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ASSESSING THE PERFORMANCE OF SUDAN RURAL DEVELOPMENT COMPANY LTD. (SRDC), WITHIN THE FRAMEWORK OF RURAL CREDIT IN THE SUDAN

A Research Paper presented by

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DEDICATION

This Research is dedicated with deep love to my mother, sister, brothers, family and friends.

A special dedication is to my dear Chinese friend 'Ding' who liked the name 'Fatima'.

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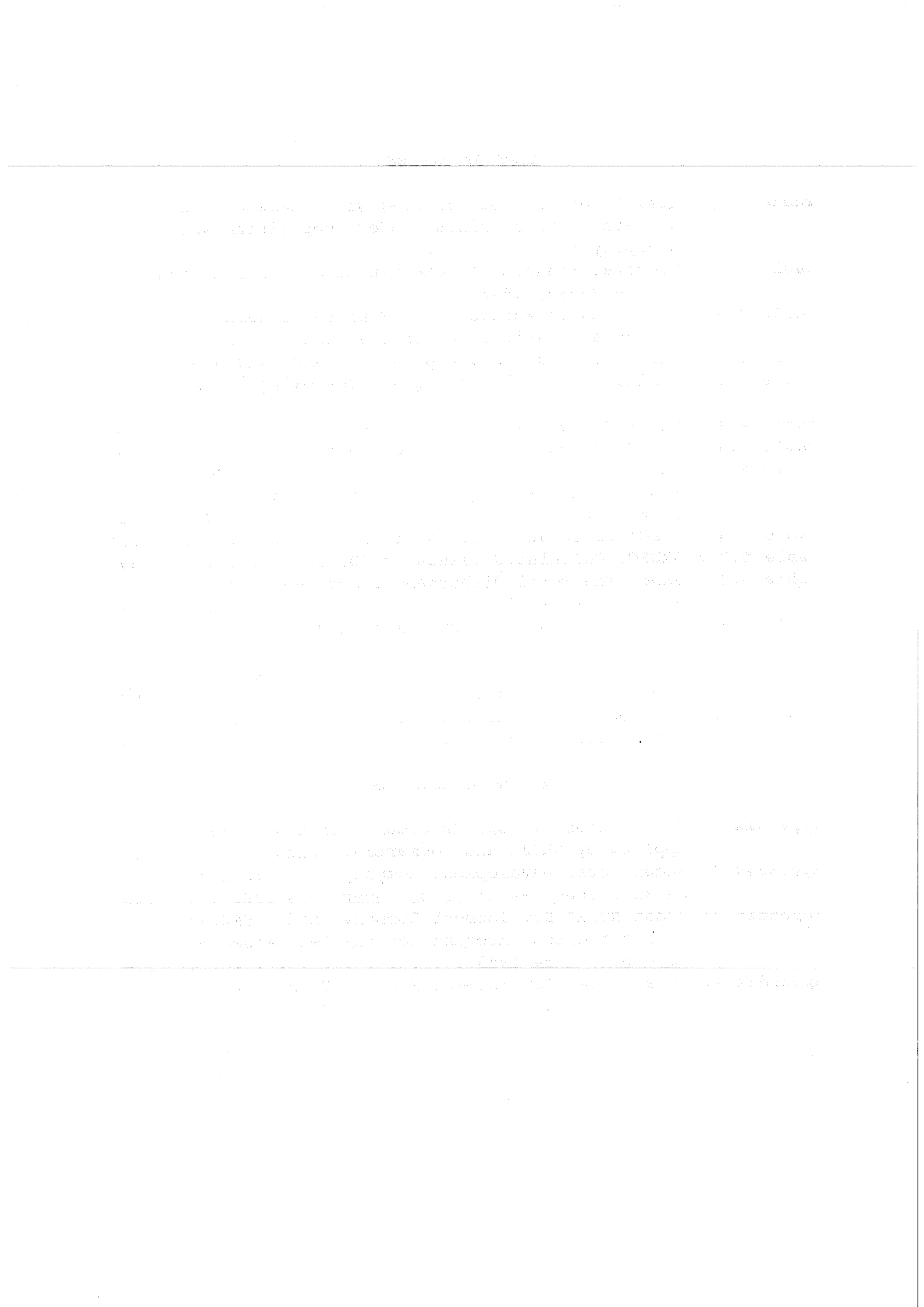

List of ACRONYMS

ABS	Agricultural Bank of Sudan
BADC	Belgian Administration for Development and Cooperation
BIB	Baraka Islamic Bank
BK	Bank of Khartoum
BN	Bank of El-Nelien
BS	Bank of Sudan
CCCE	Caisse Centrale de Coopération Economique
CDC	Commonwealth Development Corporation
DCIB	Development Cooperative Islamic Bank
DEG	Deutsche Finanzierungsgesellschaft, für Beteiligungen in Entwicklungsländern GmbH
DFIs	Development Finance Institutions
ESAP	Economic Structural Adjustment Programme
FIB	Faisal Islamic Bank
FIs	Finance Institutions
GhB	Gharb Islamic Bank
IBS	Industrial Bank of Sudan
IFIs	International Financial Institutions
L.S.	Sudanese Pound
LDCs	Less-Developed Countries
RFIs	Rural Finance Institutions
RFMs	Rural Financial Markets
SCB	Sudanese Commercial Bank
SDC	Sudan Development Corporation
SDI	Subsidy Dependence Index
SFB	Sudanese-French Bank
ShIB	Shimal Islamic Bank
SIB	Sudanese Islamic Bank
SNB	Sudan National Bank
SRDC	Sudan Rural Development Company Ltd.
SRDFC	Sudan Rural development Finance Company Ltd.
SSB	Sudanese Savings Bank
SaSuB	Saudi-Sudanese Bank
SSE	Small-Scale Enterprises
TIB	Tadamoun Islamic Bank
UB	Unity Bank

FOREWORD

" Many people think of financial institutions as "money specialists," as opposed to specialists in consumer or industrial products like soap or machinery. Until recently, people paid little attention to the fact that financial institutions have their own financial management problems. Instead, the common belief was that financial institutions exist to solve the financial management problems of others - not a surprising thought because most individuals have relationships with several financial institutions, beginning at an early stage."

(Gardner and Mills, 1991, p.4).

" For most people, trying to determine whether a financial institution is sound is as frustrating as trying to decipher a foreign language."

(Leonard M.A., as cited in Gardner and Mills, 1991, p.647).

This work is a sincere attempt to help the rural people whose energetic capacities are undermined by the inefficiencies of other people; for whom I work and to whom I am proud to belong. It is the first of a series of works, none of which will be done by "Rapid Rural" or "Quick and Dirty" Appraisals, which are commonly carried out by urban "outsiders" who fear the "rural" dust and mosquitos, but of course, enjoy the delicious rural tomatoes and watermelons, free or at very cheap prices.

(Hassan - the author, 1995).

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Hassan Abdel-Magid Musa

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CHAPTER ONE
INTRODUCTION

1.1. Introduction

In the last decade rural development has acquired a central role in the theory and practice of development. Increasing agricultural output and productivity, inducing the optimal rate of new technology adoption and input and output mix, increasing rural employment, improving income distribution, and reducing the persistent and deepening rural poverty, were wide-range major concerns in many developing countries. In fact, this gave rise to a new strategy for development, especially that undertaken by the World Bank. This strategy was deliberately aimed at the problem of poverty, and emphasized rural development as a broad and comprehensive process rather than the goal simply of increasing production. (Harriss, 1982).

The World Bank defined **rural development** as " ...a strategy designed to improve the economic and social life of a specific group of people - the rural poor". (ibid.). Thus, according to Harriss (1982), rural development refers to a distinct approach to interventions by the state in the economies of underdeveloped countries, and one which is at once broader and more specific than agricultural development (as it entails much more than the development of agricultural production and is a distinct approach for the development of the economy as a whole).

Rural development may also refer to processes of change in rural societies, not all of which involve action by the state. The latter is considered one of the forces concerned. (ibid.).

The move towards increasing production and improving the standard of living in rural areas, entailed the optimal utilisation of potential resources in rural areas. Rural credit, for example, is seen as one of the strategic factors that determine the pace and pattern of socio-economic development. It facilitates as well as stimulates the development process. This in turn, gave rise to the emergence of various specialized institutions and organisations such as the development finance institutions and the NGO's, which are envisaged to foster rural and economic development.

The importance of such institutions and organizations in stimulating rural development, increased tremendously and their degree of success differed significantly as experienced by many developing countries. Their performance is of key significance to the process of rural economic development since they are the vehicles through which credit has been channelled to the rural and agricultural sectors to achieve social and economic goals.

1.2. Statement of the Problem

The Sudanese economy is dominated by the agricultural sector which highly contributes to food production, employment, the GDP, economic growth and foreign trade. Products of this sector come on top of the country's exports as they constitute about 90% of total exports. Moreover, the sector absorbs about 75% of the domestic labour force.

The agricultural sector in the Sudan, exposes clearly the characteristics of dualistic development; a high income irrigated and mechanized rainfed sub-sector on the one hand, and a low income traditional sub-sector on the other. The traditional sector covers about 60% of the total cultivable land and the largest portion of the agricultural labour force belongs to this sub-sector. It is also noted that the highest concentration of absolute poverty is found in the rural areas where people are mainly employed in the traditional farming. Yet, these groups provide a major source of dynamism for economic prosperity as they represent a considerable potential for stimulating economic development in the country.

For the aforesaid facts, it is not by chance that the successive government development policies and strategies gave great attention to rural development by mobilizing and encouraging the mobilization of resources that help speed up rural development and economic development in general.

In compliance with the general government policy, a feasibility study for the establishment of Sudan Rural Development Company Ltd. (SRDC) was prepared by Sudan Development Corporation (SDC) in 1978. The SRDC was envisaged to contribute in filling the gaps missed by the existing financial institutions at that time whose activities were mainly commercial

and concentrated in the national capital, Khartoum. The SRDC was envisaged to promote rural development by extending technical and financial assistance to commercially and economically viable small and medium-scale projects outside Khartoum. The financial assistance is in both local and foreign currency and for medium and long-term finance. The sectoral coverage is agriculture, industry and services, excluding infrastructure and commerce.

Since its establishment, the SRDC played an important role in rural development. However, it is affected by some problems that constrained its performance. Some of these problems are:

- Rapidly increasing operating costs especially the wages and salaries which are tremendously increased by the government;
- Credit rationing that led to the concentration of finance among the rich and hence creating income inequality, a practice that contradicts with the SRDC's objectives;
- Monetary policy that led to official ceilings on on-lending rates, a policy that created distorted on-lending rates that do not cover the transactions and risk costs;
- Low loan size and/or high non-interest expenses imposed on the borrowers due to ceilings on on-lending rates;
- High corporate taxes;
- The external economic and political environment presented in the high inflation rate and the political instability that resulted in high uncertainty and risk. This in turn, heavily constrained the flow of local funds and lines of credits from the other institutions mainly for the medium- and long-term finance. Moreover, the company's own foreign funds are not utilized under this severe economic conditions since it can not re-accumulate the repayments in foreign currency or even get the foreign currency from the credit market. Thus, there is a problem in financial resources both local and foreign.
- Depletion of capital against the increasing operating costs and high inflation;

Being working under this difficult situation, under a liberalized economy, the performance and sustainability of the SRDC are endangered; a problem that will negatively contribute to the economic development of the country as a whole.

1.3. Objective of the Study

The **objective** of this study is three fold:

i) to assess the performance of the SRDC by considering different techniques including the financial ratios and their trends, the Subsidy Dependence Index (SDI) as self-sustainability measure and finally the outreach analysis; all for the period 1984-1993;

ii) to find ways to reduce the problems mentioned in 1.2, above;

iii) to outline the main policy issues related to rural development finance, through analysing and assessing the performance of the SRDC.

1.4. Justification of the Study

The justification of this study hinges on the following factors:

i) The Sudan, as a developing country with a large rural sector, requires rural development finance institutions which are supposed to contribute positively to the progress of rural development which, in turn, is crucial for the development of the country as a whole.

ii) The SRDC is a good proxy for assessing the performance of rural development finance institutions in the Sudan. It is a public company composed of a holding and a finance company where both companies work under the name SRDC. The board of the holding company consists of Sudanese members from the Sudan government, the Bank of Sudan, the Sudan Development Corporation (SDC), three public commercial banks and the Sudanese-French Bank as a private bank. The finance company includes participation of the SRDC and some International Financial Institutions (IFIs) including the Commonwealth Development Corporation (CDC) from the United Kingdom, the Belgian Administration for Development and Cooperation (BADC) from Belgium, the Deutsche

Finanzierungsgesellschaft, für Beteiligungen in Entwicklungsländern GmbH (DEG) from Germany, and Caisse Centrale de Coopération Economique (CCCE) from France.

iii) No any assessment study has been done for the SRDC since its establishment.

1.5. Research Questions and Hypotheses

The research will attempt to answer the following main and sub-questions:

Main questions:

i) Is the SRDC performing positively?

ii) Is the SRDC moving in its planned trajectory?; and is it effective in meeting its objectives?

iii) What micro and macro policy issues are relevant to the SRDC situation?

Sub-questions:

iv) What are the main factors affecting the SRDC performance and on what direction?

v) What are the actions taken by the SRDC management to enhance and/or improve the SRDC performance? and what is the outcome of that?

vi) What are the implications of this posture towards the SRDC self-sustainability and outreach?

Coupled with the objectives and the above research questions, are the working hypotheses of this research, mentioned below:

i) The SRDC is currently facing serious problems that threaten its performance, self-sustainability, and outreach;

ii) With no internal and external remedial solution to this situation, the SRDC may collapse in the medium-run or fail in meeting its development objectives;

iii) A positive government response to development finance institutions will take place in the general government policy.

1.6. Limitations and Scope of the Study

The following factors unintentionally limited the study to the level it is presented:

1) Impact analysis as complementary to the outreach analysis, is missed in this study due to the time and resource constraints. It requires at least a field sample survey to interview the beneficiaries;

2) The shortage and inconsistency of data of other Sudanese financial institutions, make it difficult to conduct a comparative study between the SRDC and these institutions. Instead, the comparison will be done within the SRDC itself via a trend analysis. In addition to this, the SRDC will be compared with some international Rural Finance Institutions (RFIs) in developing countries where in this case some relevant criteria for comparison will be considered.

Surmounting these limitations will give a wide scope for a future comprehensive study in this field.

1.7. Contribution of the Study to the Policy-Making:

The performance of development finance institutions in developing countries in general and in the Sudan in particular, is not subject to a proper on-going assessment which is necessary to signal the pitfalls of the institutions and hence, advise for remedial solutions.

This study will contribute to the policy-making field by presenting an empirical model for assessing the performance of rural development finance institutions in the Sudan, by using - in addition to conventional techniques - newly adopted international techniques for assessing the sustainability and outreach of financial institutions.

1.8. Data

The analysis in this research is mainly based on a secondary data from the financial statements of the SRDC, namely the Balance Sheets and the Profit/Loss Accounts derived from the company's annual reports and accounts for the years 1984-1993.

Other secondary data sources that will be used, are diverse statistic and economic surveys besides the status reports and policy documents of the SRDC.

1.9. Organization of the Paper

This paper consists of six chapters including this introductory chapter. Chapter Two covers part of the theoretical and conceptual framework about rural financial markets in developing countries from a global and a national perspective; including a brief on the Islamic mode of finance, in the latter. Chapter Three gives a brief on the SRDC including its capital structure, objectives; organizational structure; finance policy; finance procedure; sources of funds and significance of the SRDC in the Sudanese economy. Chapter Four gives more conceptual and theoretical explanation of the methodology and analytical techniques used in this research. Chapter Five shows the analysis and empirical findings about the issues posed in the study. Finally, Chapter Six includes as usual a summary, some concluding notes and recommendations.

CHAPTER TWO
SOME ASPECTS OF RURAL FINANCIAL MARKETS IN DEVELOPING COUNTRIES

2.1. Global Perspective

2.1.1. Background

A **rural financial market** (RFM) consists of relationships between buyers and sellers of financial assets who are active in rural economies. These relationships are based on transactions that include borrowing, lending, and transfers of ownership of financial assets. Financial assets consist of debt claims which, in turn, are promises to pay. (Adams et al, 1983).

RFMs include informal sector intermediaries, formal institutions, and private borrowing and lending not involving intermediaries.

The credit market is unique and has a special nature. A fundamental feature of it, that the payment for the 'good' is made at a later date than that at which the 'good' is supplied. On the deposit side of the market, the good consists of the savings or other deposits and the payment consists of interest plus principal. On the loan side, the 'good' is the loan amount; the repayment is the principal plus interest. In both cases the good is exchanged for a commitment to pay a specified sum or sums in the future. (Virmani, 1982).

Financial markets are often characterized by intermediaries between savers and borrowers: banks, government credit institutions, and cooperative savings and loan operations. These organizations are only a part of the market, however. They would not be able to provide their services, linking buyers and sellers of financial assets, unless there was a demand for intermediation from the rural individuals, households, and the farm and non-farm enterprises that make up the market.

The establishment of formal rural credit systems in most developing countries over the recent decades was motivated by the belief that widespread shortages of short- and long-term finance constituted a constraint which hampered agricultural growth and development.

The absence of what was perceived as affordable formal credit was also blamed for delaying, if not preventing, a timely adoption of new production technologies and the dissemination of non-labour intensive inputs such as fertilizers, thereby slowing down the growth and development of the agricultural sector.

Evidence also shows that in most LDCs, there is a clear "urban bias" i.e., most of government policies (in pricing, investment, ...etc) favour residents of the urban sector over rural inhabitants. This seems to exist in the allocation of rural credit as well. (Braverman and Guasch, 1989).

2.1.2. Government Intervention in Rural Credit Markets

Until recently, conventional wisdom held that imposing low ceilings on interest rates and allocating massive amounts of credit to rural financial markets would yield rural development by improving income distribution and achieving many of the other rural development objectives mentioned earlier. It has been argued that without subsidized interest rates, adoption of technical innovation would be delayed and there would be under-usage of costly inputs like fertilizers.

It has also been claimed that since rural credit markets are notoriously imperfect, access to credit by farmers, particularly small ones, is severely limited, and that without government intervention a high price of capital would prevail. This would further screen out small farmers from credit, fostering poverty and worsening income distribution.

Lastly, it has been argued that because of distorted exchange rates, food price controls, imports of cheap food and inefficient markets, farmers receive low prices for their products, hampering their borrowing ability. The government might, further intervene and attempt to compensate farmers for the adverse effects of those policies by providing subsidized credit. This is referred to as the "second best" argument. (Braverman and Guasch, 1989).

Governments in LDCs have intervened heavily in rural markets, aiming at supplying affordable credit to small-scale farmers and rural entrepreneurs, who were perceived as a clientele with no alternative access to formal credit markets.

As private returns were estimated to be below the social ones, the intervention was intended to overcome this failure and to spur investments that would not have materialized otherwise.

The "infant industry" argument was frequently raised to support government interventions in financial markets in favour of the sector as a whole or in support of specific segments of it (small scale farmers, promotion of new technologies, ...etc). (Yaron, 1992b).

Credit or capital markets are inherently imperfect in the sense that there is no certainty about the completion of a credit transaction. A credit transaction involves a relationship between a lender and a borrower in time and hence in the context of uncertainty. A credit transaction is completed only when the borrower repays the amount borrowed; and there can be no certainty about this repayment. (Bhatt, 1988).

The evidence of more than twenty years subsidized credit policies indicates a significant failure to achieve the desired objectives. In fact, most often they have made matters worse. Low interest rate ceilings provide income transfer to loan recipients (often not the poor), distorting the real rates of investment opportunities by undervaluing the real cost of capital in different sectors. (Braverman and Guasch, 1989).

The concentration of credit in few loans is explained by the **Iron Law of Interest-Rate Restrictions** proposed by Gonzalez-Vega (1976) in which he states that "the lower the real rate of interest, the more heavily concentrated will be the loans in the hands of relatively few people." (as cited in Adams, 1984, p.71).

Official ceilings on on-lending interest rates have frequently forced lending at rates which do not cover transaction and risk costs. Even specialized rural Finance Institutions (FIs) with a good loan portfolio and excellent collection rates can not cover their expenses with such a low spread. In this respect, Yaron (1992b) cited the example of the Malawi Development Finance Company, which collects over 87% of loans made, but can only cover 17%-20% of operating costs.

Another source of government intervention in rural finance markets in LDCs, is the credit control on commercial banks to force them to lend for socially desirable purposes. According to Johnson (1983), the case fundamentally boils down to two things. First, commercial banks (or financial institutions in general) either underestimate the creditworthiness and overestimate the risk, administration, and collection costs associated with extending loans to certain sectors, or they have costs of assessing creditworthiness and risk and of administering and collecting loans in these sectors higher than the true social cost. Second, commercial banks do not take into consideration the external benefits which expansion of the high-priority sectors will yield for the rest of the economy.

Portfolio-ceiling is one of the devices used for credit control. It generally sets a ceiling on loans for specified purposes or to specified sectors. The ceilings may be set as percentages of loans extended to different sectors or as maximum amounts of loans allocable to specified sectors.

Another type of portfolio ceiling device is an incremental ceiling that specifies the maximum increase allowed for loans for various purposes. (ibid).

Johnson (1983) argues that credit controls are inefficient because of the costs they impose on lenders, borrowers, and society. Thus, one of the options he recommends, is the creation of financial institutions with greater capabilities than commercial banks for assessing the creditworthiness of the high-priority sectors and for administering and servicing loans to them. Moreover, he expects these financial institutions to borrow funds from the commercial banks at market rates of interest and lend these funds out to the high-priority sectors, or they could be given substantial working capital from state funds and then be left to work on their own, where no subsidization is needed for such high-priority sectors since the activities of the new financial institutions are socially and privately profitable.

2.1.3. The Targeting of Small-scale Farmers and Entrepreneurs

Despite the remarkable expansion of credit throughout rural areas in LDCs over the last three decades, only a small fraction

of the farmers seem to have received or benefited by such credit. It has been estimated that only 5% of farms in Africa and about 15% in Asia and Latin America have had access to formal credit. (Braverman and Guasch, 1989).

Rather than equalizing income inequality, low interest rate credit programmes have increased it; 5% of borrowers have received 80% of the credit. Policies that allocate credit to farmers, indiscriminately provide larger loans to larger landholders when all credit demands are fulfilled. This is because larger landholders require larger loans even if there are decreasing returns to credit per hectare and per farm size. This is also true if excess demand gives rise to **credit rationing**, [i.e., availability of credit to a specific group over another] as result of the artificial shortage in credit. (ibid).

The subsidized interest rate results in subsidy or income transfer to loan recipients who are normally the larger landholders, which result in increasing income inequality. The problem is exacerbated because of excess demand as rationing is not implemented equi-proportional to demands. (Yaron, 1992b).

According to Von Pischke (1984), credit rationing by specialized finance institutions takes two forms; intensive and extensive. **Intensive credit rationing** involves lending to a relatively small target group and providing its members amounts of credit which are large in relation to the existing scope of their operations. Its usual objective is to increase the production and incomes of borrowers through technological innovation.

Extensive credit rationing, on the other hand, is intended to provide credit access to large number of farmers in broad target groups as well as to increase production. It is most frequently found in credit for seasonal inputs; small amounts issued to each borrower satisfy the production bias of planners while inspiring a broad appeal which is politically desirable. (Von Pischke, 1983).

Gonzalez-Vega (1984) distinguished three aspects for any loan: the size, the interest rate charged, and the non-interest terms of the loan contract. According to him, given the risk,

transaction costs, and information costs associated with lending, formal FIs try to optimize the adjustment of these three aspects of a loan to each particular borrower. When the ceilings on loan rates become binding, lenders are forced to adjust the non-interest terms of loan contract or to reduce loan size. The result is that borrowers receive a less attractive combination of these three aspects of their loans and the profits of formal FIs decline.

Moreover, he distinguished between two types of rationing; rationing through price and rationing through quantities. **Rationing through price** is done through changes in the interest rate charged and/or through changes in the non-interest terms of the loan contract. **Rationing through quantities** is done through changes in the loan size. In the first case, the borrowers are rationed out of the market by the imposition of less attractive non-interest terms of the loan, and hence, it is the borrower who decides that the price is too high. In the second case, the potential borrower is willing to pay the full price , but the formal FIs are not willing to provide a loan of the size demanded.

Targeting the small farmers is a problem whether or not interest rates are subsidized. The reasons are the substantial costs in processing and administering loans, with returns increasing as a function of loan size. As well, it is often presumed that larger and wealthier farmers are better credit risks, either because of their ability to provide collateral, because of their better track records or because banks have better information on them. Subsidized credit worsens the problem. It increases the demand for loans at all levels and for all types and, given the fixed supply of credit, the rationing of small farmers will be even more severe. (Yaron, 1992b).

Small-scale enterprises (SSE), in the broadest sense, include all non-agricultural enterprises and most of these are service activities, predominantly trade. In the narrower sense, focusing on economic development, the term is restricted to productive activities, such as industries and repair services. (Page and Steel, 1984, as cited in Hansohm, 1991).

The World Bank defined SSE as:

> "enterprises engaged in activities involving barriers to entry in the form of human or physical capital that do not have ready access to institutionalized credit and incentives without special assistance" (ibid).

Lenders generally perceive high risks in SSE lending, just as they do with small farmer credit. Small-scale businessmen almost by definition have limited reserves to withstand adversity. (Meyer, 1983).

Although the small-scale sector may appear to have considerable resiliency as manifested by a large number of firms, the turnover of firms is often high and bankruptcies are common. These firms can provide only small amounts of collateral, and the value of such collateral may be low because of their limited markets. (ibid).

The implications of credit ceiling and other intervention policies under competition and monopoly, and when there are no collateral constraints, are summarized in Table 2.1 below, given by Virmani (1982). Accordingly, for example, under competition, a ceiling on interest rates compounds a problem instead of correcting it, or creates one if none existed before. Collateral requirements rise and the expected profits of the firm are reduced even further. The loan size falls further thus increasing inefficiency.

The consensus in this respect is that, for public credit to reach the small farmers and entrepreneurs, a different set of policies is required. Specific incentives need to be provided for institutions to channel funds to targeted groups along with the design of sensible monitoring procedure for information gathering. Without the combination of these two factors, the problem is likely to remain. (Yaron, 1992b).

2.1.4. Tolerated Defaults

Successful credit programmes have high recovery rate. Subsidized credit programmes also fall in this regard, with most studies reporting low recovery rates.

Table 2.1

Effects of Various Policies when there are no Collateral Constraints; under Competition and Monopoly

POLICY	EFFICIENCY	LOAN AMOUNT	INTEREST RATE	COLLATERAL	EXPECTED PROFIT of Firm
		COMPETITION			
Loan Rate Ceiling	D	F	F	R	F
Minimum Lending Requirement	I[a]	R[a]	R	R	F
Loan interest Subsidy to Bank	I	R	F	F	R
Subsidy per Loan made by Bank	I	R	F	F	R
Rediscounting which lowers opportunity cost of funds	I	R	F	R/F	R
credit ceiling	D[b]	F[b]	F	R	F

By definition Bank expected Profits remain unchanged

POLICY	EFFICIENCY	LOAN AMOUNT	INTEREST RATE	COLLATERAL	EXPECTED PROFIT of Bank
		Monopoly			
Loan Rate Ceiling	D	F	F	R	R
Minimum Lending Requirement	I	R	F	R	F/R
Loan interest Subsidy to Bank	I	R	F	F	R
Subsidy per Loan made by Bank	U	U	U	U	R
Rediscounting which lowers opportunity cost of funds	I	R	F	R	R
credit ceiling	D	F	F	F/R	F/R

By definition Firm expected Profits are unchanged

D: Decreases F: Falls I: Increases R: Rises U: Unchanged

(a) If the lending requirement is specified by a class of firms and not to specific firms, efficiency could worsen as some firms are totally eliminated from getting loans.

(b) Could increase if all others are getting less than the efficient/optimal amount.

Source: Virmani, 1982, p.33.

Defining default as a loan overdue for repayment, these studies have indicated default rates ranging, with a few exceptions, from 30% to 95% for credit programmes in Africa, the Middle East, and Latin America. (ibid).

Similar reports have been reported in South and Southeast Asia. East Asia is the exception: the high recovery rates for Korea, Taiwan, and Japan are frequently attributed to strong village cooperative system which have provided a strong incentive and enforcement system. (ibid).

