

CHALLENGES TO AGRICULTURAL FINANCING IN MALI

By

Kadidia Konare

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## **ABSTRACT**

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In Mali, like in many Sub-Saharan countries, inadequate access to credit has remained a central concern for farmers and a key constraint to the modernization and diversification of their activities. The commercial banks' limited participation in agricultural financing and the hard terms and conditions for obtaining individual loans have penalized many smallholders and small traders. The vast majority of these people have little to no access to financial services, limiting their productivity, income, investment and overall quality of life. Inadequate regulatory/legal frameworks, monetary policies, inappropriate agricultural loan evaluations and threats to sound microfinance activities are constraining agricultural financing in Mali.

## **DEDICATION**

To my parents. Thank you for making me understand the value of education.

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## LIST OF ACRONYMS

BCS:	Banque Commerciale du Sahel
BCEAO:	Banque Centrale des États de l’Afrique de l’Ouest (West African Central Bank)
BDM:	Banque du Développement du Mali
BHM :	Banque de l’Habitat du Mali
BICIM :	Banque internationale pour le commerce et l’industrie du Mali
BIM:	Banque Internationale du Mali
BMCD:	Banque Malienne de Crédit et de Développement
BNDA:	Banque Nationale de Développement Agricole (National Agricultural development Bank)
BOA:	Bank of Africa
CAS/SFD:	Cellule d’Appui et de Suivi des Systèmes Financiers Décentralisés
CFAF	Communauté Financière Africaine (African Financial Community) Francs
CMDT:	The Malian Company for the Development of Textiles
CVECA:	Caisses villageoises d’épargne et de crédit autogérées (Self-Managed Village Savings and Loan Banks)
FAO:	Food and Agriculture Organization of the United Nations
FCRMD:	Fédération des Caisses Rurales Mutualistes du Delta
FDV:	Fonds de développement villageois
GDP:	Gross Domestic Product
GRSF:	Groupe de Réflexion sur le Système Financier au Mali ( )
GNP:	Gross National Product
ITEMA:	Industrie Textile du Mali
MFI:	Microfinance Institution
NGO:	Non-Governmental Organization
OHADA:	Organisation pour l’Harmonisation en Afrique du Droit des Affaires
ON:	Office du Niger
OPAM: A	gricultural Products Office of Mali
PACCEM:	Projet d’appui à la commercialisation des céréales au Mali
PARMEC:	Programme d’appui à la réglementation des coopératives et mutuelles d’épargne et de crédit (Program to assist in regulating savings and loan cooperatives)
PRMC:	Projet de restructuration du Marche Ceralier (Cereals Market Restructuring Program)
UNDP:	United Nations Development Programme
WAEMU:	West African Economic and Monetary (Union Economique et Monétaire Ouest Africaine : UEMOA)

### Note on the exchange rate:

The following exchange rates were used to convert from CFAF to US\$:

Year	1998	1999	2000
Exchange Rate (1US\$ for 1 CFAF)	590	600	610
Inflation Rate	3.6%	-2%	2.5%



## **CHAPTER I**

### **INTRODUCTION AND PROBLEM STATEMENT**

#### **1.1. Perceived Poor Performance with Respect to Inadequate Financing of Agriculture and Agribusiness in Mali**

In Mali, agriculture seems to be the path in achieving growth and development, as the economy of Mali is primarily based on agriculture. Agriculture provides more than 45 % of the GNP and employs between 80 and 90 % of the working population (FAO 1995). The main food crops are millet, rice, sorghum, and corn. Cotton and livestock are produced for both domestic consumption and export. Crop harvest levels depend almost entirely on climate, including rainfall-dependent floods of the Niger and its tributaries. However, theoretically and empirically the banking system in Mali seems to perform poorly and not be well suited to support the economic growth in the agricultural sector, thus slowing down the overall economic growth.

