

CHAPTER THREE: ACCESSIBILITY OF FINANCIAL SERVICES AND ITS IMPACT

3.1 INTRODUCTION

The task of providing financial services, especially credit, at reasonable cost to small-scale farmers who have limited assets has not been easy. Until the 1980s in many developing countries, state-run agricultural development banks took the lead in establishing formal credit markets in rural areas. However, the shortcomings of the banking principles that they were based on – collateralized lending, an organisational setup without any incentive to do business with the poor, excessive dependence on government funding, and pervasive political patronage – severely handicapped their performance (Ledgerwood, 1999:42; Zeller & Sharma, 1998:7).

Lack of access to a broader set of financial options represents a potential constraint to entrepreneurship and the ability to undertake socially and privately profitable investment projects (Asian Development Bank, 2000:5). If formal lenders are going to play any role in the delivery of microfinancial services the reasons for any early failure must be well understood. The lessons that may thus be drawn would be useful in determining when and where it may be worthwhile to restructure the rural financial systems in order to convert them into viable rural financial markets. Von Pischke (1983:12-12) argues that “a well-functioning rural finance market requires institutions that are healthy and expanding and the costs of financial services should fall as a result of financial innovation”.

The objective of this chapter is to study a range of issues that affect accessibility of credit and the current thinking on these issues. As pointed out in Chapter 2, the link between financial services and agricultural growth is determined by the nature and operations of the financial institutions and the policies that are being pursued. Section 2 presents discussions on the main features of rural credit markets in developing countries. This background is necessary as a building block; as it tends to bring out some of the issues that need to be considered when one attempts to look at the impact and

accessibility of rural financial services. Section 3 focuses on some of the determinants of accessibility in rural financial markets. Six factors are discussed in this review: risk, credit rationing, transaction costs, delinquency and default rates, interest rates and collateral. The last section presents an overview of the paradigm shift towards a new South African development financial system.

3.2 FEATURES OF RURAL CREDIT MARKETS

The major roles of financial markets are to transfer capital from savers to borrowers, agglomerate capital, select projects, monitor investments, enforce contracts, transfer, share and pool risks, and to record transactions (run the medium of exchange). Capital markets deal not only with intertemporal trade, but also with risk and information (Stiglitz, 1994:23). It is sometimes argued that rural credit markets do not behave like classical competitive markets and that there is therefore no likelihood of them being efficient. According to Llanto (1990:138), transactions in credit markets are not similar to transactions in other markets where a transaction is terminated once payment is received. The commodity seller does not care who the buyer is or what happens to the commodity after the sale, as long as he/she gets paid. However, in credit markets, a great deal of information is required, both on the personal characteristics of the borrower and on the project for which an application for financing is lodged. It is crucial for the bank or other lender to know the viability of the project, the loan purpose, the credit-worthiness of the borrower and his/her strategic behaviour. Credit markets diverge from an idealised market because they are information dependent. According to Hoff & Stiglitz (1990:237-248) rural credit markets behave the way they do because of the problems of screening, incentives, contract enforcement, information asymmetry and monitoring.

Four principal features distinguish credit markets in developing countries from other credit markets:

- Segmented/fragmented markets - Credit markets in developing countries are segmented; different borrowers or participants face different capital prices for land, labour, commodities and capital (McKinnon, 1973). In other words,

different interest rate policy are pursued by different lenders in the rural financial markets.

In credit markets, interest rates may not equilibrate supply and demand because of their dual function of setting price on one hand, and on the other, as instruments for regulating the risk composition of the lender's portfolio. However, these imperfections may be removed by allowing the interest rate to reflect the market price. The cost of segmentation is that it causes funds to fail to flow across regions or groups of individuals even though there are potential gains from doing so, as when needs for credit differ across locations (Black *et al*, 1997; Herath, 1996; Besley, 1994:32 ; Bhatt 1979).

- Collateral security¹ - Works by Herath, 1996; Barro (1976); Benjamin (1978) and Plaut (1985) demonstrate that, *ceteris paribus*, collateral increases the amount of credit offered to a given borrower and/or reduces the rate of interest charged. It increases the expected returns of the lender and creates an incentive for borrowers to avoid intentional default. Collateral pledged in exchange for a loan directly reduces the cost to the lender of default on the loan; it can reduce the moral hazard associated with lending by providing an added incentive for the borrower to repay; and it can alleviate the problem of adverse selection by screening out those borrowers most likely to default (Udry, 1990:252). Since collateral can be damaged or moved before the creditor seizes it, land can be expected to be the most common and appropriate collateral in developing countries, especially in rural areas (Binswanger & Rosenzweig, 1986). However, such assets are hard to come by in those areas, partly because the borrowers often are too poor to have assets that could be collateralised, partly because poorly developed property rights render appropriation of collateral in the event of default difficult in the rural areas of many developing countries (Besley, 1994:31), and partly also because in certain rural areas legal constraints exist on mortgaging of agricultural land (Feder *et al*, 1988):231). Often, the political cost of foreclosing on debtors with collateral is significant.

¹ See Section 3.4.6 for detailed discussions on collateral.

- Underdeveloped complementary institutions - Certain other markets must function well if rural financial markets are to function properly. In rural less developed areas, these institutions are missing or weak even where they exist. For example, equity markets that provide a mechanism for sharing risks are limiting and weak in most rural areas of developing countries. The virtual absence of insurance markets to mitigate the problems of income uncertainty is also evident in most rural credit markets. The operations of financial institutions in rural areas are beset by problems that often are the result of an absence of or weakness in infrastructure. More often than not savings mobilisation is frustrated because social amenities such as water, electricity, communication facilities and roads are not within ready access (Spio *et al*, 1995). Deficiencies in complementary institutions are mostly ancillary to the credit market and suggest the need for a policy intervention of their own.

3.3 DETERMINANTS OF CREDIT ACCESSIBILITY

Although an increasing number of private and public agencies are involved in raising the efficiency of financial intermediaries targeting the poorer clientele, their effectiveness in improving the poor's access to financial services, especially credit, is below expectations (Schrieder, 2000:385; Zeller, 2000: 1; CGAP, 1995:1). As a result the majority of small-scale farmers are left out of the rural financial system. Rural financial intermediation is expensive because participants are geographically scattered, financial transactions are small and rural incomes tend to be unstable (Lariviere & Martin, 1999:2). Clearly defined collateral² is often not available and rural people are usually less well educated than urban people. In addition, it is costly to collect information about rural borrowers. The substantial costs naturally impede financial markets from making contact with rural people, especially the poor (Schrieder, 2000:389; Lariviere & Martin, 1999:2).

² *Collateral in formal finance excludes collateral substitutes.*

According to Lipton (1976) these problems result from an urban bias. To him, urban interests conspire against the rural poor and deny them access to significant amounts of credit. Gonzalez-Vega (1989) directs his explanation to the supply allocation problems within financial institutions. He argues that widely used concessional interest rate policies, combined with relatively larger lender loan transaction costs for servicing small or new borrowers, discourage financial institutions from lending more to the rural poor. Another explanation is that most poor and rural households do not seek formal credit because they lack profitable investment opportunities, are not aware of the availability of formal credit, or are too timid to request formal loans. It is also argued that the differences in borrowing costs among various types of formal borrowers play a role in the accessibility of formal credit. These differential costs strongly affect the willingness of the rural poor to seek loans from formal lenders. This section discusses some of the factors, which influences the accessibility of credit to small-scale farmers.

3.3.1 Risk

“Risk is the essential element of finance.... This is paradoxical because it is risk that unseats systems, institutions and projects that issue excessive credit,... risk translates otherwise than rational behaviour into forces that depreciate credit contracts and destroy credit institutions. Debtors are unable to repay, creditors are unable to collect or both. But risk is a blessing as well as the curse of finance.... It motivates lenders’ efforts to remain liquid so that payments are honoured on demand and to remain solvent by using profits to build capital” (Von Pischke, 1994:57-58).

