

RURAL FINANCE IN DEVELOPING COUNTRIES

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Background

The establishment of formal agricultural credit systems in most developing countries over the recent decades was motivated by the belief that widespread shortages of short- and long-term finance constituted a constraint that arrested agricultural growth and development. The absence of what was perceived as affordable formal credit was also blamed for delaying, if not preventing, a timely adoption of new production technologies and the dissemination of nonlabor intensive inputs such as fertilizer, thereby slowing down the growth and development of the agricultural sector. The "infant industry" argument was frequently raised to support intervention in financial markets in favor of the sector as a whole or in support of specific segments of it (small-scale farmers, promotion of new technologies such as line of credit to finance shallow tubewells, and so on).

The "Second-Best" Argument

The emergence and proliferation of distorted economic policies affecting the agricultural and rural sectors provided prointerventionists with additional arguments favoring interventions by states in financial markets in order to compensate the agricultural sector for the distorted, urban-biased macropolicies (overvalued rate of exchange, price control on agricultural products, and overprotection of domestic industrial inputs that were used as agricultural inputs). Many donors initiated and supported channeling concessional credit to agricultural credit programs, based on the "second-best" argument, that is, mitigating the impact of "urban-biased" policies. Governments in developing countries have intervened heavily in rural financial markets, aiming at supplying affordable credit to small-scale farmers and rural entrepreneurs, who were perceived as a clientele with no alternative access to formal credit markets. A perceived imperfection in rural financial markets that generated a discrepancy between social and private costs and benefits has provided a justification for intervention in rural credit markets. As private returns were estimated to be below the social ones, the intervention was intended to overcome this failure and to spur investments that would not have materialized otherwise.

The perceived imperfections in rural credit markets stem from the characteristics of agricultural production systems. Agricultural income is influenced markedly by climatic conditions, which expose the rural population to higher risks than those prevailing in other sectors. In addition, crops may often be subject to drastic price changes, causing further variability in farmers' income and the related repayment capacity. These risks are typically highly correlated across wide segments of the farming community. Lending in rural areas often implies servicing a geographically dispersed

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clientele, which entails high transaction costs. In many developing countries, the weak legal system and the ineffective reinforcement arrangements have contributed to the reluctance of commercial banks to engage in lending to the rural population. Related to this issue is the frequent lack of secure land tenure, leading to the absence of collateral or reduced foreclosure capability.

When commercial lending institutions have been active in rural areas, they, in most instances, have focused on large-scale farmers while small-scale farmers have been ignored, because of the significant lending cost in processing and servicing unsecured small loans. The prevalent, though often unjustified, belief that small entrepreneurs constitute a higher risk than large ones has encouraged catering to large borrowers. In the absence of strong formal credit markets, informal credit markets have flourished in many developing countries. These informal markets are characterized by low transaction costs for the borrower and rapid disbursement of funds. These features can be attributed to close familiarity with the borrower's creditworthiness that, combined with efficient loan collection mechanisms, made the informal credit market, often either the exclusive or the preferred source of credit in rural areas in spite of high interest charges. Most of the informal lenders, however, were limited in the term diversification of the loan portfolio, and operated within limited geographical areas.

The intervention was viewed as justified also on equity grounds--moneylenders' short-term, high-cost financing was considered an impediment to growth and equity objectives. The social cost of intervening in financial markets was perceived to be minor. Three basic forms of intervention in the rural credit market have prevailed: (a) the administrative allocation of funds to agricultural activities and rural areas, (b) an imposed interest rate ceiling, and (c) the establishment of and regular support for specialized agricultural credit institutions (SACI) in order to cover their regular deficits. These interventions attempted to influence the amount loaned in rural areas and the price of loanable funds as well as to control the institutional development and mode of operations of the SACIs involved.

