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PROBLEMS WITH SUPPLY-LEADING FINANCE IN AGRICULTURAL DEVELOPMENT

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The authors critique the conceptual framework for supply-leading financial development in agriculture. Inappropriate or erroneous assumptions are reviewed along with the distorted operational characteristics and problems that have emerged in agricultural credit programs and institutions in the last decade in LDC's. Counterproductive pricing, investment and interest rate policies are highlighted along with inappropriate program and institutional organization for financial intermediation. Reforms are recommended to revitalize these programs to make a more lasting contribution to the development of rural financial markets in LDC's.

In many less-developed countries rural development banks and related agricultural credit programs have been instituted in order to promote the supply of credit to service national development objectives. Among these objectives are rapid increases in agricultural production, employment and incomes, modernization of agricultural technology and practices, domestic self-sufficiency in food production, a favourable agricultural balance of trade, and

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equity within the rural sector and between the rural and nonrural sectors. The historical record of these programs is not encouraging (Von Pischke, 1981). Because of the fungibility, divisibility, and substitutability of money, it is difficult to unambiguously attribute specific increases in production and income to specific credit activities (David and Meyer, 1980). Also, in some cases, credit expansion has coincided with severe output decreases and rising agricultural imports (Bourne and Graham, 1980). Rural inequality instead of decreasing appears to have increased as a consequence of agricultural credit policy (Gonzalez-Vega, 1981; Vogel, 1977). Furthermore, many rural credit institutions and programs have not become financially viable. Their initially large portfolios have tended to decline or stagnate rather than grow in real or nominal terms, and their operations have frequently compromised the healthy development of rural financial markets (Adams, 1980).

In our view, the manifest weaknesses of the prevailing financial strategy for agricultural development in LDC's are in part a consequence of the faulty assumptions behind this "supply-leading" strategy in LDC agriculture and, in part, a result of major defects in the design and operations of these credit institutions and programs. This paper will critically appraise this strategy and offer recommendations for the reform and revitalization of rural financial markets.

Supply-Leading Agricultural Finance

The concept of "supply-leading finance" is attributable to Patrick who distinguished between "demand following" and "supply leading" finance in the following manner: "We may term as 'demand-following' the phenomenon in which the creation of modern financial institutions, their financial assets and liabilities, and related financial services is in response to the demand for these services by investors and savers in the real economy. In this case, the evolutionary development of the financial system is a continuing consequence of the pervasive, sweeping process of economic development....; finance is essentially passive and permissive in the growth process."(Patrick, 1966, 174-5).

In contrast, according to Patrick, supply-leading finance is "the creation of financial institutions and the supply of their financial assets, liabilities, and related financial services in advance of demand for them, especially the demand of entrepreneurs in the modern, growth-inducing sectors. 'Supply-leading' has two functions: to transfer resources from traditional (non-growth) sectors to modern sectors, and to promote and stimulate an entrepreneurial response in these modern sectors." (Patrick, 175-6) Unlike demand-following finance, supply-leading finance "presents an opportunity to induce real growth by financial means...(though) as the process of real growth occurs, the supply-leading impetus gradually becomes less important, and the demand following financial response becomes dominant." (Patrick, 176-177). Patrick's supply leading strategy applies to a wide range of potential sectors in the economy and can refer to a large number of institutions and programs in the drive to development. Our concern here is more limited. We choose to critically evaluate the application of the supply leading strategy in the agricultural sector and, within the sector, evaluate those initiatives that have led to the creation of agricultural development banks or specialized credit programs designed to service selected target groups in agriculture through an increased supply of credit. Examples are legion here from agricultural development banks in such countries as the Dominican Republic, Bolivia, Honduras, Colombia, Jamaica and Thailand, on the one hand, to specialized agricultural portfolios in an established national bank (as in Brazil) or in a nationalized banking system (as in Costa Rica and India).

