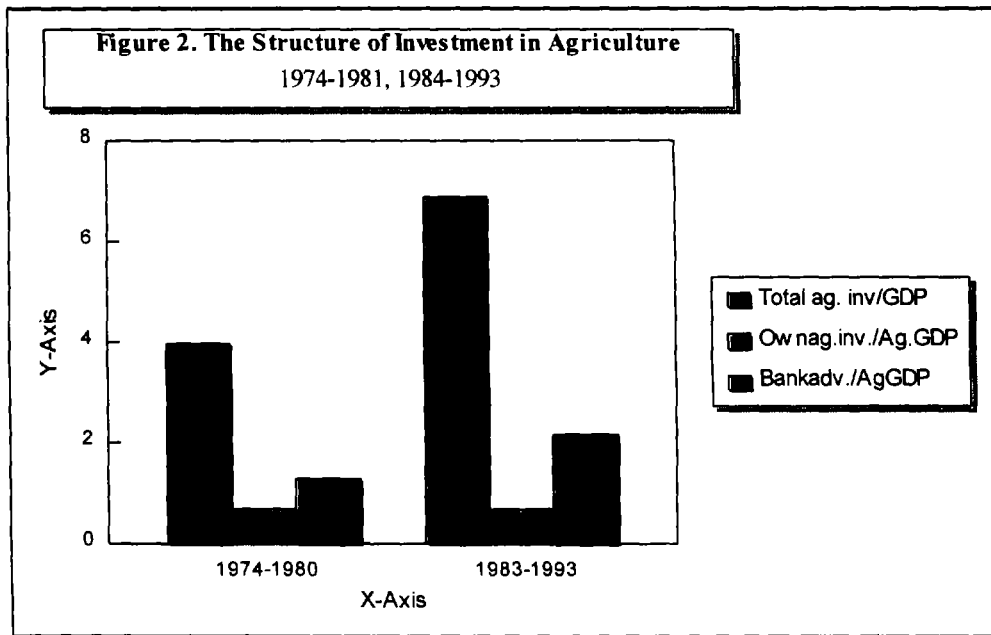


Table 1 Investment and Savings in Agriculture

	Investment	Advances	Deposits	Rupees	AGGDP	Owninvst	OI/AgGDP	D/Aggdp	Rt/aggdp	Savings	Dep/Adv	AgI/AGDP	OI/AgI	ADV/AGDP	ADV/AgI	*OI/AgI
1974	838.7	96	307	127.3	33533	842.7	2.51	0.92	0.38	3.81	3.2	2.8	0.9	0.29	10.23	89.77
1975	1496.8	1432	857	442.7	38338	64.8	0.17	2.24	1.15	3.56	0.6	3.9	0.04	3.74	95.67	4.33
1976	1776	878	544	554.8	43845	898	2.05	1.24	1.27	4.55	0.62	4.05	0.51	2	49.44	50.56
1977	2160.7	3	1423	529.5	50311	2157.7	4.29	2.83	1.05	8.17		4.29	1	0.01	0.14	99.86
1978	2291	665	867	1032.7	53915	1626	3.02	1.61	1.92	6.54	1.3	4.25	0.71	1.23	29.03	70.97
1979	2736.5	321	1009	741.8	62430	2415.5	3.87	1.62	1.19	6.67	3.14	4.38	0.88	0.51	11.73	88.27
1980	3060.4	325.9		1349.2	76399	2734.5	3.58	0	1.77		1.77	4.01	0.89	0.43	10.65	89.35
1981	5117.1	419.5		551	92216	4697.6	5.09	0	0.6			5.55	0.92	0.45	8.2	91.8
1982	6628.9	-418.5		1542.2	99380	7047.4	7.09	0	1.55			6.67	1.06	-0.42	-6.31	106.31
1983	8168.5	1128.1	3191.2	1191.7	104550	7040.4	6.73	3.05	1.14	10.93	2.83	7.81	0.86	1.08	13.81	86.19
1984	7967.7	2817.3	1304.8	837.5	121293	5150.4	4.25	1.08	0.89	6.01	0.46	6.57	0.65	2.32	35.36	84.64
1985	9036.5	4516.1	1917	1297.5	128801	4520.4	3.51	1.49	1.01	6.01	0.42	7.02	0.5	3.51	49.98	50.02
1986	10047.7	5891.1	5437.9	2171.1	135308	4156.6	3.07	4.02	1.6	8.7	0.92	7.43	0.41	4.35	58.63	41.37
1987	11183.3	8002.5	4457.7	2485.6	156357	3180.8	2.03	2.85	1.59	6.47	0.56	7.15	0.28	5.12	71.56	28.44
1988	12999.2	3469.9	2876.3	1847.4	184074	9529.3	5.18	1.56	1	7.74	0.83	7.06	0.73	1.89	26.69	73.31
1989	15463.4	5832.1	3195.9	3336.2	197441	9631.3	4.88	1.62	1.69	8.19	0.55	7.83	0.62	2.95	37.72	62.28
1990	16526.8	2691.2	1632.3	4161	233130	13835.6	5.93	0.7	1.78	8.42	0.61	7.09	0.84	1.15	16.28	83.72
1991	16462.4	1138.6	4352.6	2821.9	282374	15323.8	5.43	1.54	1	7.97	3.82	5.83	0.93	0.4	6.92	93.08
1992	18460.4	2908.8	6979.2	2858.6	297816	15551.6	5.22	2.34	0.96	8.53	2.4	6.2	0.84	0.98	15.76	84.24
1993	19822.4	623.1	2251.3	3432.4	349592	19199.3	5.49	0.64	0.98	7.12	3.61	5.67	0.97	0.18	3.14	96.86
												1.55				
1974- 1980		565.83	834.50				2.65	1.74	1.16	5.55	1.77	3.95	0.67	1.30		
1983- 1993		3547.16	3417.84				4.70	1.90	1.22	7.82	1.55	6.88	0.69	2.18		