The objective of this study is to do an empirical analysis of the current Malian financial sector in order to understand the factors constraining lending to the cotton, rice, coarse grains and horticulture subsectors. The following factors are hypothesized to be constraining agricultural lending in Mali: public policy, the regulatory framework, non-performing collateral laws, inadequate procedures used by loan officers to assess agricultural credit risks, and constraints limiting the effectiveness of the Microfinance Institutions (MFIs).

### **1.1.1. Theoretical Perspective**

Today many developing countries are shifting from subsistence farming to the promotion of new export-oriented crops. However, the shift from subsistence agriculture to commercial agriculture, to production for the world market, has led to the division of tasks and specializations in agriculture. Also, in Mali, the cereal market liberalization triggered institutional and economic changes in the cereal-marketing sector. The fertilizers, new seed varieties, controlled irrigation, are no longer supplied by parastatals. The cereal farmers need to obtain supplies from various suppliers at remote locations, and market their own products. In adopting the different farm innovations, farmers need financial resources.

The structural changes in agriculture have increased the demand for farm loans. The increase in loan demand is due to the much greater returns to investment obtainable from the new, more productive farm technologies. It has been proven that easy access to credit facilitates the adaptation and use of new farm technologies and hence increases agricultural production. However, increasing loans to farmers requires the transformation of rural credit system from limited informal, traditional, local savings and lending arrangements to an integrated formal, national savings and credit system. (Stevens and Jabara; 1988).

From experience, it has been found that developing a sustainable farm credit system is not an easy task. It is even more difficult to develop and implement such systems in developing countries, where they are confronted with several complex issues. Some of these issues are

internal to rural financing (Christen et al. 1995) and others are external issues, as their solutions depend on sectoral and macroeconomic policy and institutional framework (Jayarajah and Branson 1995). In an effort to create sustainable rural financing programs, innovative financial services are necessary for the development of the financial market.

According to Stevens and Jabara, improvements in rural credit enable economic development in at least five ways. First, the rural financial markets provided by banks enable a greater mobility and flexibility in exchanges in rural areas. Farmers are able to make payments from distant locations without having to meet in person. Second, rural savings and loans enable improved resource allocation. This occurs when they mobilize excess cash from farmers with few, low-return investment opportunities and lend it to the farmers with higher-return investment prospects. Third, loans allow farmers to better manage the inherent risks associated to the nature of the agricultural production (high variation in weather conditions and prices). Fourth, loans enable farmers to take on large investments. And fifth, loans ameliorate life-cycle problems, in which the young need to acquire farm and household assets--often by borrowing from community members whom have accumulated savings (Adams et al; 1984; Stevens and Jabara 1988).

### **1.1.2. Empirical Observations**

#### **(1) Mali Partnership Advisory Committee Report**

In a major review of constraints to agricultural development in Mali, the Malian National committee of the Partnership to Cut Hunger in Africa<sup>1</sup> mentioned the lack of financial resources as one of the major constraints to the growth of its agricultural sector. According to the committee, one of the key strategies to cut hunger in Mali is to strengthen investments in the rural areas through:

- Financing of hydro-agricultural developments
- Development of non-bank financial institutions
- Strengthening of private investments (financing mechanisms, development of alternative collateral, funding guarantees, and insurance mechanisms)
- Facilitate access to credit for producers
- Strengthening decentralized financial systems
- Promoting medium and long-term credit on favorable terms
- Developing insurance mechanisms to help protect producers' revenues
- Debt relief for producers

#### **(2) Schema Director for Rural Development in Mali**

The schema director for rural development in Mali issued by the FAO (Food and Agriculture

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*1 The Partnership to Cut Hunger in Africa is an independent effort formed by U.S. and African public and private sector institutions and international humanitarian organizations. The goal of the Partnership is to formulate a vision, strategy, and action plan for renewed U.S. efforts to help African partners cut hunger significantly by 2015.*

Organization) and UNDP (United Nations Development Programme) in 1991 also concluded that there was a need to fulfill rural credit demand in Mali. The schema pointed out that the financial services in the rural Mali needed to be diversified and adapted to the needs of the local population. Also, the schema stipulated the recipients (smallholders and small traders) of these financial services should be trained to understand the underlining basics and moral ethics of savings and loans programs.