The sources of risk for an intermediary include: i) credit risk from potential delinquency or default by borrowers, ii) investment risk from capital gains or losses on securities sold before maturity, iii) liquidity risk from possible losses of funding sources, iv) cost of funds risk from unanticipated changes in the cost of funds, v) financial risk from intermediaries’ high financial leverage, and vi) regulatory risk from unanticipated changes in the regulatory environment (Herath, 1996:243; Barry & Lee, 1983:945). However, in this literature review, one will limit itself to credit risk, which embraces the possibility that the purpose for which credit is provided may not be remunerative,

leaving the borrower with insufficient funds with which to repay, and also the possibility that the borrower may attempt to avoid repayment in spite of having funds available.

Information asymmetry is one source of credit risk that is more prominent in rural credit markets. Imperfect information about the probability of default has several fundamental implications for the nature of credit markets (Herath, 1996:243; Blinder & Stiglitz, 1983:299). It gives rise to institutions that specialise in acquiring information about default risk, hence influencing the behaviour of the lender towards its clients. A lender with superior information can more easily distinguish between good and bad risks. Such superiority improves the lender's ability to identify the borrowers with the best investment opportunities. When information is poor, lenders can discriminate between borrowers only in very broad terms, and will indiscriminately adopt rational and/ or irrational methods to reduce risk.

To cover risk, lenders may raise interest rates charged on loans. This approach may lead to adverse selection, in that more creditworthy borrowers may choose not to borrow, which leaves the lender with less creditworthy ones; it may also induce borrowers to undertake riskier projects (moral hazard/incentive effect). In some cases, lenders may devise non-price mechanisms for screening out untrustworthy borrowers (Yazdani & Gunjai, 1998:148; Herath, 1996:243). Both approaches are discussed in detail in the preceding sections. In other situations, lenders may devise contracts that will provide a strong incentive not to default, thus devising contracts in which both the rate charged and the availability of credit at a later stage depend on the borrower's previous performance. This eventually creates a "customer market" - linking particular borrowers to particular lenders.

Other ways the lenders may choose to counter risks are: i) diversifying assets and liabilities in order to spread risks over various types of loans, investments, and funding resources; ii) diversifying geographically to spread credit risks over wide areas; iii) developing loan participation and loss-sharing agreements with other institutions; iv) utilising loan insurance, government guarantees, security requirements, customer counselling, documentation, supervision and avoiding loan risk and other activities

(Barry & Lee, 1983:945). Some of these approaches have reduced credit accessibility to small-scale farmers.

To be able to manage risk effectively and efficiently, information should be sufficient and adequate. The greater the amount of relevant, valid and timely data about the affairs of a loan applicant and the markets in which the applicant operates, the more refined the rational credit or investment decision. In fact, it is used to create confidence in financial markets (Von Pishke, 1994:59).

3.3.2 Credit rationing

The rationale, mechanisms and effects of credit rationing on both borrowers and lenders have attracted a good deal of attention in recent times; partly because of the move by various governments and donor agencies to advance credit to small farmers, micro-enterprises, and the poor; and partly because of the information asymmetric nature of most rural credit markets. The objective of this section is to explore the following questions:

- Why do banks ration credit and how rational it is for banks to ration credit by mechanisms other than price?
- Why do banks ration out small clients in favour of larger clients?

The exploration of these questions requires a clarification of the meaning of credit rationing. Credit rationing may be defined as a “situation in which demand for commercial loans exceeds the supply of these loans at the commercial loan rates quoted by the banks” (Jaffee & Modigliani, 1969:851). According to Bester (1985:850), credit rationing occurs when some borrowers receive a loan and others do not, although the latter would be willing to pay even higher interest or to offer an increase in collateral. According to Jaffee and Russell (1976:651), credit rationing occurs when lenders quote an interest rate on loans and then proceed to supply a smaller loan size than demanded

by the borrowers. These definitions bring into focus two types of rationing, namely, loan quantity and loan size rationing³.

3.3.2.1 *Rationing and its rationality*

If the basic tenets of economics are to be followed then credit rationing will not exist. Market equilibrium results when demand equates to supply. If prices perform their job well, then credit rationing is not possible (Stiglitz & Weiss, 1981:393). However, it does exist in real life. Stiglitz and Weiss (1981:393) explain this phenomenon on the basis of the idea of a short or long-term disequilibrium. In the short term, it is viewed as a temporary disequilibrium phenomenon. The economy is said to have incurred an exogenous shock, hence there is some stickiness in the price of capital (interest rates), so that there is a transitional period during which rationing of credit occurs. Long term credit rationing is explained by governmental constraints such as usury laws. Allocation of credit under competition in the form of rationing seems to be induced by a variety of factors (Schrieder & Theesfeld, 2000:394; Braverman & Guasch, 1986:1260):

i) *Finiteness of borrower's wealth*

It is postulated that the borrowers' liabilities are bound by an amount no greater than their wealth, hence lenders find it optimal to set credit limits. It is commonplace for the borrower's equity to provide the lender with some protection against loss from default (Bradford *et al*, 1996:794). On an unsecured loan, it is the borrower's overall equity position, which is relevant, usually measured by the ratio of total equity to total debt. On a secured loan it is the down payment (margin between the size of loan and the value of collateral) that is relevant, usually measured by the ratio of down payment to value. In general, the supply of credit is a positive function of these ratios, since the larger the borrower's own investment or equity relative to his/her borrowed funds, the less the risk to the lender that adverse circumstances will reduce the value of the collateral below the outstanding principal of the loan and thus lead to default.

³ *Loan quantity rationing results when the number of loans lent to borrowers are reduced, while loan size rationing is said to occur when the amounts lent are*

The demand for credit tends to be a negative function of these ratios because of the existence of “marginal” borrowers for whom equity or down payment requirements represent an effective constraint on borrowing and spending (Bradford *et al*, 1996:795; Guttentag, 1959:220).

ii) *Adverse selection and incentive effects*

In a world of perfect and costless information, the lender is able to stipulate precisely all the actions that the borrower will undertake which might affect the returns of the loan given to him. However, in the presence of asymmetric information, the situation pertaining in most rural financial markets in developing areas, the lender is not able to directly control all the actions of the borrower. In a bid to protect its interest and attract low risk borrowers, the lender may use a variety of screening devices in the formulation of the loan contract. The use of the interest rate and other contractual terms as a screening device brings into play i) adverse selection - since only borrowers with riskier investments will apply for loans at a higher interest rate, and ii) an incentive effect that induces borrowers to undertake riskier projects (Herath, 1996:242; Bradford *et al*, 1996:794; Chaves & Gonzalez-Vega, 1996:71; Bester, 1985:850; Blinder & Stiglitz, 1983:299; Stiglitz & Weiss, 1981:293).

The use of the interest rate to clear the market may only be appropriate if the prevailing interest rate is below the “bank optimal rate”. Under such conditions the use of the interest rate as a screening device to reduce excess demand will be rational, because increasing the rate would increase the expected returns to the bank (See Figure 3.1).

At the optimal bank rate, an increase in interest rate payments may be self-defeating, even though at that point demand for funds exceeds the supply of funds. An increase in interest rates now increases the riskiness of the pool of loans. Again, increases in the collateral requirements of lenders beyond some point, may also lead to a decrease in the returns to the bank either by decreasing the average degree of risk aversion of the pool of

reduced in size.

borrowers, or in a multi-period model, by inducing individual investors to undertake riskier projects.