Performance

By and large, past performance of the state- and donor-supported agricultural credit operations has been below expectations. Most of the programs reached only a minority of the farming population, while benefits were frequently concentrated among wealthier farmers. Many of the institutions established or supported for delivering credit programs have not developed into self-sustaining credit facilities. Furthermore in many instances, the subsidy dependence of these institutions has become significant and has been rising. This, in turn, makes credit programs an extremely costly affair for their sponsoring governments. For example, the agricultural credit systems of the World Bank's three most important agricultural credit borrowers in the 1980s, Brazil, Mexico, and India, have all suffered from severe equity erosion. In Brazil and Mexico, highly negative interest rates in an inflationary environment generated the erosion, while in India the equity erosion resulted from dismal loan collection (Yaron and Siegel 1988). In the agricultural credit systems of Brazil, Mexico, and India administrative interventions retarded the development of efficient financial markets and had negative implications for other sectors in the economy by depriving them of loanable funds and increasing their borrowing costs.

As an Operation Evaluation Department (OED) study of agricultural credit projects in twenty-four countries points out, these projects often have failed to become vehicles to upgrade farm technology.¹ The programs reached a minority of the farming population and benefits were frequently concentrated among wealthier farmers. For example, a study in Costa Rica has shown that income

distribution could be significantly improved if credit subsidies were eliminated (Vogel 1984). Many of the institutions established or supported for delivering credit programs did not develop into self-sustained credit facilities.²

The disappointing performance of the credit supply-led approach can be attributed to two sets of issues: (a) some of the underlying premises of this approach were frequently not valid, and (b) the institutions and arrangements established or utilized for implementing the policy were often designed and operated in a nonviable manner, or within a policy and social environment hindering their effectiveness.

Issues Related to Supply-Led Credit Approach

Perceived Shortage of Credit

In many instances, it is not clear that rural areas are significantly constrained by a shortage of funds. Furthermore, in areas where effective interest rates are kept low through subsidies or ceilings, demand tends to exceed supply and an artificial sense of shortage of credit prevails. Recent surveys in China and Thailand indicated that both among borrowing and nonborrowing farmers (mostly smallholders), only a minority had an unsatisfied demand for formal liquidity (Feder and others 1989).³ Most farmers have access to the more flexible services provided by informal lenders. It is commonly claimed that informal lenders charge very high interest rates as a result of their monopoly position, and are therefore not socially desirable. This view is not necessarily warranted. For example, studies in India, Malaysia, and the Philippines show that there is a significant level of competition in informal markets and relatively little monopoly. In the Philippines, monopoly profits amounted to less than 4 percent of the total sum lent (Harris 1983; Singh 1983; Wells 1983; Technical Board of Agricultural Credit 1981). In many instances, the high rates of interest charged by informal lenders reflect primarily the high costs and risks involved in lending to small farmers, although cases of exploitation exist.

The general validity of the premise that credit shortages inhibit adoption of new technology is questionable because many inputs and technologies are divisible and can be adopted in a gradual manner, so little capital is needed initially. Poor marketing networks, input supplies, and distorted product prices are often more crucial constraints on technology adoption than lack of credit. Unless the new technology requires substantial up-front outlays, with returns spread over time, it is not obvious that credit is the best mechanism to encourage adoption of new technologies. Studies indicate that even small farmers have a significant savings potential, and are capable of mobilizing resources when profitable opportunities for investment exist.⁴ This potential justifies institution building to facilitate intermediation, but not necessarily infusion of external funds. Rather, a large inflow of external funds, especially when made available at subsidized rates, suppresses both savings and the growth of viable commercial institutions. The perceived failure of credit markets to provide funding for worthy agricultural activities can often be traced to inadequate public investment in legal and physical infrastructure, enforcement mechanisms, and commodity risk mitigating arrangements that would make lending to agriculture a more profitable undertaking.