### **(3) World Bank: Mali Financial Sector Development Project Report**

The Groupe de Réflexion sur le Système Financier au Mali (GRSF) is a group of consultants formed by the government of Mali and the World Bank in 1997 to study the Malian financial sector and to find solutions to problems limiting its development. They also reached the conclusion that the financial intermediation needs to be strengthened. They propose to do so through restructuring and privatizing the remaining state-owned banks. They recommend technical assistance and training for banking and microfinance institutions' (MFIs) staff in order for them to conduct sound banking practices. They also recommend the strengthening of the legal and regulatory frameworks as well as government institutions monitoring the financial sector.

### **(4) Other Observations**

Financing activities in Mali have mainly concentrated on trade and less so on the mobilization of medium to long-term investment finance in all economic sectors. Malian

bankers share a general perception of high risk associated with medium/long-term lending, due to a high proportion of non-performing assets in existing portfolios. The limited abilities of banks to have judgments enforced against delinquent borrowers further keeps them from providing medium/long-term resources to any economic sector. During my experience with a Malian commercial bank, I noticed that only exceptionally will a bank offer medium or long-term loans to its preferred clients, who are the large private clients (often shareholders of the bank); or to state-owned companies (under government pressure). The same opportunities are non-existent for small traders and smallholders.

However, Malian smallholders need access to credit for long-term land improvement and capital expenditures as well as to meet short-term seasonal needs. Private rural-based and small-town businesses engaged in the processing of agricultural products and in transport and input-supply operations require credit for long-term investment and working capital. Currently, both farmers and agriculture-related small and medium enterprises have considerable difficulties to access to credit, but the problem is much more acute for farmers. It is very difficult, if not impossible, for a small trader or/and smallholder to get a medium/long-term loan from a commercial bank. In the case of access to short-term loans, a small trader has a better chance of obtaining one from the bank than a smallholder. Also, the geographical location of the small trader is very important in the lending decision-making. A small trader from an urban area is preferred to one located in a rural area, as the latter will have a higher loan recovery transaction costs.

Overdraft facilities tend to dominate the type of banking services offered to small traders. The overdraft amount varies according to the type of relationship between the banker and the small trader. The majority of smallholders who have easy access to credit are the ones:

- Who are being referred or guaranteed by one of the bank's large clients,
- or have the necessary large physical collateral,
- or who are the relatives or friends of the bankers.

Formal financial intermediation is usually weak, and in some cases virtually non-existent in some sectors. Banks and other financial institutions rarely go beyond a city's borders. The underdevelopment of the formal financial sector in rural Mali is emphasized by the central role played by the informal sector in the mobilization and allocation of financial resources. A large proportion of credit needs in some key agricultural subsectors that should be the engine of growth remain unfulfilled or only partially fulfilled through the informal financial sector. The need for improvement of financial intermediation in rural Mali is crucial.

Efficient financial intermediation improves financial savings mobilization and resource allocation, by evaluating and selecting the most promising and competitive entrepreneurs and projects, while providing a vehicle for diversifying risks and fostering technological innovation to enhance efficiency.

Today in Mali, no commercial banks in Mali lend to smallholders on individual basis. In order to access to credit from a commercial bank, a smallholder is required to be a member of a village association (AV). As a member of an AV, the smallholders can benefit from group lending. Presently, only the National Agricultural Development Bank (BNDA) is directly lending to the AVs. The other banks in place intervene in agriculture by the intermediary of the BNDA.