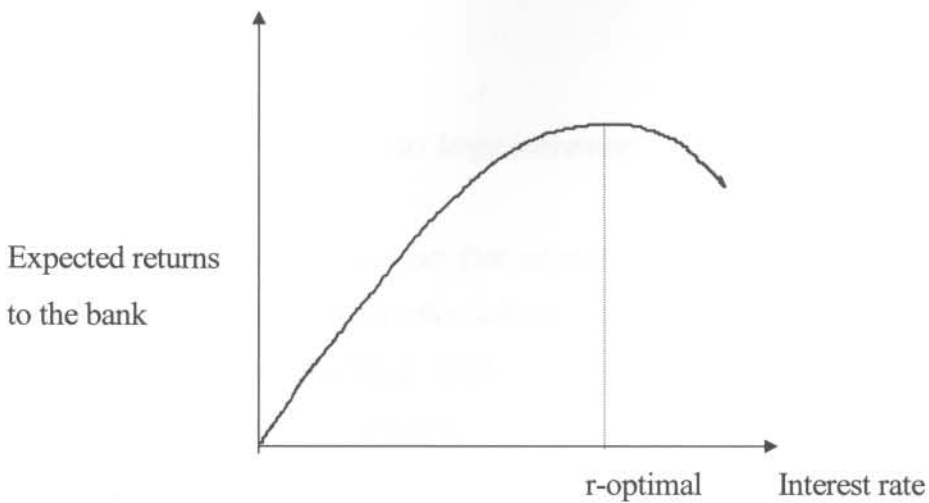


Figure 3. 1: Bank optimal interest rate

Source: Stiglitz and Weiss (1981:394)

In the absence of price rationing, some other aspects of rationing would be used (Bradford *et al*, 1996:795). These may include the maturity period of loan, length and value of the customer relationship, amount of compensating balance, and risk of partial or complete default on the loan. According to Stiglitz and Weiss (1981:395), the allocation of credit induced by non-price rationing is perceived as a temporary phenomenon or a deviation from the equilibrium path. One school of thought is that the normal stringency of rationing reflects rational behaviour, but an “extra tightness of rationing” which persists for more than a short period reflects irrational behaviour. Such changes can only be temporary.

However, Guttentag (1959), pointed out that non-price rationing processes should be viewed as the application of an array of non-interest rate lending terms, and that credit rationing is a pervasive phenomenon in the private sector of the capital market. According to him, it should be assumed that one or more lending terms are relevant to all loan transactions involving private parties and that there is no need to assume that lenders set arbitrary limits on the amount of credit they will extend, since the prevailing terms and the borrower’s characteristics automatically determine the volume of credit

for which any borrower qualifies. According to the analysis by Stiglitz and Weiss (1981), credit rationing will be profitable, even in the long-run equilibrium, as long as there is uncertainty about loan repayment and banks cannot discriminate perfectly between customers.

3.3.2.2 *Small borrowers versus large borrowers*

Ample evidence points to the fact that rationing has an unfavourable impact on small farmers, as a result of the high risks and costs associated with lending to them (Bradford *et al*, 1996:795; Gonzalez-Vega, 1984:79). If lenders have a choice between lending to large farmers and lending to small ones, they will lend to small ones (at the margin) only if they can charge the proportionally large transaction costs of small loans to the small borrowers as either a fixed fee or an increased interest rate. If they cannot shift costs, the market for small borrowers will cease to exist from the suppliers' side (Binswanger & Sillers, 1983:14).

Lenders “statistically discriminate” against small farmers when they rely on farm size as an (imperfect) indicator of individual farm characteristics. Because farms are imputed to possess the average characteristics for their group, relatively productive and low risk small farms are offered discriminatory contracts, which discourage credit use. Other things being equal, this distorts equilibrium credit allocation away from small farms. Correction of this distortion, which is based on informational problems, would require credit lenders who can efficiently collect better information (Carter, 1989:91).

According to Carter (1989:91), lenders ration out the small farm by the imposition of two contractual restrictions, namely, the imposition of a collateral ceiling and high interest rates. Most small farms have uncertain legal title, and this allows them only limited net collateral value, hence restricting feasible loan terms. If interest rate restrictions are exogenously imposed, the conventional result applies a fortiori. With the interest rate restricted, and high collateral not an option, there may be no contract which can be offered to small farms so as to yield the requisite expected profit level. If the interest rate ceiling is binding, then banks would simply refuse to make loans to small farms and would shift their lending to better collateralised and on average, safer and

more productive large farms. Even if the same collateral ceiling applied, lenders would still prefer lending to large farms rather than to small farms and would ration credit accordingly. The key factor of credit rationing is the variability in production, which makes small farm loans risky and unprofitable, while the availability of credit to large farms is explained by the systematic outcome of profit maximising behaviour of competitive lenders (Carter, 1989:102).

3.3.3 Transaction costs: Their effects and the implications for credit accessibility

According to Gonzalez-Vega (1993:32), improved access to financial services is determined by changes in the environment in which financial institutions operate, changes in the policies that regulate their behaviour, changes in their organisational design and operational procedures, and changes in financial technologies. Transaction costs constitute one of the major determinants in such policies. It is argued that high transaction costs have discouraged many of the rural poor in developing countries from using formal loans. Transaction costs have clearly had an important impact on the structure of rural financial markets and the behaviour of the participants (Olomola, 1999:98; Gonzalez-Vega, 1993:32).

Transaction costs are an appropriate measure of the degree of “friction” in the functioning of these markets. The higher the transaction costs of financial intermediation, the less efficient is the performance of the financial markets, and the more constrained is their contribution to development. They play a particularly important role in limiting the services that the financial institutions are willing to provide in rural areas, to poor people and their new clients. Excessive transaction costs encountered by clients of financial institutions discourage them from seeking loans and making deposits. Sustaining and expanding financial services heavily depend on decreasing these costs, both for the institutions and their clients (Adams, 1992).

Information on transaction costs provides insights into how efficiently and equitably rural financial markets are functioning. If rural financial market participants are incurring substantial total transaction costs, it is likely that relatively few people are being served by these markets and that the quality of services provided to clients will not

be robust. It also indicates that intermediaries are inflicting extensive transaction costs on non-preferred clients, and one can be sure that interest rates are not doing an efficient job of rationing financial services. A decline in total transaction costs is a sign that intermediaries are successfully innovating, that more people have access to financial services and that the quality of financial services is increasing (Adams & Higurashi, 1987:15).

It is common knowledge that borrowers and lenders do not share the costs of financial intermediation in fixed proportions. The intermediaries can transfer, absorb, or in some cases increase transaction costs incurred by various classes of individuals through a rationing device, depending on whether they are preferred or non-preferred clients (Adams, 1978:5).

3.3.3.1 Transaction costs to small clients

Evidence from research indicates that transaction cost is a function of the size of the loan. Small clients are made to pay proportionally bigger transaction costs than large clients. Saito and Villanueva (1980:634) advance three reasons: Firstly, administrative costs are fairly constant regardless of the size of the loan recipient. Lack of information on most small clients makes satisfactory evaluation more difficult and time consuming. The consequence is that the administrative cost as a percentage of the size of the loan declines as the size of the loan increases. Secondly, default risk expenses decrease with increasing size of the borrower. Large firms are better known and tend to exhibit good repayment records. They are likely to be more diversified in their operations, thus further enhancing their ability to pay back loans. Thirdly, most loans to large clients are collateralized, making it unnecessary or even undesirable to set aside large sums to cover the possibility of default. However, a great number of loans to small clients are unsecured; a risk premium is therefore added to cover the higher probability of non-payment of principal and interest, hence swelling the transaction costs.

The most important cost for the small client is the opportunity cost of time. While both small and large borrowers pay the same rates of interest on their loans, the effective borrowing cost rate, with borrower's transaction costs included, is higher for the small

farmer. In a study in Belize, for example, it was 3 to 4 times that of the large borrower (Adams & Higurashi, 1987:6).

3.3.3.2 *Causes and effects of high transaction costs*

The nature and extent of financial regulations affect intermediation costs in several ways. The availability, characteristics, terms and conditions, and effective rates of return of financial instruments are greatly determined by existing financial regulations, and by the ability and willingness of the monetary authority to enforce them (Lariviere & Martin, 1999:2; Bradford *et al*, 1996:795; Cuevas, 1988:14). Policies such as reserve requirements, interest rate controls, and credit allocations that are designed to achieve certain economic objectives can also increase intermediation costs (Olomola, 1999:95; Srinivasan & Meyer, 1988:2). For instance, lenders often allocate transaction costs to ration financial services when financial markets are repressed by interest rate restrictions. Because of the inability to use interest rates to ration intermediary services under financial repression, intermediaries reallocate transaction costs and adjust collateral requirements to increase the effective costs for non-preferred clients, while at the same time reducing the effective costs for preferred clients (Adams & Higurashi, 1987:5).