Different reasons are attributed for high default rates, e.g., declining screening quality over time, lax supervision, diminishing prospect for future loans by the borrower, and the perception of some farmers to loans as grants or welfare. (ibid).

The World Bank categorized the reasons for default into six categories: defects in enterprise production [e.g., nonviable farm unit]; variability in incomes caused by fortuitous, seasonal, or unforseen factors; defects and inadequacies in the organization disbursing credit [e.g., lax supervision]; attitudinal conditions not conducive to repayment [e.g., to consider the loan as a grant]; mis-allocation of borrowed funds; and other miscellaneous reasons. (Sanderatne, 1983).

Because their operations were not driven by commercial financial performance criteria, lending institutions have lacked the incentives to make strong collection efforts. (Yaron, 1992b). Rather, the performance incentives of specialized agricultural credit institutions have often been based on quick loan approval and disbursement and rapid growth in the lending volume, facilitated rapidly expanding external funding of donors. (ibid).

Growing evidence indicates that the risks of default on loans are greater for large farmers who are nevertheless charged lower interest rates than small farmers. Thus, those who benefit most from tolerated default are the big farmers whose default/loan ratio is higher. Furthermore, grantees by other agencies to which borrowers shift part of the recovery risk, is seen to weaken the incentive of financial institutions to collect and this clearly impacts adversely on recovery rates. (ibid).

Von Pischke (1983) argued that poor loan discipline impairs FIs development. Funds which would have become available for re-lending as outstanding loans mature are locked up as arrears. As arrears accumulate, FIs funds fail to revolve. Potential borrowers may increasingly find their access to credit delayed, restricted, or denied because of the declining liquidity of the lender. When funds for lending decline, intensively rationed credit becomes available to fewer new borrowers. Lenders may increase the average loan size to lower administrative costs and thus cater to still fewer large, low-risk borrowers. In contrast, lenders of extensively rationed credit may reduce the average loan size to maintain broad access. Arrears may be increased as these loans become increasingly trivial, especially in real terms when inflation raises the costs.

Improvement in the efficiency of the credit-disbursing organization is fundamental to decreasing the incidence of defaults. Improvements generally needed include better management and better paid-officials, a system of credit supervision, farm management data on borrowers, and proper accounting. Moreover, a reluctance to repay loans from the government or cooperatives has often been created by governments themselves. Political considerations have impelled administrations to abandon efforts to collect unrepaid loans; where such a policy has been adopted, borrowers tend to expect similar amnesties in the future. Therefore, one essential need is for a clear and unambiguous position of the government that loans will not be forgiven. (Sanderatne, 1983).

Also to minimise the risk of high default rates, enforcement, accountability and incentive design regarding loan size, terms, renewals and new loans are seen crucial to be implemented. (Yaron, 1992b).

2.1.5. Subsidized Loans, Inflation, and Political Patronage

Subsidized loans are predictable generators of poor investments, mis-allocations, and borrowing for arbitrage. They clearly become more attractive and distortive in the presence of high inflation rates. Moreover, they provide significant leverage to the individuals in charge of their disbursement.

Under these conditions, it is not surprising that credit is allocated as well in turn for political benefit or as a compensation for favours rather than according to need or efficiency. (ibid).

With the prevalence of inflation in many LDCs, a new view of interest rate recommends that interest rate must be high enough so that depositors can be adequately compensated and so that lenders can cover their costs. When the real interest rates are negative (i.e., when the rate of inflation exceeds the nominal rate of interest), borrowers repay lenders less in terms of goods and services than what they initially borrowed. Hence, inflation reduces the purchasing power of financial institutions through negative real rates of interest. (Adams, 1986).

Sayad (1984) added that negative real rates of interest have been blamed for the unsatisfactory performance of rural financial markets in many LDCs, explained by the concentration of loans among wealthy farmers, the small-sharing of self-financing in the farming sector, the shortage of medium- and long-term finance, and the weak formal FIs in rural areas.

The low degree of financial intermediation, market segmentation, and limited savings also have been blamed on these negative rates where low real rates of interest are singled out as the most important features of financial repression. (ibid).

2.1.6. Institutional Development and Operating Constraints

Significant institutional developments have taken place in rural credit markets during the last two decades. A group of distinct types of organizations has emerged, including cooperatives, government development banks, rural private banks, multi-purpose development agencies, finance companies, ...etc. The rationale for such undertakings has been the belief that the agricultural sector is not well served in credit matters, that farmers have great difficulty in accessing credit, and that when obtained it is at a very high and usurious rate.

Development institutions are designed primarily to channel government and/or donor funds to targeted borrowers. They are often donor managed or controlled and have a political agenda. These institutions are predominantly credit institutions that do

not accept deposits. These factors ultimately made many of these financial institutions inefficient, dependent, and often insolvent as e.g., recovery rates are weak. (CIDA, 1994).

Generally, the projected role of financial institutions was to provide finance for the rural sector and to stimulate agricultural innovation and the development of the sector. Moreover, the commitment made to these financial institutions in terms of resources and accountability is seen weak. The evidence, as cited by Yaron (1992b), is in the large number of institutional failures in LDCs. He argued that the viability of these institutions could have been questioned from the start , since they were perceived or designed to serve more like welfare agency (often not for the poor) than a commercial undertaking. There seems to have been little effort to integrate deposit taking activities or to generate savings mobilization, a vital activity for the long-run success of a credit institution.

Vogel (1984) attributed the neglect of saving mobilization to the arguments that savings cannot or should not be mobilized in rural areas of LDCs, where it is said that most of the rural population has no margin for saving over consumption, and that they do not respond to incentives such as higher interest rates.

It is also argued that if financial institutions were encouraged to mobilize savings aggressively, savings would simply be diverted from one institution to another or from rural to urban areas, and higher interest rates would drive the institutions towards bankruptcy or force them to lend outside of rural areas where higher returns can be obtained.

Lastly, no provisions were made to deal with non-compliance, or to implement a reasonable system of incentives to both lenders and borrowers to induce the desired objectives. (ibid).

In contrast to above arguments, Yaron (1992b) mentioned that some studies indicated that even small farmers have a significant savings potential, and are capable of mobilizing resources when profitable opportunities for investment do exist as experienced by South Korea and Taiwan.

Low participation in savings and credit services in rural areas is explained by their inaccessibility, high cost, rigidity, and low or negative real interest rate. (Lee, 1983).

By and large, past performance of the state- and donor-supported agricultural credit operations has been below expectations. Most of the programmes reached only a minority of the farming population, while the benefits frequently concentrated among wealthier farmers. Many of the institutions established or supported for delivering credit programmes have not developed into self-sustaining credit facilities. Furthermore, the subsidy dependence of these institutions has become significant and has been rising. This, in turn, made credit programmes an extremely costly affair for their sponsoring governments. (Yaron, 1992b).

Besides such a broad failure, it is worth noting the intrinsic difficulties of agricultural credit from credit for rural commerce, trade, retailing, ...etc. The acceptance of this, of course, renders validity that the claim of the reluctance of private banks to engage in agricultural credit and of the need for government intervention.

Agricultural lending is much more difficult on a financial organization than commercial lending because of the more seasonal nature of the activity, the difficulty of serving customers geographically dispersed, the consequent peak-load demands that are made on the organization for speedy disbursement, the convention that repayment for working capital can be required only once at harvest season, and because adversities often affect a large number of loan recipients simultaneously. The large covariance among the returns of outstanding loans and the difficulty to insure against it, is often claimed as one of the major reasons for the lack of involvement of formal private institutions. (Braverman and Guasch, 1989).

Since commercial credit operates in a much smoother fashion, it is easier for lenders to diversify their portfolios to cushion against economic shocks. When shocks occur, their impact on the commercial borrower's ability to repay is bound to be much less severe than on the agricultural borrower. Evidence reveals that

institutions seem to obtain a better performance in their commercial credit allocation than that of agriculture. This comparison of these two lines of credit ought to help broaden understanding of which problems are caused by credit institutions and policy themselves and which are caused by problems outside the institution relating to special characteristics of agricultural lending. (ibid).

According to Adams (1986), while certain institutions, such as cooperatives, work better in some societies than in others, it appears that any financial intermediary will flounder if the sector it serves is heavily taxed or if financial intermediaries themselves are taxed through interest rate ceilings or targeted credit programs. Moreover, institutions that mobilize savings as well as lend are more likely to be viable than intermediaries that only lend.

Specialized financial institutions, especially agricultural development banks, differ substantially from nonspecialized financial institutions. Specialized institutions have distinctive liability structures, a large degree of supervisory and technical involvement in the production activities of their borrowers, a long-run project appraisal approach to granting loans, different performance criteria than commercial banks, and different skill requirements for their staff. These distinctive features contribute to many of the problems they encounter.(Bourne and Graham, 1984).

The liability structure of **supply-led financial** institutions[1] is often characterised by an absence of deposit liabilities and by limited use of bond issues to the private sector. These institutions rely on loans and grants from foreign donors and on equity contributions and quasi-equity loans from local governments and tend to be financial intermediaries only in the very restricted sense of converting public sector financial contributions into rural loans. (ibid).

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[1] Supply-leading finance is defined by Patrick (1966) as "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 sector." (as cited in, Von Pischke, 1984, pp.36-37).

Several explanations have been suggested for the lack of deposit facilities in these institutions. Some argue that deposit facilities are too costly. Others argue that deposit costs require more realistic loan pricing and more careful lending policies. In other words, it is seen relatively easy for these institutions to obtain cheap funds from governments and international donors and thereby avoid competition with commercial banks for local funds.

Other problems are associated with the reliance on official funds. Inflows of funds tend to be discontinuous, peaking at the time of each new injection of international contract fund, government capital, and loan contributions. These discontinuities result in prolonged and repeated periods of excess capacity in these financial institutions. Capacity built to provide peak-period services is maintained during the inevitable downstream in loan activity as credit fund infusions are exhausted. At the same time, loan recoveries are often too small to create significant amounts of revolving funds within the institution.

The discontinuities in loan availabilities make potential credit customers perceive financial institutions as undependable institutions, of poor quality of service. (ibid).

Disbursement lags are common in supply-led financial institutions. In an inflationary environment, such lags result in large, unanticipated increases in investment costs that may outweigh explicit and implicit borrowing costs. Project viability and repayment ability can be compromised. Borrowers may hold the lender responsible for financial difficulties resulting from the untimeliness of disbursements and to develop attitudes inimical to loan repayment.

2.1.7. Fungibility of Credit

The effectiveness of attempts to address the inadequacy of market-induced institutional credit to agriculture through government intervention is often hindered by the fungibility of money. (Yaron, 1992b).

Adams and Von Pischke (1983) simply defines **fungibility** as the interchangeability of units of money; means that one unit of money, be it owned or borrowed, is just like any other unit of money. They claim that for all practical purposes, loans on kind or in cash can be used to buy any good or service available to the borrower in the market. For this reason, they argue that a loan is not an input which is used for a specific purpose.

In many instances, unless costly supervision is undertaken, borrowers can use funds for purposes preferable to them, regardless of the objective promoted by policy makers.

Furthermore, it is impossible to ensure that borrowed funds are used to finance more investment than would have taken place otherwise, with funding from other sources. (Yaron, 1992b).

Additional loan funds may generate only a partial increase in investment, especially if the profitability of agriculture is low and farmers have other, more attractive investment or consumption opportunities.

Some studies on the effect of agricultural credit, found that substitution of funds was a major factor responsible for the limited success of credit in enhancing productivity, e.g., of the funds provided through bank-supported credit projects in Mexico, Pakistan, and the Philippines, only 25%-50% were estimated to have added to agricultural investment.

Adams (1986) distinguished three cases in which fungibility accompanies borrowing. First, "**additionality**" which counts for the part of the marginal liquidity provided by the loan, that is spent for production. Second, "**Financial Substitution**", which counts for the extra part of the owned-loan that is spent for consumption as a result of obtaining the loan. Third, when all owned-funds as well as all borrowed funds are diverted to consumption.

Adams and Von Pischke (1983) argue that a credit should be seen by lenders as well as policy makers as a claim on resources rather than an input, because of its fungibility, divisibility and substitutability.

The common argument that subsidized credit should compensate farmers for other policies which penalize agriculture, e.g.,

price control, is frequently not valid, because the subsidy does not change the profitability of the agricultural activities adversely affected and invariably accrues largely as a windfall to the less needy beneficiaries. Even if diversion of funds is controlled, the recipients of the funds are, in most instances, only a small proportion of the farming population, and thus the distortion in resource allocation is not significantly rectified. (Yaron, 1992b).

In this regard, Adams (1986) mentioned that lenders - like borrowers - exercise fungibility and substitute targeted funds for owned funds in their loan portfolios, thus defeating the plans of policy makers who program loans.

2.1.8. Informational Problems in Rural Credit Markets

In addition to the problems indigenous to rural credit markets described above, these markets also face the informational problems so prevalent in any credit market, that result in rationing of loans in equilibrium with non-clearing interest rates. The two most common problems resulting from information asymmetries are "**adverse selection**" and "**moral hazard**" problems.

While the former refers to the inability of lending institutions to know or infer the risk characteristics of the borrowers, the latter refers to the inability of knowing the actions taken by the borrowers, regarding their use of the loan and their care and effort on the investment projects. (Braverman and Guasch, 1989).

In turn, these problems affect market interest rates in the following fashion. First, the possibility of default and limited liabilities place a floor on the distribution of net returns to borrowers. In a sense, this creates incentive to choose risker projects since the own risk is limited. Borrower's investment choices to some extent determine default risk. These choices can not be observed by lenders and thus can not be specified in loan agreements. Lending institutions realize that high interest rates and large principals are relatively attractive to risky borrowers; this is the adverse selection effect. Interest is paid only when the borrowers do not default. Second, increases in the

interest rate, while raising the return on successful loans, may lead to adverse shifts in the risk composition of lenders' portfolios, increasing the probability of default. It follows that increases in the interest rate may lead to a decrease in the expected returns to lenders. In sum, the moral hazard and adverse selection may render a market-clearing interest rate non-optimal to credit rationing. (ibid).

2.1.9. Some Success Stories

There have been a number of success stories in the process of disbursing credit to rural credit markets. Braverman and Guasch (1989) cited different examples, e.g., the INVIERNO Development Bank programme implemented in Nicaragua in 1975. This bank served the region containing the largest number of small farmers and the lowest rural family income. Its results were considered extra ordinary: participation rate of small farms was more than 80%; the maize yield per hectare doubled that of traditional methods; the rate of adoption of modern technology was significantly high; and the delinquency rate was only about 10%. Internal auditing of local office operations, cost monitoring, technical help for operational procedures and new methods were combined in a policy that supported these successes. Expeditious loan application and credit disbursement was also a major factor in the programme's success, together with long-term credit policy suggested by efficiency arguments. Lines of credit were devised for a five-year period with flexible schedules with loan repayment built into the contracts.

Another success story emphasising savings and positive real rates of interest, located in the Republic of Korea, is fairly representative of most East Asian countries. The success was based on the formation of rural cooperatives at the township, county and national levels. These cooperatives provided farm inputs, farm product marketing, credit and savings deposit services, ...etc. Participation rates reached nearly 80% and the deposits which in 1961 contributed only by 20% of loanable funds against 60% by the government, reversed in 1975 to 51% against 19%, respectively.

Also noteworthy is Kenya's Cooperative Saving Scheme, initiated in 1970, that is based on a system of forced savings by cooperative farmers who are mostly small coffee farmers.

Another recent success story is the Grameen Bank in Bangladesh. Evidence of its success is a very high participation rate and a very low default rate of only 2%. Three main ingredients are followed by the bank; imposed joint liability which results in strong peer pressure and group counsel, lending at market interest rate, and finally the use of the loan on a productive investment (housing loans being occasional exceptions). Another similar programme is in Zimbabwe where **voluntary joint liability** and **mandatory joint liability** are applied. Under the former, loans are made and accounted for on an individual basis, but a default will make the whole group lose eligibility for future loans. Under the alternate mandatory joint liability, responsibility for loan administration and repayment rests with the group as a whole, and a default disqualifies the whole group for future loans. The loan recovery rates have been 70% for the voluntary joint liability and 80%-92% for the mandatory joint liability, compared with a recovery rate in the range of 50% in the same region.

In summary, the critical common features in many of these programmes were that new loans were to be given until old loans are repaid, indicating that the temporal linking of loans is an effective way to induce compliance; strict auditing and accounting procedures, suggesting the value of monitoring technologies for inducing the desired behaviour and; imposing some form of joint responsibility or liability by small groups of farmers, whereby default of one of the members would imply the cancellation of any future loans to the whole group.

2.1.10. Informal Credit Market

Informal lending was once the only credit in rural settings. The informal capital markets for small farmers in LDCs, are made up of non-commercial segment - loans from friends and relatives often made without interest - and the commercial segment in which loans are made through a variety of channels such as crop buyers, input dealers (suppliers of pesticides and fertilizers),

landlords, and professional money lenders. This credit market probably provides over 90% of total credit received by the small farmers of most LDCs - though this share is decreasing. (Miracle, 1983).

With the implementation of development plans, official lending complements but clearly does not supersede informal sources. Sample surveys supplying the information on the extent of informal lending practices indicate that their volume is far greater than that of organized institutions. Informal lending is characterised by a much shorter processing time, better screening techniques or enforcement devices (noted in the lower default rate), free entry and exit, no control or regulation (e.g., by the central bank), lower transaction costs for the borrowers and higher interest rates, with a median nearly twice as high and a variance much higher than that of institutionalized credit rates. (Braverman and Guasch, 1989; CIDA, 1994).

The features of informal credit markets are attributed to close familiarity with the borrower's creditworthiness that, combined with efficient loan collection mechanism, made the informal credit market, often either the exclusive or the preferred source of credit in rural areas in spite of the high interest rate. (Yaron, 1992b).

The informal credit market is seen as extremely decentralized system of dispensing credit. Lenders in this market have little if any overhead cost for real estate; they keep few written records; and they charge no loan appraisal fee. This makes lenders, in the informal market, faster in disbursement, flexible in repayment, and efficient in follow-up of loans. (Miracle, 1983). This why the decentralized lending system is proposed, on this least-cost basis, for financial institutions in the formal sector at least for assessing the sponsor's creditworthiness, and the follow-up of the loan repayment.

On the other hand, most of the informal lenders are limited in the term diversification of the loan portfolio and operate within limited geographical areas. (Yaron, 1992b).

Four components are identified for the rural interest rates: the opportunity cost of money involved, the premium for

administering the loan, the premium for risk, and monopoly profit. (Bottomley, 1983). This indicates why informal rural rates are higher than the formal ones. Accordingly, informal credit markets are held in low esteem by many civil servants and policy makers as they charge high interest rates which are felt by many to be exorbitant and exploitive, and as some religions oppose charging interest rates. In addition, money lenders frequently lend for non-productive investment. (Adams et al, 1983).

The lower delinquency rates reported for informal credit sources are to a large extent due to better assessment of creditworthiness, ability to exert social pressure for repayment, and the frequent practice of linking credit contracts with other input or output contracts. Share cropping contracts are quite often interlinked with credit contracts. Credit contracts between the landlords and tenants are often in the form of production loans and tied to the purchase of fertilizer , seeds, and other forms of capital with different tenants paying different interest rates on their loans. These interlinking practices have been viewed as a way to address the adverse selection problem and the moral hazard problem indigenous to these markets.

In the rural credit markets, the adverse selection problem seems less severe for the informal or village money lenders than for the organized formal lending institutions. The fact that the default rate for the latter is higher than that for the former, is an indication of that observation. The information available to the local money lenders about the loan applicants is quite extensive, more accurate and easier to obtain than for the organized or formal institution. And, indeed, as the evidence indicates, it is a significant problem for organized lending, especially for government backed institutions where screening borrower creditworthiness is not carried out very thoroughly. Moral hazard problems are quite prevalent for both the organized and informal credit markets. (Braverman and Guasch, 1989).

The main conclusion of the interlinking theory for policy is as follows. Partial reforms in credit markets alone, such as ceilings on the interest rate in the formal market or disallowing

credit linking, may decrease efficiency, often without improvement in the distribution of income. Sound policy reforms, therefore, need to take account of the institutional structure of the particular rural economy. Simultaneous reforms in several markets are required as well as recognition of the importance of existing informal credit markets. (ibid).

2.2. National Perspective

2.2.1. Formal Credit

The formal financial system in the Sudan consists of the Bank of Sudan (the central bank), 21 commercial banks (national, foreign, and joint ventures), with more than 225 branches, two savings institutions (the Sudanese Savings Bank, the Post Office Savings Bank)[2], three specialized banks (the Agricultural Bank of Sudan (ABS), the Industrial Bank of Sudan (IBS), and the Estates Bank of Sudan), and some development institutions, e.g., Sudan Rural Development Company Ltd. (SRDC). (Hansohm, 1991).

The activities of the commercial banks have increased in recent years, e.g., between 1981 and 1987 the total value of bank deposits increased by 760%, from L.S.943m to L.S.7168m. During the same period, the advances to private borrowers increased by 497%, from L.S.2827m to L.S.14061m and the number of branches increased from 148 to 195. However, the advances continued to be concentrated on short-term loans (12-18 months): these were 79.2% of the total advances in 1987. (ibid).

Since 1984 and with the implementation of *sharia* law (Islamic law) the number of Islamic Banks has increased. However, they followed the same pattern of loans, concentrating on trade activities and short-term loans. (ibid).

Commercial banks neglected agriculture because of the risky nature of its production systems. The main source of institutionalized credit for the agricultural sector is the ABS. It was established by the Sudanese government and it is the only specialized agricultural credit institution. Its objectives as stated by the Agricultural Bank Act (1957), are to support agriculture and its incidental accessory, ancillary or subsidiary

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[2] The premium Savings Bonds Project was part of the savings system, cancelled with the application of the Islamic rules in the country in 1984.

activities by providing assistance in cash, kind, goods or services to persons who primarily engaged in agriculture or its allied and subsidiary industries. It started operations in 1959 with paid-up capital of L.S.5m. (ibid).

By the end of 1992 the paid-up capital has risen to L.S.1 milliard and the number of branches amounted to 114 (ABS, 1992a). Like many rural finance institutions, the ABS faced serious repayment problems with many of its customers, especially during years of drought, e.g., 1985. The general recovery rate was 80% for all types of loans in 1981. Later declined to less than 30% for some types of loan in some branches. This was attributed to productivity factors, poor marketing facilities, land ownership arrangements, and also to inadequacy and late delivery of ABS credit. (Ahmed, 1986)[3].

The SSB was established by the Sudanese government in 1974 with the objective to serve the low-income groups by encouraging savings and by using these savings for local investments in areas neglected by commercial banks. (Hansohm, 1991).

In 1961, the Sudanese government established the IBS in order to fill the finance gap in the industrial sector. It started operations with a capital of L.S.3m and by 1986 the paid-up capital amounted to L.S.18.7m. During the period 1962-86, 265 loans and 85 supplementary loans were approved. Most of the activities of the IBS are highly concentrated in the urban areas and do not cover traditional industries. (ibid).

Sudan Development Corporation (SDC) is the biggest state-owned development institution in the Sudan, with a paid-up capital of U.S.$.190m. It was established in 1974 with the objective of financing medium and long-term credit mainly to large-scale projects, in both private and public sectors. (Jamaludin, 1993).

In order to service rural areas, the Sudanese government formed the SRDC group in 1980. The SRDC group was formed to promote and develop small- to medium-sized agricultural and industrial projects in the rural areas.(Hansohm, 1991).

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[3] The overall recovery rate improved to 60% in 1992. (ABS, 1992a).

According to Ahmed (1986), profit margins determined by the Bank of Sudan are less responsive to supply and demand, the opportunity cost of capital or the prevailing inflation rates. Instead, they are influenced by priorities of development and political pressure. Moreover, he argued that flexible profit margins that will reduce the gap between real costs and expected income from loan transactions could be a key factor in improving performance and in making more funds available to producers.

The financial institutions in the Sudan, with their divergent financial capabilities and organizational structures, follow different patterns of finance with respect to e.g., size of loan allotted to each sector and the duration of loans. This, which reflects the different interests and objectives of these institutions, is shown in Tables 2.2 and 2.3 below.

2.2.2. A Brief on the Islamic Mode of Finance

As the Islamic mode of finance is applied in the Sudan since 1984, it is seen necessary to highlight the general features of this system.

The Islamic mode of finance is mainly based on trading and profit sharing where any interest-bearing transaction is considered ***riba*** (usury) and hence forbidden according to the Islamic sharia rules. In this regard, a translation from the Holy Quran reads as follows:

> "Those who devour usury will not stand except as stands one whom the Satan by his touch hath driven to madness[4]. That is because they say: "Trade is like usury," But Allah hath permitted trade and forbidden usury."(Surat Al-Baqarah: Aya 275, Juz'3).(Ali, 1983).

There are many modes of finance among which the lender(s) and borrower(s) should agree and then enforce a contract for any loan transaction. Some of these modes are *Musharaka, Mudaraba, Murabaha, and Kard Hassan*.

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[4] "An apt simile: whereas legitimate trade or industry incases the prosperity and stability of nations, a dependence on usuary would merely encourage a race of idlers, cruel blood-suckers, and worthless fellows who do not know their own good and therefore akin to madmen." (Ali, 1983, p.111).

Table 2.2
Sectoral Finance of some Financial Institutions in the Sudan, 1992
Value in L.S.000's

Financial Institution•	Agriculture	Industry	Trade	Export	Import	Transport & Stores	Service	Artisans	Miscellaneous	Total
ABS	5,924,722	-	676,000	-	-	-	-	-	-	6,600,722
BS	5,236,000	-	-	-	-	-	-	-	-	5,236,000
BK	1,300,000	*	*	*	*	*	*	*	*	1,300,000
BN	13,687	5,826	2,435	7,297	268	766	-	174	2,670	33,123
UB	1,292,000	480,000	359,000	-	-	-	-	-	78,000	2,209,000
SCB	5,243	1,159	2,028	407	-	-	-	-	532	9,369
FIB	2,419,058	287,407	2,354,717	384,418	152,493	-	322,125	120,819	-	6,041,037
TIB	1,055,542	217081	452796	212420	-	116347	143236	-	-	2,197,422
BIB	*	*	*	*	*	*	*	*	*	*
SIB	*	*	*	*	*	*	*	*	*	*
ShIB	503,727	191,908	131,936	299,855	-	-	-	-	71,965	1,199,391
DCIB	403,300	152,500	1,249,000	50,300	20,700	95,070	327,600	-	-	2,298,470
GhB	290,417	279059	835628	100654		92199		159517		1,757,474
SNB	59,745	202,927	70,466	-	-	-	176,160	-	-	509,298
SFB	72,169	-	51,217	344,816	-	40,617	5,938	550	-	515,307
SaSuB	2,530,650	545,267	509,790	1,350,750	46,027	123,364	-	325,039	272,347	5,703,234
SDC	28,000	170,520	-	-	-	-	107,750	-	40,000	346,270
SRDC	20,197	34,456	3,799	-	-	-	1,205	-	-	59,657
TOTAL	21,154,457	2,568,110	6,698,812	2,750,917	219,488	468,363	1,084,014	606,099	465,514	36,015,774
PERCENTAGE	58.74%	7.13%	18.60%	7.64%	0.61%	1.30%	3.01%	1.68%	1.29%	100.00%

* Not Available
• For full name of financial institutions see the list of acronyms, p.vi.
Source: ABS, 1992b.

Table 2.3
Durations of Agricultural Finance of Some Financial Institutions in the Sudan, 1992
Value in L.S.000's

Financial Institution*	Short-Term	Medium-term	Long-Term	Total
ABS	3,952,770	1,971,952	-	5,924,722
BS	5,236,000	-	-	5,236,000
BK	1,300,000	-	-	1,300,000
BN	13,687	-	-	13,687
UB	1,292,000	-	-	1,292,000
SCB	4,799	444	-	5,243
FIB	2,201,343	217,715	-	2,419,058
TIB	210,337	845,205	-	1,055,542
BIB	-	-	-	-
SIB	-	-	-	-
ShIB	503,727	-	-	503,727
DCIB	403,300	-	-	403,300
GhB	252,895	37,522	-	290,417
SNB	47,161	12,584	-	59,745
SFB	72,169	-	-	72,169
SaSuB	-	2,530,650	-	2,530,650
SDC	28,000	-	-	28,000
SRDC	10,557	9,640	-	20,197
TOTAL	15,528,745	5,625,712	-	21,154,457

Ratio of short-term agricultural finance to total 73.41%
Ratio of medium-term agricultural finance to total 26.59%
Ratio of Long-term agricultural finance to total 0.00%
* For full name of financial institutions see the list of acronyms.