The available credit facilities are mainly short-term and medium term loans. The short-term loans tend to be commitments of the banks' own funds, and the medium term loans are mostly subsidized by local and foreign governments. One can say that the poor performance of the financial sector in serving agriculture and agribusiness is slowing the economic growth of Mali

## **1.2. Conceptual Approach for Understanding the Problem**

### **1.2.1. Analytical Framework**

In analyzing the current Malian agricultural financing system, I will use the structure-conduct-performance paradigm (S-C-P, figure 1). One must understand that the SCP of the financial market depends on SCP of product markets (demand for rural financial services is a derived demand). S-C-P analysis is the application of this conceptual framework in an effort to understand the financial market performance. The approach entails (1) complete identification of the different actors and the degree of concentration in the subsector. Also,



the approach involves identification and description of the current financing schemes available to farmers, traders and agriculture-related small and medium enterprises within the subsector (structure); (2) understanding the reasons for above state of affairs as well as their implication for banks' lending practices (conduct); and (3) propose how conduct should change to improve performances in current financial system in the subsector using four characteristics of performance: exchange efficiency, product suitability, progressiveness and sustainability.

Exchange efficiency refers to the costs of arranging transactions such as loan recovery, information flows, tools for risk minimization and various forms of vertical coordination— (e.g. commercial banks and “Kafo Jiginew” [a farmer run savings and loan association]). The efficiency of an exchange also depends on how easy it is to set the interest rates.

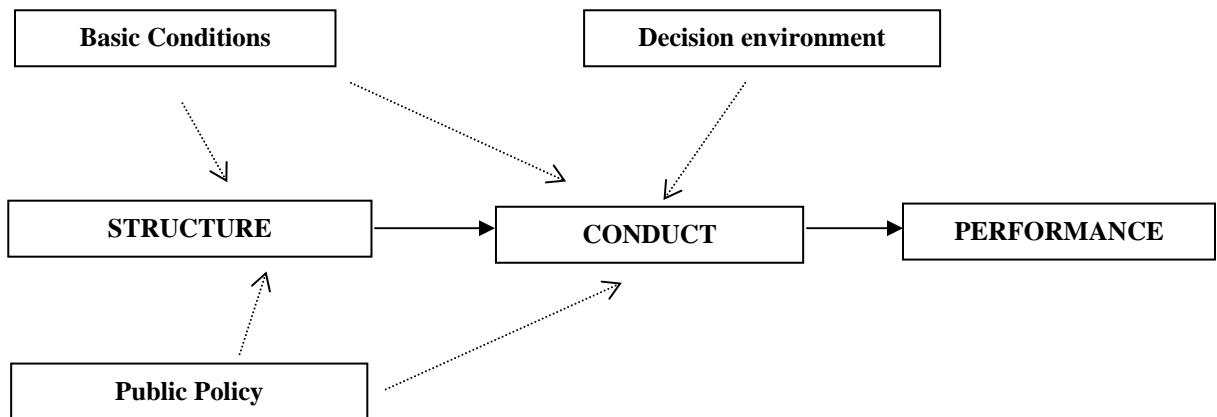
Product suitability refers to whether the products offered by the commercial banks match the customers' preferences. Bain defined product suitability as assuring that the quality level of products is neither too high nor too low relative to consumer desires. Product suitability examines how responsive the lenders are to the borrowers' needs. Yaron also identified product suitability as a key indicator of outreach. Outreach measures the range of services offered by a microfinance institution to its clientele.

Progressiveness is the extent to which the banking system is generating and rapidly adopting

new models of risk assessment and new organizational arrangements that reduce costs or improve products and services relative the customer wants. The norm is how well the Malian banking industry does relative to its opportunities.

Sustainability refers to the capacity of banks and financial institutions in generating enough profit or mobilizing enough savings to be economically viable. The sustainability also depends on the management structure. Three criteria are important when assessing a program that is financially sustainable: high repayment rates, appropriate interest rates and low operating costs (Schrieder and Sahma; 1999). Diversification of the loan portfolio reduces risk and increases repayment rates. Social acceptability is also important in achieving sustainability.