Government-owned agricultural financial institutions and public sector credit programs in less-developed countries today can be characterized as "supply-leading" in the sense used by Patrick despite some obvious differences. One difference from Patrick's portrayal lies in the fact that resources for these programs are transferred not from traditional sectors within the country, but from international funding agencies, foreign governments, and the local public purse. The financial openness of the typical developing country to international development finance makes it possible for supply-leading finance to promote the expansion of the "modern" sectors without constraining the growth of the "traditional" sectors. Another difference stems from the nature of the intended beneficiaries of public sector credit programs. Unlike the Patrick scenario, the current intention of many supply-leading financial efforts in LDC agriculture is not to encourage or foster the growth of modern sectors (e.g. agro-industry and large scale export agriculture) at the expense of the traditional, small farm sector. Instead, the strategy aims at transforming the production technology of traditional producers and sectors.

Furthermore, these intended beneficiaries, by virtue of being smaller, higher risk enterprises, are incapable of constituting a leading sector as the initial formulation of the supply-leading concept assumed. The fact that the supply-leading financial strategy is now frequently directed towards enterprises lacking catalytic potential to lead other sectors is due to changes in development strategies and objectives subsequent to Patrick's essay. Industrial growth has lost status as a development strategy and goal. Equity, basic needs and improved levels of rural income have become major objectives of development policy. Developing countries faced with the formidable task of improving their balance of trade have also adopted domestic self-sufficiency in food as an important policy goal. These changes in development goals have redirected much supply-leading finance to smaller farmers producing domestic foodstuffs.

Premises and Rationalizations for Supply-Leading Agricultural Finance

Various assumptions form the basis for policies of supply-led agricultural finance in developing economies (Adams and Graham, 1981). Though widely accepted, they are open to serious question. The establishment and design of financial programs on these weak foundations has contributed critically to the deepseated and widespread problems experienced by many financial institutions and programs serving rural areas of the LDC's. Efforts and recommendations for reform can usefully begin with a reexamination of these assumptions surrounding supply led agricultural finance. The fundamental premise is that credit is an effective and appropriate instrument for promoting modernization and social change in agriculture. Improvements in production technology and farming practices are believed to be constrained by a scarcity of capital at the farm level. Credit is supposed to augment the financial resources of the farming enterprise and facilitate and encourage expenditures on new and better capital goods and other improved inputs.

The validity of this premise is questionable. It is arguable that capital (in the form of credit) is a serious constraint or at least the most binding limitation to agricultural development. Many inputs and technologies are much more divisible and can be incorporated in smaller amounts than conventional wisdom recognizes. Furthermore, while improvements in production technology and techniques may raise physical yields, such changes do not result in corresponding increases in farm revenues unless marketing facilities, input supplies and both product and factor prices are such that they reduce risks and create incentives to insure an effective use of credit (Schultz, 1977; Brown, 1978). Often neither market facilities, particularly those pertaining to storage and transportation, nor government controlled farm level or retail product prices offer attractive incentives in developing economies (Brown, 1978). In such circumstances, the small farmer income objectives of credit projects are defeated by marketing conditions and price policies. In the long run not only are production and income objectives thwarted, but credit program viability tends to be compromised by loan delinquency. In these terms, the capital constraint is not the really binding constraint and credit per se is a rather weak instrument for promoting agricultural development in the face of these other distortions and constraints.

Related to the premise that the lack of capital is a major constraint is a second assumption that long term finance is required. Even if a capital constraint does exist, the small-farm, mixed cropping nature of much LDC agriculture influences capital investment in the direction of small, quick pay-off items such as seeddrills, spraying equipment, etc., which do not justify long term credit. Moreover, the demand for current, improved inputs, e.g. seeds, chemicals, fertilizers, is highly divisible and self liquidating. In such a case, however, the requirement is for short-term operating loans and not long-term investment loans. This implies that the overall effective demand for credit among the target group of farmers might be more short term than long term. Thus the specialization in long-term loans often prescribed for supply-leading financial institutions is not only inappropriate in terms of portfolio balance but results in an unwarranted divergence between the term structure promoted by the lender and that generally desired by the borrower.

The creation of specialized agricultural credit programs is also frequently justified by reference to the presumed existence of an unsatisfied demand for credit which can and should be satisfied. The traditional commercial bank network in LDCs does not reach and service many agricultural producers. These producers are presumably not creditworthy or the information needed by commercial banks to determine their creditworthiness is too expensive to collect and decode. This fact leads some to argue that specialized institutions or programs (usually with a costly overhead of supervisory credit personnel) are required to reach these potential customers even if the cost exceeds any possibility of being covered through interest charges on loan repayments.