Source: ABS, 1992b.

Musharaka (Partnership): is a joint venture between the bank and an investor in which each partner provides part of the capital, and shares the profits (or losses) in a ratio agreed upon in advance in a "Musharaka Contract". (There is no set formula for profit sharing and each case is dealt with on its own merits. (Shaaeldin, 1985)

The Musharaka cloud also take the form of a lease (***ijara***) or "self liquidating" form of partnership whereby the full ownership of the investment passes to the investor (customer of the bank) after an agreed period. (ibid).

Mudaraba: is also a joint venture, but the bank provides the full finance for the operation and the client contributes his/her entrepreneurial skill - a form of "agency". The client receives a share of the profits and the bank bears the full burden of any losses [as set by a "Mudaraba Contract"]. (ibid).

Murabaha: is essentially a form of trade credit, in terms of which the bank actually purchases and becomes the legal owner of whatever the client has ordered, and then resells it to the client on delivery, at a previously agreed on (higher) price. However, the client has no legal obligation to buy what the bank has purchased on his/her behalf. [The repayment pattern and other terms should be agreed upon by both parties (seller and buyer) in a "Murabaha Contract"]. (Ahmed, 1986).

Kard Hassan (Beneficial Loan): as the name implies, this is a free of charge loan, given under special conditions. (ibid).

In the first three contracts, the risk element justifies the taking of profit under Islamic sharia. The first type of Musharaka lays a relatively heavy burden on the bank as it requests tight investigations and supervision by it. (ibid).

2.2.3. Informal Credit

The subject of informal credit for peasant farmers in the Sudan has achieved a certain notoriety owing to the rule that taking interest is usurious and prohibited in a predominantly Islamic country. (Kevane, 1993).

It is widely held that merchants and would be money lenders, in difference to religious prohibitions against usuary, developed a system of lending whereby standing crops would be purchased early in the season. This supposedly highly exploitative system is known as the ***sheil***[5] system. (ibid).

During the growing season, when the farmer is in greatest need of cash and food, the merchant or moneylender enters into an agreement with the farmer to buy a certain amount of the farmer's standing crop at a set price per sack. This price will generally, though not with complete certainty, be lower than the price in the market after the harvest. The lender pays the farmer at the time of the agreement and after the harvest collects the sacks and stores them until prices are most favourable. (ibid).

Wilmington (1983) distinguished between three types of sheil as practised in the Sudan. The first type is the above-mentioned one which involves an advance of money. The second type is the oldest form in which an advance of grain or seed valued at a price substantially above the estimated price at the next harvest. The borrower must settle the loan by returning at harvest time enough grain to make up the money equivalent of the loan. The third type of arrangement under sheil is more in the nature of a middleman's service. In such case, cultivators may find it difficult to market their crops for lack of funds to purchase sacks and meet transportation costs. The merchant will agree to take over the crop at the market price less an amount approximating the rate of short-term advances on crops.

The gross profit of lender varies from year to year depending on price fluctuations. Moreover, Ahmed (1986) added that the price of a loan varies with the time of the sheil; the earlier the sheil the lower the price offered by the lender, and that the price increases until harvest time when everyone buys or sells at market clearing prices. Put another way, the same borrower my receive different sheil prices at different points of time, thus diminishing the risk of uncertainty to the sheil merchant.

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[5] An Arabic word sometimes written in English as Shail or shayl.

The exploitative nature of the sheil system is mainly ascribed to the shortage of institutional credit required for production and marketing purposes, a situation which forces farmers to borrow from merchants and moneylenders under unfair conditions. (Kevane, 1993).

The moneylender may face different problems, e.g., a crop failure, although it derives up commodity prices, may also be detrimental to the moneylender, for the cultivator may not reap enough to spare for loan repayment. He needs after all, a minimum of grain for food and sowing; and the lender will incur communal ostracism if he tried to press his claim at the price of starvation or dispossession of his client. If there is a succession of bad crops, the lender's claim may remain uncollected for several years. (Wilmington, 1983).

Another problem resulting from crop failure, is that the lender will have to increase his investment in an already delinquent client if he wants to salvage his stake at all; and to offset the loss, the sheil fee is compounded upon renewal or increase of the outstanding loans to double and triple the original rate - a vicious circle often lifts the debt to astronomical levels. (ibid).

In accordance with the traditional practices fostered by the Islamic prohibition of interest, the moneylender considers himself not a banker but a partner of the borrower. This makes him renders a wide range of services that will guarantee the success of the produce, (ibid).

Saleem (1987) highlighted some of the important features of the sheil system. Firstly, sheil merchants are usually individuals with relatively high social and/or political status. Most of these merchants have close contacts with principal towns and they enjoy better access to the urban money market than do tenants. Thus, sheil merchants have informational advantages over both the organized money market and the market for crops.

Secondly, in each village there is only a small number of sheil merchants relative to the number of actual and potential borrowers. In addition, sheil transactions by their very nature

require the existence of a close relationship between the lender and the borrower as well as a sufficient knowledge on the part of the lender to the borrower's ability to repay. This restricts the inter-village mobility of sheil merchants who, therefore, function as virtually non-competing groups.

Thirdly, although there is no legal mechanism in the sheil system to enforce repayment, it is rather unlikely that a borrower would attempt to default voluntarily (i.e., when his realized output exceeded the quantity pledged in sheil). Such default would simply result in terminating sheil transactions between the tenant and the merchant. In this case the tenant might stand to lose not only access to that particular merchant, but also to the whole system as a source of credit. If however, the tenant's realized output falls short of the amount pledged in sheil, then part of the loan will be involuntarily defaulted. In this case the defaulted part will be shifted to the next season's crop.

However, voluntarily default is disadvantageous to both of the tenant and the sheil merchant. For this, the sheil merchant may tend to set a limit to the quantity pledged so that, under normal circumstances, this quantity should not exceed the expected output which may be determined according to the tenant's past performance. In this case, involuntarily default, if takes place, may come as a result of exogenous shocks.

The features of the sheil system suggest that the sheil merchants are in powerful position and that they can exercise a great degree of monopoly in relation to borrowers. (ibid).

Moreover, Saleem (1987) found that the sheil system involves a "quantity rationing" of credit which is seen as an important and special feature of the sheil system. According to him, this feature is not present in the standard theory of collateral undervaluation adopted by some authors as Bhaduri and Basu. In this theory default is advantageous to the lender since he can confiscate the collateral. But, because of the special nature of the collateral arrangement in the sheil system where neither side gains from default, quantity rationing of credit becomes very relevant and very important.

To summarize, although the profit from the informal loan transaction realized by the sheil merchant may be much higher than from formal lending charges, nevertheless these lenders continue to be dominant and flourish in rural Sudan. The continuity and reliability of the services provided by them and their flexibility and adaptability to local needs are the main reasons for their dominance in rural Sudan. Farmers also believe that the principles of the sheil merchants' dealings conform with the tenets of Islam. Innovations in the above issues by the formal financial institutions would help towards solving part of the problems facing RFMs. (Ahmed, 1986).

2.2.4. Finance of Small-Scale Enterprises (SSE)

In the Sudan, the most common definition of small-scale enterprises (SSE) includes enterprises with less than 25 employees. (Hansohm, 1991).

Most of the Sudanese financial institutions are, in a way or another, reluctant to extend credit to the SSE. The policy of these institutions, in addition to the macroeconomic policies adopted by the government, till recently, are biased in favour of medium and large-scale enterprises. Finance extended by institutions to this sector, barely reaches 1% of total finance extended to the industrial sector. (Jamaludin, 1993).

Reluctance to extend financial assistance to SSE in the Sudan could be attributed to several factors which are common to many LDCs, e.g., lack of collateral security; relatively high administrative costs; shortage of funds; centralization of most FIs (mainly in the national capital); and required high equity participation in the loan. (ibid).

Securities and collateral on loans, commonly practised in the Sudan, are the mortgage over fixed assets, bank guarantee, and issuing of post-dated cheques by both the borrower and a third party guarantor for the whole amount required by the lender.

The former may involve a cumbersome process, particularly in countries with a weak regulatory environment. (CIDA, 1994).

The bank guarantee may be far beyond the capacity of SSE which may not keep bank accounts or provide financially capable

guarantors known to the lender. (ibid).

The latter is considered a "relatively" flexible collateral as it does not require the possession of valuable assets by the borrower. Nevertheless, this collateral is also powerful under strict law conditions where any default will subject the defaulter to severe sanctions.

Bhatt (1988) considers a personal guarantee as one of the efficient financial innovations that tend to reduce the lender's subjective risk to an extent much greater than they tend to increase transactions costs of lending and borrowing. However, no such innovations are possible without a general climate of trust and confidence among the market participants, reinforced by the stability and predictability of an effective enforceable legal framework.

Hansohm (1991) argued that most financial institutions in the Sudan are biased towards the Three Towns and that the stagnant share of loans directed to industry (mainly SSE and rural industries) is primarily determined by the unfavourable environment for industrial investments which contrasts with potential high profits in the tertiary sector.

2.3. Conclusion

The establishment of formal rural credit systems in most developing countries over the recent decades was motivated in most developing countries by the belief that widespread shortages of short- and long-term finance constituted a constraint which hampered agricultural growth and development.

The absence of what was perceived as affordable formal credit was also blamed for delaying, if not preventing, a timely adoption of new production technologies and the dissemination of non-labour intensive inputs such as fertilizers, thereby slowing down the growth and development of the agricultural sector.

Governments in LDCs have intervened heavily in rural markets, aiming at supplying affordable credit to small-scale farmers and rural entrepreneurs, who were perceived as a clientele with no alternative access to formal credit markets.

As private returns were estimated to be below the social ones, the intervention was intended to overcome this failure and

to spur investments that would not have materialized otherwise. Official ceilings on interest rates, portfolio ceiling are some of the intervention devices used for credit control.

Informal lending, as contrasted to formal credit, is characterised by a much shorter processing time, better screening techniques or enforcement devices (noted in the lower default rate), free entry and exit, no control or regulation (e.g., by the central bank), lower transaction costs for the borrowers and higher interest rates, with a median nearly twice as high and a variance much higher than that of institutionalized credit rates. (Braverman and Guasch, 1989; CIDA, 1994).

The features of informal credit markets are attributed to close familiarity with the borrower's creditworthiness that, combined with efficient loan collection mechanism, made the informal credit market, often either the exclusive or the preferred source of credit in rural areas in spite of the high interest rate.

As a LDC, the rural credit market in the Sudan is not an exception from the RFMs system in the LDCs. However, the informal credit market in the Sudan is dominated for a long time, by the *sheil* system. In this system, when the farmer is in greatest need of cash and food during the growing season, the merchant or moneylender enters into an agreement with the farmer to buy a certain amount of the farmer's standing crop at a set price per sack which is usually lower than the price in the market after the harvest. This system, though is effective and is widely applied in the rural areas, it is seen by many as being exploitative to the rural people.

According to Adams (1986), it is common for RFMs to suffer more severe problems than are found in other segments of a country's financial system because of the difficulty of serving clients who are widely dispersed, borrowers who make large numbers of small transactions, and clients who operate in an industry that experiences unanticipated changes in prices, incomes, and yields.

Also, because adversities in rural areas often affect a large number of households at the same time, it is difficult to

lenders to diversify portfolios to cushion economic shocks.

A main characteristic of RFM's in LDCs is the credit policy failure which can be attributed to basic flaws intrinsic to formal rural credit markets out of which arise persistent problems as described by Braverman and Guasch (1986) in the following:

Basic Flaws

- Weakness of competitive forces;
- Weak legal enforcement of contracts;
- Significant information problems and uncertainty regarding the ability of borrowers to meet future loan obligations;
- Inability to monitor the use of funds;
- Corruption and lack of accountability in institutions, patronage and income transfer practices, which are partly due to poorly designed or non-existent incentive mechanisms to induce accountability on both sides of the market;
- Lack of collateral often due to land tenure arrangements or ill-defined property rights (e.g., some parts of Africa);
- Lack of coherent financial savings mobilization programme;
- Higher opportunity cost of capital in other sectors because of interest rate ceilings.

Persistent Problems

- Credit loans to wealthy farmers, small farmers rationed out of the credit market;
- Loans for agricultural programmes diverted to non-agricultural uses;
- Credit policies that encourage consumption and discourage savings;
- The term structure of agricultural loans contracts or fails to expand;
- Low adoption rates of cost-saving technologies in agriculture and in financial services;
- Low recovery rate;
- Significant distortions in the optimal allocation of resources across markets;
- Extensive use of interlinking credit contracts with labour and land contracts.

CHAPTER THREE

A BRIEF ON THE SRDC

3.1. Background

Since its inception in March 1974, the Sudan Development Corporation (SDC) - a public DFI -, has made loans to a number of major agro-industrial and transport projects in the country. These have included large-scale enterprises for the production of sugar (e.g., Kenana Sugar Factory), cotton textiles and kenaf. In addition, it has provided funds for the improvement of railways. (SDC, 1978).

In accordance with the national development priorities, the SDC has focused much of its attention on large-scale agricultural and agro-industrial projects. (ibid).

When it decided to extend its activities for promoting the development of the rural sector in the Sudanese economy, the SDC planned in 1978 to establish, as a subsidiary, the Sudan Rural Development Company Ltd. (SRDC), to sponsor small-scale commercially viable projects in agriculture, rural industries and related services. (ibid).

The SDC's belief was that the establishment of the SRDC will not only strengthen the institutional framework for rural development, but also act as a means of channelling additional capital to the rural sector. (ibid).

The initiative to establish the SRDC coincided with the launching of the Six-Year Development Plan (1977-1982). The principal objectives of the plan were to accelerate the growth of agricultural output and to improve the country's economic infrastructure in order to mobilize the country's abundant natural resources and surplus manpower in the rural sector.

The Sudanese government recognized that its own limited financial resources must be supplemented by external capital, know-how, and technical assistance. The flow of investment funds has been greatly enhanced by the strengthening of Sudan's economic and political ties with the Arab world and steps have also been taken to provide incentives for foreign investors willing to bring in new technology and skills. (ibid).

The SRDC was envisaged to benefit from the SDC's established links with international development finance institutions, and to play a vital role in linking external capital and technical assistance to domestic resources for the acceleration of rural growth.

Moreover, the SRDC was envisaged to borrow from the Sudanese government and domestic lending institutions, international agencies and external development finance institutions. (ibid).

An important feature of the SRDC's financial intervention in the rural credit market, was envisaged in its ability to provide loans in foreign exchange, the shortage of which has imposed a severe handicap on rural development efforts.

The promotion of small- and medium-scale rural enterprises, of the type which will further the economic, social and regional objectives of the Government's rural development strategy while satisfying normal commercial criteria for financial viability, requires special lending techniques, including for example, the close supervision of small loans and gives rise to a wide range of technical assistance needs. For these reasons, the SDC considered that the organization, financing and staffing of this operation could be handled by the SRDC. (ibid).

3.2. **Capital Structure**

The SRDC which is mentioned above, actually consists of two companies; a holding company known as Sudan Rural development Company Ltd. (SRDC). (the initial company) and a finance company known as Sudan Rural Development Finance Company Ltd. (SRDFC) which was established later. SRDC is the name under which the two companies are known to the public.

The holding company, the SRDC, was established in 1980 with a total capital of L.S.7.5m of which L.S.4.35m were paid-up in hard currency which was equivalent to U.S.$.5.44m and the rest (L.S.3.15m) in local currency.

The Subscribers to the SRDC's capital are all Sudanese and their shares to its capital are:

Shareholder	**Share (%)**
Sudan Government	40.0%
Sudan Development Corporation (SDC)	26.5%
Bank of Sudan (BS)	6.7%
Bank of Khartoum (BK)	6.7%
The Unity Bank (UB)	6.7
Sudanese Commercial Bank (SCB)	6.7%
Sudanese French Bank (SFB)	6.7
Total	100%

In order to achieve its planned objectives, the SRDC was assigned in 1981 to establish and foster the SRDFC, as its development bank, with a total capital of L.S.10m. The SRDFC was envisaged to include international development finance institutions that were mainly expected to dump the foreign currency for the company. The subscribers and their shares to its capital are:

Shareholder	**Share (%)**
SRDC Ltd.	40%
CDC (UK)	20%
DEG (Germany)	20%
CCCE (France)	10%
BADC (Belgium)	10%
Total	100%

Hence, it is clear that while the SRDC is 100% owned by Sudanese shareholders, 60% of the SRDFC's shares are owned by foreign international development finance institutions.

It is worth mentioning that only two thirds of the SRDFC's total capital (i.e., L.S.6.4m) was paid-up in instalments, in 1982 and 1989. All in all, the SRDC paid 40% of the paid amount, in local currency (i.e., L.S.2.56m) and the foreign shareholders paid 60% of it (i.e., L.S.3.84m) in hard currency equivalent to U.S.$.2.057m.

Since its establishment in 1980 and up to 1989, the SRDC confined its activities in the preparation of documentations and licences required for the establishment of the SRDFC, and then

its assistance thereafter in its own activities, without getting involved in any finance or investment activities. This has led to the depletion of the company's capital which was employed to cover the company's operating costs. Thereafter, and since the SRDC fulfilled its tasks of establishing the SRDFC, the Board of Directors approved for the SRDC, based on the company's Memorandum and Articles of Association, to engage in short-term finance and commercial activities as well as any investment activities that complement and do not compete with the SRDFC's activities (small- and medium-scale development finance). Since then, the SRDC engaged in the short-term finance of production inputs (part of the working capital) and some commercial activities (e.g., importation and selling of Friesian cows and animal feed concentrates).

3.3. Objectives

The objectives of the SRDC and the SRDFC are summarized in the following:

- To promote and develop the small- to medium-scale agricultural, industrial, agro-industrial, and service development projects in rural areas of the Sudan, outside the Three Towns (Greater Khartoum);
- To meet the need for medium- and long-term capital finance as well as technical assistance to commercially viable and technically feasible small- and medium-scale development projects principally in the private sector;
- To provide a short-term finance of production inputs, and to engage in commercial activities, all over the country (SRDC);
- To provide technical assistance to projects received by the SRDC/SRDFC. This includes preparation of fledged Feasibility Studies (FS), implementation and monitoring of projects, and advising on management forms appropriate for the projects. (SRDC, 1994).

The approach of the SRDC to rural development is apparent through the direct finance of the small-scale rural projects and the finance of the small- to medium-scale projects that have backward and forward linkages with the rural sector.

It is worth noting that the term "rural areas" is taken to mean all areas except for the 'Three Towns' (Khartoum, Omdurman, and Khartoum North), so regional and provincial capitals and other towns in the country may be regarded as rural centres[6].

Since their establishment, the SRDC and the SRDFC are centrally located in one building owned by the SRDC, in the national capital Khartoum with no head quarters or branches in the other states of the country.

3.4. Organizational Structure

The SRDC and the SRDFC operate under one management and staff. Their organizational structure composes of the following four functional departments:

- **Projects Department** charged with the tasks of project screening, formulation and appraisal[7];
- **Implementation and Monitoring Department** charged with the responsibility of implementing and monitoring of approved projects, i.e., projects that pass the test of technical, financial, and economic viability;
- **Finance and Accounting Department** which provides and manages the use of funds and other supporting facilities;
- **Administration Department** which undertakes the internal administrative tasks of the two companies.

The organizational structure of the SRDC/SRDFC can be depicted as a hierarchical functional structure of positions as shown in Figure 3.1 below, in which personnel are grouped by the four functional areas of the two companies.

The administrative hierarchies of the SRDC/SRDFC are based on authority; the higher the level, the greater the authority. This type of authority is based on "rational" grounds and justified by rules, procedures, and purposes i.e., "bureaucracy".

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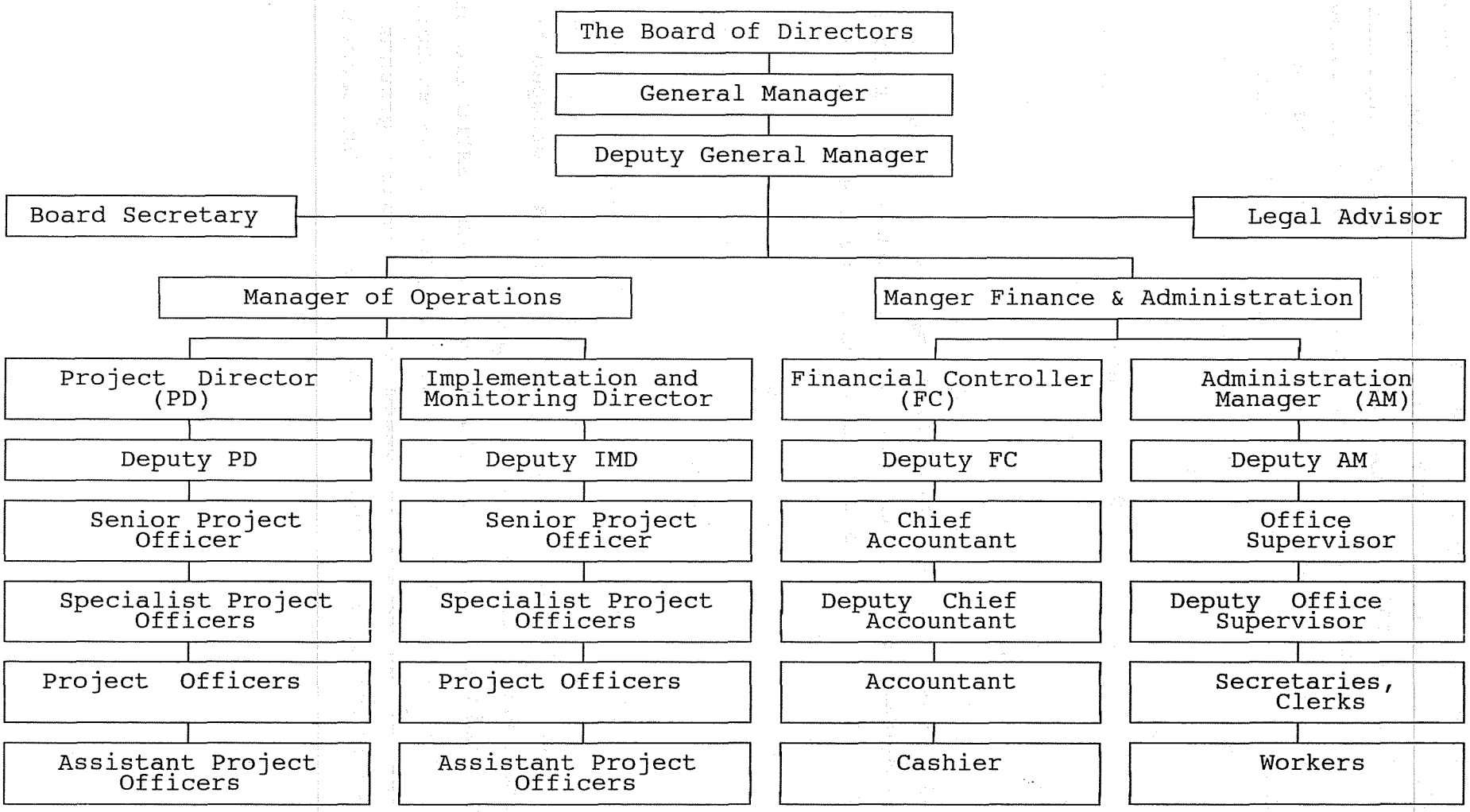
6 This definition is also mentioned by Hansohm, 1991.

7 The idea/concept of the project, unless requested from the SRDC/SRDFC, is usually identified by the project sponsor.

Figure 3.1
Organizational Structure of SRDC/SRDFC



The optimal number of manpower at the SRDC/SRDFC, depicted in Figure 3.1 above, is around 55 employees. This is broken down as follows:

• Senior Management	
- General Manager	1
- Deputy General Manager	1
- Manager of Operations	1
- Manager Finance and Administration	1
- Board Secretary	1
• Technical staff:	
- Projects Department	9
- Implementation and Monitoring Department	9
- Legal Advisor	1
• Administration Department	4
• Accounting and Finance Department	5
• Subordinating Staff:	
- Secretaries	5
- Clerk	1
- Cashier	1
• Workers:	
- Drivers	6
- Technician	1
- Messengers	4
- Guards	4
Total	55

As the SRDC/SRDFC provide technical assistance to farmers, small manufacturers, and project sponsors in general, they have a special staff for this purpose. All the management and technical staff hold diverse university and/or post-graduate certificates in engineering, business administration, agricultural economics, animal production, economics, accounting, finance, ...etc.

The subordinating staff are graduates of high technical institutes and high secondary schools.

The cadre of the SRDC/SRDFC is well-trained and has long experiences in the related fields.

3.5. **Finance Policy**

The SRDC/SRDFC extend short-, medium- and long-term finance in the form of Murabaha, Musharaka, Mudaraba or the combination of Murabaha and Musharaka, in hard and/or local currency to technically feasible and commercially viable development projects.

The SRDC/SRDFC finance up to 50% of the total project investment cost (up to 75% for small loans), with a maximum SRDC/SRDFC's contribution of U.S.$.200,000 per project (originally was U.S.$.500,000) or its equivalent in the local currency.

Securities and collateral requested from the project sponsor are a bank guarantee or a fixed mortgage over assets or a third-party guarantee.

Projects are approved for finance according to the extent of finance required, as follows:

- Projects requiring finance up to U.S.$.30,000 or their equivalent in the local currency, are approved by the General Manager (GM);
- Projects requiring finance from U.S.$.30,000 up to U.S.$.100,000 or their equivalent in the local currency, are approved by the Finance Committee (FIC) (a committee of 6 members, chaired by a member of the Board of Directors (BD), and includes the General Manager (GM), the Deputy General Manager (DGM), the Projects Director (PD), the Implementation and Monitoring Director (IMD), and the Financial Controller (FC);
- Projects requiring finance from U.S.$.100,000 up to U.S.$.200,000 or their equivalent in the local currency, are approved by the BD.

It is clear that the greater the amount of finance required, the higher the level of the decision-taker. This is because of the high risk associated with extending large credits.

Moreover, in any case, the approval decision is based on the positive findings of the feasibility study prepared in-house by the SRDC/SRDFC's staff.

Projects under the authority of the BD, are approved in two stages. First, as broad profiles called a Clearance In Principle studies (CIPs). Second, as a fledge feasibility study presented in the subsequent meeting of the BD.

Projects requesting small finance are usually studied in a less-comprehensive study called a Finance Proposal (FP).

All FSs/FPs/CIPs, before being submitted to the approving authorities for final approval, are reviewed, discussed and endorsed by a technical committee called the Project Review Committee (PRC). Members of this committee are the same members of the Finance Committee (FIC), excluding the FIC's chairman, i.e., 5 members consisting of the GM, DGM, PD, IMD, and FC.

Moreover, the project officers who prepare the FSs, Fps, and CIPs, are usually invited in the meetings held by the PRC and the FIC, to present, discuss and defend these documents they prepare.

The category of viable projects eligible for finance by the SRDC/SRDFC, includes new projects and expansion or modernization of existing projects, i.e., the proposed investment should have the ingredients of a project, that is "any scheme, or part of a scheme, for investing resources which can reasonably be analyzed and evaluated as an independent unit".

The SRDC/SRDFC do not engage in financing infrastructure or projects of purely commercial nature.

Project sponsors eligible for finance by the SRDC/SRDFC include individuals, private companies, partnerships, and cooperatives who have a project licence and other relevant documents.

The number of required documents depends on the nature of the project sponsor. The whole list of documents required by the SRDC/SRDFC includes the following:

- Project Licence;
- Land Lease and/or a Search Certificate;
- Bank Report(s): a simple form, designed by the SRDC/SRDFC, requesting some information about the sponsor's financial performance with his/her banker(s), and the recommendation of the latter for extending finance to the former;
- Proforma invoice(s) and/or a supplier's offer(s);

- Tax Release Certificate (Imposed by the Bank of Sudan, and is requested at the implementation stage);
- Business Name Certificate;
- Memorandum and Articles of Association (for companies, cooperatives or partnerships);
- Any relevant document(s).