It is clear that transaction costs have an important impact on the structure of financial markets in rural areas. The fragmentation of capital markets arises because of the varying transaction costs with respect to the different classes of borrowers (Bhatt, 1979:98). Lenders with credit delivery systems that embody high lender transaction costs will gravitate towards larger loans, whereas those with low costs will be content to make smaller loans. Likewise, borrowers seeking smaller loans will often prefer to work with lenders who charge high interest rates but who impose low transaction costs upon borrowers. When seeking larger loans, borrowers may prefer to work with lenders who impose larger transaction costs but charge a lower interest rate. This results in segmentation of the rural financial markets. High transaction costs for both borrowers and lenders reduce the size of credit markets and restrict loan access for many rural producers (Gonzalez-Vega, 1984:121). If borrowers' transaction costs are raised as a result of the bank's actions, some potential borrowers would rather go to other lenders or

go without credit. Because more farmers would now prefer to borrow from moneylenders, there would be a corresponding shift in the moneylenders' share of the overall market.

3.3.3.3 *Ways to lower transaction costs*

Transaction costs form a key variable in determining the type of institution that is most appropriate for a given situation. Commercial and development banks are large, impersonal, highly regulated, bureaucratic institutions. They are most efficient in handling large, complex transactions. They are expensive to operate with regard to small client lending. They are not cost effective in offering simple, low transaction cost services to the poorest, geographically isolated households. Therefore, there are definite limits to the extent that bank branching can resolve the problem of access to financial services for rural clients. Various grassroots institutions have been identified as cost and risk reducing channels through which financial services could be offered at a lower cost. ROSCAs (rotating savings and credit societies), credit unions, and informal self-help groups can inexpensively provide simple financial services. Some of their transaction costs are transferred to their members, who are prepared to absorb them in order to receive financial services otherwise unavailable to them. Additional use could be made of the informal sources that operate in interlinked markets (Meyer, 1988:17). According to Meyer (1988:17) the key to ensuring lower transaction costs is to encourage the most simple organisations to emerge at the lowest level, and to provide increased linkages between institutions and between the formal and informal sectors so that the limitations of the simple organisations can be overcome. This will help in strengthening the rural organisations.

The economic environment in which the rural financial participants operate must be substantially improved. Increasing the farmers' incentives through the improvement of product prices and marketing infrastructure can do this. Improvement in infrastructure such as farm to market roads, irrigation, availability of better farm inputs and equipment, better education for farmers, and modern techniques of farming will go a long way in increasing farm productivity and improving the incomes of rural households. Such

environments will reduce risk-related costs of rural financial intermediaries, and thus their transaction costs.

Improvement in financial policies will also help reduce transaction costs. The deregulation or reduced regulation of interest rates reduces disincentives to rural lending (Teodoro & Cuevas, 1988:51; Meyer, 1988:77). Financial institutions should be able to adjust to local circumstances. In a period of co-variant risk, such as drought, no efforts on the part of the institution would result in repayment if the client's source of income had declined to zero. If these clients are accommodated, by rescheduling for example, the long term relationship between the lender and borrowers could be improved, with a recurring decrease in the transaction costs of both the borrower and the lender in the long term (Coetzee *et al*, 1994:5).

Knowledge of the cost structure of financial institutions is essential for analysing institutions' performance and assessing the adequacy of financial policies. Lenders need to monitor cost indicators carefully in order to evaluate the performance of their institutions over time and in comparison to their competitors, and to assess the profitability of different bank services. Policy-makers, on the other hand, should consider the cost structure and technological parameters of financial institutions when deciding on policy measures that affect the financial system. More than one bank failure can be traced to inadequate policies that have either under-estimated the costs of providing certain financial services, or over-estimated the market potential of specific areas of activity (Cuevas, 1988:1). It may therefore be argued that inasmuch as transaction costs play a crucial role in rural financial markets, influencing both the participants and the size of the market, there are other factors which also need to be addressed in order to make the drive to reduce transaction costs meaningful.

3.3.4 Delinquency and default: Causes, and effects on credit availability

Smallholder agricultural credit repayment still remains a major problem in less developed countries (Chirwa, 1997:107). Loan delinquency and default are among the most critical and threatening problems facing formal lenders in most developing countries. Delinquency and default not only decapitalise the institutions and increase

their reliance on donors and governments, but also discourage lending to specific target groups (Sharma and Zeller 2001:1). Many developing countries' credit institutions and programmes have become illiquid because of poor loan repayment. These massive default and delinquencies have destroyed the long-run efforts to create viable small farmer lending institutions.

Repayment is essential. If none is expected, there is no place for credit and, in fact, whatever funds are advanced cannot be defined as credit. If credit does not return to the lender, revolving funds will not revolve. Even worse, new money will not come forth from the original source (savers). Excessive arrears and default rates indicate inefficiency of one kind or another. The financial institution has either financed unproductive investment or it has failed to press for loan repayment (Hunte, 1996:46; Fry, 1988:27; Bouman, 1979:111).

The inability of borrowers to repay their debts on time (delinquency) or to repay them at all (default), is a serious problem and has been a widespread experience for the past few decades. The problem of delinquencies and defaults in rural financial markets can be explained from different perspectives, including: institutional, economic and structural deficiencies in agriculture, and political and socio-cultural factors.

3.3.4.1 Institutional deficiencies

Research has shown in many cases that the lenders are to be blamed for poor collection performance. Some of the institutional deficiencies are discussed below.

Defective loan policies: In many cases, lenders delay loan disbursement. The result is that the proceeds in cash or in kind reach the farmer at the wrong time, with the result that farmers often divert the loans to other uses (Olomola, 2000:4; Nelson & Cruz, 1991:20; Fry, 1988:275). Further, the schedule of repayment is often not adapted to the flow of receipts, while loan allocation processes often depart from financial optima. Poor credit decisions may also be made because of information problems and the lack of the decision makers' experience in lending to specific target groups.

Poor accounting and management systems: Poor loan collection may reflect the fact that a significant portion of loans may be improperly documented. Poor accounting makes it difficult for lenders to know exactly the repayment position of specific borrowers (Von Pischke *et al*, 1998:150; Boakye-Dankwa, 1979:247). Concentration and emphasis on the disbursement side of the credit equation ignores issues such as the creation of confidence between borrower and lender, measurement and management of risk, and the creation of accounting and procedural infrastructure for loan administration. Von Pischke (1991:95) points out that when these issues do not receive the same attention, which is devoted to disbursement, arrears mount and bad debt losses take their toll.

Lack of savings mobilisation: Another missing link is “the forgotten half of finance”, or savings mobilisation. It is an effective antidote to the problem of repayment, because it adds value to the relationship between intermediaries and their clients. It is a powerful incentive to a borrower to repay promptly, and a positive incentive for lenders to keep their financial housekeeping in good order, to take responsibility for loan recovery, and to innovate so as to retain and attract funds when they know that resources come from neighbours rather than from some distant government agency or donor (Von Pischke, 1991:96).

Lack of enforcement discipline ((Von Pischke *et al*, 1998:172). The effectiveness of contract enforcement may also be seen as a missing link in dealing with this problem. Many of the rural financial markets suffer from a non-repayment mentality. Lenders and borrowers alike accept the slightest pretext for farmers/clients not to repay. Unfavourable natural conditions and poorly designed loans feed this attitude. Loans have been made, especially to larger farmers, on a political basis and therefore a lot of borrowers assumed they had the right not to repay because they know that legal pressure would not be brought against them (Njoku & Odii, 1991; Ladman & Tinnermeier, 1977:962). Where loan contracts cannot be enforced, credit easily converts to grants (Von Pischke, 1991:96).