Fungibility of money

The effectiveness of attempts to address the inadequacy of market-induced institutional credit to agriculture through government intervention is often hindered by the fungibility of money. In many instances, unless costly supervision is undertaken, borrowers can use funds for purposes preferable to them, regardless of the objectives promoted by policymakers. Furthermore, it is impossible to ensure that borrowed funds are used to finance more investment than would have taken place otherwise, with funding from other sources. Additional loan funds may thus generate only a partial increase in investment, especially if the profitability of agriculture is low and farmers have other, more attractive investment or consumption opportunities. Two OED studies on the effect of agricultural credit found that substitution of funds was a major factor responsible for the limited success of credit in enhancing productivity (OED 1980, 1976). For example, of the funds provided through Bank-supported credit projects in Mexico, Pakistan, and the Philippines, only 25 to 50 percent were estimated to have added to agricultural investment. The common argument that subsidized credit should compensate farmers for other policies, which penalize agriculture (for example, price controls, overvalued exchange rates, and commodity export taxes), is frequently not valid because the subsidy does not change the profitability of the agricultural activities adversely affected and invariably accrues largely as a windfall to the less needy beneficiaries. Even if diversion of funds is effectively controlled, the recipients of the funds are, in most instances, only a small proportion of the farming population, and thus the distortion in resource allocation is not significantly rectified.

Issues Related to Credit Delivery System

Lack of Savings Mobilization and Misguided Performance Criteria

Many specialized agricultural credit institutions have suffered from deficiencies inherent in their design. They frequently were not expected to function as true financial intermediaries that mobilize deposits to make loans. Instead these institutions have merely channeled government supplied funds to rural borrowers. The continuous availability of external funds at below-market interest rates has not obliged rural financial institutions to operate under financial viability constraints. Together with the lack of competition and limited accountability, this has led to bad loans, extremely inefficient operations, patronage, and irregularities. A report prepared for the World Bank by local experts in India states that "During the election years there is considerable propaganda from political platforms for postponement of loan recovery or pressure on the credit institutions to grant extensions to avoid or delay the enforcement process of recovery. The willful defaulters are, in general, socially and politically important people whose example others are likely to follow." Therefore, it is not surprising that arrears of about 50 percent have plagued this system. Furthermore, the above cited report observes that "the general climate in rural areas is becoming increasingly hostile to recoveries."

Because their operations were not driven by commercial financial performance criteria, lending institutions have lacked the incentives to make strong collection efforts. Rather the performance incentives of specialized agricultural credit institutions often have been based on quick loan approval and disbursement and rapid growth in the lending volume, facilitated by rapidly

expanding external funding from donors. Deficient financial reporting practices have made it difficult to determine when and which payments are overdue. Typically, data presented on arrears (when they are available at all) only allow for a partial analysis of the loan portfolio. This underestimates the severity of the arrears problem when the portfolio grows rapidly in nominal terms (high inflationary economies) and the loan portfolio consists of substantial long-term loans or grace periods are granted. Among important Bank clients, Brazil, Mexico, and Yugoslavia all used stock measures of loan arrears, despite the fact that they were all plagued by high inflation. This resulted in a misleading picture of the quality of the loan portfolio (Yaron and Siegel 1988). Proper provisions for bad debts were not made and an adequate assessment of the institution's viability was often impossible. This deficiency has been widespread, as reflected by the fact that only one-third of twenty-four Bank appraisal reports for agricultural credit projects, which were reviewed by AGR for the period 1982-88, reported on annual collection ratios and six provided no information on arrears.

As a result, financial data often present rosy scenarios while in absence of adequate provisions for loan losses, the SACIs' financial statements are likely to mislead the analyst. The overall cost of maintaining the SACI afloat is almost never presented. Many of the subsidies involved in SACIs' operations, such as concessional financial resources that were made available by the Central Bank, or state repayment of foreign exchange losses on strong currency denominated loans, are not adequately captured in the SACIs' financial statements when the issue is the overall financial cost of maintaining the SACI afloat. Deficient financial reporting has contributed to lack of clarity on the SACIs cost side. In many instances, the subsidies that benefited the SACIs were not transparent, not funded from the budget, in order to allow a public debate on their costs, benefits, and social desirability.

Specialized agricultural credit institutions, which depend almost exclusively on external funds, have to follow government directives when allocating their funds. As these directives frequently include administrative allocation of funds to certain target groups and exclusive lending for agriculture, the financial intermediaries have limited ability to diversify their loan portfolio, to use creditworthiness criteria, and to implement adequate risk management policy.