3.6. Finance Procedure

Projects that apply for finance of capital investment by the SRDFC pass through four main stages. These are; Application, Financial Appraisal, Implementation, and Monitoring. Each of these stages includes other sub-stages as shown below:

- **Application:**
  - **Approach:** The sponsor approached the SRDFC with a project idea and has been briefed on the finance procedure;
  - **Initial Contact:** The application form submitted to the SRDFC, after acceptance of the project idea, with some of the required documents related to the project;
  - **Complete Application:** A payment of deposit (1.25% of the required finance[8] paid in local currency) after all required documents are submitted. The rationale of this deposit is to ensure the sponsor seriousness for finance, and to cover any cost incurred by the SRDFC in case of a sudden withdrawal by the sponsor;
  - **Project Screening:** A summary of 2-3 pages ends up with a recommendation whether to further process the project or not. It includes information about the project idea, sponsor, documents, project's conformability with the SRDFC's policies, ...etc.
- **Financial Appraisal**
  - Field visit to investigate the project site, sponsor's creditworthiness, quick market survey, ...etc;
  - Preparation of the FP/FS/CIP;
  - Reviewing and endorsement of the FP/FS/CIP by the PRC;
  - Approval of the project by the concerned authority;

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[8] The deposit is refunded in case that the project is rejected, at any stage, by the SRDFC. On the other hand, it is raised to 2.5% after approval of the project.

- Preparation of a letter of offer (L/O) to the sponsor of the approved project (approved FP or FS and not a CIP);

- **Implementation**
  - Preparation of legal documents including e.g., a purchase order by the sponsor, a Murabaha Agreement, a letter of a third-party guarantee or a mortgage letter. Some of these documents, e.g., the Murabaha Agreement, are authenticated by a lawyer on the expense of the sponsor;
  - Purchase and delivery of the financed capital good(s);
- **Monitoring**
  - Follow-up and monitoring of the project and the loan repayments till liquidation of the loan and then closure of the project file.

The first two stages lie under the responsibility of the Projects Department while the other two stages are under the responsibility of the Implementation and Monitoring Department plus the Accounting and Finance Department.

For the short-term finance of production inputs by the SRDC, the process is shorter and comprises the following stages:

- **Application**
  - **Approach;**
  - **Initial Contact;**
  - **Complete Application:** The same as for the SRDFC, except that the deposit rate is 1% of the required finance and is raised to 2% after approval;
- **Financial Appraisal**
  - Field visit to investigate the site of the established project, its condition, and its existing assets;
  - Preparation of a project profile with a simple cash flow for the operation;
  - Reviewing and endorsement of the profile by the PRC;
  - Approval of the project by the GM;
- **Implementation**
  - The same as for the SRDFC;
  - Purchase and delivery of the financed production input(s);

- **Monitoring**
  - Follow-up of the loan repayments till its liquidation and then closure of the project file.

It is worth noting that if the project is a repeat project to the SRDC, with a successful past performance, the procedure becomes more faster and involves mainly up-dating of documents and the project profile.

The stages of the capital investment's and the production inputs' finance procedures and the main decisions involved therein can be summarized in Figures 3.2 and 3.3 below.

The time lag between the various stages of processing a new loan application, depends mainly on both the sponsor and the SRDC/SRDFC.

The sponsor for whom the information are already known and the required documents are available, can for example, complete the application within a short time (2-3 days).

The PRC can hold meetings whenever a good number (e.g.,≥3) of FPs, FSs, and CIPs are prepared and available for reviewing and discussion, and when financial funds are adequately available.

Under normal circumstances, the BD can hold a meeting twice a year; the FIC can be invited for a meeting whenever a group of FSs are endorsed by the PRC (normally 1-3 months); and the GM can approve FPs whenever they are endorsed by the PRC.

Also under the normal circumstances, the processing period for a new loan is about 2-3 weeks for the SRDC's projects and around 6 weeks for the SRDFC's projects (FPs and FSs).

3.7. SRDC/SRDFC Sources of Funds

The SRDC and SRDFC generate their sources of funds mainly from the share capital issued, profits from financial operations, loan repayments and borrowing from other financial institutions.

Figure 3.2
Summary of Capital Investment's Finance Procedure

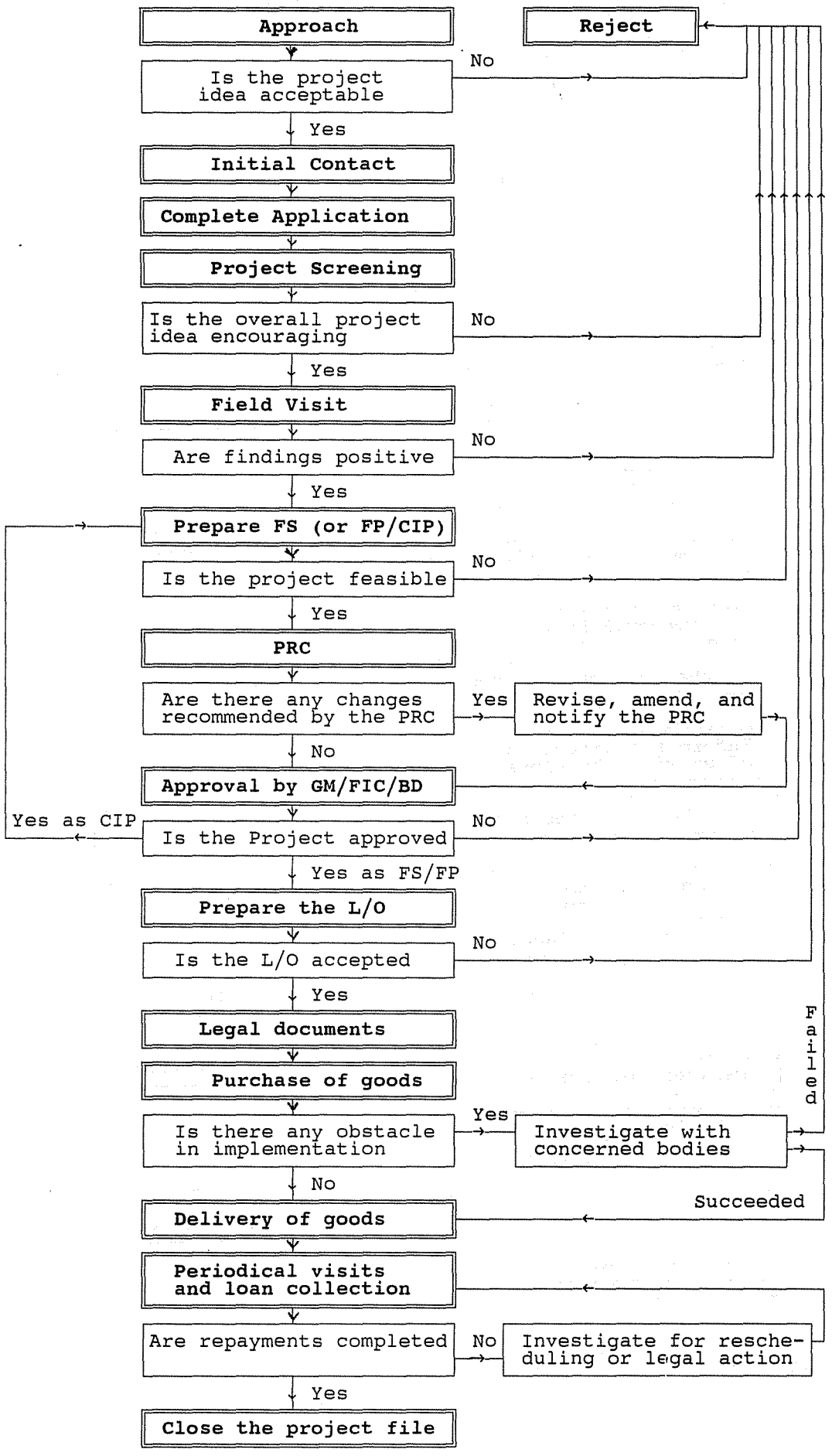
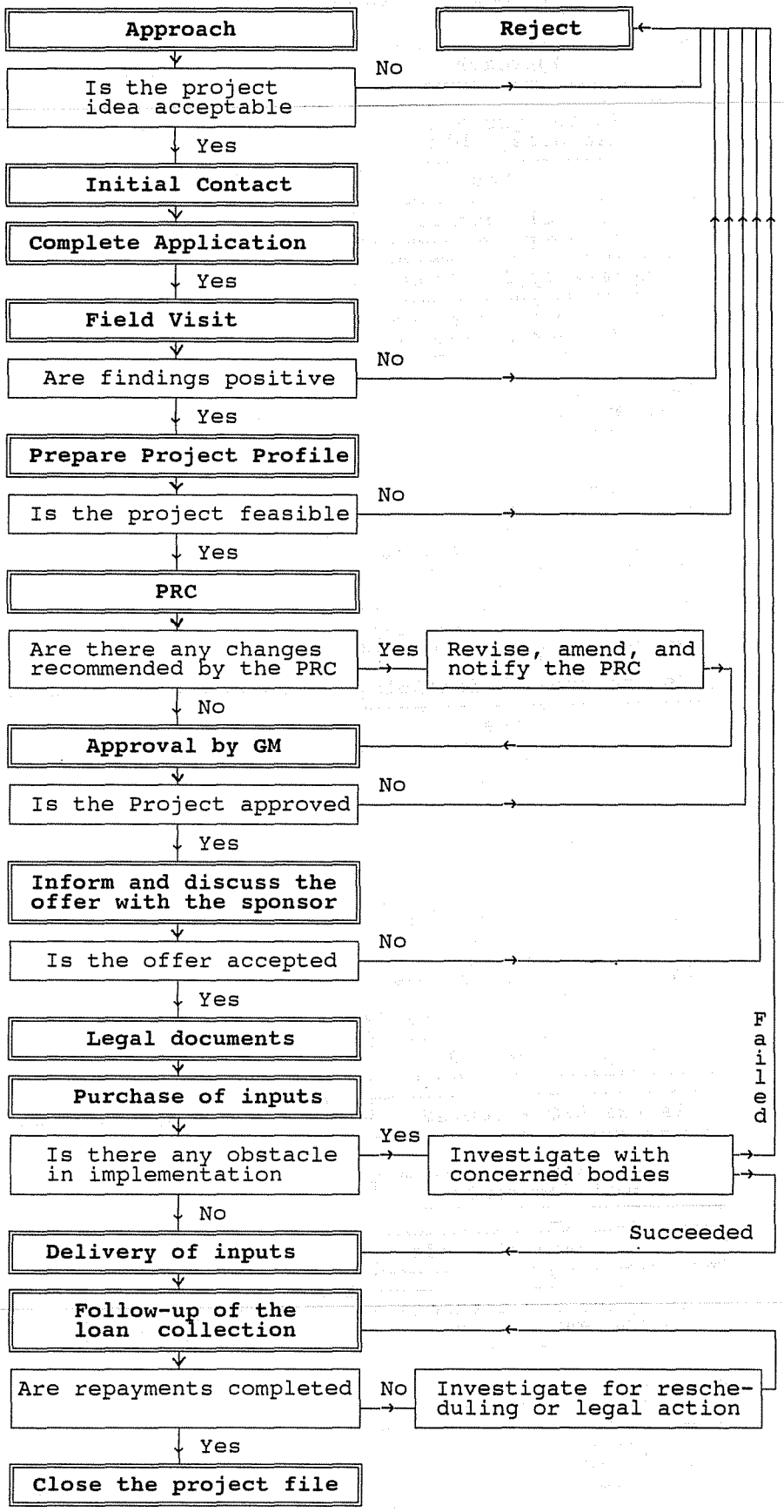


Figure 3.3
Summary of Production Inputs' Finance Procedure



3.8. Significance of SRDC/SRDFC

The significance of the SRDC/SRDFC to the Sudanese economy, hinges on their objectives and the reasons for their establishment. This can broadly be summarized in the following:

- The provision of finance in hard currency, a major obstacle that severely handicapped the development of the country;
- The technical assistance provided to project sponsors in terms of technology selection, advice on the appropriate project management, ...etc;
- Implementation and monitoring of the project;
- The linking of the repayment pattern with the projected cash flows of the project. This may entitle the project for a reasonable grace period (3-12 months) and a flexible loan repayment;
- Finance of the small and medium-scale enterprises which are adversely neglected by the financial institutions, mainly the commercial ones;
- Application of a relatively flexible collateral to secure the loan repayment, e.g., a third party guarantee. It is worth noting that both of the SRDC and the SRDFC bear the risk of any loan default against the funds they borrow from the other financial institutions;
- Application of relatively low transactions costs on the borrowers, compared with other FIs;
- Focus on the rural people outside the Greater Khartoum;
- Focus on development activities, e.g., agriculture, rural industries, and agro-based industries, apart from the activities of purely commercial nature.

CHAPTER FOUR

METHODOLOGY AND ANALYTICAL TECHNIQUES

4.1 Introduction

There is a multiple of techniques that can be used for assessing the performance of RFIs.

The selection among these techniques depends on the objectives of the study, the data availability, the interests of the analyst, and the appropriateness of the techniques to the case understudy. Having accepted this, assessing the performance of the SRDC/SRDFC will hinge on four main corners; the ratio and the trend analysis, the sustainability analysis, and the outreach analysis.

4.2 Analytical Techniques

4.2.1 Ratio Analysis

It is mainly based on data taken from the balance sheet and income statement. The former is a statement of the firm's financial position at a point in time, whereas the latter shows the results of operations during an interval of time.

Each type of financial ratio analysis has a purpose that determines the different relationships emphasized. For example bankers are primarily interested in the firm's near-term, or liquidity, position, so they stress ratios that measure liquidity. In contrast, long-term creditors place far more emphasis on earning power and operating efficiency. For them, unprofitable operations erode asset values and a strong current position is no guarantee that funds will be available to repay a long-term debt. Equity investors are similarly interested in long-term profitability and efficiency. Management is, of course, concerned with all these aspects of financial analysis; it must be able to repay its debts to long- and short-term creditors as well as earn profits for stockholders. (Weston and Brigham, 1983).

Among the fundamental types of financial ratios, the following ratios will be used in this research:

4.2.1.1 Liquidity Ratios

They measure the firm's ability to meet its maturing short-term obligations.

Some of these ratios are:

$$\frac{Current\ Assets}{Current\ Liabilities} \qquad (Current\ Ratio)$$

It is used to measure the firm's short-term solvency, since it indicates the extent to which the claims of short-term creditors (current liabilities) are covered by assets that are expected to be converted to cash in a period roughly corresponding to the maturity of the claims (current assets).

The higher this ratio, the more easy for the firm to liquidate its current assets at the book value. Moreover, if the ratio exceeds unity, then the current assets can even be liquidated below the book value, e.g., at a maximum percentage equal to the portion of current liabilities to current assets (i.e., the reciprocal of the current ratio).

$$\frac{Cash + short\text{-}term\ securities}{Total\ Assets}$$

It provides a general assessment of the institution's asset maturity mix. The higher this ratio, the better financial position of the firm.

4.2.1.2 Credit Risk Ratios

These are part of the loan portfolio analysis ratios. They measure the credit risk exposure.

We can not directly identify the ex-ante level of loan portfolio risk. However, the provision for loan losses on the income statement and the allowance for loan losses on the balance sheet can be informative. Each institution may identify, based on past experience, an annual provision for loan losses, which is charged against current earnings. Although may not be equal to actual loan losses for the year, the provision reflects management's estimate of the additions to the allowance for loan losses on the balance sheet necessary to reflect total exposure to credit risk.

Some of these ratios are:

$$\frac{Loan\ Loss\ Provision}{Total\ Assets}$$

The higher this ratio, the more risky lending policies implemented by the firm's management.

$$\frac{NetIncome}{Loan\ Loss\ Provision}$$

This measures the loss coverage ratio, where the higher this ratio, the more earnings are protected against loan losses.

4.2.1.3 Leverage Ratios

They measure the extent to which the firm has been financed by debt.

Some of these ratio are:

$$\frac{Total\ Debt}{Total\ Assets} \qquad (Debt\ Ratio)$$

It measures the percentage of total funds provided by creditors. In contrast to creditors who prefer low debt ratio, borrowers prefer high leverage to magnify earnings or because raising new equity means giving up some degree of control.

$$\frac{Net\ Worth}{Total\ Assets} = 1 - Debt\ Ratio$$

It indicates the maximum amount by which the book value of the institution's assets can decline before falling below the value of total liabilities.

4.2.1.4 Productivity Ratios

Often are referred to as activity ratios. They measure the firm's ability to generate revenues compared to the asset base on which revenues can be earned.

The most common measure, called asset turnover in industrial firms and asset utilization in financial institutions, is:

$$\frac{Total\ Operating\ Income}{Total\ Assets} \qquad (Asset\ Utilization)$$

The higher the ratio, the more the financial institution is productive.

4.2.1.5 Efficiency Ratios

They are a measure of productivity where the firm's outputs are compared with its inputs (human and/or physical). In such case, low expenses and high incomes are hallmarks of success.

One way to measure cost-efficiency is to compare non-interest expenses - such as personnel costs, equipment expenses - to total operating expenses (including interest expense) or to total operating income for the period.

Efficiency: Non-interest Expenses:

$$\frac{\textit{Non-interest Expenses}}{\textit{Total Operating Expenses}}$$

$$\frac{\textit{Non-interest Expenses}}{\textit{Total Operating Income}}$$

The lower these ratios, the more the firm is cost-efficient in controlling non-interest expenses.

Another measure of efficiency, is to compare non-interest income to total operating income (including interest income) or to total assets. These measure the contribution of non-interest income to institutional performance and show how management is efficient in generating non-interest income. Thus, the higher the ratio, the more the management is efficient in generating non-interest income.

Efficiency: Non-interest Income:

$$\frac{\textit{Non-interest Income}}{\textit{Total Operating Income}}$$

The higher this ratio, the more the firm is efficient in boosting non-interest income.

4.2.1.6 Profitability Ratios

They measure management's overall effectiveness as shown by the returns generated on sales and investment.

$$\frac{\textit{Net Income}}{\textit{Total Operating Income}} \qquad (\textit{Profit Margin})$$

It reflects the percentage of each pound of revenue remaining after all costs and expenses are paid.

$$\frac{Net\ Income}{Total\ Assets}$$ (*Return on Assets (ROA)*)

It is viewed as a comprehensive measure of profitability, indicating the pound return per pound of assets held by the firm.

$$\frac{Net\ Income}{Net\ Worth}$$ (*Return on Net Worth (RONW)*)

It measures the rate of return to common share holders.

The higher the above ratios, the more the firm is profitable and cost-efficient.

4.2.1.7 Growth Rates (Ratios)

They measure the firm's ability to maintain its economic position in the growth of the economy and industry.

The annual real growth rate of a variable during an interval of time can be calculated by dividing the last period real figure by the first period real figure, a process that gives a compound sum interest factor. Then by referring to the compound interest tables, we can determine the real percent growth represented by the ratio.

The Consumer Price Index (CPI) can be used as a price deflator for converting the nominal values of a variable into real values.

4.2.1.8 Du Pont System

The Du Pont system of financial analysis brings together the asset utilization ratio (productivity) and the profit margin on sales (cost-efficiency) and shows how these ratios interact to determine the profitability of assets. Accordingly,

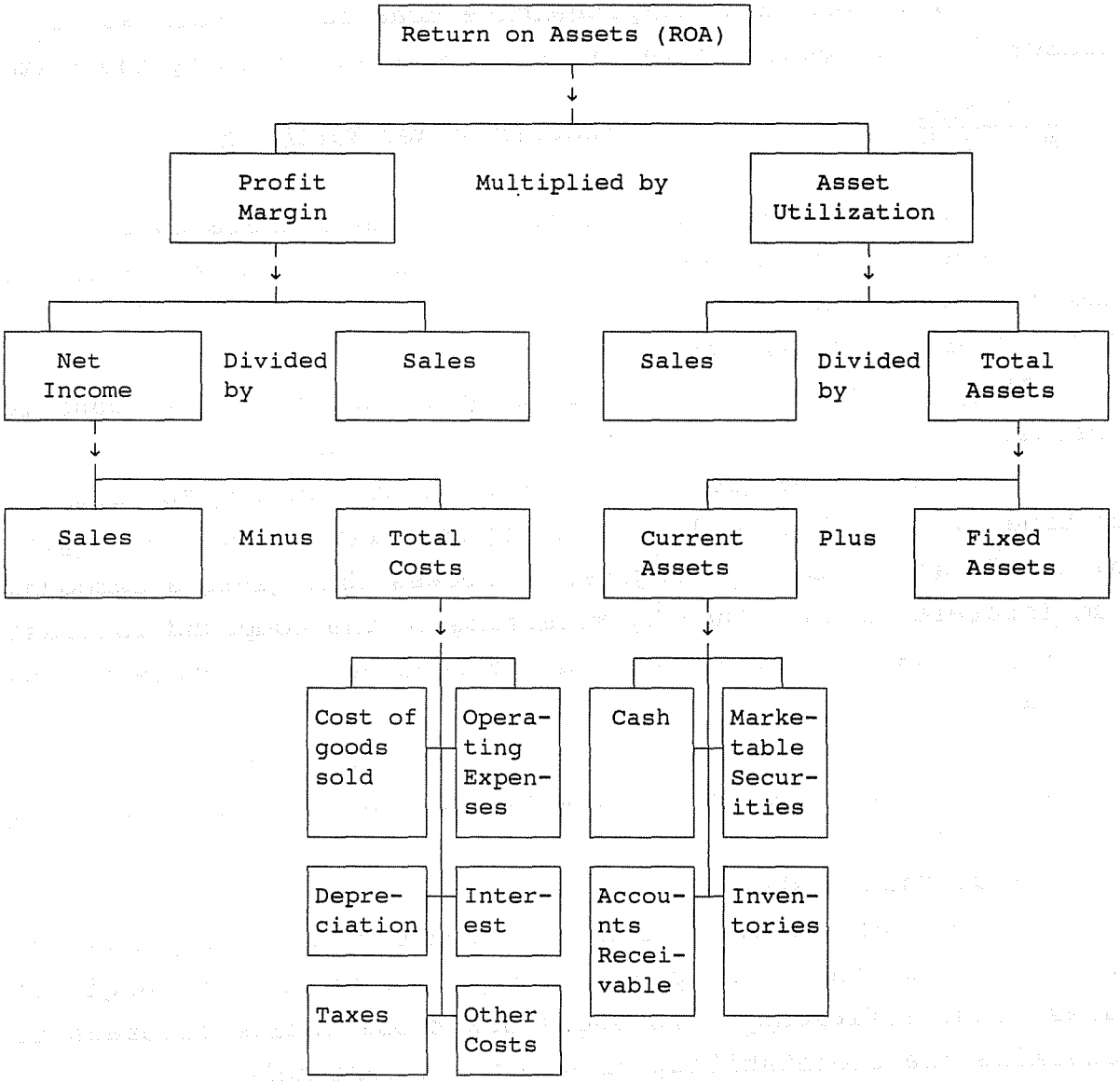
$$ROA = Asset\ Utilization \times Profit\ Margin$$

$$i.e.,\ ROA = \frac{Total\ Operating\ Income}{Total\ Assets} \times \frac{Net\ Income}{Total\ Operating\ Income}$$

The nature of the system, modified somewhat, is set forth in Figure 4.1. Accordingly, to increase the ROA, a firm needs to boost its profit margin and/or its productivity. Hence, tracing back through the Du Pont system will help the manager to do this task.

Figure 4.1

Modified Du Pont System of Financial Control[9]



[9] Source: Weston, J.F. and Brigham, E.F., 1981.

The Du Pont system can be extended to include leverage, where the ROA is combined with the debt ratio to give the RONW. The difference between the two, i.e., ROA and RONW, arises from the use of financial leverage.

$$RONW = \frac{ROA}{1 - Debt\ Ratio} = \frac{ROA}{1 - \frac{Total\ Debt}{Total\ Assets}}$$

Another way of expressing this same relationship is:

$$RONW = ROA \times the\ Net\ Worth\ Multiplier =$$

$$= \frac{Total\ Operating\ Income}{Total\ Assets} \times \frac{Net\ Income}{Total\ Operating\ Income} \times \frac{Total\ Assets}{Net\ Worth}$$

where the ratio of total assets to net worth is the net worth multiplier.

Thus, for a firm seeking to boost the RONW, it can trace the ROA and/or the leverage. If high financial leverage results in a high RONW, then the risk incurred in achieving the reported performance can be recognized. If, in contrast, a high RONW is achieved through superior asset management (e.g., cost-efficiency and/or productivity), quite a different message is conveyed about managerial practices.

4.2.1.9 Some Limitations of the Ratio Analysis

Although ratios are exceptionally useful tools, they have some limitations mainly for comparative analysis:

- Ratios are constructed from accounting data, and these data are subject to different interpretations and even to manipulation, e.g., two firms in an industry may use different accounting and valuation methods;
- If firms use different fiscal years, and if seasonal factors are important, this can influence the comparative ratios. Thus, if the ratios of the two firms are to be compared, it is important to analyze the basic accounting data on which the ratios were based and to reconcile any major differences;

4.2.2 Trend Analysis

While the preceding ratio analysis gives a reasonably good picture of the firm's operations, it is incomplete in one important respect - it ignores the time dimension.

In other words, a ratio is not a meaningful number in and of itself; it must be compared with something before it becomes useful.

Two basic kinds of comparative analysis are;

i) Trend analysis which involves computing the ratio of a particular firm for several years and comparing the ratios over time to see if the firm is improving or deteriorating, and
ii) Comparison with other firms in the same industry.

Financial ratios are useful part of an investigation process. But financial ratios alone are not the complete answer to questions about the performance of firms. For this reason some rural development specialists adopted other new analytical techniques, e.g., the sustainability analysis and the outreach analysis.

4.2.3 Sustainability Analysis

It measures the financial **self-sustainability** of the firm which is achieved when the return on equity, net of any subsidy received, equals or exceeds the opportunity cost of the equity funds.

Subsidy dependence is the inverse of self-sustainability. Traditionally, RFIs have long been sustained by various types of implicit or explicit subsidies to ensure continuous operations. The most common subsidies given to RFIs have been, e.g., interest rate differences between the market rate and rates paid on concessional borrowed funds; foreign exchange losses on foreign currency-denominated loans assumed by the state rather than the RFI; obligatory deposits by other FIs or by other public institutions in the RFI at a below-market rate; direct reimbursement by the state or donor of some or all operating costs incurred by the RFIs; a direct financial transfer, ...etc.

To eliminate subsidy dependence, a RFI needs to meet at least the following major conditions:

- Have positive on-lending interest rates that are high enough to cover non-subsidized financial costs as well as administrative costs, to maintain the value of equity in real terms;
- Have adequate deposit interest rates so as to ensure that voluntary savings become an increasingly significant factor in financing the loan portfolio;
- Achieve a very high rate of loan collections, which eventually results in very low loan losses;
- Control administrative costs through efficient techniques and procedures in assessing investment plans, screening borrowers, processing loans, collecting repayments, and mobilizing and servicing savings to ensure that lending rates do not become prohibitive.

Thus, sustainability of RFIs depends generally on four elements: administrative expenses; loan collection; structure of interest rates, and cost of financial resources.

A major measure of the financial self-sustainability, is the **Subsidy Dependence Index (SDI)**, developed by Yaron (1992c). The SDI is a ratio that measures the percentage change in the average on-lending interest rate required to compensate a RFI for the elimination of subsidies in a given year while keeping its return on equity equal to the approximate non-concessional borrowing cost.

The index assumes, for simplicity, that an increase in the on-lending interest rate is the only change made to compensate for loss or subsidy. Also the average equity is assumed not to increase as a result of an increase in the on-lending interest rate (alternatively the increased income may be considered as an immediate payout dividend). (ibid).

Calculating the SDI involves aggregating all subsidies received by a RFI. The total amount of the subsidy is then measured against the RFI's on-lending interest rate multiplied by its average annual loan portfolio because lending is the prime activity of a supply-led RFI. Measuring a RFI's annual subsidies

as a percentage of interest income yields the percentage by which interest income would have to increase to replace the subsidies and provides data on the percentage points by which the RFI's on-lending interest rate would have to increase to eliminate subsidies.