3.3.4.2 *Economic and financial policies*

The World Bank (1989) suggests that many the credit policies of the developing world spring from the increasing use of lenders as tools of development policy. Low subsidised interest rates, negative in real terms, they provide a strong incentive to postpone loan repayment (Fry, 1988:277). The concessional interest rate policy encourages borrowers to seek credit for ostensibly agricultural purposes, which in fact is directed to other activities or investments (agricultural illusion) (Ladman & Tinnermeier, 1977:962; Boakye-Dankwa, 1979:248). It is also suggested that the forced lending requirement used as the basis of selective credit policies is a recipe for high arrears. A critical component has been the lack of adopting financial policies, chosen with the purpose of protecting the viability of institutions (Chaves & Gonzalez-Vega, 1996:73).

3.3.4.3 *Deficiencies in the agrarian structure and its characteristics*

One of the underlying factors of non-repayment of loans is expressed in terms of non-viable farm units, which often refer to the small size of farm units. This results in the condition where the amount of the loan to be repaid exceeds the farmer's cash savings. A series of factors can contribute to this. Inadequate land and other agricultural inputs, and deficiencies in supportive services are some of the reasons for an income inadequate to repay loans. Land tenure conditions, such as the size of the holding and rental arrangements; the productivity potential of the land holding and irrigation facilities; the availability of inputs of good quality at reasonable prices and at the required time; satisfactory marketing channels and remunerative prices are among the important factors which have bearing on the revenue and productivity of the landholding, and determine whether the farmer's income is adequate to meet his basic living expenses and repay the loan taken Spio & Groenewald, 1998).

3.3.4.4 Socio-cultural and Political factors

Cultural factors undoubtedly play an important role in the unwillingness of borrowers to repay their loans. The concept of repayment of loans associated with government and donor agencies is unfamiliar.

Political intervention in the allocation of rural loans is quite common in developing countries. The government intervenes in the rural lending decision-making process as a tool for getting re-elected. The distribution and recovery of target loans is constrained by financial policies, which permit the government to formally intervene in the lending and recovery programme of rural branches of financial institutions. The major policies used are the interest rate, interest rate exemption and cancellation of debts (Von Pischke *et al*, 1998:173).

The following facts were established when research was conducted on the various proxies for political intervention in the rural financial markets in Bangladesh. A regression analysis showed, first, that interest rate exemption programmes positively influenced the recovery rate at least in the short run, while informal and formal intervention negatively affected the recovery rate. Secondly, the inflation rate discouraged borrowers from repaying loans because it reduced the real interest rate and created future expectations of high inflation. High real interest rates can therefore be expected to increase the recovery rate. Thirdly, the effect of intervention outweighed the effect of the inflation rate on loan recovery rates. The study shows that the effectiveness of high rates appears to be undermined by the interventions associated with the political objective of getting re-elected (Khalily & Meyer, 1993:34-35).

3.3.4.5 Consequences of delinquency and default

Low default and delinquency rates are said to be particularly praiseworthy because they indicate that lenders are careful in their selection of borrowers and forceful in their collection of loans. Good repayment records are also said to indicate that loans are being allocated to productive activities because enough additional income is being generated

to repay the loans (Vogel, 1981:58). Several problems arise from an inability to recover loaned funds. It is a serious financial burden to lenders and governments. Without a flow of funds, the capacity to supply and make available an increase in lending to small farmers is restricted. High delinquency and default rates directly affect the financial viability of lenders, borrowers and savers. This causes most lenders to be heavily dependent on governments for subsidies in order to survive. For most of them, costs exceed revenues; inflation plus default erodes their capital structure. This results in a perverse selection of borrowers. Borrowers, who are supposed to be the main beneficiaries of the credit system, are in fact rationed more stringently in their access to credit. And in most cases, the small clients (farmers) and the poor are rationed out of the credit system in favour of the larger borrowers who are the worst offenders in terms of delinquency and default (Bradford *et al*, 1996:800; Ladman & Tinnermeier, 1977:966; Boakye-Dankwa, 1979:239).

From an overall economic point of view, defaults are transfer payments to defaulting clients/farmers. But this is one of the least desirable and, simultaneously, least equitable forms of carrying out income transfers. Apart from destroying the financial viability of lenders, loans tend to go to larger clients/farmers, as shown by many studies on farmer credit schemes. Credit does not therefore appear to be an efficient mechanism for income transfer; creditworthiness and need are the opposite extremes of the social welfare spectrum (Olomola, 2000:6; Boakye-Dankwa, 1979:240). Another undesirable feature of defaulting is that it tends to spread. The attraction of default is greater when farmers perceive a credit programme as temporary. There is some sort of vicious cycle here since it is the impact of default as much as any other factors which causes many farm credit programmes to be curtailed, reorganised or ended.

3.4.4.6 Approaches to reduce delinquency and default rates

Various measures have been suggested. The solution to the problem of deficiencies of agrarian structure requires an integrated approach. For instance, where the basic problem is the small size of holdings, a land redistribution policy or a policy to consolidate holdings would be necessary. Inadequate marketing facilities may be remedied by the provision of new marketing channels, improvement of roads and transport, and the provision of other essential infrastructure. Crop insurance has been suggested as a

possible way to improve loan repayment by protecting both the borrower and lender against the vagaries of nature. It enables farmers to repay loans from indemnities obtained at times of crop failure.

There is no denying that in many cases, poor recovery rates are due to financial problems faced by borrowers. But, in addition, borrowers often do not repay loans and lenders cannot energetically recover loans because of government interventions. A failure to address this dimension in loan recovery analysis may lead to incorrect policy prescriptions. Reduction in these interventions will probably increase the effectiveness of financial policies, particularly interest rates, in improving rural loan allocation and recovery (Khalily & Meyer, 1993:35). The efficiency of lenders in terms of loan recovery could be improved through the use of group-based organisations, which could serve as a sanction enforcement agent in the recovery of loans. Using the group approach, a part of the lack of information reflected in the bad debt provision is internalised by the group. A group approach or similar character-based, joint liability approach, which relies on peer monitoring and other group advantages, can dramatically decrease bad debt provision and administrative costs.

3.3.5 Interest rate sensitivity and the availability of financial services

The interest rate is the rent or level of compensation a borrower of funds must pay a supplier, or the compensation a lender gives to a saver. The level of this rate acts as a regulatory device, and it controls the flow of funds between suppliers and demanders, and/or keepers and savers. Thus, the interest rate represents the cost of money. It is a key variable that influences the actions of financial institutions, borrowers and savers (Mohane *et al*, 2000:730).

The most common characteristic of conventional credit programmes is the subsidisation of interest rates. Arguments for subsidised credit in rural financial markets were numerous and convictions about its desirability deeply held. The artificial low interest rate policies have been justified on the following grounds: i) they serve as an income transfer device to help the poor, who cannot afford expensive credit; ii) high rates contribute to inflation; iii) low interest rates induce borrowers to adopt new technologies

and increase production; iv) such policies have been adopted in advanced economies, so why not in developing countries? v) the concessions provided by development agencies should be passed on to farmers; vi) religious and ethical values; and vii) they are the second best alternative if the government cannot improve the economy (Lariviere & Martin, 1999:2; Ellis, 1994; Von Pischke, 1991).

3.3.5.1 Defects of the artificial/subsidised interest rates

The low interest rate policies have failed to achieve their primary objectives of promoting agricultural production and assisting the poor. As pointed out by Von Pischke *et al.* (1983), “Subsidised credit is not a cost effective means for promoting those activities mentioned above. Credit, subsidised or not, cannot make unprofitable investment profitable. Loans do not create (non-existent) technologies, do not make the required (unavailable) inputs accessible, do not build the (missing) infrastructure (roads, storage facilities), do not create the (absent) markets, do not engender comparative advantages, and do not reduce yield uncertainty. In particular, credit does not modify relative (social and private) profitabilities, or create investment opportunities that do not exist. Credit merely transfers generalised purchasing power to borrowers who still face the same investment options”. With the passage of time, it became clear that subsidised credit was a particularly weak instrument to achieve most of the intended objectives. Again, evidence from most developing countries indicates that subsidised credit cannot compensate for high input prices, low product prices, unstable input supplies, poor information and transportation systems, and complicated rules and regulations that favour large enterprises (Meyer & Nagarajan, 1988:372).