Maintaining a high cost, deficitary program to reach these farmers is frequently justified on the grounds that the alleged social benefits to society (i.e. increased agricultural output and employment, lower food prices, reduced food imports, improved income redistribution, etc. ...) outweigh the social costs incurred in allocating government subsidies to service the program. This is the argument most commonly used by administrators of these programs in LDCs. These administrators also argue that concessionary interest rates are called for to induce these borrowers to undertake new production techniques (for a critique of cheap interest rates, see Adams 1981). This interest subsidy is also expected to mitigate the start-up costs for longer term investments that won't bear fruit for several years. Finally explicit subsidies to borrowers conveniently reinforces the argument that subsidies are justified for the financial intermediary.

Much of this reasoning is misleading, inappropriate or erroneous (Adams and Graham, 1981). First, many of these farmers meet their liquidity needs satisfactorily through various forms of informal credit (Bouman, 1977; 1981). Second, to the extent that farmers are reached by these formal institutions and programs, their total transactions or borrowers costs are probably not very different from the nominal rates of interest charged by informal lenders (Adams and Nehman, 1979). Third, the history of high delinquency rates in these programs suggests that either the system is being exploited by the borrowers or the farmers are, in fact, not creditworthy, i.e. they are unable to earn a sufficient rate of return to repay their loan obligations. In this case continued allocation of subsidized credit cannot be justified on the grounds that social benefits outweigh social costs. Moreover there is always a downward bias in the estimates of social costs in this reasoning in that the weakening or destruction of effective financial intermediation is never considered a cost to society. Fourth, subsidized interest rates are an inappropriate device to deal with the question of start-up costs. Here one should introduce a grace period for amortization payments but still charge realistic interest rates from the start. Fifth, if the rate of returns to farming is so low that loan repayments cannot be met, other measures are called for to deal more directly with the factors limiting the profit potential in farming activity. In summary, there is a high opportunity cost in using credit to deal with this problem since credit is not the appropriate instrument for this task (Bourne and Graham, 1980).

Operational Characteristics of Supply-Leading Financial Institutions

Supply leading financial institutions differ substantially from demand following institutions in rural financial markets. This contrast is most striking in the case of agricultural development banks. Much of the remainder of this paper will have these institutions in mind when the term supply leading institution is used. These institutions have a different structure of liabilities (i.e. sources of funding); a greater degree of supervisory and technical involvement in the production activities of their customers; a long run project appraisal approach towards granting loans; different performance criteria and; finally, different skill demands and accountability for their staff. Since these distinctive features contribute to many of the more chronic problems of supply leading finance, they should be examined carefully.

The liability structure of supply leading financial institutions in most instances is characterized by an absence of deposit liabilities and by limited bond issues to the private sector.[1/] These institutions rely on loans and grants from foreign donors and on equity contributions and quasi-equity loans from local governments. Thus supply leading financial institutions tend to be financial intermediaries only in the very restricted sense of converting public sector financial contributions into rural loans. There is no pooling of savings for lending to borrowers which is normally associated with the concept of financial intermediation. In essence, they are incomplete institutions that do not mobilize savings and offer only long-term credit.

Several explanations have been suggested for the unavailability of deposit facilities in these financial enterprises. Some argue that deposit facilities are too costly for institutions engaged in making sector-specific (long term) loans with concessionary interest rates. However, while it may be true that mobilizing deposits is costly, a more convincing reason why these institutions avoid this lies in the fact that deposit costs would require more realistic loan pricing and more careful loan policies. Supply leading institutions can get funds more cheaply from international donors and thereby avoid competition

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1/ A survey study by the IDB (1976, p. 14) notes that of the 262 development banks in Latin America in 1974 few have mobilised domestic savings directly through demand and savings deposits, instruments which in most instances are the prerogative of the commercial banking system.

with commercial banks for local resources. At the same time funds from governmental and foreign donors affords the managers of these credit institutions with less demanding tasks. Typically, local governments guarantee the institutions' debts to external agencies and governments; they sometimes also guarantee customers' debts to the agricultural bank. These kinds of arrangements considerably reduce the defacto responsibility of financial managers. In contrast, resource mobilization from many depositors introduces powerful pressures for accountability. In addition, the task of pooling deposit resources, and of synchronizing resource inflows with credit transactions makes greater demands on the skills and time of banking officials.