The SDI formula assigns a cost to equity. The DFI is a public or quasi-public institution, so assigning a cost to equity accounts for the opportunity cost to the government of maintaining a certain level of equity in the DFI. The imputed cost of equity is then netted out from the DFI's profit to measure the extent to which the DFI benefited from the subsidy when the opportunity cost of equity is considered [(E*m)-P, below]. (ibid).

Computation Procedure of the SDI:

The amount of the annual subsidy received by a RFI is defined as:

$$S = A(m-c) + [(E*m) - P] + K$$

where:

- S: Annual subsidy received by the RFI;
- A: RFI concessional borrowed funds outstanding (annual average);
- m: Interest rate the RFI would be assumed to pay for borrowed funds if access to borrowed concessional funds were eliminated;
- c: Weighted average annual concessional rate of interest actually paid by the RFI on its average annual concessional borrowed funds outstanding;
- E: Average Annual Equity;
- P: Reported annual profit before tax (adjusted when necessary, for loan loss provisions, inflation, ...etc);
- K: The sum of other annual subsidies received by the RFI.

The financial ratio of the SDI is given by:

$$SDI = \frac{S}{LP*i}$$

where:

SDI: Subsidy Dependence Index of the RFI;
LP: Average annual outstanding loan portfolio of the RFI;
i: Weighted average on-lending interest rate earned on the loan portfolio of the RFI.

From the above equation, it follows that:

$$(LP*i)\,(SDI) = S,$$

which means that the change in interest income (interest earned on a RFI's outstanding loan portfolio) is equal to subsidies.
If SDI = 0, the RFI achieved full financial self-sustainability;
If SDI = k > 0, the RFI is subsidy dependent and hence its on-lending interest rate should be increased by that percent (k) if subsidies are to be eliminated.
If SDI = q < 0, the RFI is not only achieved full financial self-sustainability, but that its annual profits, minus its capital (equity) charged at the approximate market interest rate, exceeded the total annual value of subsidies, if subsidies were received by the RFI.
A negative SDI also implies that the RFI could have lowered its average on-lending interest rate by that percent (q) while at the same time eliminating any subsidies received in the same year.

The SDI by itself does not clarify how the subsidy was used and whether most benefits were accrued to clients or were consumed by an inefficient bureaucracy. The latter question, though important, requires far more detailed data and even then is often subject to interpretation.

The advantage of the SDI is its simplicity, and as such it focuses exclusively on the intake subsidy, i.e., the value of subsidy received by the RFI. The SDI should be seen in some instances as a lower bound because full financing of RFI activities is likely to be difficult at current market borrowing rates (m) if a RFI's financial performance is dismal. However,

calculating this lower bound is vital for ascertaining either the RFI's progress toward self-sustainability or the social desirability of its continued subsidy dependence. (Yaron, 1992c).

4.2.4 Outreach Analysis

It measures many outreach aspects such as the loan outreach, measured by: the number and size of loans extended by the firm, the value and number of savings accounts, the type of financial services rendered by the firm, and the annual real growth rate of the company assets over recent years; the clientele outreach, measured by the level of participation among women; and [the geographical coverage]. (Marc et al, 1994).

4.3 Conclusion

There is a multiple of techniques that can be used for assessing the performance of RFIs. Among these techniques are the ratio and the trend analysis, the sustainability analysis, and the outreach analysis. The last two techniques are recently developed by the World Bank for assessing the performance of RFIs.

The above-mentioned conventional and modern techniques are complementary for assessing the performance of RFIs. They are proposed to be dealt with simultaneously so that a part which is not dealt with by one may be indicated by another. Also, a relationship vaguely suggested by one technique may be corroborated by another.

When a comparative analysis is conducted between a financial institution and its industry or with other financial institutions in the same industry, this should be taken with great caution since the accounting and valuation procedures of these institutions may differ; the economic and business environment of such institutions may also differ even within the same geographical area. However, the comparison may be useful in giving general indication when the criteria considered for comparison are more relevant and common.

CHAPTER FIVE

ANALYSIS AND EMPIRICAL FINDINGS

5.1 Introduction

This chapter firstly starts with an overall analysis of the business environment under the economic situation of the Sudan, since the pre-feasibility study of the SRDC in 1978. Secondly, the empirical findings about the performance of the SRDC and the SRDFC will be analyzed based on the financial statements and annual reports of the two companies for the period 1984-1993. This will include the ratio analysis coupled together with the trend analysis, the growth rates (ratios), the Du Pont system, the sustainability analysis, and the outreach analysis. Thirdly, some comparison of the two companies with other similar rural development financial institutions from Asia and Sub-Saharan Africa, will be made. Finally, some conclusions will be drawn from the analysis and the empirical findings.

5.2 Analysis of the Business Environment

The time the SRDC was studied, 1978, was part of the prosperity stage of the Sudanese economy, compared with the present situation. This period was prior to the implementation of the stabilization policy and the Economic Structural Adjustment (ESAP) imposed by the World Bank in the country, in the 1980's.

Considering the development of inflation rate as a major economic variable affecting the business environment, supported by the trend of other variables such as the exchange rate, we find that the rate of inflation has highly jumped from a level of 20% in 1978 to a level over 100% after 1990. On the other hand, the official exchange rate which was slightly increasing till 1991, has highly jumped from L.S.6.97/$ in 1991 to L.S.159/$ in 1993.

This is depicted in Figures 5.1[10] and 5.2[11] below, respectively.

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[10] Source: Table 5.2, Section 5.2.3.

[11] Source: the IMF, 1994.

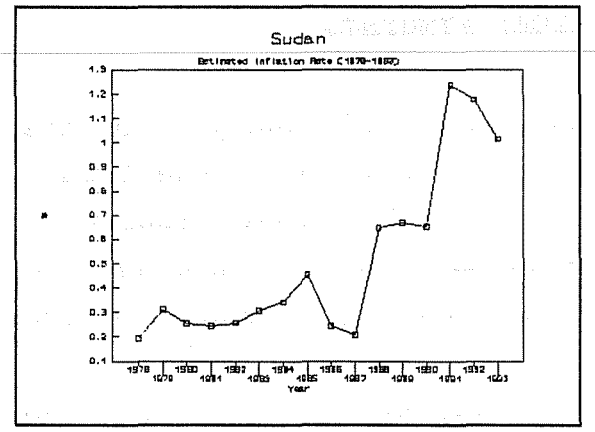

Figure 5.1

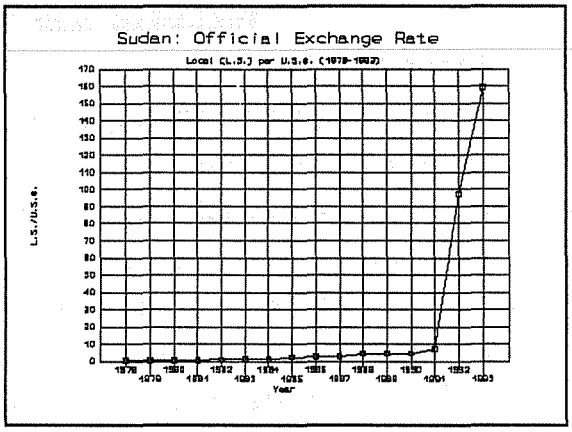

Figure 5.2

This movement of the economy towards a severe situation had many negative impacts on the performance of financial institutions in general and the SRDC and the SRDFC, in particular. Besides the succeeding analysis, this can be cited in three cases; the capital size of the two companies, the loan portfolio in foreign currency of the two companies, and the real on-lending rates of the SRDFC[12] and the commercial banks.

5.2.1 The Capital Size of SRDC and SRDFC

When the SRDC and the SRDFC were studied, their authorized capital was L.S.7,500,000 and L.S.10,000,000, respectively. With an average prevailing exchange rate of L.S.0.3 per U.S.$.1, at that time, the foreign and local shareholders were expected to pay the local equivalents of that capital into foreign currency, i.e., about U.S.$.22,500,000 and U.S.$.30,000,000, respectively. However, since shares were disbursed into instalments and at distant intervals, the paid capital was very weak in real terms, and this is mainly attributed to the inflationary pressure and the continuously diminishing value of the Sudanese pound against the U.S.$.

The nominal values of the authorized, paid capital and the foreign equivalent (U.S.$.) were shown as in Table 5.1 below:

[12] The SRDC is excluded since it commenced operations lately in 1990.

Table 5.1
Authorized and Paid Capitals of SRDC and SRDFC

Company	Authorized Capital (L.S.)	Paid Capital (L.S.)	Equivalent in (U.S.$.)	Year of Payment
SRDC (1980)	7,500,000	4,350,000 3,150,000	5,440,000* 3,940,000	1981 1981
	Total	7,500,000	9,380,000 5,440,000*	
SRDFC (1982)	10,000,000	1,920,000 1,280,000 1,920,000 1,280,000	1,626,000* 1,084,000 431,000* 278,000	1982 1982 1989 1989
	Total	6,400,000	3,419,000 2,057,000*	

* Amount of foreign component (U.S.$.) actually paid.
Source: SRDC/SRDFC Annual Reports and Accounts (1984-1993).

Thus, it is clear that the real value of the paid capital was very low and it can safely be said that it was incompatible with the broad objectives of the two companies. For the SRDC the total paid capital was equivalent to U.S.$.9,380,000 in 1981, compared with an expected equivalent of U.S.$.21,500,000. For the SRDFC, on the other hand, the foreign equivalent of paid capital (two thirds of authorized capital) till 1989 was U.S.$.3,419,000.

Even if the last third of the SRDFC's authorized capital is paid in 1995, the foreign equivalent to L.S.1,920,000 which was U.S.$.1,626,000 in 1982 and U.S.$.431,000 in 1989; will be only about U.S.$.2,560, at an average exchange rate of L.S.750 per U.S.$.1, in 1995. In such case, the total capital of L.S.10,000,000 will be equivalent to a total of U.S.$.3,421,560, compared with an expected equivalent of U.S.$.30,000,000.

Under such harsh economic situation, the two companies were compelled to eat up their initial paid capital so as to cover their highly increasing operating costs. This can be noticed from the cumulative deficits encountered by the two companies since the commencement of their operations in early 1980's and up to 1990, as portrayed by their financial statements (Appendices (2) to (5)).

In fact according to their annual reports and accounts, the whole capital of the SRDC was eaten up since the company didn't get involved in financial activities only in 1990 and thereafter. This is because the SRDC was mobilized for the establishment and support of its counterpart, the SRDFC, as said before.

5.2.2. The Loan Portfolio in Foreign Currency

As mentioned earlier, financing in foreign currency was the attractive objective of the SRDC and the SRDFC. Disbursements were paid in foreign currency (U.S.$) whereas repayments were paid in local currency. This situation was very encouraging under the stable economic situation and favourable exchange rates. However, under the above faint picture, both companies refrained from financing in foreign currency. The last finance disbursed, amounted in total to U.S.$.497,000 paid in 1991 by the SRDFC to three medium-term projects, which is less than the amount of U.S.$.500,000, envisaged for one project when the companies were established (SRDFC annual report, 1991). This is mainly because the project's sponsors see the nominal equivalent of foreign currency as astronomic and beyond their financial capabilities and because of the non availability of foreign currency in the finance market, to re-accumulate the foreign component disbursed.

5.2.3 Real on-lending Rates

For a long time and due to the rapidly increasing inflation rate, financial institutions were forced by the Central Bank of Sudan to apply on-lending rates which are negative in real terms. This is confirmed by Figure 5.3 which is extracted from Table 5.2, below.

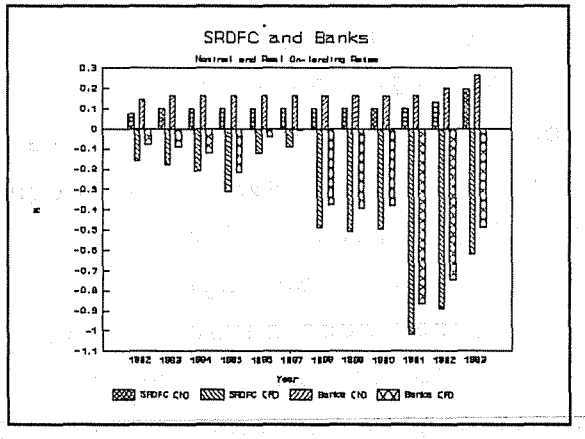

Figure 5.3

This validates the existence of a main problem that characterises the rural credit markets in developing countries, i.e., the heavy subsidization of rural credit by the SRDFC in particular and the commercial banks in general.

Table 5.2
Nominal and Real Lending and Borrowing Rates of Banks and SRDFC

Year	E(P)	S	R	D	C	B	A	N	K	S	Difference (Banks-SRDFC)	
		iN	iR	disN	disR	disR*	depN*	depR	iN	iR	iN	iR
1978	19.23%	-	-	-	-	-16.13%	6.00%	-14.38%	11.13%	-10.24%	-	-
1979	31.14%	-	-	-	-	-23.74%	6.00%	-27.01%	11.13%	-23.47%	-	-
1980	25.35%	-	-	-	-	-20.22%	6.00%	-20.87%	11.13%	-17.04%	-	-
1981	24.58%	-	-	-	-	-19.73%	8.63%	-18.07%	13.30%	-14.54%	-	-
1982	25.71%	7.59%	-20.07%	4.18%	-22.61%	-20.45%	10.50%	-17.91%	14.39%	-15.02%	6.79%	5.05%
1983	30.59%	9.76%	-23.81%	5.37%	-26.86%	-23.42%	13.50%	-21.22%	16.56%	-19.09%	6.79%	4.72%
1984	34.15%	9.76%	-27.72%	5.37%	-30.61%	-25.45%	13.50%	-25.26%	16.56%	-23.24%	6.79%	4.47%
1985	45.41%	9.76%	-40.08%	5.37%	-42.48%	-31.23%	-	-	16.56%	-36.37%	6.79%	3.71%
1986	24.45%	9.76%	-17.08%	5.37%	-20.40%	-19.65%	-	-	16.56%	-11.94%	6.79%	5.13%
1987	20.56%	9.76%	-12.80%	5.37%	-16.29%	-17.05%	-	-	16.56%	-7.40%	6.79%	5.40%
1988	64.70%	9.76%	-61.25%	5.37%	-62.80%	-39.28%	-	-	16.56%	-58.86%	6.79%	2.40%
1989	66.72%	9.76%	-63.47%	5.37%	-64.93%	-40.02%	-	-	16.56%	-61.21%	6.79%	2.26%
1990	65.16%	9.76%	-61.76%	5.37%	-63.29%	-39.45%	-	-	16.56%	-59.39%	6.79%	2.37%
1991	123.58%	9.76%	-125.88%	5.37%	-124.84%	-55.27%	-	-	16.56%	-127.48%	6.79%	-1.60%
1992	117.62%	13.02%	-119.92%	7.16%	-118.89%	-54.05%	-	-	19.81%	-121.12%	6.79%	-1.20%
1993	101.39%	19.53%	-101.66%	10.74%	-101.54%	-50.34%	-	-	26.32%	-101.75%	6.79%	-0.09%

* Estimated by the IMF, 1994.
E(P): Estimated inflation rate (based on the CPI (1990=100), the IMF, 1994.
iN: Nominal on-lending interest rate.
iR: Real on-lending interest rate.
disN: Nominal discount rate (concessional borrowing rate: on average equals to 55% of SRDFC's iN)
disR: Real discount rate.
depN: Nominal deposit rate.
depR: Real deposit rate.

N.B.- Interest rates are not applicable since 1985, after the Sharia application.
- The real rates are calculated by using the **Fisher Effect** (Gardner and Mills, 1991), given by: iR = iN-E(P)-iN*E(P).
Source: Appendix (1), the IMF, 1994.

The situation for the SRDFC, compared with the commercial banks, was more severe since the former had highly negative real on-lending rates.

Thus, under scarcity of financial resources, intensive or extensive credit rationing is the apparent choice of financial institutions, which in turn, will result in income inequality.

5.3 SRDC/SRDFC Ratio and Trend Analysis

Tables 5.3 and 5.4 below show the calculated values of the financial ratios of the SRDC and the SRDFC, based on their financial statements in Appendices (2) to (5).

Below are the conclusions drawn about the performance of the two companies during the period 1984-1993.

5.3.1 Liquidity Ratios

5.3.1.1 Current Ratio

Both companies experienced high current ratios which indicated that the two companies were able to cover their short term-debts by their current assets. This also implies that the latter could be converted to cash at the book value or even below that since all the ratios exceeded unity. (Figure 5.4).

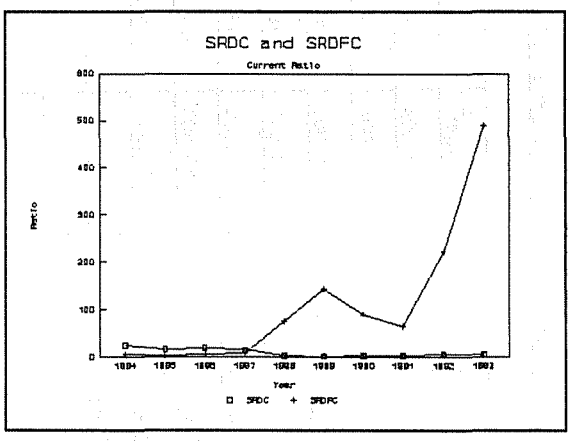

Figure 5.4

It is noted from the figure that the trend of this ratio was rapidly increasing for the SRDFC while decreasing for the SRDC. Also it is noted that the situation has reversed for both companies after the year 1987, where the current ratios for the SRDFC were far above those of the SRDC.

One of the explanations for this is the rapidly increasing current liabilities of the latter compared with the former. In other words, the SRDC had more current liabilities to finance its operations and those of the SRDFC through share funding.

This also implies that the SRDFC had become a dependent on the mother company, the SRDC, which is opposite to what was planned for.

Table 5.3
Calculated Values of Ratios (SRDC)

ANALYTICAL TECHNIQUE \ YEAR	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Average
RATIO ANALYSIS											
LIQUIDITY RATIOS											
Current Assets/Current Liabilities: (Current Ratio)	24.874	17.072	20.285	15.734	3.869	1.912	2.750	3.793	7.280	6.231	10.380
Cash + Short term securities/Total Assets	0.435	0.452	0.535	0.651	0.605	0.539	0.671	0.554	0.795	0.846	0.608
Local Cash + Short-term securities/Total Assets	0.141	0.023	0.017	0.033	0.009	0.010	0.006	0.013	0.015	0.019	0.029
Foreign Cash + Short-term securities/Total Assets	0.294	0.429	0.518	0.619	0.596	0.529	0.665	0.542	0.780	0.827	0.580
CREDIT RISK RATIOS											
Loan Loss Provision/Total Assets	–	–	–	–	–	–	0.005	0.011	0.004	0.000	0.002
Net Income/Loan Loss Provision	–	–	–	–	–	–	1.839	3.668	3.466	–	0.897
LEVERAGE RATIOS											
Total Debt/Total Assets: (Debt Ratio)	0.024	0.038	0.034	0.046	0.178	0.336	0.312	0.234	0.129	0.158	0.149
Net Worth/Total Assets	0.976	0.962	0.966	0.954	0.822	0.664	0.688	0.766	0.871	0.842	0.851
Total Liabilities/Net Worth	0.024	0.040	0.035	0.049	0.217	0.506	0.454	0.306	0.149	0.188	0.197
PRODUCTIVITY RATIOS											
Total Operating Income/Total Assets	0.031	0.075	0.075	0.069	0.078	0.070	0.075	0.077	0.052	0.029	0.063
EFFICIENCY RATIOS											
Non-interest Expenses/Total Operating Expenses	1.000	1.000	1.000	1.000	1.000	1.000	0.927	0.775	0.897	1.000	0.960
Non-interest Expenses/Total Operating Income	3.818	1.379	1.494	1.514	1.450	1.692	0.873	0.485	0.715	0.828	1.425
Non-interest Income/Total Operating Income	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.368	0.196	0.000	0.056
Non-interest Income/Total Assets	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.028	0.010	0.000	0.004
PROFITABILITY RATIOS											
Net Income/Total Operating Income: (Profit Margin)	–2.818	–0.379	–0.494	–0.514	–0.450	–0.692	0.127	0.515	0.285	0.172	–0.425
Net Income/Total Assets: (ROA)	–0.088	–0.029	–0.037	–0.036	–0.035	–0.049	0.009	0.040	0.015	0.005	–0.020
Net Income/Net Worth: (RONW)	–0.090	–0.030	–0.038	–0.037	–0.043	–0.073	0.014	0.052	0.017	0.006	–0.022
DU PONT SYSTEM											
ROA	–0.088	–0.029	–0.037	–0.036	–0.035	–0.049	0.009	0.040	0.015	0.005	–0.020
RONW	–0.090	–0.030	–0.038	–0.037	–0.043	–0.073	0.014	0.052	0.017	0.006	–0.022

Source of Data: SRDC Financial Statements (1984–1993)

Table 5.4
Calculated Values of Ratios (SRDFC)

ANALYTICAL TECHNIQUE \ YEAR	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	Average
RATIO ANALYSIS											
LIQUIDITY RATIOS											
Current Assets/Current Liabilities: (Current Ratio)	7.389	3.953	7.259	8.886	77.457	144.415	91.261	66.344	222.965	489.988	111.992
Cash + Short-term securities/Total Assets	0.607	0.541	0.570	0.212	0.298	0.594	0.540	0.239	0.478	0.551	0.463
Local Cash + Short-term securities/Total Assets	0.016	0.016	0.050	0.021	0.094	0.257	0.001	0.011	0.012	0.041	0.052
Foreign Cash + Short-term securities/Total Assets	0.591	0.525	0.520	0.191	0.204	0.336	0.539	0.228	0.466	0.510	0.411
CREDIT RISK RATIOS											
Loan Loss Provision/Total Assets	0.000	0.000	0.079	0.000	0.000	0.000	0.025	0.021	0.000	0.000	0.013
Net Income/Loan Loss Provision	–	–	-0.895	–	–	–	2.411	3.154	–	–	0.467
LEVERAGE RATIOS											
Total Debt/Total Assets: (Debt Ratio)	0.101	0.177	0.109	0.076	0.009	0.007	0.011	0.006	0.004	0.002	0.050
Net Worth/Total Assets	0.899	0.823	0.891	0.924	0.991	0.993	0.989	0.994	0.996	0.998	0.950
Total Liabilities/Net Worth	0.113	0.214	0.123	0.083	0.010	0.007	0.011	0.006	0.004	0.002	0.057
PRODUCTIVITY RATIOS											
Total Operating income/Total Assets	0.063	0.040	0.037	0.026	0.077	0.086	0.152	0.174	0.176	0.146	0.098
EFFICIENCY RATIOS											
Non-interest Expenses/Total Operating Expenses	1.000	1.000	0.577	1.000	1.000	1.000	0.786	0.835	1.000	1.000	0.920
Non-interest Expenses/Total Operating Income	1.527	2.207	2.898	3.451	1.628	1.559	0.603	0.616	0.936	0.965	1.639
Non-interest Income/Total Operating Income	0.000	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.033	0.004
Non-interest Income/Total Assets	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.000
PROFITABILITY RATIOS											
Net Income/Total Operating Income: (Profit Margin)	-0.527	-1.207	-1.898	-2.451	-0.628	-0.559	0.397	0.384	0.064	0.035	-0.639
Net Income/Total Assets: (ROA)	-0.033	-0.049	-0.071	-0.064	-0.049	-0.048	0.060	0.067	0.011	0.005	-0.017
Net Income/Net Worth: (RONW)	-0.037	-0.059	-0.080	-0.069	-0.049	-0.048	0.061	0.067	0.011	0.005	-0.020
DU PONT SYSTEM											
ROA	-0.033	-0.049	-0.071	-0.064	-0.049	-0.048	0.060	0.067	0.011	0.005	-0.017
RONW	-0.037	-0.059	-0.080	-0.069	-0.049	-0.048	0.061	0.067	0.011	0.005	-0.020

Source of Data: SRDFC Financial Statements (1984–1993)

5.3.1.2 Cash + Short-term securities to total Assets

To examine the availability of local and foreign liquidity in the two companies, a distinction is made between local cash (L.S.) and foreign cash (U.S.$.).

Figure 5.5 shows that, for both companies, the portion of local cash to total assets, was far below the portion of foreign cash to total assets. Moreover, the trend of the former was declining for both companies.

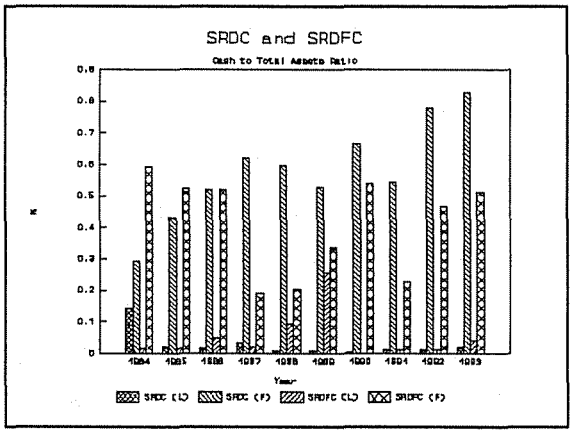

Figure 5.5

This implies the frequent shortage in cash faced by the two companies mainly in late years, and the slowing down of finance in foreign currency as indicated by the upward trend in the ratio of foreign cash to total assets of both companies.

5.3.2 Credit Risk Ratios

5.3.2.1 Loan Loss provision to Total Assets

As shown by Figure 5.6, both companies have implemented risky lending policies in various periods. The SRDFC has implemented a higher lending policy in 1986 just few years from commencing its operations in 1982. This policy is applied again in 1990 when the SRDC commenced financial activities.

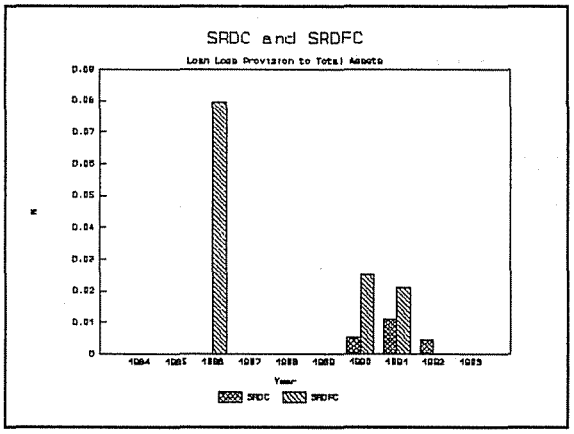

Figure 5.6

However, in 1990 and 1991, the SRDFC adopted more risky lending policies than the SRDC. This may indicate the extent of delinquency rates expected by the two companies. The absence of this ratio in some years may indicate that the riskiness of the loan portfolio is decreasing.

5.3.2.2 Net income to Loan Loss Provision

As shown in Figure 5.7, the loan loss coverage ratio was negative in 1986, for the SRDFC which is compatible with the expectations of high risky lending policy adopted by the company in this year.

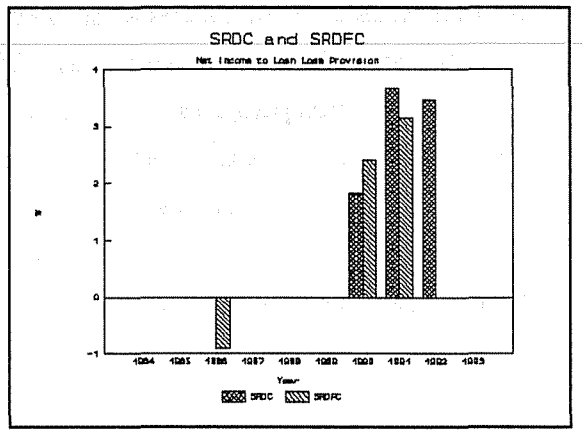

Figure 5.7

In the years 1990, 1991, and 1992, the SRDFC successfully managed to cover its loan loss provisions. While the SRDC also managed in the years 1990 and 1991 to cover its loan loss provisions. In years prior to 1990, the two companies were operating at loss, and there was no provision for loan losses except by the SRDFC in 1986 (see 5.3.2.1, above).

5.3.3 Leverage Ratios

5.3.3.1 Debt Ratio

From Figure 5.8, the trend of debt finance by the SRDC was increasing since 1984, reaching its peak (33.6%) in 1989, then declining steadily up to 1992 after which it started to move upward. This pattern clearly explains the hardship met by the SRDC in financing its operations as a result of reluctance of creditors to extend lines of credit to the company. This has adversely affected the loan portfolio of the two companies.