When interest rates do not reflect the social opportunity cost of the claims on resources transferred, there is an implicit subsidy (Gonzalez-Vega, 1993:2 and Vogel, 1984). Contrary to their good intentions, subsidised interest rates had regressive implications for the distribution of wealth in rural areas. Small farmer loan portfolios showed much concentration, as a few of the borrowers captured the largest portion of the funds disbursed and the associated subsidies (Gonzalez-Vega, 1993:18). Other effects of low interest rates are well documented in the international literature (Mohane *et al.*, 2000; Strauss Commission, 1996; Spio *et al.*, 1995).

3.4.5.2 Effect of Interest rate sensitivity on credit

The impact of financial intermediation and interest rate ceilings on credit is depicted in Figures 3.2, 3.3 and 3.4. In Figure 3.2 the horizontal axis measures the quantity of borrowing or lending per unit of time (X), and the vertical axis measures the cost of borrowing and the return to lending.

The demand for credit is represented by the downward-sloping curve labelled D . Its negative slope indicates, in part, the increasing quantity of profitable investment as the cost of borrowing declines. The supply of credit is represented by the supply curve S . Its positive slope reflects, in part, the increasing share of the total savings provided for financial assets as their return rises relative to the return on real assets or investment.

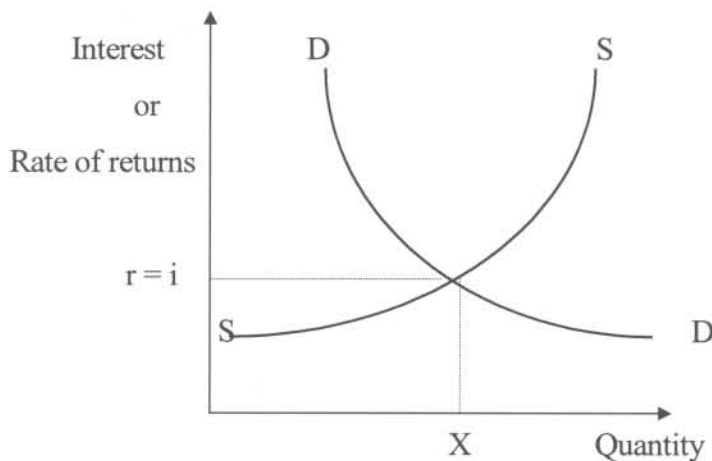


Figure 3.2: The supply of and demand for credit

Figure 3.3 shows the effect of an interest rate ceiling (The horizontal line i_1). At the ceiling interest rate, the amount demanded by borrowers is X_0 . If the ceiling is applied to deposit rates, it will reduce the amount lent to X_1 and raise the cost of borrowers to r_1 . If the ceiling applies to lending rates, lenders will set deposit rates at i_1 deducting transaction costs. The amount deposited (and lent, when abstracting from reserve requirements) will be X_1^1 . The excess demand for credit ($X_0 - X_1^1$) cannot be satisfied, and lenders will ration the available supply.

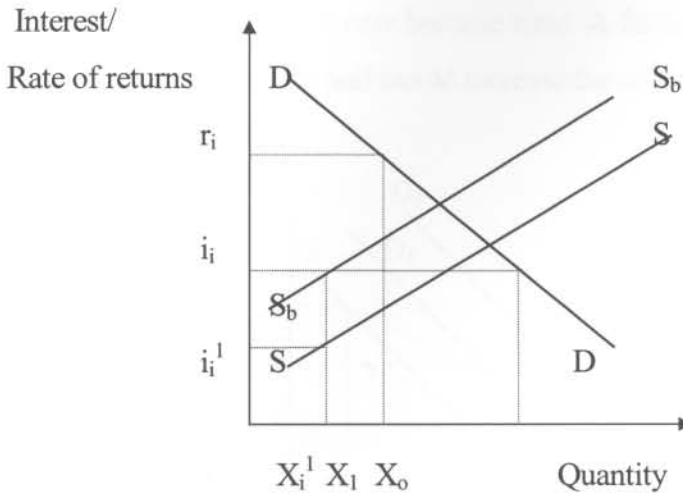


Figure 3. 3: Effect of an interest rate ceiling

Concessionary interest rates lead to lower revenues for the lenders if the demand for credit is inelastic and /or the supply of loanable funds is restricted over the relevant range of the demand schedule. This, in combination with the well-recognised high costs of administering agricultural credit for small clients programmes, will seriously jeopardise a credit institution's financial viability (Ladman & Tinnermeier, 1981:69). The implementation of concessionary interest rates for agricultural loans also leads to agricultural illusion - a situation where some agricultural loans have the appearance of going to that sector, but in fact go elsewhere.

Figure 3.3 presents a countrywide demand curve DD for credit from agricultural lenders to be used for agricultural purposes when interest rates are equalised throughout the economy. Assuming the market related interest rate is r , farmers would demand OC_1 credit. Suppose that the government subsidised the loans by means of concessionary interest rate, r_1 for agricultural loans, but the non-agricultural interest rate remains the same. Two effects would occur. First, borrowers would increase the quantity of funds demanded for agricultural purposes from C_1 to C_2 , and if non-price rationing were not employed, the borrower would receive a subsidy or income transfer of r_1rab . Secondly, since money is fungible, agricultural illusion may occur. With relatively lower interest rates for agricultural loans, borrowers will be expected to behave in this manner, especially those with multiple occupations and knowledge of other investment opportunities. The demand for credit from agricultural lenders would shift right to D_1D_1 .

Borrowers would want to use C_2C_3 quantity of credit to practice agricultural illusion. Total concessionary transfer would now become r_1rac . A further concessionary transfer would shift DD further to the right and would increase the concessionary transfers.

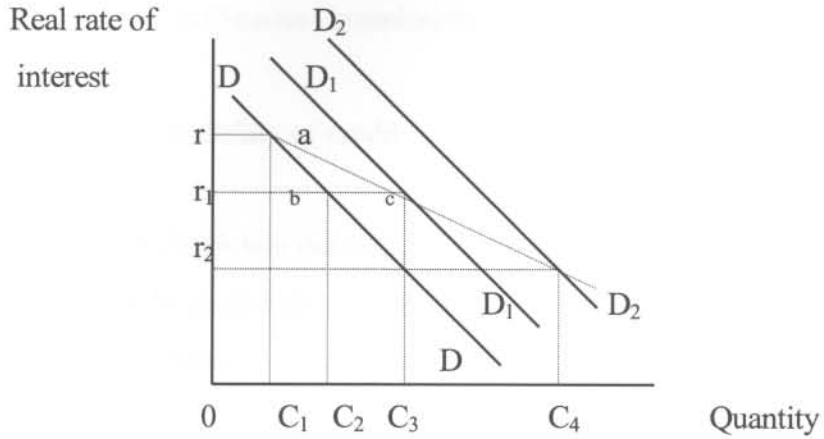


Figure 3. 4: Effect of subsidised credit

3.3.5.3 Conclusion

It must therefore be stressed that low interest rates cannot eliminate the monopoly of moneylenders in rural areas, since they restrict access to formal credit. Low interest rates cannot create the missing physical inputs, the missing markets, or the missing technologies that keep the productivity of farmers low in many developing countries. Once the inputs, markets and technologies are available, subsidised credit cannot stimulate adoption of the innovations unless large enough loans are granted to large numbers of farmers. Subsidised rates, however, lead to rationing and exclusion.

There is no a priori economic justification for the general subsidisation of lending interest rates in the rural economy, even for the rural poor. Scarce resources will however, be required to finance the start-up activities and institutional strengthening of emerging rural finance institutions. When income redistribution is pursued, grants are preferable to interest rate subsidies. Subsidies create a bias towards accepting investment projects with low returns. They encourage the substitution of credit for the borrower's own funds (or the funds of other lenders), promote excessive indebtedness, skew incentives in favour of capital-intensive techniques of production, encourage corruption

and the rationing of credit, and weaken borrowers' incentives to repay and lenders' incentives for debt recovery. They also result in lower returns to savers and higher costs for non-subsidised borrowers, unless the subsidy is fully paid through the fiscus instead of the banks. Finally, interest rates subsidies have added significantly to fiscal deficits and inflation in many countries (Strauss Commission, 1996:119).