High Lending and Borrowing Costs

In their attempt to ensure eligibility and avoid diversion of funds, specialized formal institutions incur high costs and also impose high transaction costs on borrowers. Typically, farmers are obliged to spend significant amounts of both money and time to obtain loans from specialized institutions. In fact, small borrowers' transaction costs are often so high that the effective cost of a loan (including transaction costs and interest payments) obtained in the formal market exceeds that of a loan from the informal market. A study in Bangladesh, for example, has shown that the average effective cost of a loan smaller than 1,000 Takas varied between 146 percent and 169 percent in the formal market, while it varied from 57 percent to 86 percent in the informal market (Ahmed 1989). Only for loans above this amount were effective loan cost cheaper for credit from formal markets. Another study in Bolivia showed that transaction costs which borrowers had to incur before they even knew whether their loan would ever be approved amounted to over 18 percent of the amount applied for (Ladman 1984). The same costs amounted to slightly over 8 percent in the informal market. A cross-sectional study found that transaction cost as a percentage of official interest rates could be as high as 245 percent (Bangladesh) for small loans, while it was between 3 percent and 56 percent for large loans (Cuevas 1988). The high borrower transaction costs for small loans obtained from official lenders explain why small farmers who require modest loans may avoid using the formal market.

The Effect of Controls on Interest Rates

Official ceilings on onlending interest rates have frequently forced lending at rates which do not cover transaction and risk costs. For example, the typical spreads of 3 to 6 percent do not provide for full cost recovery when lenders' administrative costs for small- or medium-sized loans can reach up to 20 percent of the sum lent. Even specialized rural financial institutions with a good loan portfolio and excellent collection rates cannot cover their operating expenses with such a low spread, as shown by the example of the Malawi Development Finance Company, which collects over 97 percent of loans made, but can only cover 17 to 20 percent of operating costs (Africa Technical Department 1989). Further, it has often not been taken fully into account that high rediscount margins (whereby the central bank refinances most of the volume of subloans) allow financial intermediaries to overcome their liquidity problem while being left with the full credit risk. In the face of restricted onlending interest rates, financial intermediaries resorted to credit rationing. Hence, fewer but larger loans were made to save on administrative costs and minimize risk. This caused concentration of benefits among larger farmers in spite of the programs' equity objective (Braverman and Guasch 1989). Administratively fixed or improperly indexed interest rates caused massive erosion of rural financial institutions' equity in several highly inflationary economies, which in some cases was temporarily masked by the inflow of external funds. In Mexico, for example, loans were deficiently indexed, so their nominal value increased by only slightly more than one-half the enormous inflation rate between 1980-87. In Brazil, improper indexation resulted in a subsidy of US \$5 billion within a 6-month period in 1986 (OED 1989).

Loan Collection Performance

Borrowers' incentives to repay loans are limited if it is known that no serious efforts will be made to collect the dues and that default will not affect access to future loans. Government leniency on delinquencies has frequently encouraged new defaults. These factors, when combined with official lenders' inadequate incentives to collect loan repayments, led to low recovery rates in many official credit projects. Collection rates have usually varied between 50 and 80 percent, but sometimes have even fallen below 20 percent. In Bolivia, for example, delinquencies were around 47 percent in the 1970s. Over 50 percent of the loans made through the cooperative system in Thailand were in arrears in the 1980s. Delinquency rates of 50 percent were observed in India, 40 percent in Malaysia and Nepal, and about 80 percent in Bangladesh (APO 1984, 1988).

Because of inefficient operations and low collection rates of many government supported lending institutions, official agricultural credit programs often have been extremely costly to governments and remained without adequate developmental impact. For example, the official rural financial system of Mexico has cost the government, over an extended inflationary period, more than one dollar for each dollar lent. It is not a coincidence that the rural credit systems of the World Bank's three most important agricultural credit borrowers, Brazil, Mexico, and India, have all experienced severe problems and placed enormous burdens both directly on government budgets and less directly on the external debt position. The government of Brazil has at times allocated about one-fourth of its total agricultural expenditure to maintain the agricultural credit system. A major lesson cited by an OED report of a credit project in Brazil is "the inappropriateness of subsidized credit as a tool for agricultural development" (OED 1989). A Bank-sponsored study of credit impact indicates

that the main effect was a substitution of purchased inputs and machinery for labor, with a very modest change in output (Binswanger and others 1989).