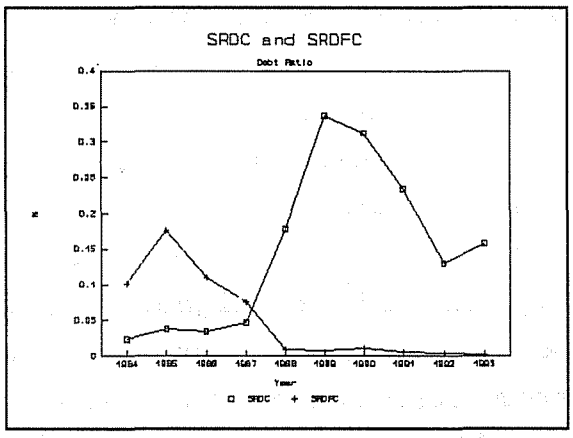

Figure 5.8

The SRDFC, on the other hand, experienced a reverse pattern. While high portion of its total financing has been financed by creditors in the first years of its operation. The situation reversed in 1988, where the ratio declined continuously and

rapidly. This implies that the burden of borrowing lied on the SRDC which became a financier by share to the SRDFC.

5.3.3.2 Net Worth to total assets

This ratio is directly linked to the above ratio. In Figure 5.9, it is noticed that with the increase of total debt, the ratio was declining till 1989, for the case of the SRDC .

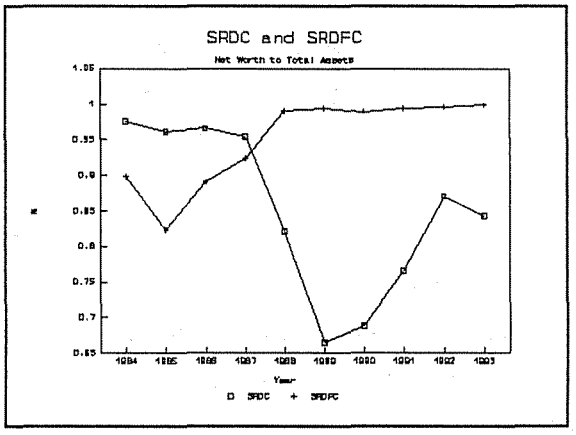

Figure 5.9

This also implies that the SRDFC had a good opportunity, compared with the SRDC, to liquidate its total assets at a low value of its book value so as to cover its total liabilities.

Moreover the low values of the SRDC's ratios, compared with the SRDFC's ratios, are due to the high assets of the SRDC. It is worth noting that the SRDC owns all the fixed assets (e.g., buildings and vehicles) which are used by both of the SRDC and the SRDFC, and has a large reserve of current assets compared with the SRDFC (the SRDFC pays hire charges to the SRDC). The effect of this is also valid for other ratios related to total assets, as can be seen in the productivity, ROA and RONW ratios, below.

5.3.4 Productivity Ratios

5.3.4.1 Total Operating Income to Total assets

With reference to Figure 5.10, it is obvious that the SRDC's productivity was semi stable in the period 1985-1991. In 1992, the SRDC's productivity started to decline rapidly. While for the SRDFC, its productivity started to increase since 1987 and then started to decline in 1992.

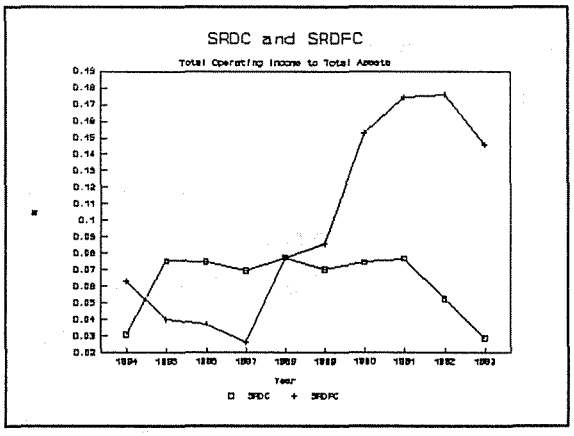

Figure 5.10

One implication of this pattern by the two companies, is the lack of financial resources of the two companies, sufficient to generate more income, mainly in the 1990's.

5.3.5 Efficiency Ratios

5.3.5.1 Non-interest Expenses to Total Operating Expenses

According to Figure 5.11, both companies were not cost-efficient in controlling their non-interest expenses. The non-interest expenses were almost equal to all operating expenses (average 96% for the SRDC and 92% for the SRDFC).

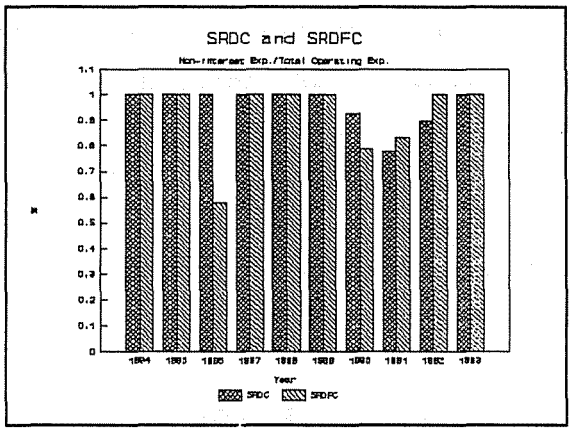

Figure 5.11

Another implication of this, is that both companies were implicitly subsidised since no interest expenses were imposed.

Non-interest expenses are mainly the general and administrative expenses of the two companies. According to the accounts of the two companies, these are mainly pushed by the high salaries and wages which increased rapidly since 1990.

5.3.5.2 Non-interest Expenses to Total Operating Income

The same conclusion reached in 5.3.5.1 above, can be drawn from Figure 5.12. Only in 1990 and thereafter, the two companies managed to be cost-efficient in covering the non-interest expenses from their operating incomes. However, the SRDC's and the SRDFC's cost-efficiency started to decline

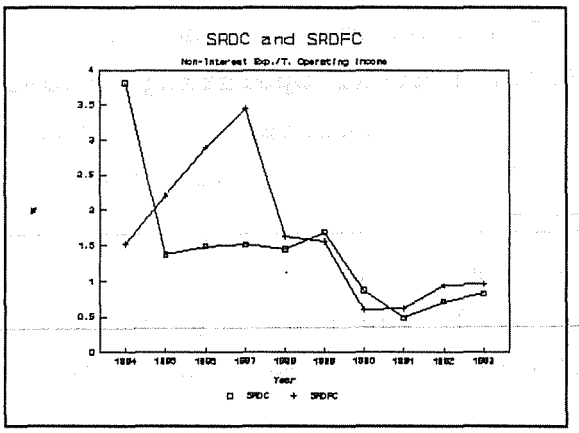

Figure 5.12

since 1991 and 1990, respectively. This was mainly due to the high increase in the non-interest expenses during this period.

5.3.5.2 Non-interest Income to Total Operating Income

Since its involvement in commercial activities, the SRDC was efficient to generate non-interest income in 1991 and 1992[13]. However, its efficiency in this respect was declining. In fact, since 1993 and thereafter, the SRDC refrained from involvement in commercial activities that required foreign

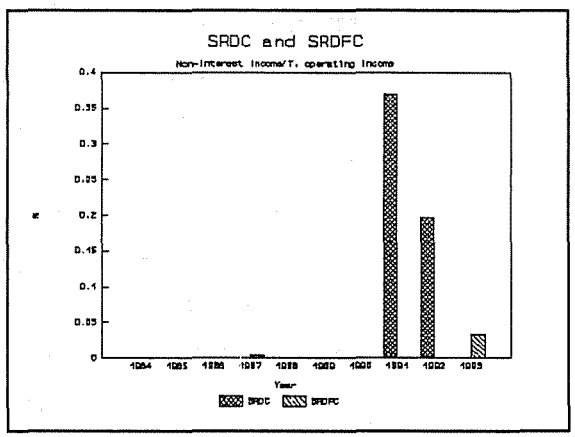

Figure 5.13

currency due to the aforesaid reasons. For the SRDFC, this is not a major source of income and is occasionally generated from the liquidation of some assets.

5.3.6 Profitability Ratios

5.3.6.1 Net Income to Total operating Income (Profit Margin)

Figure 5.14 shows that the year 1990 was a turning point for both the SRDC and the SRDFC, from the stage of loss to the stage of profit. The situation for the SRDC was relatively better and the effect of its involvement in financial operations in 1990 was very significant in achieving profit.

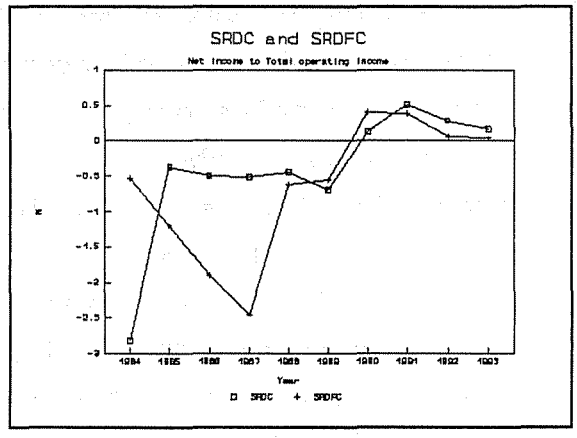

Figure 5.14

In fact, since 1984 the trend for the SRDC indicated cost-efficiency which led it to the stage of profitability in 1990. The SRDFC, on the other hand, was moving towards high deficit from 1984 to 1987, then its cost-efficiency was improving till it also achieved profits in 1990. However, since 1991 the cost-efficiency of the two companies was declining due to the highly increasing general and administrative costs.

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[13] This is the income generated from the sale of Friesian cows in 1991 and 1992. (SRDC Annual Reports, 1991-1992).

5.3.6.2 Return on Assets (ROA)

Considering ROA, as a comprehensive measure of profitability, Figure 5.15, confirms the same conclusion reached in 5.3.6.1 above. However, in such case the situation of the SRDFC looks better than the SRDC, mainly in the period 1989-1991. This implies the high return per

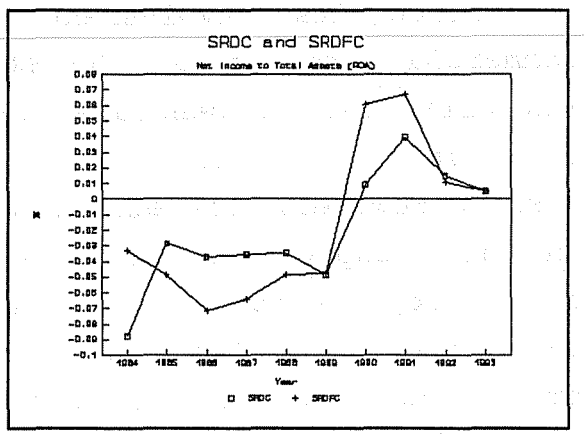


Figure 5.15

pound (L.S.) of asset held by the SRDFC. However, since 1991, the profitability of the two companies happened to decline.

Another implication of the decline in the ROA of the two companies, is the high liquidity in foreign currency which is unused, and hence, boosted the total assets.

5.3.6.3 Return on Net Worth (RONW)

The same pattern of trend, and hence conclusions, drawn from 5.3.6.2 above, are confirmed by Figure 5.16, but with a little bit higher level in the profitability achieved by the two companies. The slight difference between the ROA and the RONW arose from the use of financial leverage.

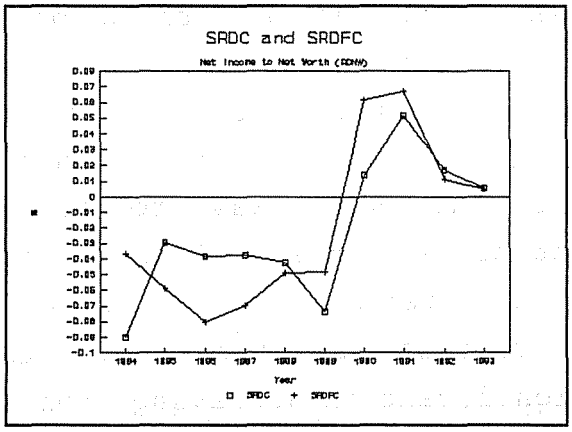


Figure 5.16

5.3.7 Growth Rates (Ratios)

The annual real growth rates are calculated, in Table 5.5 below, for some of the variables which are considered important for both the SRDC and the SRDFC. These are the total revenue, the general and administrative expenses, and the total assets. The calculation is done for two periods of time each of 5 years interval, i.e., 1984-1988 and 1989-1993; and for the whole period 1984-1993.

Table 5.5

SRDC/SRDFC: Real Total Revenue, General and Admnistrative Expenses, and Net Worth (1984=100)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
SRDC:										
Total Revenue	232,805	448,659	381,288	306,046	231,027	152,929	229,135	269,742	202,996	176,923
General & Admnistrative Expenses	888,856	618,537	569,597	463,504	335,032	258,793	200,033	130,736	145,167	146,433
Total Assets	7,469,513	5,951,206	5,091,108	4,406,492	2,978,250	2,172,458	3,069,932	3,512,932	3,874,800	6,144,775
SRDFC:										
Total Revenue	239,612	178,605	130,247	76,390	122,477	116,755	237,909	178,488	122,299	120,765
General & Admnistrative Expenses	365,833	394,108	377,511	263,603	199,337	182,034	143,531	109,935	114,487	116,587
Total Assets	3,789,726	4,429,439	3,475,516	2,916,575	1,582,871	1,358,919	1,560,489	1,024,914	696,387	829,039

Annual Real Growth Rates

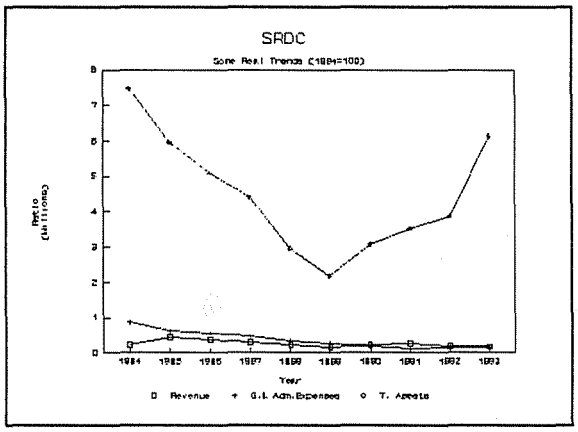
	Growth Rates (1984–1988)		Growth Rates (1989–1993)		Growth Rates (1984–1993)	
	SRDC	SRDFC	SRDC	SRDFC	SRDC	SRDFC
Total Revenue	–0.15%	–12.56%	2.96%	0.68%	–5.34%	–12.81%
General & Admnistrative Expenses	–17.73%	–11.44%	–10.76%	–8.53%	–30.28%	–20.44%
Total Assets	–16.80%	–16.02%	23.11%	–9.41%	–3.83%	–26.21%

Source of Data: SRDC and SRDFC Financial Statements (1984–1993).

* Real values are obtained by using the CPI's (1984=100, the IMF, 1994) as price deflators.

As shown in Table 5.5 above, the annual real growth rates for both the SRDC and the SRDFC were negative for the period 1984-1993. However, considering the two halves of this period, it is noticed that the annual real growth rates were improving for both companies in the second half of the period, i.e., 1989-1993. This is mainly apparent in the case of the SRDC whose total assets' annual real growth rate improved from -16.80% in 1984-1988 to 23.11% in 1989-1993.

The above situation is depicted for both the SRDC and the SRDFC in Figures 5.17 and 5.18, respectively.



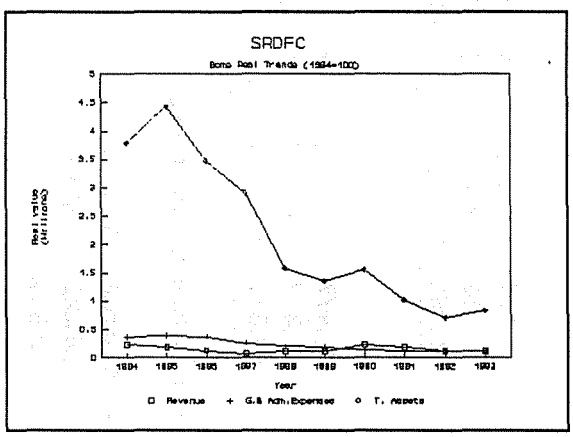


Figure 5.17 Figure 5.18

One main conclusion that can be drawn from this is the severe impact of inflation on the SRDC's and the SRDFC's performance. Nevertheless, the SRDC's assets started to grow in real terms, since its involvement in financial activities in 1990. The deteriorating situation for the SRDFC real growth, is another indicator of its dependency on the SRDC which became a financier of its operations.

5.3.8 Du Pont System

As mentioned in Chapter Four, the Du Pont system integrates different ratios to examine their individual or combined effect in the profitability of an institution.

Based on the ratio calculations of the SRDC and the SRDFC shown in Tables 5.3 and 5.4 above, the ROA and RONW ratios were also calculated there, based on the Du Pont system.

Below are the explanations of those ratios based on the Du Pont system analysis, for some selected years.

5.3.8.1 Return on assets (ROA)

With reference to Figure 5.19, it is noticed that in 1990, with the engagement of the SRDC in financial activities, its profit margin increased from -69.2% in 1989 to 12.7% in the same year. This cost-efficiency, with the slight increase in productivity from 7% in 1989 to 7.5% in 1990, has highly

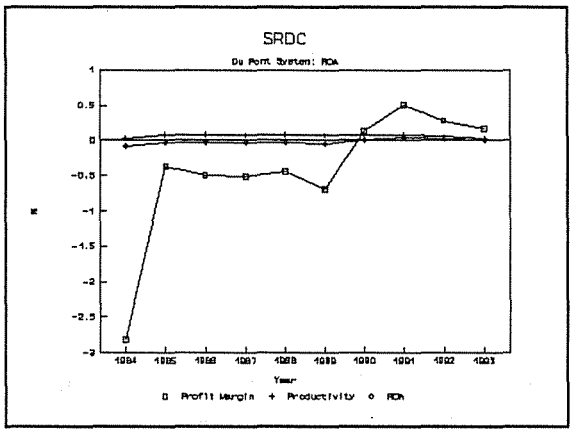


Figure 5.19

compensated in increasing the SRDC's ROA from -4.9% to 0.9%.

In 1991, with the slight increase in productivity from 7.5% to 7.7%, and the high increase in the profit margin from 12.7% to 51.5%, the SRDC's ROA increased from 0.9% to 4%.

With the decline in productivity to 5.2% in 1992, to 2.9% in 1993; and the decline in the profit margin to 28.5% in 1992 to 17.2% in 1993; the SRDC's ROA also declined to 1.5% and 0.5% in 1992 and 1993, respectively.

According to Figure 5.20, the SRDFC almost doubled its productivity level from 8.6% in 1989 to 15.2 % in 1990. This has a significant positive effect in pulling the company from loss stage (-55.9% profit margin) to profit stage (39.7% profit margin). Hence, the joint final outcome is the increase in the

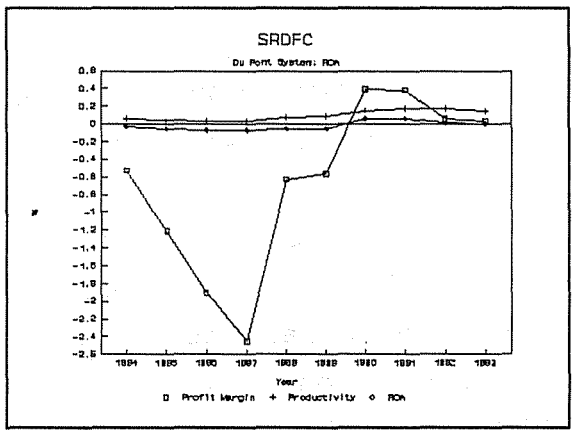


Figure 5.20

SRDFC's ROA from -4.8% to 6.% .

In 1991, though of the slight decline in its profit margin from 39.7% to 38.45%, the SRDFC's increase in productivity from

15.2% to 17.4%, has compensated in increasing its ROA from 6.0% to 6.7%.

In 1993, with the decline in productivity to 14.6% and the increase in the cost inefficiency which resulted in a low profit margin of 3.5%, the SRDFC's ROA declined to a very low level of 0.5%.

From the above, the effect of cost-efficiency (reflected in the profit margin) and the productivity (reflected in the asset utilization) is evident where it is noted that each one can compensate for the other or both forces can have a combined effect.

5.3.8.2 Return on Net Worth (RONW)

In 1989, the SRDC's ROA was -4.9% while its RONW was -7.3%. This cites the risk of high leverage to the SRDC'S performance. It is worth noting that the leverage ratio of 33.6%, was the highest one during the period 1984-1993 (range was 2.4%-33.6%). (Figure 5.21).

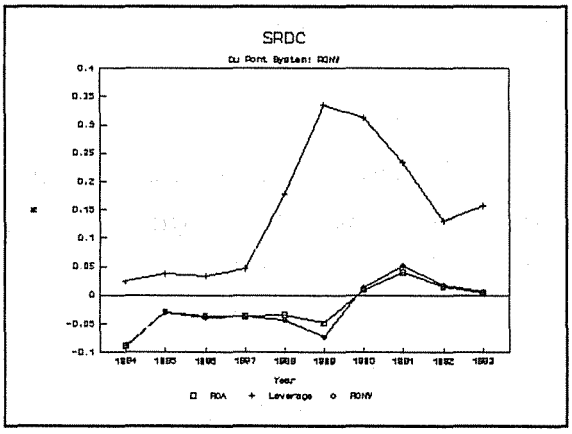


Figure 5.21

The SRDC's RONW improved to 1.4% in 1990 and to 5.2% in 1991. During the same period the SRDC's leverage ratio declined to 31.2% in 1990 and to 23.4% in 1991. This implies, as mentioned in 5.3.8.1 above, that the components of the ROA, i.e., productivity and cost-efficiency (profit margin), were most effective in raising the SRDC's RONW during that period.

The slight increase in the SRDC's leverage from 12.9% in 1992 to 15.8% in 1993, has slightly compensated for the decline in the company's RONW as a result of the decline on its ROA from 1.5% in 1992 to 0.5% in 1993. The decline in the latter is a result of the simultaneous decline in the SRDC's productivity and cost-efficiency during that period.

According to Figure 5.22, For the SRDFC, since 1988 and up to 1993, ROA is almost equal to RONW which implies that the SRDFC's leverage was very small as verified by the values (a range of 0.2%-1.1% during that period). Furthermore, this validates the reversal situation of the SRDFC's dependency on the SRDC's share funding.

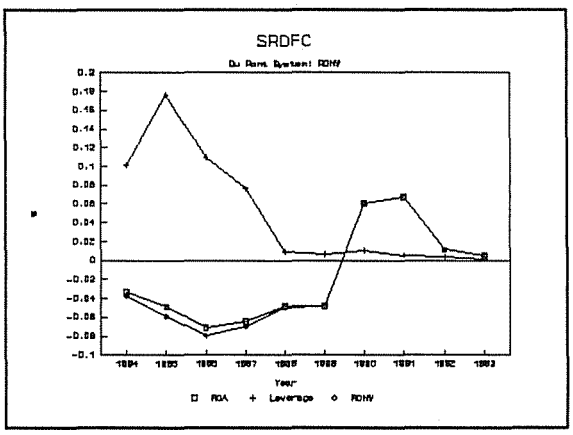


Figure 5.22

Thus, any variation in the SRDFC's RONW from a year to another (during this period), is a result of change in productivity and/or change in cost-efficiency.

In general, the Du Pont system revealed that the SRDC's and the SRDFC's profitability, was more sensitive to the cost-efficiency and the productivity, than to the leverage.

5.4 SRDC/SRDFC Sustainability Analysis

The sustainability of the SRDC and the SRDFC is examined through the Subsidy Dependence Index (SDI).

The calculated values for the SRDC's and the SRDFC's SDI's are shown below in Tables 5.6 and 5.7, respectively.

A main assumption for calculating the SDI for the SRDC whose nature of credit is short and revolving, is that the average loan duration will be 5 months. Then, the repayment (principal plus profit margin), will be reimbursed for another 5-month short-term finances. Thus, considering this compounding nature, the total mark-up will be about 90% of an on-lending rate for a 12-month short-term finance.

Thus, for a monthly short-term on-lending rate of 4%, (48% per 12 months), the SRDC is expected, based on the above assumption, to get about 43.2% (90%) per year.

Table 5.6
Calculated Values of SDI's (SRDC)*

	1991	1992	1993
Gross Profit Margin Earned on Murabahas	4,116,958	7,869,543	13,462,304
Less: General and Admnistrative Expenses	2,435,541	4,940,161	10,592,399
Less: Provision for Bad Debts	497,395	820,678	401,552
Profit Before Tax (Adjusted) (P)	1,184,023	2,108,704	2,468,353
Annual Loan Portfolio (LP)	13,880,779	37,443,658	92,276,504
Times: Debt Finance Ratio	62%	53%	65%
Consessional Borrowed Funds (A)	8,606,083	19,845,139	59,979,728
Equity (E)	40,196,340	110,947,159	332,027,717
Market Interest Rate (m)	17%	18%	23%
Concessional Discount Rate (c)	12%	14%	17%
A(m-c)	356,247	902,225	3,458,950
Plus: E*m	6,655,684	20,176,093	76,590,362
Less: Profit Before Tax (Adjusted) (P)	1,184,023	2,108,704	2,468,353
Plus: Other Subsidies (K)	0	0	0
Total Subsidies (S)	5,827,909	18,969,615	77,580,959
Annual Average on-lending rate (i)	32%	38%	43%
LP*i	4,497,372	14,153,703	39,863,450
SDI = S/LP*i	130%	134%	195%
Required Absolute Increase in i	42%	51%	84%
New Annual on-lending Rate	74%	88%	127%
New Monthly on-lending rate	13.39%	7.14%	10.47%

* Data used are the annual averages.

Source of Data: SRDC Annual Reports and Financial Statements (1984–1993)

Table 5.7
Calculated Values of SDI's (SRDFC)*

	1985	1986	1987	1988	1989	1990	1991	1992	1993
Gross Profit Margin Earned on Murabahas	249,659	247,703	200,883	303,075	569,756	1,526,642	3,151,067	4,917,874	8,605,162
Less: General and Admnistrative Expenses	469,448	628,111	629,125	645,674	903,374	1,255,288	1,925,964	3,971,621	8,407,136
Less: Provision for Bad Debts	0	250,000	250,000	0	0	193,664	434,076	240,413	0
Profit Before Tax (Adjusted) (P)	(219,789)	(630,409)	(678,243)	(342,599)	(333,618)	77,691	791,028	705,840	198,027
Annual Loan Portfolio (LP)	900,000	484,250	783,750	1,064,535	1,230,535	3,323,500	9,110,930	14,982,280	30,060,300
Times: Debt Finance Ratio	90%	90%	90%	90%	90%	90%	90%	92%	90%
Consessional Borrowed Funds (A)	810,000	435,825	705,375	958,082	1,107,482	2,991,150	8,199,837	13,708,786	26,903,969
Equity (E)	4,354,292	5,452,124	5,739,074	5,755,511	6,859,464	11,678,980	18,908,721	27,969,602	56,819,941
Market Interest Rate (m)	17%	17%	17%	17%	17%	17%	17%	18%	23%
Concessional Discount Rate (c)	5%	5%	5%	5%	5%	5%	5%	6%	9%
A(m-c)	90,619	48,758	78,914	107,186	123,900	334,637	917,363	1,634,074	3,797,997
Plus: E*m	720,981	902,759	950,272	952,994	1,135,786	1,933,798	3,130,894	5,086,361	13,106,917
Less: Profit Before Tax (Adjusted) (P)	(219,789)	(630,409)	(678,243)	(342,599)	(333,618)	77,691	791,028	705,840	198,027
Plus: Other Subsidies (K)	0	0	0	0	0	0	0	0	0
Total Subsidies (S)	1,031,389	1,581,926	1,707,429	1,402,779	1,593,304	2,190,744	3,257,230	6,014,595	16,706,888
Annual Average on-lending rate (i)	10%	10%	10%	10%	10%	10%	10%	11%	16%
LP*i	87,879	47,284	76,528	103,944	120,153	324,516	889,617	1,706,731	4,891,956
SDI = S/LP*i	1174%	3346%	2231%	1350%	1326%	675%	366%	352%	342%
Required Absolute Increase in i	115%	327%	218%	132%	129%	66%	36%	40%	56%
New Annual on-lending Rate	124%	336%	228%	142%	139%	76%	46%	52%	72%

* Data used are the annual averages.