Not all of the additional investment in agriculture can be attributed to higher savings. Since the late 1970s Pakistan's credit policy has substantially increased credit for agriculture. This was achieved by increasing lending targets of the nationalized commercial banks, allocating greater credit to the ADBP, and initiating lending at zero mark up. Thus total bank advances to agriculture increased rapidly. Table 1 shows that bank advances that had averaged Rs. 320 million per year in 1974-80 jumped to an average of Rs. 3 billion per year in 1984-94.

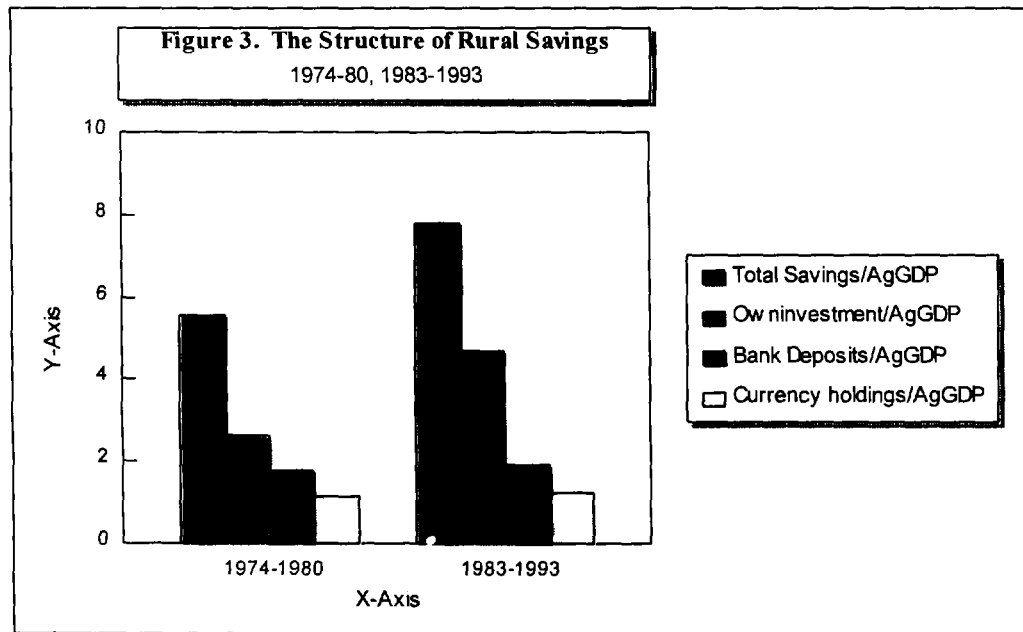


Savings may also be held in the form of bank deposits. Direct evidence on rural bank deposits is not available. It is generally believed, however, that rural deposits constitute nearly 30 percent of total bank deposits. The annual change in rural bank deposits, reported in Table 1, shows that savings in this form have increased from an annual average of Rs. 834.5 million in 1974-80 to Rs. 3.4 billion in 1984-94.

Currency holdings are a liquid form of household assets. Year-to-year changes in currency holdings give household savings in this asset form. To calculate this form of savings, it is assumed that rural households' change in currency holdings are approximately 20 percent of the change in currency holdings in the nonfinancial private sector. As column 10 of Table 1 shows, savings in this Rs. 2.5 billion on average per year.

The structure of savings has changed in recent years (figure 3). In 1974-80 capital formation in agriculture accounted for half the savings. This share increased to 60 percent in 1981-94. The importance of deposits and currency holdings has declined somewhat in recent years, but of the two, bank deposits remain the preferred saving mode.

The rural savings rate can be calculated by adding the three components of rural savings and dividing the total by the agricultural GDP (presented in column 12 of Table 1 and in figure 3). The savings rate averaged 7.8 percent in 1983-1993, compared with the average of 5.6 percent in 1974-80 (figure 3). What accounts for this increase in rural savings? First, rural incomes have increased in recent years because of improved prices as well as improved yields. Second, the flow of remittances into rural areas (from family members working in the oil-rich countries of the Middle East) has increased the cash holdings of rural households. Third, land values have increased substantially in the last fifteen years, which has increased rural wealth. Finally, the increased availability of tractors and tubewells has reduced the uncertainty associated with farming (by reducing the time between two crops and by smoothing out availability of water), which has brightened prospects of returns to agricultural investments.



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