Close credit supervision is another important feature of the operations of supply leading financial institutions. Supervision is a natural consequence of the long term loans which dominate decisionmaking in these financial institutions. The planning objectives here would be to increase output of specific commodities, or to transform farm technology. Credit supervision is then justified as a means of preventing credit diversion to non-approved uses and of educating farmers in the use of "best practice" technology. However, the fungibility of finance makes attempts at preventing credit diversion costly and futile

(Vogel and Larson, 1980). Further, as we shall argue later, it is doubtful whether the high costs resulting from credit supervision can be justified in terms of the actual technical assistance role performed by credit officials.

This planning perspective extends to identifying target groups of intended beneficiaries on the basis of enterprise type, regional and equity considerations. This aspect of the planning perspective as well as the tendency to rank planning goals higher than the internal viability of the institution lead to project appraisal and creditworthiness criteria at variance with those employed by demand-following institutions. What would normally be externalities are internalized; social-cost social-benefit considerations become integral elements in the decision calculus. Conventional creditworthiness criteria are relaxed as riskier and alledgedly more socially beneficial projects are emphasized.

The performance criteria of supply leading agricultural finance institutions also focus on indicators based on the planning perspective. Initially, quick loan approval and disbursement, and rapid growth in the number and volume of loans to previously identified target groups are the more important yardsticks employed for evaluating the performance of the credit institutions. Much less attention is paid to indicators reflecting internal financial performance.

Lending costs, loan delinquency and default are relatively neglected considerations until some financial crisis emerges. It is not surprising therefore to find that arrears records are too poorly structured to be effective indicators of program failure and that they have little weight in evaluating bank personnel (Von Pischke, 1980, 1981).

Some reference has already been made to the issue of accountability within supply leading financial institutions. Individual accountability for program or loan failure is often weak. This is a consequence of several factors. The loan approval process is protracted and diffused over many divisions and levels so that all are jointly but none is individually responsible. Evidence of project failure for longer term loans appears only after 2 or 3 years. By this time the original credit officers have been reassigned elsewhere. The attribution of blame is further seriously complicated by the difficulty of distinguishing "post hoc" between weaknesses in project appraisal and monitoring on the one hand, and unanticipated economic difficulties and the impact of governmental policies beyond the control of the credit institution on the other hand. There is also the pervasive view that high risk ventures are the business and raison d'etre of supply leading financial institutions so that some loan failures are to be expected. However, this view begs the question as to what is the acceptable level of project failures, and usually only serves to provide a weak defense for deficient project appraisal and monitoring.

Finally, the sharpest contrast to demand following institutions is highlighted when it is understood that a large government owned development bank frequently becomes a political profit center for the party in power (Ladman and Tinnermeier, 1981; Adams and Graham, 1981). It can be used to attract badly needed foreign exchange. It can be used to employ political favorites. The cheap credit can be allocated to pay off critical constituencies or political support groups. Announcement of eventually eroded capital resources in the programs or institutions meets the needs for the political system <u>to do something</u> in the face of a problem. More often than not this "something" turns out to be some form of reorganization and recapitalization to start the process all over again with similar results in a 5 to 10 year period (Von Pischke, 1981). In summary, a development bank can be a powerful political weapon that can be used and abused more effectively by political leaders than a more diffused and decentralized market system of financial intermediation.

Operational Problems in Supply-Leading Finance

The operational features and characteristics of supply leading agricultural finance are critically linked to serious problems that are typical of these kinds of institutions and programs in less developed countries. These can be summarily described as problems of institutional and program viability and of efficiency in the credit delivery system. A detailed review of these problems can serve to emphasize the negative consequences growing out of the supply leading finance approach to agricultural development and provide some guidance to the kinds of reforms necessary for better rural financial market performance (Bourne and Graham, 1981).