Source of Data: SRDFC Annual Reports and Financial Statements (1984–1993)

The SRDC which got involved in financial activities in 1990, happened to have an increasing average SDI of 130% in 1991, 134% in 1992, and 195% in 1993. (Figure 5.23).

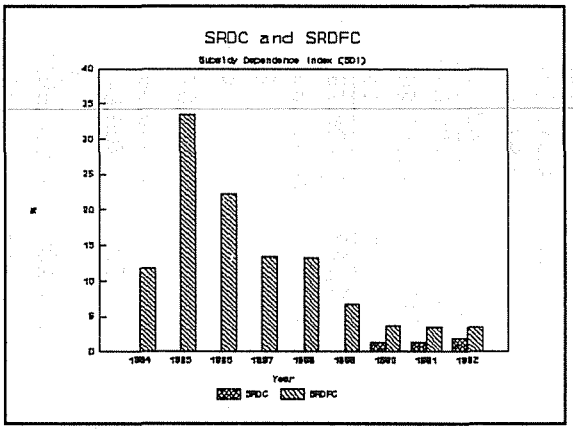


Figure 5.23

The required average increases in the monthly on-lending rates were 13.39%, 7.14%, and 10.47%, respectively.

Apart from the assumption used in the calculation of the SDI, that the loan will be used once a time during the year, these values of new on-lending rates do not necessarily mean, in such case of short-term finance, that the required absolute increase should be increased to the new rate. But, what can be drawn from this, is that the SRDC can increase the turnover of loans by extending credit in close short periods and by reducing the delinquency rate so that repayments can be used for refinancing (revolving credit), and hence increasing the profit margin.

The SRDFC is also found to be subsidy dependent during the period 1984-1993. In the first years of its operations, the SRDFC followed a pattern similar to the SRDC. Its subsidy dependence started to increase from 1174% in 1984 to the highest level of 3346% in 1985. Thereafter, the SDI started to decrease successively till it reached the lowest level of 342% in 1993. (Figure 5.23, above).

Unlike the SRDC's case, for subsidy elimination, the required absolute increases in the on-lending rates must be added directly to the old annual on-lending rates. In other words, the nature of the SRDFC's medium term finance may not help it revolve the loan several times within the year.

The high levels of the SDI's are mainly attributed to the very low concessional discount and on-lending rates, and high ratio of debt finance.

5.5 SRDC/SRDFC Outreach Analysis

The outreach of both the SRDC and the SRDFC is evident through examining some of the criteria discussed in Chapter Four, i.e., For the loan outreach: the number and size of loans extended, the type of services rendered, the annual real growth rate of total assets in the recent years; for the clientele outreach: women participation; and finally, the geographical coverage.

Below is the investigation of these criteria, based on the two companies status reports (1993).

5.5.1 The number of Loans Extended (Loan Outreach)

Tables 5.8 and 5.9 below, show the number and size of loans disbursed by each of the SRDC and the SRDFC, respectively.

Since the SRDC commenced operations in 1990, the number of loans which increased from 35 in 1990 to 45 in 1991, declined again to 33 loans in 1993. This short period may not clearly show the trend of the number of loans disbursed. However, the average loan size is apparently increasing.

For the SRDFC, the case is clear where both the number and size of loans were increasing during the period 1982-1993.

Table 5.8

SRDC: The Total disbursement and Number of Projects (1990-1993)

Year	Total Disbursement (L.S.)	No. of Projects	Average Loan per Project (L.S.)
1990	L.S.1,495,927	N.A.	-
1991	26,265,630	35	750,446.57
1992	48,621,686	43	1,130,736.88
1993	135,931,322	33	4,119,130.97

Source: SRDC Annual Reports and Accounts (1984-1993).

Table 5.9

SRDFC: The Total disbursement and Number of Projects (1982-1993)

Year	Total Disbursement (L.S.)	No. of Projects	Average Loan per Project (L.S.)
1982	0	0	-
1983	0	0	-
1984	1,514,000	6	252,333.33
1985	286,000	2	143,000.00
1986	682,500	6	113,750.00
1987	885,000	3	295,000.00
1988	1,244,070	4	311,017.50
1989	1,217,000	4	304,250.00
1990	5,430,000	7	775,714.29
1991	12,791,860	15	852,790.67
1992	17,172,700	10	1,717,270.00
1993	42,947,900	23	1,867,300.00

Source: SRDFC Annual Reports and Accounts (1984-1993).

5.5.2 The Type of Services Extended (Loan Outreach)

The type of services extended by both of the SRDC and the SRDFC, comprises a variety of agricultural, industrial, service and trade (the SRDC only) credits for projects which are on-going for the former and new for the latter. The percentage contribution of the SRDC and the SRDFC to these sectors, in 1992, was 33.86%, 57.76%, 2.02%, and 6.37%, respectively. (calculated from Table 2.2, ABS, 1992b).

As far as the duration and the mode of finance is concerned, projects financed by the SRDC enjoy a short-term duration of 2-12 months, while projects financed by the SRDFC enjoy a medium-term duration of 2-3.5 years. On the other hand, the bulk of the mode of finance extended by the two companies, is in a Murabaha form. Besides this, the SRDC has also involved in a Mudaraba finance, and both companies have engaged in Musharaka finance (equity participation), as revealed by their balance sheets.

Thus, the diversification of services rendered by the two companies is clear by sector and by type of facility.

5.5.3 The Annual Real Growth Rate of Total Assets (Loan Outreach)

The annual real growth rate of the SRDC's total assets is found to be increasing from -19.62% during the period 1984-1988 to 29.11% during the recent period 1989-1993 (see 5.3.7 above). While for the SRDFC, though of a slight improvement in its annual real growth rate of total assets from -14.37 (1984-1988) to -9.32 (1989-1993), this rate was negative.

This implies the increase in the outreach of the two companies since the SRDC has become the main borrower and financier of the SRDFC's operations besides its own's.

5.5.4 Women Participation (Clientele Outreach)

Since the projects are identified by the sponsors, the main criteria undertaken by both the SRDC and the SRDFC, is the financial and economic viability of the project and its management without any gender bias. In other words, the entrepreneurship of the project sponsor and his/her information about the SRDC and the SRDFC, is the crucial factor for accessing these institutions. This can be illustrated by Table 5.10 below which shows the percentage of projects sponsored by women and that have been financed by the SRDFC:

Table 5.10

Projects Sponsored by Women and Financed by SRDFC (1990-1994)

Year	Total Number of Projects	Projects Sponsored by Women	Percentage
1990	7	1	14%
1991	15	0	0%
1992	10	1	10%
1993	23	2	09%
1994*	6	1	17%

* Till mid April, 1994.

Source: SRDFC Status Report (1993).

It is worth mentioning that, the projects sponsored by women are also diversified, e.g., dairy farming and rural oil milling projects. According to the SRDFC Status Report, the experience of most of these projects was successful, and some of them requested and obtained additional finance for expansion, after

the successful completion of their loan repayments.

5.5.5 Geographical Coverage

Reference to Appendix (6), the spread of the geographical coverage of the SRDFC (medium- and long-term financed projects) is shown, in two maps, for the years 1985 and 1993, respectively.

By comparing the two maps, the spatial outreach of the SRDFC's financial activities, in the Sudan, is clear.

From the analysis of this criterion, the outreach of the SRDFC is evident though of the severe economic and financial conditions faced and still facing the two companies.

Another observation is the spatial concentration of these activities in some areas, e.g., the Central region. This may be attributed to the following:

- Lack of information about the SRDFC services in many rural areas;
- The political instability in some areas which increases the credit risk;
- Credit rationing by the SRDFC due to the scarcity of resources, namely in recent years;
- The highly increasing general administrative costs (e.g., monitoring) which forced the company to concentrate on accessible and close areas.

5.6 Some Comparative Analysis

Two recent studies were made by the World Bank (Yaron, 1992a and Gurgand et al, 1994) for assessing the performance of some Asian and Sub-Saharan Africa RFIs which are found to be successful.

The performance of the SRDC and the SRDFC will be compared with some of these institutions, by selecting some of the relevant and available criteria that will give sound and meaningful results of comparison.

The selected institutions are, the Bank for Agriculture and Agricultural Cooperatives (BAAC) in Thailand; the Badan Kredit Kecamatan (BKK) in Indonesia; Grameen Bank (GB) in Bangladesh, Coopérative d'épargne et de Crédit (CÉC) in Togo, the Credit Unions (CU) in Cameroon, and the Banques Populaires (BP) in Rwanda.

The comparison is summarized in Table 5.11, below, where the selected last years for the Asian and Sub-Saharan Africa RFIs are 1989 and 1991, respectively.

The main conclusions drawn from the table are the following:

- Both of the SRDC and the SRDFC are working in a high inflationary economy;
- The nominal annualized effective on-lending rate was in the range of the other institutions, except BKK which happened to have a high rate;
- Due to the high inflation rate in the Sudan, the real annual on lending rate was highly negative for both of the SRDC and the SRDFC, while the other institutions enjoyed positive rates except BP which had a slightly negative rates due to the high inflation rate in that year;
- Unlike other institutions, the SRDFC had long typical loan maturity which was not compatible with an inflationary environment. In fact, the loan maturity of the Asian institutions is considered as a short-term maturity for both of the SRDC and the SRDFC.
- The peer pressure which generally found to be successful, had been permanently practised in the Asian institutions and occasionally in the three Sub-Saharan Africa ones. While for the SRDC and the SRDFC it has not been used at all;
- All institutions, except GB, had applied fees for delayed instalments which implies their tight finance policies;
- Both the SRDC and the SRDFC were not effective in applying short instalment frequency as done by the other institutions. This is also another weak practice of the SRDC and the SRDFC which was not compatible with an inflationary economy;
- The acquisition of deposit savings by all the institutions, except the SRDC and the SRDFC, is an evidence of the importance of saving mobilization in rural markets as argued by many people. However, though saving is not a part of the SRDC/SRDFC's activities, the point here, is the obstacle faced by the two companies in generating the funds;

Table 5.11

A Comparative Analysis between SRDC, SRDFC and some International RFIs

Criterion	Development finance Institution								
	Year	SRDC Sudan	SRDFC Sudan	BAAC Thailand	BKK Indonesia	GB Bangladesh	CÉC Togo	CU Cameroon	BP Rwanda
Inflation Rate	1989 1991	66.72% 123.58%	66.72% 123.58%	8.2%	6.5%	10.0%	4%	3.8%	16.5%
Nominal (annualized) Effective on-lending Rate	1989 1991	- 32%	18% 18%	11%-12.5%	84%-130%	16.5%	24%	12%	13-17%
Real Annual on-lending rate	1989 1991	- -133.77	-63.47% -125.88	2.6%-4%	72%-116%	5.9%	19.2%	7.9%	-2.2%-1.2%
Typical Loan Maturity	1989 1991	- 5-9 months	48 months 42 months	11 months	3 months	12 months	36 months	36 months	36 months
Peer Pressure	-	No	No	Yes	Yes	Yes	Rarely	Rarely	Sometimes
Penalty on Repayment Delaying	-	Yes	Yes	Yes	Yes	No	N.A.*	Yes	Yes
Instalment Frequency	1989, 1991	monthly	Semi-annual	Upon Maturity	weekly	Weekly	N.A.	N.A.	Depends on credit
Saving Deposits	-	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Average Loan Size (Equivalent in $)	1989 1991	- 11,605	67,661, 153,159	560	26	80	370	985	300
SDI	1989 1991	- 134%	1326% 366%	22.6%	19.7%	130%	N.A.	N.A.	67%
Women Participation	1989 1991	- N.A.	14% 0%	N.A.	60%	91%	65%	43%	N.A.
Annual Real Assets Growth Rate	1987-1989 1989-1991	17.37% -21.00%	-8.97% -22.14%	4%	15%	34%	38.4%	4.7%	7.2%
Processing Period for a New Loan	1989 1991	- 2-3 weeks	10 Weeks, 6 Weeks	2 Weeks	1 Week	1-2 Weeks	N.A.	N.A.	N.A.

* N.A.: Not Available.

Sources: Yaron, 1992a; SRDC/SRDFC Status Reports; 1993; Gurgand, 1994; Tables 5.2, 5.6, 5.7, and 5.10.

- The equivalent, in U.S.$., of the average loan size provided by both of the SRDC and the SRDFC, was very high compared with the other institutions. This may reflect the effect of the high inflation rate in the Sudan and the intensive credit rationing practised by the SRDC and the SRDFC;
- Both the SRDC and the SRDFC proved to be highly subsidy dependent, as compared with the other RFIs;
- The percentage of women share in the loans disbursed by the SRDFC was very low, compared with the other institutions. This implies the relatively low clientele outreach of the SRDFC compared with the others. This may also indicate that there was no clear policy by the SRDFC and some of the other institutions, towards women as a main target group among the rural poor; as for the case of GB;
- During the period 1987-1989, the SRDC happened to have a high positive annual real assets growth rate of 17.37%, which was around the average of the Asian RFIs. However, during the same period, the SRDFC had a negative annual real asset growth rate of -8.97%.

  The situation even became worse during the period 1989-1991, where both the SRDC and the SRDFC had negative annual real assets growth rates of -21% and -22.14%, respectively. This situation is mainly justified by the highly increasing inflation rate in the Sudan.
- The processing period of a new loan, under the normal situation, was relatively high for the case of the SRDC and quite high for the case of the SRDFC. This implies a major weakness of both companies as this practice did not allow them to avoid the inflationary pressure on the real values and to revolve the repayments into credit. This also confirms the argument that a lengthy period for loan processing and project screening, is a main obstacle against the successful performance of RFIs.

5.7 Conclusion

Below are the main conclusions drawn from the analysis and the empirical findings incorporated in this chapter.

- The Sudan experiences a high inflation rate which exceeded the level of 100% from 1991 onwards. This is coupled with a high increase in the exchange rate which emerged since the implementation of the liberalization policy in the Sudan, in February, 1992. This situation adversely affected the performance of the SRDC/SRDFC in terms of negative real on-lending rates, low real value of capital, high general and administrative costs, depletion of capital, reluctance of the two companies to extend finance in foreign currency (i.e., the two companies have a conservative policy of lending in foreign exchange), ...etc.

  Moreover, the liberalization policy, proved to be unbalanced since it skipped, among other sectors, the financial sector. In other words, official ceilings on on-lending rates are still there.
- The ratio and trend analysis revealed a reversal situation in which the SRDC has become the main borrower and financier for the SRDFC. The year 1990 was the turning point for both the SRDC/SRDFC since in that year and thereafter, the two companies realized some profits. In fact, since 1984 the trend for the SRDC indicated cost-efficiency which led it to this stage of profitability in 1990. For the SRDFC, on the other hand, the trend was moving towards high deficit during 1984-1987, then its cost-efficiency was improving till it also achieved profits in 1990. However, since 1991 the cost-efficiency of the two companies was declining due to the highly increasing general and administrative costs. The latter is also influenced by the frequent increases in wages and salaries which are imposed by the government.

  The Du Pont system revealed that the SRDC's and the SRDFC's profitability was more sensitive to cost-efficiency and productivity, than to leverage. Tracing back in this system will lead to boosting the two companies's profitability (ROA) by e.g., reducing part of the general and administrative costs, tax reduction or exemption, ...etc.

  In fact, one of the negative outcomes of this, is the

enforcement of the two companies to cut down the cost by reducing or cancelling some of their main activities such as the project investigation and monitoring.

- The effect of the SRDC's involvement in financial activities, in 1990, is evident in the profits generated since then and thereafter. However, taking this decision after 9 years of operations (1981-1989), is a clear indication of mismanagement during that period.
- Since commencement of their operations, both the SRDC and the SRDFC proved to be highly subsidy dependent. These were implicit subsidies which emerged as a result of concessional discount rates, restricted on-lending rates, and high ratio of debt finance.

  Even if the on-lending rates were increased to eliminate the SRDC's and the SRDFC's subsidies that they implicitly received, the new real rates would have been negative for the year 1990 onwards, since the new nominal rates were below the inflation rate. Under such a situation the SRDC and the SRDFC would still become subsidizers of the rural credit in the Sudan. This in turn, would create most of the problems that were mentioned earlier such as credit rationing and income inequality.
- The outreach of the SRDC and the SRDFC is evident through the loan outreach, clientele outreach (the SRDFC), and the geographical coverage (the SRDFC). However, the latter proved to be of concentrated nature due to different reasons some of which are the lack of information to the sponsors about the SRDFC and the political instability.
- Though of the qualified cadre employed by the SRDC/SRDFC, the analysis and empirical findings of the SRDC and the SRDFC as well as the comparative analysis between some successful Asian and Sub-Saharan Africa RFIs, generally indicated that the performance of the SRDC and the SRDFC is deteriorating since they have highly been affected by the inflation and the distorted on-lending rates.

CHAPTER SIX

SUMMARY, CONCLUSION AND RECOMMENDATIONS

6.1. Summary

6.1.1 A Global and National Perspective of Rural Financial Markets in Developing Countries

The establishment of formal rural credit systems in most developing countries over the recent decades was motivated by the belief that widespread shortages of short- and long-term finance constituted a constraint which hampered agricultural growth and development.

The absence of what was perceived as affordable formal credit was also blamed for delaying, if not preventing, a timely adoption of new production technologies and the dissemination of non-labour intensive inputs such as fertilizers, thereby slowing down the growth and development of the agricultural sector.

Governments in LDCs have intervened heavily in rural markets, aiming at supplying affordable credit to small-scale farmers and rural entrepreneurs, who were perceived as a clientele with no alternative access to formal credit markets.

As private returns were estimated to be below the social ones, the intervention was intended to overcome this failure and to spur investments that would not have materialized otherwise. Official ceilings on interest rates and portfolio ceiling are some of the intervention devices used for credit control.

Interest rate ceilings and credit allocation quotas prescribed for financial institutions by the government authorities with a view to enlarging the flow of credit to targeted groups, are self-defeating and in fact, raise the cost of credit to the very sector that the government intends to support. For example, since the transaction costs and risk for dealing with SSE are higher for FIs than those for medium and large enterprises in the trade-industry sectors, the FIs either would not lend to the small sector or forestall the government directives by passing on a greater part of their costs and risks to the small sector through non-interest charges of various types. (i.e., rationing through Price).

If the FIs do literally implement government directives, their financial viability would be adversely affected and this would endanger the health of the financial system, resulting in undesirable consequences for economic development generally and the development of the small sector in particular.

Arbitrary interest rate ceilings on lending also lead to low interest rates on deposits and this has the effect of diverting private saving into commodities or private lending -both of which adversely affect the evolution of financial markets.

It is unrealistic to expect RFMs to work well if the sector they serve is not economically healthy. Moreover, cheap credit, even if abundant, can not compensate for low incomes or low returns to investment in agriculture. Cheap credit does not make an unprofitable investment profitable and is largely captured by the well-to-do, thereby worsening income distribution.

Informal lending, as contrasted to formal lending, is characterised by a much shorter processing time, better screening techniques or enforcement devices (noted in the lower default rate), free entry and exit, no control or regulation (e.g., by the central bank), lower transaction costs for the borrowers and higher interest rates, with a median nearly twice as high and a variance much higher than that of institutionalized credit rates. (Braverman and Guasch, 1989; CIDA, 1994).

The features of informal credit markets are attributed to close familiarity with the borrower's creditworthiness that, combined with efficient loan collection mechanism, made the informal credit market, often either the exclusive or the preferred source of credit in rural areas in spite of the high interest rate.

As a LDC, the rural credit market in the Sudan is not an exception from the RFMs system in the LDCs. However, a distinctive feature of the informal credit market in the Sudan is its domination for a long time, by what is known as the *sheil* system. In this system, when the farmer is in greatest need of cash and food during the growing season, the merchant or moneylender enters into an agreement with the farmer to buy a certain amount of the farmer's standing crop at a set price per

sack which is usually lower than the price in the market after the harvest. This system, though is effective and is widely applied in the rural areas, is seen by many as being exploitative to the rural people.

According to Adams (1986), it is common for RFMs to suffer more severe problems than are found in other segments of a country's financial system because of the difficulty of serving clients who are widely dispersed, borrowers who make large numbers of small transactions, and clients who operate in an industry that experiences unanticipated changes in prices, incomes, and yields.

Also, because adversities in rural areas often affect a large number of households at the same time, it is difficult to lenders to diversify portfolios to cushion economic shocks.

A main characteristic of RFMs in LDCs is the credit policy failure which can be attributed to basic flaws intrinsic to formal rural credit markets out of which arise persistent problems as described by Braverman and Guasch (1986) in the following:

Basic Flaws

- Weakness of competitive forces;
- Weak legal enforcement of contracts;
- Significant information problems and uncertainty regarding the ability of borrowers to meet future loan obligations;
- Inability to monitor the use of funds;
- Corruption and lack of accountability in institutions, patronage and income transfer practices, which are partly due to poorly designed or non-existent incentive mechanisms to induce accountability on both sides of the market;
- Lack of collateral often due to land tenure arrangements or ill-defined property rights (e.g., some parts of Africa);
- Lack of coherent financial savings mobilization programme;
- Higher opportunity cost of capital in other sectors because of interest rate ceilings.

Persistent Problems

- Credit loans to wealthy farmers, small farmers rationed out of the credit market;

- Loans for agricultural programmes diverted to non-agricultural uses;
- Credit policies that encourage consumption and discourage savings;
- The term structure of agricultural loans contracts or fails to expand;
- Low adoption rates of cost-saving technologies in agriculture and in financial services;
- Low recovery rate;
- Significant distortions in the optimal allocation of resources across markets;
- Extensive use of interlinking credit contracts with labour and land contracts.

6.1.2 Assessing the Performance of RFIs

There is a multiple of techniques that can be used for assessing the performance of RFIs. The selection among these techniques depends on the objectives of the study, the data availability, the interests of the analyst, and the appropriateness of the techniques to the case understudy.

Among these techniques, are the ratio and the trend analysis, the sustainability analysis, and the outreach analysis. The last two techniques are recently developed by the World Bank for assessing the performance of RFIs.

These conventional and modern techniques are complementary for assessing the performance of RFIs. They are proposed to be dealt with simultaneously so that a part which is not dealt with by one may be indicated by another. Also, a relationship vaguely suggested by one technique may be corroborated by another.

When a comparative analysis is conducted between a financial institution and its industry or with other financial institutions in the same industry, this should be taken with great caution since the accounting and valuation procedures of these institutions may differ; the economic and business environment of such institutions may also differ even within the same geographical area. However, the comparison may be useful in giving general indication when the criteria considered for comparison are more relevant and common.

6.2. Conclusion

Below are the main conclusions drawn from the analysis and the empirical findings of this research.

- The Sudan experiences a high inflation rate which exceeded the level of 100% from 1991 onwards. This is coupled with a high increase in the exchange rate which emerged since the implementation of the liberalization policy in the Sudan, in February, 1992. This situation adversely affected the performance of the SRDC/SRDFC in terms of negative real on-lending rates, low real value of capital, high general and administrative costs, depletion of capital, reluctance of the two companies to extend finance in foreign currency (i.e., the two companies have a conservative policy of lending in the foreign currency), ...etc.

  The induced reluctance of the two companies to extend finance in foreign currency, affected the realization of one of the main objectives of the two companies.

  Moreover, the liberalization policy, proved to be unbalanced since it skipped, among other sectors, the financial sector. In other words, official ceilings on on-lending rates are still there.
- The payment of only two thirds of the SRDFC's capital and at distant intervals in 1981 and 1989, is a clear indication that the international shareholders kept a low profile and became less enthusiastic for further involvements in the company. This is a major impact of the political environment.
- The ratio and trend analysis revealed a reversal situation in which the SRDC has become the main borrower and financier for the SRDFC. The year 1990 was the turning point for both the SRDC/SRDFC since in that year and thereafter, the two companies realized some profits. In fact, since 1984 the trend for the SRDC indicated cost-efficiency which led it to this stage of profitability in 1990. For the SRDFC, on the other hand, the trend was moving towards high deficit during 1984-1987, then its cost-efficiency was improving till it also achieved profits

in 1990. However, since 1991 the cost-efficiency of the two companies was declining due to the highly increasing general and administrative costs. The latter is also influenced by the frequent increases in wages and salaries which are imposed by the government.

The Du Pont system revealed that the SRDC's and the SRDFC's profitability was more sensitive to the cost-efficiency and the productivity, than to the leverage. Tracing back in this system will lead to boosting the two companies's profitability (ROA) by e.g., reducing part of the general and administrative costs, tax reduction or exemption, ...etc.

In fact, one of the negative outcomes of this, is the enforcement of the two companies to cut down the cost by reducing or cancelling some of their main activities such as the project investigation and monitoring.

- One of the management actions that had a positive impact on the performance of the SRDC, is its involvement in financial activities, in 1990. This is evident in the profits generated since then and thereafter. However, taking this decision after 9 years of operations (1981-1989), is a clear indication of mismanagement during that period.

  Other actions, are the management's efforts to speed up the processing of loans and to shorten the loan maturity. However, these two actions are still far from what has been practised by some successful RFIs.

- Since commencement of their operations, both the SRDC and the SRDFC proved to be highly subsidy dependent. These were implicit subsidies which emerged as a result of concessional discount rates, restricted on-lending rates, and high ratio of debt finance.

  Even if the on-lending rates were increased to eliminate the SRDC's and the SRDFC's subsidies that they implicitly received, the new real rates would have been negative for the year 1990 onwards, since the new nominal rates were below the inflation rate. Under such a situation the SRDC

and the SRDFC would still become subsidizers of the rural credit in the Sudan. This in turn, will create more of the problems that were mentioned earlier such as credit rationing and income inequality.

- The outreach of the SRDC and the SRDFC is evident through the loan outreach, clientele outreach (the SRDFC), and the geographical coverage (the SRDFC). However, the latter proved to be of concentrated nature due to different reasons some of which are the lack of information to the sponsors about the SRDFC and the political instability.
- The Islamic modes of finance, e.g. the *Murabaha* finance, seem to be more appropriate for avoiding the "moral hazard" problem, since in such case no cash disbursement is involved and since a legal contract "a *Murabaha* Contract" obliges the client, e.g., to use the "purchased goods" for production uses and not to sell them for consumption uses. However, without a follow-up, this may be violated due to the fungibility of credit. Nevertheless, the probability of selling the purchased goods by the client, is low since they are purchased by the order and consent of the client whose need for the goods is presumed to be carefully screened.
- Though of the qualified cadre employed by the SRDC/SRDFC, the analysis and empirical findings of the SRDC and the SRDFC as well as the comparative analysis between some successful Asian and Sub-Saharan Africa RFIs, generally indicated that the performance of the SRDC and the SRDFC is deteriorating since they have highly been affected by the inflation and the distorted on-lending rates. Hence, the two companies are facing problems that threaten their performance, self-sustainability, and outreach.

6.3. Recommendations

Below are the recommended macro and micro policy issues that are drawn from the previous theories, the analysis and empirical findings of the case study.

6.3.1 Macro policies

The liberalization policy launched recently in the country,

should be comprehensive to include the credit and the other sectors in the economy. This will be more effective if supported by a stabilization policy to maintain a reasonable level of inflation and to stabilize the economy as a whole:

* Lending-rate reforms are important to ensure institutional viability. This implies lending rates that 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 give positive real rates of return to savers. Thus, meaningful lending-rate reform will result in higher nominal on-lending rates. However, financial reforms, although necessary, may not be sufficient for success unless accompanied by complementary reforms in the producing sector and in the entire economy. Moreover, this will eliminate the subsidy dependence of both the FIs and the beneficiaries.
* To encourage the banks to deal with the foreign currency operations without any restriction or intervention. This will encourage the FIs as a whole to extend credit in foreign currency, since the liberalized prices all over the economy will be most favourable for both of the FIs and the borrowers.

  However, in this case, the official guarantee of the central bank to secure the foreign currency sufficient for covering the FIs' claims in foreign currency, is very crucial since it creates confidence among the FIs and borrowers. This may entail some coordination between the central bank and the FIs, which is not a burden for such types of loans.