**Figure 1. S-C-P Framework**



### 1.2.2. Macroeconomic Structure

It is generally accepted that the performance of the financial markets in a given a country depends on overall the macroeconomic structure. Empirical studies have pointed out how macroeconomic stability is an essential element to a sound financial system, more importantly so in developing countries where production systems are very susceptible to domestic and external shocks. It is not possible to establish and maintain bank soundness unless prices and other nominal variables in the economy are evolving in a relatively stable fashion and economic activity is expanding at a reasonable pace (Knight, 2000).

Monetary policy is the manipulation of the money supply with the objective of affecting macroeconomic outcomes such as GDP growth, inflation, unemployment, and exchange rates. Mali does not have an independent monetary policy, due its membership to the West African Economic Monetary Union (WAEMU), which is made up of 14 West African countries sharing a common currency CFA franc (CFAF<sup>2</sup>). The CFAF, linked to the French franc (FF) since its creation by a fixed parity, is managed by the French Treasury through a famous operations account, which manages 65% of the foreign-exchange reserves of these countries. The monetary policy is administered through the Central Bank of the West African States (BCEAO). To maintain the parity of the CFAF with the French franc, the central bank has to conduct a very tight monetary policy in order to control inflation.

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<sup>2</sup> Communauté Financière Africaine (African Financial Community) in the WAEMU

Controlled interest rate, sectoral credit directives, tight prudential regulation and inadequate supervision and mismanagement of state-owned banks led to a poor macroeconomic environment in Mali. Also, receipt of cash flows from the government and foreign donor agencies budgets, the liquidity controls (e.g. credit ceilings) imposed by the central bank, and the high level of interest that banks can obtain on treasury bonds, diminished commercial bank's interest in finding new clientele. This poor macroeconomic condition weakened the Malian financial market and led to the implementation of series of reforms and structural adjustment programs by the government with the technical assistance of various international organizations in Mali. The monetary union and its policies will be further discussed in later chapters.

### **1.2.3. Evolution of Agricultural Product Markets and Financial Markets**

Prior to 1980s, Mali's great agricultural potential was constrained by a heavy administrative system. Agricultural marketing was officially governed by parastatals. Agriculture was financed by an integrated system of input credits and output payments. Prompted by disappointing economic performance, the Malian government, with the assistance of foreign donors and international organizations, began implementing series of reforms and structural adjustment programs in late 1980s.

In 1981, the cereal market liberalization reforms were introduced in Mali. The reforms were managed by the Cereals Market Restructuring Program (PRMC), set up jointly by the

government and the donors. The reforms, like structural adjustments, aimed to transform the economy by increasing the role of the private sector and market processes in allocating the nation's resources. They required the dismantling and sale of state enterprises and ending government involvement in the procurement and distribution of crops. This permitted the private sector (including independent farmer and trader organizations) to compete in domains formerly reserved for the state and removed many barriers to trade, both domestically and internationally. Market reforms were effective in increasing competition, lowering costs and improving physical access to coarse grains by consumers. The removal of restrictions on who could legally trade grain led to an influx of new entrants and a greater reliance on the open market for coordinating economic activity (Dembélé and Staatz; 1999).

The year 1988 marked the beginning of the implementation of structural adjustment policies managed by the International Monetary Fund (IMF) and the World Bank. The structural adjustment policies mainly focused on macroeconomic stabilization, through fiscal consolidation and tax reform; liberalization of price and trade policies; regulatory reform; and public enterprise and agricultural sector reform. At the same time, Mali's increasing democratization, which began in 1991, resulted in freedom of expression and broadened the scope for creation of independent farmer and trader organizations. These changes, combined with the devaluation of the currency (CFA franc) in 1994, have profoundly affected the Malian food system (Dembélé and Staatz 1999). They have created new incentives for

production. The cotton, rice and horticulture subsectors were the most responsive to the devaluation of the CFAF. For example, cotton production increased by more than 118%, rice production by more than 40% and the onion production increased by 125% from 1993 to 1996 (INSAH/CILSS, 1998).