The peculiar nature of the credit institutions' liability structures adversely affects financial performance in several ways. Consistent with the "he who pays the piper" maxim, local governments lay down portfolio restrictions and guidelines that limit the outreach of credit programs by specifically excluding certain types of enterprises and certain categories of potential borrowers on the basis of wealth, farm size, and loan maturity criteria. As a result, the scope is reduced for loan portfolio diversification as a means of risk minimization, revenue maximization, and more balanced repayment inflows. Foreign funding agencies also have biases in their portfolio preferences and they have an influence on the portfolio policies of national financial institutions. Frequently this influence moves in the same direction as that of local governments.

The influence of official funding agencies (local and foreign) typically extend to interest rate policies. In keeping with the premises of supply leading finance, concessionary interest rate policies are common. While sometimes calculated to yield a small operating margin to the credit institutions, fixed interest rates usually do not cover average operating costs. Consequently, the capital position of the financial institutions is eroded as financial reserves (if there are any) and new capital contributions are used to defray operating losses. As pointed out by Gonzalez-Vega, it is not unusual for credit institutions confronted with unrealistic interest rate ceilings to attempt to protect their capital resources and seek financial viability by rationing credit in order to reduce loan administration and default costs (Gonzalez-Vega, 1977, 1981). This rationing can take many forms, reducing the number of loans to new borrowers, favoring larger farms with more collateral, making shorter term loans, etc. ... The typical rationing devices raise the transactions costs per unit of credit to many borrowers thereby impairing the efficiency of the financial intermediation process. Increases in borrower transactions costs and other rationing devices such as stricter collateral requirements discriminate against smaller and newer borrowers and thus operate contrary to the equity and technical change objectives of supply leading agricultural finance.

There are other problems associated with the reliance on official, non-market sources of funds. Resource inflows tend to be discontinuous, peaking at the time of each new injection of international contract funds and with government capital and loan contributions, but minimal otherwise. Discontinuities of this nature and magnitude can easily result in prolonged and repeated periods of excess human and physical capacity in these financial institutions. Capacity built to provide peak period services are maintained during the inevitable downturn in loan activity as the credit tranch is progressively exhausted. At the same time loan recoveries are too small to create any revolving funds within the institution from repayment activities.

Because of these discontinuities in resource availabilities, actual and potential credit customers might perceive supply leading financial institutions as transient, undependable institutions. The "quality" of this line of credit is poor. In such situations, loan repayments might suffer as debtors delay payments in the hope that the institution quits the scene and as potential borrowers become pessimistic about the future availability of loans.

Furthermore, the credit institutions may experience difficulties in sustaining or expanding inflows of loanable funds when the preferences and emphases of governments and foreign agencies change and when budgetary tightness is experienced at the national level. Economies of scale in lending are not possible when the portfolio is stationary. The low volume of loan activity also imposes economic and political limits on the scope for asset diversification and therefore on the extent to which the credit institution can experience "scope" economies (i.e. higher per unit returns through multi-product operations) and "traditional diversification economies" (i.e. lower risk costs also through asset diversification). In such circumstances, borrowing costs would have to be higher if breakeven loan pricing policies were implemented.

Another defect in the operations of supply leading financial institutions are the high lending costs arising out of the supervised credit approach. There is the emphasis on close and continuous monitoring of loan use which is very demanding in terms of labour time and material requirements. Credit officers make frequent visits for the alleged purpose of encouraging farmers to adopt new practices and follow elaborate farm plans. The credit institution accepts the responsibility for providing technical assistance and staffs itself accordingly. All these activities add considerably to loan administration costs. Loan monitoring for purposes of preventing credit diversion and ensuring loan repayment is usually ineffective. The technical assitance requirements of the farm borrowers are usually met by other entities, notably large scale, institutionalized commodity dealers, marketing boards, and to a lesser extent by the government agricultural extension departments. Therefore, credit supervision activities frequently end up being socially wasteful.

Despite the large staffs, long loan appraisal and disbursement lags are common to long-term supply leading finance. In an inflationary environment, these lags result in large, unanticipated increases in investment costs which may outweigh explicit and implicit borrowing costs. Project viability and repayment ability can be compromised. Borrowers have even been known to hold the lender responsible for their financial difficulties which stem from the untimeliness of disbursements and to develop attitudes inimical to good loan repayment.