6.3.2 Micro Policies

In order to match the self-sustainability, reliability, flexibility, and local adaptability of the informal systems, rural credit institutions not only need to increase funds, but also need to be innovative with regard to mechanisms of lending, e.g.,:

* To shorten the loan maturity as possible as it can, mainly for the medium-term finance, e.g., 12-24 months, including a grace period of 3-6 months;
* To shorten the instalment frequency for the medium-term finance to, e.g., one month;

These will reduce the inflationary pressure, generate more incomes, and secure more liquidity for the two companies and the FIs. For the clients, it will reduce the burden of large loans and minimize the penalty on any default. Moreover, if there is any default in the monthly repayment, the final repayment (if settled after an agreed upon postponement), will be in the normal range already applied by the SRDFC (i.e., 3-6 months).

* To shorten the processing period of a new loan to, e.g., 1 week for the short term finance and 2 weeks for the medium-term finance. This can be applied through training and incentive schemes (see the point below)
* To apply incentive schemes on both the sponsors and the staff. For the former, the incentives can be, e.g., an increase in the loan size, a fast disbursement for future loans and exemption or reduction in the deposit paid against investigation costs; all linked with a successful loan repayment. For the latter, the incentives can be, e.g., high bonus and promotion; all linked with a good and efficient production of feasibility studies, a good collection of loans, ...etc.
* To learn from the experience of decentralized system of credit dispensing practised by the informal credit market and by some of the successful RFIs (e.g., the Grameen Bank). For example, lenders in the informal credit market have little if any overhead cost for real estate; they keep few written records; and they charge no loan appraisal fee. This makes lenders, in the informal market, faster in disbursement, flexible in repayment, and efficient in follow-up of loans. (Miracle, 1983). Accordingly, this decentralized lending system is proposed, on this least-cost basis, for the two companies which are presently

centralized in the national capital, though their target groups are mainly in the rural areas. This is at least required for assessing the sponsor's creditworthiness, and the follow-up of the loan repayment.

Moreover, this system is very important for a large country like the Sudan (area of about one million square mile) and it is less-expensive compared with establishing field branches which will be very costly, mainly for the current situation of the SRDC/SRDFC.

To operationalize this, the SRDC/SRDFC can enter into agreements at least with the banks which have shares in the two companies' capitals. These banks have branches almost all over the country, and hence, are more close to the business environment and the sponsors in their vicinity.

Further, this entails liaison between the SRDC/SRDFC and the banks' headquarters in the national capital.

This is not expected to create any conflict between the SRDC/SRDFC and the banks, since the activities of the two are different and since the success of the former is beneficial for the latter which are shareholders in the two companies.

Some of the benefits to the shareholder banks can be the current accounts opened by the sponsors, some nominal charges that can be paid by the SRDC/SRDFC, ...etc.

To achieve balanced loan and clientele outreach since most of the informal lenders are limited in the term diversification of the loan portfolio and operate within limited geographical areas. (Yaron, 1992b).:

* To have clear plans for extending diverse credit on sectoral, geographical and clientele bases.
* To target a special credit scheme for the small-scale rural producers, since the rural sector absorbs about 75% of the domestic labour force in the Sudan. This will allow the two companies to apply soft-term loans with the effective security mechanisms of peer pressure and group counsel (other innovative lending mechanisms).

To mobilize investment savings:

* With the comprehensive liberalization policy, savings in investment activities will increase due to the expected high returns on investment. This will create a good opportunity for the two companies to mobilize savings for investment. For example, the two companies can enter into a joint venture of a short-term *Mudarabah* of, e.g., 12 months. In such case, the two companies use their experience and facilities in extending credit on behalf of the depositors. The latter, will get high returns depending on the amount of profit gained and the amount they deposited. Due to the nature of this operation (time-deposits), it does not require high administrative costs and the two companies' cadre can implement it.

To carry out some managerial reforms:

* To upgrade the information management system between the different functional departments, e.g. to use a computer network instead of the currently used individual personal computers. This will help in the simultaneous dissemination of the information between the different departments and will strengthen the coordination and information sharing between them;
* To regularly assess the performance of the two companies so as to detect any pitfalls in their performance and to help for managerial and financial up-front planning. This necessitates the establishment of a statistics, research and planning unit from within the existing staff.
* To organize regular training for the staff in the related fields, e.g., information and data processing which will up-grade the level of the subordinating staff to more than the traditional level of typewriting and other secretarial works. This, for example, will enable them to prepare and up-date the data base system (e.g., the project pipeline), a task currently assigned to the project officers.

6.3.3 A Further Research Recommendation

A cost-benefit analysis of the SRDC and the SRDFC, under the proposed policies, besides a comprehensive comparative analysis with the other Sudanese FIs, will complement this research.

Appendix (1)
Calculation of Loan Repayment for L.S.1 as Applied by SRDFC and Commercial Banks

Terms of Finance:

Loan Amount	:	L.S.1.
Repayment Period		3 Years (Medium-term).
Grace Period		3 Months from date of disbursement.
Repayment Pattern	:	12 Equal quarterly instalments starting 3 months from date of disbursement.
Annual On-lending Rate	:	36% per annum (about 9% per quarter) from the outstanding Balance.
Average Initial Rate	:	20% (Imposed only by Banks).

Repayment Schedule (Table (A)):

Table (A)

Period	Beginning Balance	Principal	Cost of Finance	Instalment	Ending Balance
1	1.00	0.08	0.09	0.17	0.92
2	0.92	0.08	0.08	0.17	0.83
3	0.83	0.08	0.08	0.16	0.75
4	0.75	0.08	0.07	0.15	0.67
5	0.67	0.08	0.06	0.14	0.58
6	0.58	0.08	0.05	0.14	0.50
7	0.50	0.08	0.05	0.13	0.42
8	0.42	0.08	0.04	0.12	0.33
9	0.33	0.08	0.03	0.11	0.25
10	0.25	0.08	0.02	0.11	0.17
11	0.17	0.08	0.02	0.10	0.08
12	0.08	0.08	0.01	0.09	0.00
Total		1.00	0.585	1.585	

Resulting Values

Total Cost of Finance	L.S.0.585	
Total Principal	L.S.1.00	
Gross Rate received by the SRDFC	58.50%	(L.S.0.585)
Initial Rate imposed by the Banks	20.00%	(L.S.0.200)
Gross Rate received by the Banks	78.50%	(L.S.0.785)

Annual Effective Rate:

SRDFC (58.50%)/(3 Years) = 19.50%

Banks (78.50%)/(3 Years) = 26.17%

Appendix (1), continued

Based on the above mentioned procedure, the annual nominal and effective rates of the banks and the SRDFC are calculated for the period 1978-1993, in Table (B) below.

Table (B)
Annual Nominal and Effective Rates of Banks and SRDFC (1978-1993)

Year	National Annual Nominal Rate	Repayment Period	Gross Rate	Average Initial Rate	Annual Effective Rate		Average Annual Effective Rate	
					Banks	SRDFC*	Banks	SRDFC
1978/80	8%	2.5	11.00%	20%	12.40%	-	11.13%	-
	8%	3.0	13.00%	20%	11.00%	-		
	8%	3.5	15.00%	20%	10.00%	-		
1981	12%	2.5	16.50%	20%	14.60%	-	13.30%	-
	12%	3.0	19.50%	20%	13.17%	-		
	12%	3.5	22.50%	20%	12.14%	-		
1982	14%	2.5	19.25%	20%	15.70%	7.70%	14.39%	7.59%
	14%	3.0	22.75%	20%	14.25%	7.58%		
	14%	3.5	26.25%	20%	13.21%	7.50%		
1983/91	18%	2.5	24.75%	20%	17.90%	9.90%	16.56%	9.76%
	18%	3.0	29.25%	20%	16.42%	9.75%		
	18%	3.5	33.75%	20%	15.36%	9.64%		
1992	24%	2.5	33.00%	20%	21.20%	13.20%	19.81%	13.02%
	24%	3.0	39.00%	20%	19.67%	13.00%		
	24%	3.5	45.00%	20%	18.57%	12.86%		
1993	36%	2.5	49.50%	20%	27.80%	19.80%	26.32%	19.53%
	36%	3.0	58.50%	20%	26.17%	19.50%		
	36%	3.5	67.50%	20%	25.00%	19.29%		

* SRDFC commenced operations in 1982.
N.B. Calculations are based on the above procedure.

Source SRDFC Status Report (1993).

Appendix (2)

Sudan Rural Development Company (SRDC) Ltd.

Balance Sheet as at 31 December 1984–1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Fixed Assets										
Fixed Assets less depreciation	1,706,746	1,683,885	1,577,864	1,316,068	2,032,817	1,916,775	1,725,125	2,736,303	4,683,581	3,543,772
Equity Investments	1,280,000	1,280,000	1,280,000	1,280,000	1,280,000	2,560,000	2,560,000	5,910,460	6,094,652	6,060,000
Stock of Furniture and Fittings	0	0	0	0	0	176,990	10,506	10,506	10,506	10,506
Deferred Charges	82,766	41,384	–	–	–	–	–	–	–	–
Current Assets										
Cash in hand&at Banks (Local)	1,055,197	197,066	154,459	313,274	93,609	133,171	187,919	975,546	2,746,496	11,615,790
Cash at Banks (Foreign)	2,192,352	3,715,052	4,776,587	5,946,588	6,378,003	6,887,254	20,207,062	42,110,607	145,464,364	492,519,740
Accounts Receivable	292,543	212,625	300,668	108,304	508,753	1,203,403	1,699,240	12,534,853	4,246,452	5,007,112
Investment Accounts	371,437	1,109,379	631,855	127,057	0	0	3,130,749	13,042,569	22,561,197	76,198,679
Trading Stocks	0	0	0	0	0	0	52,680	58,139	22,060	22,060
Stocks	488,472	414,094	491,647	522,144	408,236	136,693	136,467	329,410	703,732	747,352
Goods in Transit	–	–	–	–	–	–	663,964	–	–	–
Sub-Total	4,400,001	5,648,216	6,355,216	7,017,367	7,388,601	8,360,521	26,078,081	69,051,124	175,744,301	586,110,733
TOTAL ASSETS	7,469,513	8,653,485	9,213,080	9,613,435	10,701,418	13,014,286	30,373,712	77,708,393	186,533,040	595,725,011
Current Liabilities										
Accounts Payable	176,892	330,848	313,290	446,009	594,156	2,829,986	3,878,869	18,123,146	22,901,088	92,019,693
SRDFC	0	0	0	0	1,315,290	1,543,683	5,603,371	84,039	1,238,843	2,042,994
Sub-Total	176,892	330,848	313,290	446,009	1,909,446	4,373,669	9,482,240	18,207,185	24,139,931	94,062,687
Working Capital	4,223,109	5,317,368	6,041,926	6,571,358	5,479,155	3,986,852	16,595,841	50,843,939	151,604,370	492,048,046
Capital Employed (Net Worth)	7,292,621	8,322,637	8,899,790	9,167,426	8,791,972	8,640,617	20,891,472	59,501,208	162,393,109	501,662,324
CURRENT LIABILITIES & NET WORTH	7,469,513	8,653,485	9,213,080	9,613,435	10,701,418	13,014,286	30,373,712	77,708,393	186,533,040	595,725,011
Capital Employed Presented by:										
Share Capital	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	7,500,000	150,000,000
Capital reserve	–	–	–	–	–	–	–	–	3,397,662	3,397,662
General Reserve	2,843,767	4,111,833	4,962,328	5,550,311	5,550,311	5,571,895	17,509,802	53,094,195	151,352,279	346,868,518
Allowance for Bad debts	0	0	0	0	0	0	156,537	994,789	1,797,893	1,797,893
Accumulated Deficit	(3,051,146)	(3,289,196)	(3,562,538)	(3,882,885)	(4,258,339)	(4,431,278)	(4,274,867)	(2,087,776)	(1,654,725)	(401,749)
Shareholders' Funds	7,292,621	8,322,637	8,899,790	9,167,426	8,791,972	8,640,617	20,891,472	59,501,208	162,393,109	501,662,324

Source: SRDC Annual Reports and Accounts (1984–1993).

Appendix (3)

Sudan Rural Development Company (SRDC) Ltd.

Profit and Loss Account for the Year ended 31 December, 1984–1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Income from Operations	232,805	652,383	689,995	667,686	830,125	916,135	2,267,046	3,770,084	7,854,790	17,152,392
Income from Commercial Activitie	–	–	–	–	–	–	–	2,196,786	1,917,425	0
Sub Total	232,805	652,383	689,995	667,686	830,125	916,135	2,267,046	5,966,870	9,772,215	17,152,392
General and Admnistrative Expenses	888,856	899,398	1,030,766	1,011,204	1,203,834	1,550,319	1,979,115	2,891,967	6,988,355	14,196,443
Profit/Loss from Operations	(656,051)	(247,015)	(340,771)	(343,518)	(373,709)	(634,184)	287,931	3,074,903	2,783,860	2,955,949
Gain/Loss on Exchange	1,545,366	1,268,066	850,495	587,983	0	21,584	11,937,907	35,584,393	98,258,084	195,516,239
Gain/Loss on Sale of Fixed Asset	26,601	8,965	67,429	23,171	(1,745)	461,245	25,017	(49,560)	301,335	0
Total Profit (Gain)/Loss	915,916	1,030,016	577,153	267,636	(375,454)	(151,355)	12,250,855	38,609,736	101,343,279	198,472,188
Less provision for Bad Debts	0	0	0	0	0	0	156,537	838,252	803,104	0
Profit/Loss for the year	915,916	1,030,016	577,153	267,636	(375,454)	(151,355)	12,094,318	37,771,484	100,540,175	198,472,188
Gain on exchange transferred to General Reserve	1,545,366	1,268,066	850,495	587,983	0	21,584	11,937,907	35,584,393	98,258,084	195,516,239
Less:										
Income Tax Paid	0	0	0	0	0	0	0	0	1,026,067	1,702,973
Provision for Profit Tax	0	0	0	0	0	0	0	0	822,973	0
After Tax Profit/Loss for the ye	(629,450)	(238,050)	(273,342)	(320,347)	(375,454)	(172,939)	156,411	2,187,091	433,051	1,252,976
Accumulated Deficit B/F	(2,421,696)	(3,051,146)	(3,289,196)	(3,562,538)	(3,882,885)	(4,258,339)	(4,431,278)	(4,274,867)	(2,087,776)	(1,654,725)
Accumulated Deficit C/F	(3,051,146)	(3,289,196)	(3,562,538)	(3,882,885)	(4,258,339)	(4,431,278)	(4,274,867)	(2,087,776)	(1,654,725)	(401,749)

Source: SRDC Annual Reports and Accounts (1984–1993).

Appendix (4)

Sudan Rural Development Finance Company (SRDFC) Ltd.

Balance Sheet as at 31 December 1984–1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Investment										
Murabahas less Allowance for Bad Debts	890,610	1,909,382	1,247,243	2,047,179	1,521,993	116,317	237,891	13,136,805	3,541,467	16,292,237
Equity Investments	–	–	32,250	–	–	–	–	1,100,000	1,100,000	1,100,000
Sub-Total	890,610	1,909,382	1,279,493	2,047,179	1,521,993	116,317	237,891	14,236,805	4,641,467	17,392,237
Deferred Charges	58,049	34,829	11,609	–	–	–	–	–	–	–
Current Assets										
Cash at Banks (Local)	60,328	101,659	314,793	133,489	537,169	2,094,159	12,945	259,765	405,855	3,324,033
Cash at Banks (Foreign)	2,239,525	3,380,671	3,268,538	1,215,833	1,158,575	2,739,207	8,317,628	5,162,701	15,626,954	40,963,248
Current Maturities Investments	535,598	912,996	1,378,475	1,688,127	940,460	1,470,476	1,086,295	2,653,360	11,490,267	16,647,691
SRDC Ltd.	0	0	0	0	1,315,290	1,543,683	5,603,371	84,039	1,238,843	2,042,994
Accounts Receivable	5,616	101,188	36,530	1,278,325	214,069	176,873	181,252	275,101	120,726	3,642
Sub-Total	2,841,067	4,496,514	4,998,336	4,315,774	4,165,563	8,024,398	15,201,491	8,434,966	28,882,645	62,981,608
TOTAL ASSETS	3,789,726	6,440,725	6,289,438	6,362,953	5,687,556	8,140,715	15,439,382	22,671,771	33,524,112	80,373,845
Current Liabilities										
SRDC	371,437	1,109,379	631,855	127,057	0	0	0	0	0	0
Accounts Payable	13,050	28,001	56,680	358,651	53,779	55,565	166,572	127,140	129,539	128,537
Sub-Total	384,487	1,137,380	688,535	485,708	53,779	55,565	166,572	127,140	129,539	128,537
Working Capital	2,456,580	3,359,134	4,309,801	3,830,066	4,111,784	7,968,833	15,034,919	8,307,826	28,753,106	62,853,071
Capital Employed (Net Worth)	3,405,239	5,303,345	5,600,903	5,877,245	5,633,777	8,085,150	15,272,810	22,544,631	33,394,573	80,245,308
CURRENT LIABILITIES & NET WORTH	3,789,726	6,440,725	6,289,438	6,362,953	5,687,556	8,140,715	15,439,382	22,671,771	33,524,112	80,373,845
Capital Employed Presented by:										
Share Capital	3,200,000	3,200,000	3,200,000	3,200,000	3,200,000	6,400,000	6,400,000	6,400,000	6,400,000	30,000,000
General Reserve	625,735	2,837,198	4,082,216	4,766,991	4,799,696	4,442,132	11,083,347	17,319,558	27,793,430	50,639,056
Accumulated Gain/Deficit	(420,496)	(733,853)	(1,681,313)	(2,089,746)	(2,365,919)	(2,756,982)	(2,210,537)	(1,174,927)	(798,857)	(393,748)
Shareholders' Funds	3,405,239	5,303,345	5,600,903	5,877,245	5,633,777	8,085,150	15,272,810	22,544,631	33,394,573	80,245,308

Source: SRDFC Annual Reports and Accounts (1984–1993).

Appendix (5)

Sudan Rural Development Finance Company (SRDFC) Ltd.

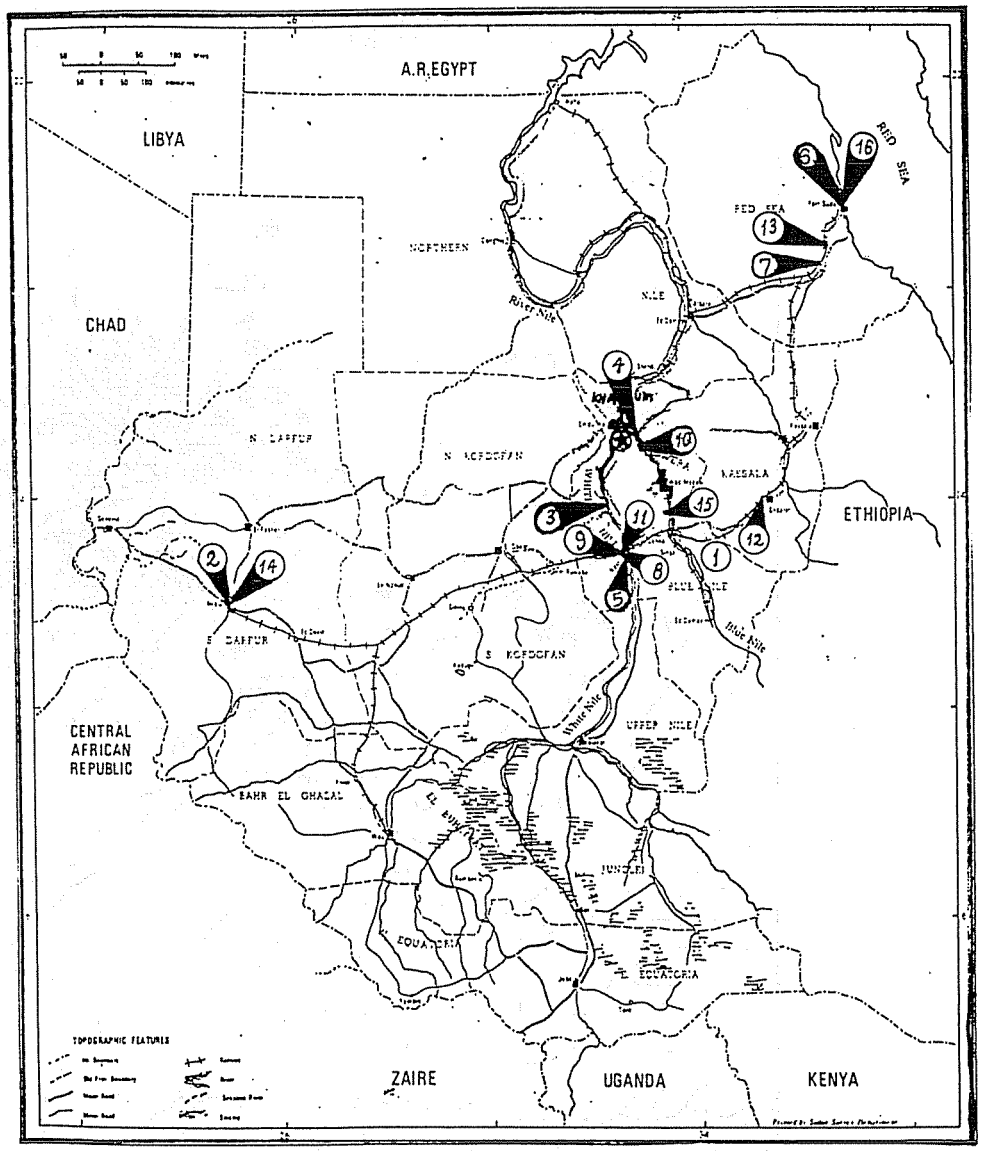
Profit and Loss Account for the Year ended 31 December, 1984–1993

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Charges Received	239,612	236,319	207,975	92,815	66,511	111,345	511,490	332,661	107,189	149,760
Profit Realized on Murabahas	0	23,386	27,725	73,250	373,573	588,083	1,842,366	3,615,617	5,780,280	11,173,095
Sundry Income	0	0	0	592	0	0	0	0	0	385,126
Sub-Total	239,612	259,705	235,700	166,657	440,084	699,428	2,353,856	3,948,278	5,887,469	11,707,981
General and Admnistrative Expenses	365,833	573,062	683,160	575,090	716,257	1,090,491	1,420,084	2,431,843	5,511,399	11,302,872
Profit/Loss from Operations	(126,221)	(313,357)	(447,460)	(408,433)	(276,173)	(391,063)	933,772	1,516,435	376,070	405,109
Gain/Loss on Exchange	785,398	2,211,463	1,245,018	684,775	32,705	(357,564)	6,641,215	6,236,211	10,473,872	22,845,626
Total Profit (Gain)/Loss	659,177	1,898,106	797,558	276,342	(243,468)	(748,627)	7,574,987	7,752,646	10,849,942	23,250,735
Less provision for Bad Debts	0	0	500,000	0	0	0	387,327	480,825	0	0
Profit/Loss for the year	659,177	1,898,106	297,558	276,342	(243,468)	(748,627)	7,187,660	7,271,821	10,849,942	23,250,735
Gain on exchange transferred to General Reserve	625,735	2,211,463	1,245,018	684,775	32,705	(357,564)	6,641,215	6,236,211	10,473,872	22,845,626
Tax and Zakat	0	0	0	0	0	0	0	0	0	0
After Tax Profit/Loss for the ye	33,442	(313,357)	(947,460)	(408,433)	(276,173)	(391,063)	546,445	1,035,610	376,070	405,109
Accumulated Deficit B/F	(453,938)	(420,496)	(733,853)	(1,681,313)	(2,089,746)	(2,365,919)	(2,756,982)	(2,210,537)	(1,174,927)	(798,857)
Accumulated Deficit C/F	(420,496)	(733,853)	(1,681,313)	(2,089,746)	(2,365,919)	(2,756,982)	(2,210,537)	(1,174,927)	(798,857)	(393,748)

Source: SRDFC Annual Reports and Accounts (1984–1993).

Appendix (6)
Sudan Rural development Finance Company Ltd. (SRDFC)
Geographical Coverage (1985-1993)

1985



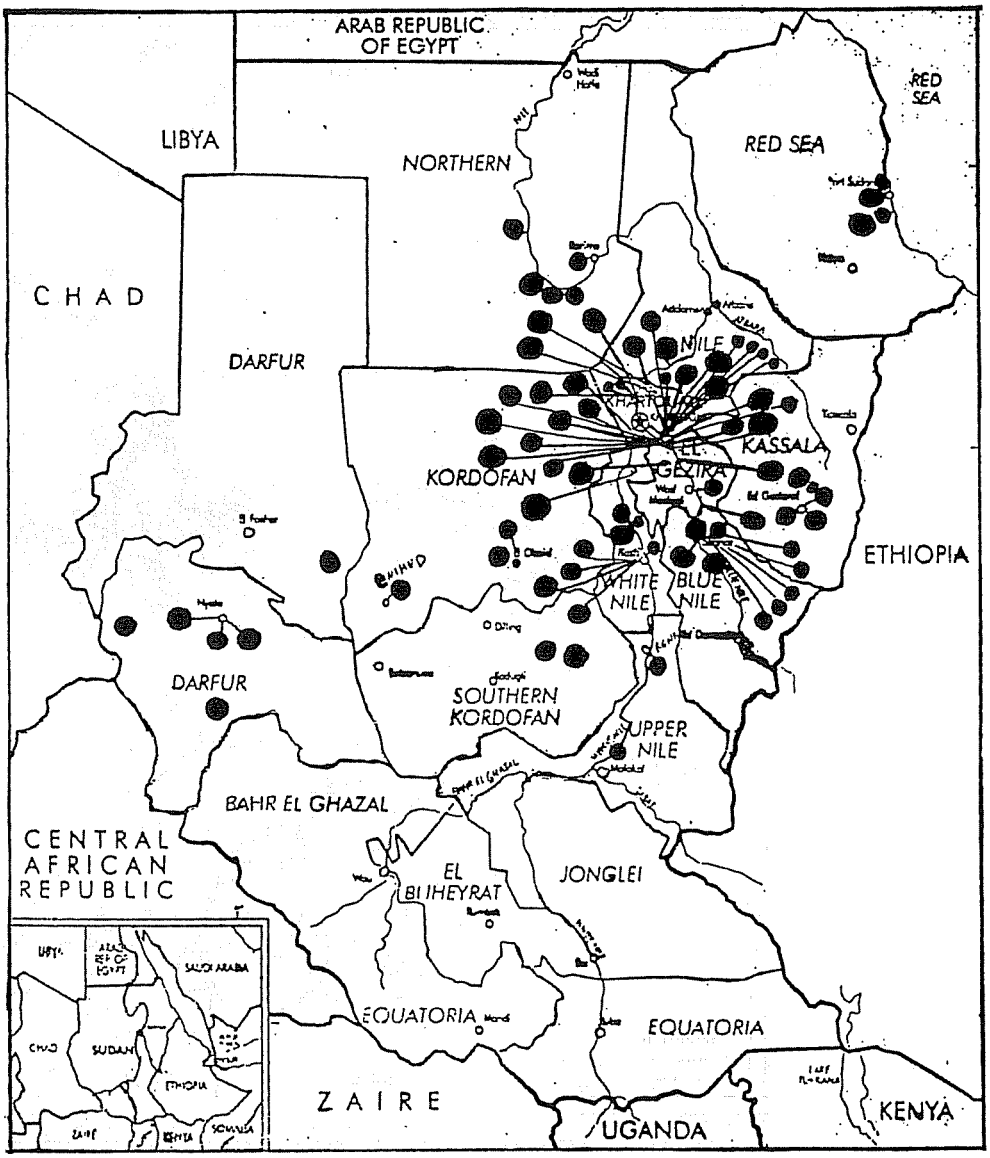
Khartoum, the national capital, where the SRDC and the SRDFC are located.

Projects investigated and studied by the SRDFC.

Source: SRDFC Annual Report (1985).

Appendix (6), continued

1993



✪ Khartoum, the national capital, where the SRDC and the SRDFC are located.
● Projects investigated and studied by the SRDFC.

Source: SRDFC Annual Report (1993).

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Hassan Abdel-Magid Musa, is a Sudanese by birth, borne in January, 1963 at Omdurman Town. He graduated from the Faculty of Economic and Social Studies, University of Khartoum (U of K), with a B.Sc.(Honours) (Econometrics and Social Statistics) Second class (Division One).

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