The devaluation of the currency has increased the competitiveness of Malian cereals and stimulated expanded production and trade with neighboring countries (INSAH/CILSS bulletins; Yade et al.). The recent changes in the Malian agricultural environment have opened profitable new market opportunities for Malian traders and grain producers. While, overall, Mali's liberalization has achieved considerable success, this is no more than partially true for the financial component. The reforms have completely changed the structure of credit market in certain subsectors such as rice and coarse grains. The state's former monopolistic right over output marketing was restructured during the cereal market liberalization. This broke the mechanism the state agencies had for automatic credit recovery of inputs sold on credit to farmers. Inputs markets were also liberalized, but the private input suppliers also lacked any automatic tools for credit recovery. Commercial banks are also withdrawing from agriculture, while micro-finance lending schemes are struggling in supplying seasonal credit for crop inputs.

Following liberalization, the integrated financing system was no longer available in the cereal sector. The integrated system is where the parastatal would provide inputs and

extension advice to farmers on credit and in return would receive the repayment in outputs. Private traders, who took over the marketing functions previously carried out by the state, have not easy access to credit like the parastatals. In Mali, as in many Sub-Saharan countries, the lack of credit has remained a central concern for farmers and a key constraint to the modernization and diversification their activities. The private sector's limited participation in agricultural financing and the hard terms and conditions for obtaining private credit have penalized many smallholders.

Today, one of the biggest challenges facing the Malian agriculture is the development of a sustainable agricultural credit system. Agriculture is very important in the economy of Mali; thus a development of an efficient farm credit system is linked to Mali's economic growth.

### **1.3. Hypotheses: Problems in Performance Arise Due to 3 Key Problems**

#### **1.3.1. Financial sector policies have not evolved to keep pace with changes in product markets**

Public policy, the regulatory framework, and inadequate collateral laws increase transaction costs associated with lending if not correctly implemented and reinforced. Testing this hypothesis will involve assessing if the Malian financial sector policies have evolved to keep pace with changes in product markets. The assessment will be based on the analysis of information and data on laws/regulations that were mostly gathered at the central bank.

#### **1.3.2. Bank loan evaluation practices are not adapted to agriculture**

In Mali, the loan evaluation procedures used by loan officers to assess agricultural credit risks are perceived to be inadequate. It is believed that the market liberalization has resulted in changing farm credit demands and borrower characteristics. Therefore, the current credit evaluation procedures used by the banks may not apply to the evolving agricultural product markets.

### **1.3.3. Constraints limiting the effectiveness of the MFIs' lending activities**

In Mali, there are two main constraints limiting the effectiveness of the microfinance institutions' lending activities: poor management of village associations (AVs) and the economic activity of the borrowers. These constraints are believed to play a major role for the lack of linkage between the commercial banks and the MFIs.

### **1.3.4. Crosscutting all of these is how to deal with transaction costs and information asymmetries**

Transaction cost and information asymmetries play a major role in financial intermediation. High transaction costs make lending to smallholders and small traders less profitable than lending to other clients. Here, transaction costs refer to the non-interest expenses incurred by both lenders and borrowers in making (obtaining), servicing (implementing), and collecting (repaying) loans, (Adams et al; 1984). Thus, transaction costs to a smallholder/small trader refer to the steps that he must undertake to complete the procedures required for obtaining a loan from a commercial bank or an MFI. In general, these costs are out-of-pocket money required to obtain documents, pay commissions and bribes, and travel to from the lender's



office, and all the opportunity costs of time involved in completing the required procedures. The costs to the lenders are mostly administrative costs and costs incurred in finding information on creditworthiness of their clientele. The information asymmetry problem arises because it is costly to gather information on a potential borrower to correctly process the loan request. The major concern for financial intermediation in Mali, as any low-income country, is how to deal with transaction costs and information asymmetries.

#### **1.4. Research Approach**

This study began with a literature search together with the development of a work program of interviews in Mali. Reviews of loan portfolios were also carried in 3 commercial banks.