3.3.6 Collateral and accessibility of credit

Lending involves the risk of borrower default, and lenders pursue various procedures to reduce default risk and to minimise the losses, which may be incurred in the case of default. The utilisation of collateral and guarantees is one of the universal procedures designed to increase the lender's expected profitability from a loan transaction, apart from screening potential borrowers according to creditworthiness criteria and credit rationing (Feder *et al*, 1988:23). At a given interest rate, collateral has three effects: i) it increases the expected return of the lender and reduces the expected return for the borrower, ii) it partly or fully shifts the risk of losing the principal from the lender to the borrower (Bradford *et al*, 1996:795), and iii) it provides those borrowers who have low disutility of default with an additional incentive to repay a loan (Binswanger and Sillers, 1983:16). An additional risk-reducing element, implicit in collateral, is the fact that it reduces the borrower's ability to incur additional institutional debt (Von Pischke *et al*, 1998:150).

Collateral is defined as an asset that upon liquidation is adequate to cover most or all of the lender's risk exposure, including principal, accrued interest and collection costs (Larr, 1994:8). Most of the definitions of collateral in formal finance fail to include collateral substitutes, which are used more often in the informal financial markets. To extend these definitions of collateral to include these substitutes, we may define collateral as an asset that a borrower agrees to forfeit in the event of loan default, or an asset that has the qualities to enforce loan repayment (FAO, 1996:3).

To fulfill the above requirement, collateral should have certain attributes. These are:

- Appropriability - the ease of liquidation in the event of default by the lender.

- Absence of collateral-specific risks - it should have low risk or be properly insured.
- Accrual of the returns to the borrower during the loan period (Binswanger *et al*, 1986).
- Value - it should be valuable to both the borrower and lender.

In general, physical assets such as land and real estate are used as collateral. However, where the market environment renders most assets less acceptable as collateral or where borrowers possess few collateralisable assets, credit market participants employ a variety of collateral substitutes such as third party guarantees, threat of loss of future borrowing opportunities, tied contracts, loss of reputation and social ostracism.

3.4.6.1 *Role of collateral*⁴

The role of collateral in lending is discussed extensively in the literature on rural credit markets. The various theoretical models (Stiglitz & Weiss, 1981; Bester, 1985, 1987 and Plaut, 1985) have defined the functions of collateral as i) signaling and ii) enforcement functions.

The signaling function: In these models, borrowers with a low probability of default are projected to be more inclined to accept an increase in collateral requirements for a certain reduction in loan interest rates than those with a high probability of default. Borrowers therefore show their risk types by revealing their preferences between collateral and interest rates. Increases in collateral requirements always favour low risk borrowers over high risk borrowers and signalling costs are therefore larger for high risk borrowers. However, collateral fails to perform the signalling function in the presence of the following conditions (Devinney⁴, 1986):

- i) If interest rates are sticky;
- ii) If the marginal collateralisation costs for high risk borrowers are less than for low risk borrowers so that they prefer to offer more collateral for a reduction in loan terms;

⁴ This section draws on the work of Nagarajan and Meyer, 1995.

- iii) If low risk borrowers have less wealth that can be offered as collateral than high risk borrowers;
- iv) When lenders are not diligent in loan collection, high risk borrowers will be prepared to offer more collateral for lower interest with the hope that they can escape repayment and foreclosure of collateral; and
- v) In the presence of re-negotiations on loan extension and collateral foreclosing at the end of a contract.

The enforcement function: The theoretical models of enforcement rest on the assumption of a legal environment that facilitates loan enforcement and marketability of assets offered as collateral. The enforcement function is done by collateral either by reducing the lender's default loss or by making it costly for the borrower to default. It is therefore proposed that high-risk borrowers be made to offer more collateral for a given loan size than low risk borrowers.

3.3.6.2 Collateral and its effects on credit availability

If collateral is not practically enforceable in rural economies of developing countries one would expect the practice to vanish, or if collateral is used because of bureaucratic inertia, it would actually not affect lending decisions. Collateral affects i) loan size and loan quantity rationing, and ii) the interest rate charged (Bradford *et al*, 1996:795). There is sufficient evidence for this statement. A study done in India indicates that the probability of obtaining loans from formal lenders was determined by the amount and the form of the borrower's assets that have high collateral value, and by the borrower's personal characteristics. Increases in the borrower's wealth were also found to increase the likelihood of getting better loan terms and a larger loan size (Binswanger *et al*, 1986). Evidence from an econometric analysis of institutional credit supply and demand in Thailand indicates that the pledging of land collateral significantly increases the amount of credit offered by institutional lenders. It also reveals that farmers providing land collateral obtain more institutional credit than farmers providing a group guarantee or no security at all. Where land collateral is legal, institutional lenders prefer land collateral to other loan securities,. A study on 34 banks in the Philippines indicates that

the probability of quantity rationing by these banks is lower when the ratio of the value of the collateral offered to the loan size is large (Llanto & Dingcong, 1994).

There is an inverse relationship between collateral and interest rate. The higher the value of collateral, the lower the interest rates charged. A survey conducted in some Indian villages indicated that in informal markets the highest rates of interest were charged for loans without collateral. The next highest were loans secured with movable assets, while the lowest were charged for immovable assets. Binswanger *et al.* (1986) also found that formal lenders gave smaller size loans and charged higher interest rates for borrowers without collateral. However, they gave larger loans at lower interest rates to borrowers in good standing or with large amounts of collateral. The relationship between the collateral, loan size, loan quantity and interest rates depends on the following factors: i) limits on the assets available as collateral, ii) limits on loanable funds by lenders, iii) costs of collateralization, iv) the institutional environment, and v) the availability of markets to liquidate collateral in case of loan default (Nagarajan & Meyer, 1995:13).

3.3.6.3 *The use of land as collateral*

Land is the least risky collateral and it is more commonly used than other forms of security, except in places where legal inhibitions exist on mortgaging agricultural land. The utility of land collateral in rural areas depends on the extent to which the legal system as well as the socio-political environment enables actual foreclosure on agricultural land (Feder *et al.*, 1988:233). In countries where property rights are clearly defined, foreclosure is easier to accomplish.

Some institutional lenders in areas where land is not acceptable collateral have used movable assets and crops. However, maintaining of these assets and crops has been very difficult.⁵ Other tradable assets used are savings funds, guarantee funds, warehouse receipts and insurance policies. In some cases, collateral substitutes are used. These

⁵ *This is only feasible where you have legally bonded warehouses or grain elevators where stored crops can be monitored and ownership transferred easily. Without this institutional framework, crops are not a reliable collateral in the formal financial markets.*

include third party guarantees, group guarantees and reputation. The information asymmetry between lenders and their clients makes land the most suitable collateral to use. There is a lack of familial connection or long-term relationship between institutional lenders and borrowers. Because institutional lenders are heavily regulated, and in most cases have to abide by usury laws, which dictate a relatively low rate of interest, they cannot charge higher interest rates to compensate for the risk posed by other forms of collateral or collateral substitutes. Because land is less risky, it has been found in many studies that the pledging of land collateral increases the amount of institutional credit offered. For instance, in Thailand, it was found that institutional credit increased by 43 per cent (disequilibrium model) or 55 per cent (equilibrium model) as compared to a loan without security (see details in Feder *et al*, 1988:242). An efficiency loss is likely to result from a ban on land collateral as it will force lenders to spend more resources (at the margin) on the assessment of creditworthiness, less lending to farmers may take place as lenders shift funds to other borrowers who are less risky at the margin (Feder *et al*, 1988:243).

3.4.6.4 Conclusion

Inadequate conventional collateral, like land, often results in restricted access to institutional credit for rural borrowers. Formal lenders need to consider using assets other than land to help improve access to formal loans, as has been the case in the informal financial markets. Alternative collateral (collateral substitute) arrangements, which are more appropriate at the local level, should be applied. These in essence revolve around character-based collateral, referrals, linked contracts and building a relationship between borrowers and lenders (Coetzee *et al*, 1994). Trying to solve the problem of asymmetrical information persisting in the rural financial markets would also help to reduce the use of collateral in loan transactions.