Successful Credit Programs

Notable exceptions are the agricultural credit systems in the Republic of Korea and Taiwan (China), where collection exceeds 90 percent. These systems' high recovery rates have frequently been ascribed to strong village cooperative systems and social cohesiveness that have provided repayment incentives and enforcement mechanisms. Together with a small number of successful projects in other parts of the world, these systems have shown that although agriculture is subjected to higher risks than other sectors, satisfactory repayment rates can be achieved if the right incentive and enforcement structure exists.

Arrangements such as lending groups or credit cooperatives have the potential to reduce both the transaction costs of lending to small farmers and the risks involved. Successful group lending programs have shown the importance of factors such as homogeneous borrowing groups, which are jointly liable and assume some of the managerial and supervisory responsibilities, a common bond other than credit, and denying access to future credit to the whole group in case of default by any member. Important factors for success of credit cooperatives include bottom-up institutional development, extensive training at all levels, reliance on savings mobilization and equity contribution rather than external funds, slow expansion of cooperative activities, and strict monitoring and auditing. The limited success observed with such arrangements to date is mostly because of shortcomings in their implementation and general deficiencies such as low interest rates rather than factors inherent in their design (Huppi and Feder 1989).

In recent years, other models of successful rural finance institutions have emerged. Their success may assist us in better understanding the policies, mode of operations, and incentives that generated significant outreach and financial viability. The Indonesian general rural credit program was introduced in early 1984 by Bank Rakyat Indonesia - Unit Desa (BUD) as a supply-led institution. Over a relatively short period of time, from 1984 to 1989, it has become extremely successful in mobilizing and servicing deposits and savings and has emerged as a well-balanced financial institution. BUD has provided depositing and saving services to a large number of clients and its savings volume currently significantly exceeds its outstanding loan portfolio.

Effective policies and management practices stand behind BUD's success. The major policies have been (a) applying high market on-lending interest rates that cover the overall cost of operations; (b) paying high positive interest rates on savings; (c) applying mobile banking techniques that contributed to maintaining administrative costs in check; (d) applying significant incentives to borrowers for timely repayment in the form of interest rebates; (e) promoting and paying bonuses to staff based on branch financial performance; and (f) applying simple, clear, and efficient methods of loan approval, disbursements, loan repayments, and saving mobilization. Clearly, applying these policies in a stable economy, wherein inflation was controlled below 10 percent a year, has contributed significantly to the program's success. Over a period of a few years, and despite the high annual growth rate in outstanding loan portfolio, BUD became subsidy independent, and simultaneously obtained high return on its equity over the recent years. The role of subsidized financial resources in the initial stage of BUD's operations was neither crucial nor necessary. In retrospect, one may argue that BUD actually needed nonsubsidized financial resources to resolve a

negative cash flow problem in the first years of operations, rather than concessional financial resources (Yaron 1992).

The Bank for Agriculture and Agriculture Cooperatives (BAAC) in Thailand was established in 1966 as a government-owned bank to provide financial assistance to agricultural producers. Currently, it provides credit and other financial services to more than one-half of the rural population. It gradually has made progress toward subsidy independence by using efficient modes of operations that resulted in very low transaction costs. Its overall administrative cost, measured against its total assets, is about 4 percent as a result of group lending and the use of mobile banking. It has achieved a high loan recovery in lending to individual farmers and promoted an advanced financial reporting system. Recently, the highest growing source of finance has been voluntary savings, thereby shifting its initial characteristic from a supply-led institution to a more universal, well-balanced financial institution, as well as reducing its already modest subsidy dependence.