##### **1.4.1. Literature Review**

The literature review was based on the review of books, journals, and project reports on the subject of rural financing.

##### **1.4.2. Interviews of Banks, MFIs and Smallholders**

A series of non-structured interviews were carried out in Bamako with Malian Chamber of Agriculture officials, agricultural development agency workers, bankers, insurance, Non-Governmental Organization (NGO) officers, the support and monitoring unit for micro-finance institutions (CAS/SFD), and large-scale traders. A short visit to Koutiala, Sikasso and Segou was also arranged to meet small-scale traders and farmer organizations (village associations). Local MFIs' managers were also interviewed.

### **1.4.3. Evaluation of Commercial Bank Loan Portfolios**

In verifying the adequacy of agricultural lending procedures, three banks were selected: one development bank (BNDA) and two commercial banks (BIM-SA<sup>3</sup> & BDM-SA<sup>4</sup>). Those commercial banks were selected because of their size, the number of branches they have in rural areas, and their prior experience in the sector. These three banks own 80% of the total capital of the Malian banking sector. They house 60% of the country's total deposits and own 70% of the branches in the banking sector<sup>5</sup>.

Samples of approved loans were selected at each bank, however, those samples had some type of selection bias. In the selected banks, the loan officers do not maintain a log of rejected loans. Thus, the loan review model was assessed only using existing borrowers' applications, which made the results biased because a group of loan applicants – rejected applicants – have been systematically excluded from the sample. A farmer that is denied credit at one institution may have been creditworthy or become a good client for another lender. Or the unsuccessful applicant was indeed insolvent. In either case, the information on unsuccessful applicants is lost when these potential borrowers are not included in the sample.

Including this chapter, the document is organized in eight chapters. Chapter 2 presents the literature review. Chapter 3 describes the structure of Malian financial and agricultural

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3 BIM-SA: Bank Internationale du Mali

4 BDM: Banque de Développement du Mali

5 The data cover 7 banks; two newly established banks are not included

markets. Chapter 4 describes the trends in credit allocation in the Malian economy. Chapter 5 analyzes the impact of financial market policies on lending to agriculture. Chapter 6 analyzes the impact of loan officers' policies on lending to agriculture. Chapter 7 analyzes the impact of weak links between commercial banks and MFIs on lending to agriculture. Chapter 8 concludes and presents areas for further research needs.

## **CHAPTER II**

### **LITERATURE REVIEW**

The theoretical literature has amply discussed strategies to alleviate agricultural financing shortages in developing countries. Promoting rural finance in terms of institutional arrangements and provision of an enabling environment for the survival of such institutions have become part of financial management strategy for the alleviation of poverty in the rural setting of an economy. On the matter, we have the traditional agricultural credit projects approach and the new views on rural financial markets (Adams and Graham 1981).

The old consensus in the analytical literature on rural credit is one of the exploitative/evil informal moneylenders, who charged overly high interest rates to borrowers and thus gained large monopoly profits. Formal lenders were perceived as being overly risk-averse, and often belonged to government regulated loan programs. Loans were considered as an input to agriculture. The farmers were labeled as being conservative. Another assumption was that poor rural borrowers did not have any incentive to save, and that the only way the farmers would adopt new technologies or invest in land improvements was if they had access to cheap loans. The old approach has now been replaced with a perception that interest rates are much less inflated, and money lenders as providing important and difficult services of consumption-smoothing, off-farm income generation and insurance. All the same, borrowings from the informal market are characterized by high interest rates, and are often tied to a transaction in another market through interlinked contracts. Small borrowers are

more concerned by high transaction costs involved in obtaining loans than the interest rate compared with large borrowers, whose transaction costs are close to zero. Access of the poor to formal sources (banks and other financial institutions) is limited by their lack of collateral. Usually large farmers and traders have better access to credit than the smallholders, who make up the majority of farmers in developing countries.