The information basis for decisionmaking in less-developed countries is notoriously weak. Supply leading financial institutions in agriculture are no exception. No continuous information is generally available on the financial activities and financial status of loan customers since these specialized institutions do not hold the demand deposits and savings accounts of their customers. The credit institutions are usually deficient in macroeconomic and sector specific economic intelligence. Consequently, decisions are unsound and are revised too late to help. Lending costs are rarely documented in an analytically helpful framework that could help the institutions determine potential areas of economizing costs. Even essential internal indicators of operational efficiency such as the arrears ratio are improperly constructed on a loans outstanding basis rather than on an amounts due basis, a more effective indicator of internal financial performance.

The loan delinquency and default problem experienced by supply leading financial institutions is undoubtedly the most critical problem area. Many credit institutions and programs have become bankrupt by chronically high arrears ratios (Von Pischke, 1981). These arrears problems are associated with many of the operational features, characteristics and problems already discussed. They include the adoption of a planner's as opposed to a banker's approach, weaknesses in the project appraisal, selection and implementation systems and criteria, and the limited accountability and responsibility of both the institutions and their credit customers.

Possibilities for Reform and Vitalization

The problems of supply-leading agricultural finance discussed in this paper constitute a compelling case for financial reforms. Although the precise nature and timing of any reforms have to be tailored to the specific policies and institutions of individual countries, it is worthwhile to outline a few pertinent considerations and possibilities which could guide the efforts of local and foreign agencies.

With regard to the range of financial services provided, consideration ought to be given to performing a more complete set of functions, including non-credit services such as financial advice. These institutions should be more than mere retailers of credit. In particular, deposit facilities and bond issues in the local economy can be incorporated to mobilize domestic resources and help overcome those difficulties which originate from the usual patterns of funding. Furthermore, deposit functions generate critically important information economies to the credit institutions when loan customers also maintain deposit accounts with the lender. They can provide a basis for continuous insight into the financial situation of borrowers, assist in monitoring progress and allow the institution to offer a higher quality set of services. However, the success of these more broadly based resource mobilization activities will be influenced by the degree to which potential depositors perceive the credit institutions as permanent and active participants in the financial system. This perception is strongly influenced by the degree to which the institution is considered financially viable. Interest rate and loan portfolio policies which compromise institutional viability are major barriers to successful recourse to diversified and dynamic sources of domestic funding.

The major objective of interest rate reforms should be to ensure institutional viability. This implies loan rates which cover costs and are flexible in the face of inflation. Another objective should be to let the cost of credit reflect the scarcity value of capital and to afford positive rates of return to savers. Meaningful interest rate reform therefore will result in higher nominal loan rates of interest. How high, how rapidly, and on what loan contracts interest rates are adjusted is open to some discussion. Reforms applied only on new loan contracts might result in very high nominal charges to those customers and involve ex-post resource transfers from those customers to the beneficiaries of earlier low cost loans. On the other hand, retroactive increase in loan charges to previous loans, if sizeable, might cause problems of loan delinquency and default (especially where loan contracts are not usually enforced or are unenforceable), and might be considered unethical if retroactivity clauses were not included in the original loan contracts. Thus both approaches raise issues of equity and fairness. Regardless of how the increased loan charges are apportioned among credit customers, it is possible to ease the burden of adjustment by innovations such as flexible payment schemes which structure the greater proportion of the repayment flows towards the later years of the contract.

The degree of increase in nominal loan rates of interest warranted by the goals of viability and positive real rates of interest depends on the level of lending costs and the rate of price inflation, both of which are susceptible to policy actions. Lending costs can be reduced through reforms which instill greater accountability and responsibility on the part of officials in lending institutions. The market discipline imposed by depositors and other private holders of the institutions' liabilities would itself help to foster accountability and better management. Reduction in default and delinquency costs can also be achieved by more efficiently developed loan appraisal and intelligence systems within the financial institutions. This calls for a reform of decision criteria as well as for the collection of appropriately designed (indicator) statistics on lending costs, arrears rates, agricultural input and commodity price movements, and other relevant macroeconomic information. Improvements in the design and enforcement of the systems for enforcing sanctions against loan defaulters would also help to lower lending costs. It is important not to underestimate the institutional and political obstacles to more effective implementation of sanctions against defaulters. There are protracted bureaucratic delays within the credit institutions in arriving at a decision to enforce sanctions in contrast to the quickness of decisionmaking in commercial banks. There are ample opportunities for political interference within the prolonged decisionmaking process. The collateral for loans is frequently less movable and repossessible than in the case of commercial banks. In some cases there might be a strong societal and community opposition to repossession or appropriation of the assets of loan defaulters because, for example, they may be recent beneficiaries of agrarian reform initiatives. In these instances an argument can be made to transfer working capital to these producing units directly each year from the government budget. This guarantees that the subsidy element is explicit and the painful responsibility of servicing this constituency year by year placed squarely on the shoulders of the political budgetary process. No purpose is served in hiding these costs in the financial intermediation process since in the end they destroy the process itself.