3.4.7 Implications for policy

Special efforts to develop financial markets in Africa and other developing world deserve a high priority. Broader and deeper financial markets yield major gains by mobilising and intermediating savings more efficiently. At the micro-level, providing

secure and remunerative deposit facilities for storing liquidity and accumulating savings will generate direct utility gains. With improved access to finance, entrepreneurs can take advantage of income-generating opportunities, and smooth out income fluctuations (Bolnick, 1992:65). Policymakers should bear in mind that credit is a double-edged tool. While loans can accelerate the development of small enterprises, they can also be a fatal burden when used indiscreetly. The goal is, therefore, not only to extend credit to clients, but rather to make an efficient mix of competitive financial services - both deposits and loans - more widely available through financially sound formal, semi formal and informal institutions.

The non-financial policies and other dimensions of the environment (including the existing physical and institutional infrastructure) that influence the creditworthiness (profitable opportunities that create capacity to repay) and saving capacity of the rural clients are critical for the success of financial intermediaries. Some of the policies worth considering are: i) an emphasis on the importance of deposit mobilisation, ii) a shift in the focus for the evaluation of credit projects from the measurement of what happens at the borrower level to an assessment of the performance of the financial institutions, iii) an increased appreciation of the merits of (endogenous) informal arrangements and iv) the need to devote resources to the development of cost-effective financial technologies to reach marginal clientele (Gonzalez-Vega, 1993:22-23). Branches should be small. Decentralised decision-making should rule at the branch level. Performance based remuneration should prevail, based on criteria including profits, number of loans, loan recovery, and deposit mobilisation.

The successful reorientation of credit policy in the future requires an imaginative and experimental approach to institutional innovation. Rural credit provision needs to be located in the context of diverse institutions providing lots of different services, not a single bureaucracy providing just one kind of service. The few case studies of successful credit institutions show that devices like regular small savings collected on the doorstep, group lending and group accountability for loan repayment, and improved incentive and performance methods within financial institutions, provide potential ways forward.

3.4 A PARADIGM SHIFT: TOWARDS A NEW SOUTH AFRICAN DEVELOPMENT FINANCIAL SYSTEM⁶

The provision of financial services to the rural households in South Africa has to be seen against the background of the past government intervention in the economy, that was characterised by distorted financial policies and institutional impediments. These interventions have resulted in a dualism in the rural and broader financial sector, with only a few South Africans enjoying a highly modern and sophisticated financial system that serves to provide a full range of financial services at the expense of the majority (Mohane *et al*, 2000:733). A lot of initiatives have been put into the rural financial markets to help address these imbalances. This section discusses the major features of the old paradigm of the South African rural financial market as well as providing a brief summary of the proposal put forward by the Strauss Commission (1996), to address the defects of the old system. Proposals regarding the requirements of a new South African development financial system is also presented.

3.4.1 The old development finance system

In response to some of the perceived market and government failures as well as the political and socio-economic objectives of the past, the previous government was instrumental in setting up an array of public utilities and development finance institutions, which made up the general development finance system (DFS). These included:

- Public utilities such as Telkom, Escom and Transnet on the national level, and a host of water boards/authorities, and broadcasting, electricity and transport corporations at the regional and provincial level.
- National development finance institutions such as the Industrial Development Corporation (IDC), the Development Bank of Southern Africa (DBSA), the

⁶ This section draws on the work of Coetzee, 1997.

Khula Enterprise Finance, the Land and Agricultural Bank and the National Housing Finance corporation.

- A host of development corporations and agricultural banks at the provincial levels.

The extent of the intervention has varied from indirect measures aimed at improving the policy environment (for example, by addressing incentive problems and regulating financial intermediaries) to direct steps to increase or supplant credit provided by the private sector. In South Africa, most of the government interventions still echo the supply led approach to rural finance. One other prominent feature of the South African DFS is the lack of a healthy partnership between the government and private sector organisations. The interventionist credit programmes have generally had a limited outreach (either in terms of location and services offered) and resulted in huge cost, with little identifiable impact at the small-scale farm level. Some of the other effects associated with the supply-led interventions have already been discussed in Section 2.

To address these imbalances and deficiencies of previous policies, various policy documents from both the present government and financial institutions were formulated, which culminated in the establishment of the Strauss Commission to investigate and make recommendations to the government on the rural financial market in South Africa. A number of proposals were put forward by the Strauss Commission. Some of the proposals attended to the access problem and the expansion of retail financial services in the provinces. Others addressed the national level responsibility for providing capital and support to provincial level institutions. A further set of proposals aimed to structure national level support for rural finance retail institutions in the form of a Land Bank.

The crux of the Strauss Commission was the rejection of the supply-led system of rural credit. In place of this, the commission emphasised that a broad range of services should be made accessible within a demand driven system. It further emphasised the importance of a retail network in rural areas in achieving access to these services. The commission also argued that although subsidies are necessary, they should be

implemented within strict rules and be finite in nature. The discussions on the report are well documented in Coetzee (1997).

3.4.2 The new development finance system

The reports of the Strauss Commission (1996) provided a broad framework and a paradigm shift away from a supply-led approach. The implementation of this framework requires a realistic approach based on objectives to increase sustainability of institutions, while at the same time ensuring a development impact and wide as possible outreach. Specifically, functions of the DFS could be to: i) obtain and channel finance from international and local markets at relatively favourable terms; ii) serve as a conduit for international donor finance and grants from the state budget; iii) create project appraisal and credit-risk analysis capacity; iv) trigger private sector investment; v) build up core expertise; and vi) allocate resources in ways that promote overall socio-economic objectives.

Coetzee (1997) suggested that for the new DFS to achieve the desired impact, institutions at both the retail and wholesale level should fulfill certain requirements. These generic requirements include:

- Development/outreach capacity – This refers to resources of adequate scope and quality to execute the development objectives of the institutions. For financial institutions, they should have the ability to reach a large proportion of the total market in the areas of operation, while still being sustainable (Gurgand *et al*, 1996).
- Full financial self-sufficiency – This is an essential prerequisite for making financial services widely available to demanding clients. It is necessary that institutions be structured and financed in such a way that sustainability is achieved in the longer term. A three-stage process could be adopted to move these institutions towards the commercialization of institutions (Spio & Groenewald, 1998:174). The first step is to develop a cost-covering operation focusing primarily on lending; the second step begins with the expansion of

savings mobilization; and the third step is to move to full independence when concessional sources of finance are longer used and the institution becomes a genuine financial institution.

To facilitate the above objectives, Coetzee (1997), listed certain issues which needed to be considered. First, the government should concentrate on establishing a favourable policy environment that facilitates the smooth functioning of rural financial markets while playing a limited and efficient role in the direct provision of rural financial services. Second, efforts should be made to build up the capacity of the existing institutions, as well as to transform the existing institutional structures to serve the needs of the reconstruction and development process. In addition, the spirit of flexibility should be integral to both the application of sectorally and geographically based proposals on development funding and to the eventual functioning of the DFS. This is critical because of the dynamic nature of developments in South Africa. Third, there is the need to minimise both systemic and institutional risk. In order to promote the stability of the DFS, development finance institutions should preferably be structured to accommodate the spreading of risk over different types of clients, over different sectors and over different geographic areas. Again, sound management information system is most important for minimising institutional risk. Fourth, the DFS should be able to mobilise funds at lowest cost. The nature of the national development financial institutions should therefore allow for the most appropriate and low-cost deposit and financing options. Fifth, coordination of investment to achieve development should be applicable at all levels, including the policy, strategic planning and budgeting, and operational levels.

3.4.3 Conclusion

There is a dichotomous dimension to the challenge of supplying rural finance in South Africa. Finance has to contribute to the revitalization and sustenance of the commercial agricultural sector while simultaneously being a factor in the modernization and development of subsistence or an emerging sector. The optimal provision of financial services will ultimately depend on the successful development and integration of all levels of the financial system.