These two institutions differ in many ways in their mode of operations, yet they both have progressed significantly in the right direction by (a) applying market-oriented onlending and deposit interest rates; (b) emphasizing saving mobilization; (c) providing staff and clients with significant incentive and bonus schemes; (d) applying efficient mobile banking systems; (e) achieving high loan recovery; and (f) making use of some sort of social mechanism in efficient, rapid screening and approving of loans. It should be underscored that beside stable economies, economic policies enhancing more liberalized financial markets in the two countries contributed to the two schemes improved performance.

The Impact of the Bank's Recent Policy Paper on Financial Sector Operations on Future Agricultural Credit Lending

The Bank's recent policy paper on financial sector operations considers directed credit to be a potentially useful tool for opening credit access to activities or groups whose access was impeded by inadequate information or other market imperfections. Although there were exceptions, it is generally recognized that directed credit programs often have been misused with negative consequence for resource allocation, income distribution, and macroeconomic management. Therefore, it is recommended that financial sector strategies as well as Bank lending operations that involve directed credit be carefully analyzed and well justified to ensure that objectives are adequately focused and achievable and that the programs would not outlive their usefulness.

Past experience has led the Bank to look at the matter more cautiously and to require an explicit justification before embarking on directed credit schemes or lending through specialized sector credit institutions. The conditions for ensuring that they would be engines of growth and consistent with efficient financial sector development had to be very carefully defined and established. The choice, however, of whether the Bank supports sectoral institutions or universal commercial banks should ultimately be determined by the market; there is nothing inherently wrong with a specialized institution if it is competitive and can survive in a competitive framework. The criteria being proposed for evaluating the financial intermediaries, therefore, should be uniformly applied across all institutions. This implies pursuing participation from many financial intermediaries in agricultural credit project implementation, rather than maintenance of the position of a national agricultural Bank as an exclusive intermediary.

The last 2 years have witnessed a major reevaluation of the Bank's approach, with much tighter standards on financial sector operations, as well as lending through financial intermediaries. This more restrictive approach has already generated a decline in Bank agricultural credit lending through financial intermediaries over the last 3 years. In summary, the current Bank policy does not exclude directed credit programs per se from Bank support. It simply subjects them to a more restrictive burden of proof test. The extent to which the current, more restrictive requirements differ from past performance is highlighted by the eligibility criteria for financial intermediaries' participation in project implementation. The Bank's recent Operational Directives on Financial Sector Operations reads: "Participating FIs should, at a minimum, demonstrate a collection rate, which, given its lending margin and applicable tax rate, and taking into account a realistic estimate of possible portfolio losses, inflation, and the opportunity cost of capital, avoids the erosion of its capital."⁵

Implications for Future Agricultural Credit Lending

Targeting lending for agricultural credit projects may become warranted when it follows significant changes that have occurred in the economy and that are expected to have substantial impact on the rural sector. The recent Bank policy paper on financial sector operations reads: "In many developing countries, poor information, unfamiliarity with modern financial instruments and institutions, lack of lender experience and expertise in evaluating certain activities or new technologies, absence of confidence between borrowers and lenders, uncertainties regarding the permanence of economic reforms, or simply tradition may limit market response to the opportunities opened and demands made by financial sector reform and broader economic adjustment. Properly designed and complemented by necessary policy reforms, targeted credit can act as a catalyst to overcome such obstacles, opening market access to previously excluded groups and sectors, such as microenterprises and small farmers, thereby promoting the development of credit markets."⁶

It has to be, however, substantiated that full reliance on market forces is not preferable, and that, in the absence of the proposed intervention in the financial market, the supply response or the adoption of new technologies would be unacceptably slow. In the circumstances outlined, agricultural credit projects serving as a catalyst in growth should be accompanied by the removal of distorted policies that inhibit demand for agriculture investments. Introducing a specific targeted line of credit aimed at speeding up supply response can be a complementary measure to the removal of price controls on agricultural products that hindered market-induced lending to the rural sector. Similarly, directed credit can be useful when the banking system is considered to be responding too slowly to other significant reforms such as changes in the terms of trade of the agricultural sector because of trade liberalization, a sharp correction of an overstated rate of exchange, or removal of other "urban bias" policies. Under such circumstances, inadequate information on the creditworthiness of potential borrowers, lack of confidence in the sustainability of the changes introduced, and excessive risk aversion by lenders and borrowers can be mitigated by a directed line of credit.