The fact that financial institutions and their credit customers are vulnerable to national and international economic developments beyond their control forces the recognition that financial sector reforms while necessary, may not be sufficient conditions for success unless accompanied by complementary reforms in the producing sector and in the wider economy. Policies that reduce the rate of inflation lower the required increase in nominal rates of interest and moderate pressures for further upward revisions. Realistic product and input prices for farm products, among other policy improvements, enhance the profitability of agriculture and remove the economic basis for loan delinquency. Interest rate revisions in the absence of such complementary real sector policy changes reduce the chances for successful reform of rural financial markets.

Concluding Remarks

By the 1980's it has become increasingly apparent that the functioning of rural financial markets in LDCs has deteriorated rapidly in the past decade. The initial optimism and enthusiasm of policymakers that massive supply leading financial efforts could transform rural farming and rural financial institutions has turned sour. Serious problems have compromised or destroyed many of these efforts. In part this has been due to inappropriate pricing and investment policies seriously eroding the rate of return to farming activities and, in part, due to micro or institution specific errors in financial policy and internal institutional or program organization. More often than not the failure was due to both.

Mistaken interest rate and product price policies stand out in the former area, while erroneous assumptions about the alleged role of credit and the form that credit must take to reach small farmers and change farming practices highlight the second area. The operational characteristics of the program and institutional initiatives reflected a serious lack of understanding of the role of financial intermediation in economic development. Incomplete and highly vulnerable financial institutions were developed as mere retailers of credit. At the same time the failure to recognize factors leading to credit diversion and the essential property of fungibility in financial transactions meant that the additionality or impact of credit was far less than imagined. Elaborate technical farm plans with high administrative costs were emphasized to the exclusion of analytically relevant information on lending costs, arrears rates and a realistic evaluation of the risks and returns to farming. Institutional viability was sacrificed or ignored to gain ill-defined and illusory social benefits. In the end lender rationing behavior and farm level delinquency, in the face of interest rate ceilings and rising inflation, have very likely created a more unequal and concentrated pattern of rural income distribution than existed before these efforts.

Efforts to redress this state of affairs are required immediately. Crucial to this reform is the need to build more complete financial institutions that effectively mobilize domestic savings at positive rates of interest for deposits, as well as offer credit at realistic and flexible interest rates. Only through this revitalization of true financial intermediation can LDCs hope to overcome the shrinking supply of international funding. The reliance on a more disciplined and continuing source of domestic savings will require a more balanced portfolio in terms of structure and farm type, more helpful internal financial indicators of changing lending costs, arrears rates, risk and more rigorous standards of staff rewards and accountability. Delinquency rates will very likely decline substantially once these reforms are in place and the source of funding is more widely known to be domestic in origin. Rural residents can appreciate that, while they may not all receive loans, they are in far greater numbers receiving positive rates of interest on their savings and benefiting from financial intermediation. More effective support for sanctions against delinquency and default can emerge in this setting.

Finally it should be clear by now that a substantial opportunity cost was incurred in the 1970's in using vast amounts of resources for credit programs that in effect failed. Credit cannot be made to do all the things expected of it in the past. We cannot afford to ignore the risks and returns to farming. Pricing policies penalizing agriculture should be changed and more direct measures and programs of research, extension and rural infrastructure investments are needed to reduce the risks and increase the returns to farming rather than using and abusing the financial intermediation process to achieve ends it was out designed to do. With these more broadly structured reforms in place in both the financial and real markets we can expect to see rural financial markets make a more lasting contribution to rural development.

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