There may be a justification for an agricultural credit line aimed at speeding up growth when reforms are introduced to remove bottlenecks resulting from an inadequate land tenure system and deficient contract enforcement arrangements. Likewise, the introduction of new and unfamiliar technologies characterized by capital intensity, may benefit from a directed credit at the initial stage. It must be established, however, that an a priori justification for intervention in the credit market

rather than alternative ones exists. Possible direct and indirect negative implications of the interventions ought to be fully considered.

The evaluation of the proposed interventions should verify that other problems afflicting agriculture are not assessed to significantly diminish the desired effect of the intervention in the credit market. When subsidy is granted, the overall subsidy cost in operating a program of rural finance should be made transparent to ensure adequate assessment of the desirability of the intervention in the financial market as well as the use of quantified milestones in progress to be made toward subsidy independence. The methodology of computing the Subsidy Dependence Index (SDI) of a rural finance institution is instrumental in (a) placing the total amount of subsidies received by an institution in the context of its activity level, the interest earned on its loan portfolio (similar to calculations such as effective protection or job creation cost); and (b) tracking progress made by an institution in reducing its subsidy dependence overtime.⁷

When such an intervention in the financial market is considered warranted, it is essential to ensure that the "infant industry" is supported on a transitory basis. This would avoid unwarranted prolonging of the intervention given that market forces are assumed to catch-up and resolve the transitory issue of inadequate allocation of funds to priority sectors and activities. The "infant industry" approach, by definition, conveys the message that an intervention should eventually be phased out.

Given the poor state of affairs in the agricultural credit systems of many client countries, many rural credit operations will need to be conditioned on, and some may include as a component, a significant financial sector reform.⁸ The reform may be specific to agricultural credit, or deal more generally with the financial system, depending on the nature of problems faced. The aim of the reform would be to eliminate obstacles to the efficient functioning of the rural credit market, in the broadest sense, under competitive conditions such as removal of monopoly positions in access to government rediscount facilities, elimination or tighter targeting of subsidies, and deregulation of interest rates.

The potential viability of existing specialized agricultural credit institutions in a reformed competitive environment should be a condition of their participation in Bank sponsored rural credit operations. In many instances, a significant institution building component may be warranted involving an overhaul of the institution's structure and mode of operations focus on enhanced efficiency, aimed at reducing transaction costs and improving loan collections. Reliance on savings mobilization, instead of on rediscounting facilities and applying adequate accounting, auditing procedures, and managerial information systems are essential for achieving viability. Appropriate staff training and staff and borrowers' incentives, emphasis on strict loan collection and its proper measurement are key ingredients of viable institutions. The managerial information system should make transparent the social cost of state support to the credit institution, to allow public debate on its desirability, as well as tracing changes in the subsidy dependence over time.

The impressive experience of the rural credit system of Bank Rakyat Indonesia - Unit Desa (BUD) suggests that, in contrast to the frequent failures of rural credit systems, a well-designed rural finance program can be successful and profitable (Yaron 1992). In a relatively short period the BUD program became subsidy independent and achieved high return on its equity. It increased its assets annually by more than real 30 percent over the period 1986-89, and applied positive lending and depositing interest rates. BUD succeeded to rely on savings mobilization as its main growth factor, reaching savings amounts that significantly exceeded its loan portfolio by the end of 1990. This suggests that there was a tremendous demand for saving services in the rural areas that allowed BUD to become, after a very short period, independent from donor funds. Loans were granted to all income-generating activities and were not limited to agriculture, thereby achieving a more balanced lender risk distribution.

Where smallholders' access to credit is a valid concern within a Bank credit operation, project design should make as much use as possible of self-help groups and other grassroots voluntary organizations, which allow the reduction of transaction costs and lending risks. However, given the lessons learned about the prerequisites for successful outcomes with such arrangements, attention must be paid to the likely effectiveness of existing organizations. Caution must also be exercised in order not to make the existence of local organizations overly dependent on external funds, lest this change their character and cause their demise. This, however, implies a limited ability of such organizations to absorb large volumes of external funds.

Preferred Mode of Assistance to the Rural Finance Institutions (RFI)

State or donor financial support, in the form of making financial resources available (not necessarily at a subsidized interest rate), can constitute an important contribution to a newly established Rural Finance Institution during the initial, negative cashflow stage of the RFI's development. Savings mobilization should not become the minor residual balance, as has often happened with supply-led credit institutions, that constitutes the difference between the loan portfolio and concessional borrowed funds. On the contrary, state or donor lending to the RFI should only assist in temporarily closing the gap between an RFI's fully motivated savings mobilization and its bankable loan portfolio. BUD's successful experience clearly supports this notion. This implies that state or donor support could generally be used for a shorter period of time when compared with past practice of cooperation between supply-led financial institutions and donors. Obviously, the servicing of new clients, opening of new branches, and rendering services to an increased share of the rural population are factors which define the length of the period in which the financial support to the RFI may be useful. The Indonesian example indicates that making funds available was important to the program's rapid growth during its initial stage of development. However, no subsidy in the form of concessional borrowed funds was necessary for its growth, as is demonstrated by its full 1989 subsidy independence. The issue that donor support had to resolve during BUD's initial stage of operations was the availability of funds, not subsidizing their cost.

Institution Building

State or donor support to an RFI should concentrate on institution building and developing to become a viable rural finance institution. Targeted credit without an adequate component of institution building is almost always a guaranteed recipe for prolonged future dependence on donor or state funds and bail-outs. The mere notion that it is considered socially desirable to intervene in the financial market and to use scarce resources for achieving specific objectives implies, in most instances, a need for institutional building in order to ensure that the financial institution involved is on its way to becoming mature, autonomous, and efficient. Care taken in institution building is often the prime difference between an RFI that could eventually become self-sustaining, after a few years of support granted during its start-up period, and an RFI that would need permanent subsidies and bail-outs. The lack of adequate emphasis on institution building in RFIs is a common characteristic of supply-led credit institutions. Too few resources are devoted to guaranteeing adequate training, efficient and meaningful managerial information systems, staff incentive systems, promotion of saving

mobilization, and the like, all of which are crucial to an RFI becoming an independent, well-balanced, and increasingly self-sustainable institution.

Endnotes

1. Document JAC 88-35 of the Joint Audit Committee, "Approach Paper: A Review of Bank Lending for Agricultural Credit (1951-1987)" dated October 5, 1988, p. 3, para. 6. The study covered the period before 1976.
2. Document JAC 88-35 of the Joint Audit Committee, October 5, 1988.
3. Unpublished data from World Bank study RPO 673-33 "Land Title Security and Farm Productivity in Thailand."
4. See for example, "Review of Rural Finances Services in Sub-Saharan Africa," Agriculture Division of Africa Technical Department, 1989; or A. Wague, "Mobilization of Rural Savings in Developing Countries: The Case of Mali." Ph.D. Dissertation, University of Cincinnati, 1988; or C. Cuevas, "Savings and Loans Cooperative in Rural Areas of Developing Countries, Recent Performance and Potential." *Savings and Development* 1, 1988.
5. World Bank Operational Directive 8:30 Financial Sector Operations, page 16, paragraph 65 (c).
6. World Bank Policies Guiding Financial Sector Operations, April 1991, page 9, paragraph 10.
7. Yaron, J. 1992. *Assessing Development Finance Institutions: A Public Interest Analysis*. World Bank Discussion Paper 174. Washington, D.C.
8. This applies to credit programs in all regions, see for example, "Review of Finances Services in Sub-Saharan Africa", Agriculture Division of Africa Technical Department, 1989; and "Latin America - New Directions for Agricultural Credit Projects and Rural Financial Policies", Trade, Finance and Industry Division, Latin America Technical Department, 1989.

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