Poulton et al. (1998) studied smallholder cash-crop production in liberalized cotton and cashew markets in Ghana, Pakistan, and Tanzania. They investigated the difficulties farmers face in financing seasonal crop inputs and the mechanisms developed by private traders to supply seasonal credit. It emerged from the study that farmers' limited access to capital is a critical constraint on crop production. Also, the willingness and ability of the private sector to supply farmers with loans was limited by the high risk of default on loan repayments and the high cost of information on potential borrowers. Such costs were too high to be recovered by the low returns on the normally small loans taken out by farmers. In each country, it was found that "interlocking transactions" had been developed. "Interlocking transactions" are where traders sell inputs or they buy outputs at the same time as providing credit to some farmers. The traders thus simultaneously reduce the cost of obtaining financial information about their farmer customers and increase their volume of business - and consequently their profits. Findings suggest that interlocking contracts could become an increasingly effective way of helping smallholder farmers gain access to seasonal credit. However, the system can be limited by a trader's lack of access to capital and if a farmer

defaults on the loan repayments by selling his output to another trader instead of the one who lent him money in the first place. Moreover, where traders operate some form of monopoly, they may exploit the “interlocking” system at the farmers’ expense.

These following policy lessons have resulted from the study:

- Market structures should combine both competitive and cooperative elements to enable useful systems of credit, inputs, and produce markets to develop. The competitiveness will prevent monopolistic behavior in the sector. There must be some cooperation, as the informal lending is made mostly based on reputation. The higher the frequency of exchanges between traders and farmers, the better is the interlocking system.
- Governments should encourage these structures to operate efficiently and equitably, rather than regulating them, by promoting good communication networks, stable macro-economic conditions, better access to formal sources of credit for traders and trader investment in crop processing.

For a credit program to be successful, Gordon Donald (1976) claimed that more than money is needed. There must be a new technology, markets that can supply additional inputs and absorb additional output, institutions willing to lend to small farmers on terms the farmers consider attractive and most important, the farmers willing to borrow, to invest and to repay loans.

Previous programs' focus has been the provision of credit and opportunity for saving mobilization in the rural areas that would enhance productivity and thus improve the social and economic welfare of the rural population. The place of credit in promoting enhanced productivity has been settled in the literature; however, the rural financial intermediation process poses its own peculiar problems. These include the suitability of the existing financial arrangements in the urban economy to rural financial needs. To be successful, Jacob Yaron (1994) postulates that rural financial institutions must fulfill two basic objectives. These are the objectives of financial self-sustainability and substantial outreach to the target rural population.

## CHAPTER III

### STRUCTURE OF MALIAN FINANCIAL AND AGRICULTURAL MARKETS

#### 3.1. Introduction

In this chapter we will discuss the structure of the Malian financial markets and how it is related to the structure of markets for agricultural outputs. This chapter first presents the monetary policy in place in Mali and provides a brief description of the CFA zone, including the 1994 devaluation. The second part illustrates the structure of the financial system from independence to the present, and the nature of the financial services in rural areas. In the last section we will describe the major agricultural subsectors and financial services available to them.

#### 3.2. Monetary Policy and the CFA Franc Currency Devaluation

Mali is a member of the CFA franc zone, a group of 14 West and Central African countries joined in two monetary unions. These are the West African Economic and Monetary Union<sup>6</sup> (WAEMU), founded in 1994 to build on the foundation of the West African Monetary Union, and the Central African Economic Monetary Community<sup>7</sup> (CAEMC). These two unions maintain the same currency, the CFA franc (CFAF), whose value is pegged to that of the French Franc (FF). Each Union has its own central bank that manages the monetary policies of the state members. We have the *Banque Centrale des Etats de L'Afrique de l'Ouest (BCEAO)* for WAEMU and the *Banque des Etats de L'Afrique Centrale (BEAC)* for

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<sup>6</sup> WAEMU state members: Benin, Burkina Faso, Côte d'Ivoire, Guinea- Bissau, Mali, Niger, Senegal, and Togo.



CAEMC. These central banks have the sole right of monetary issue, which they enjoy throughout the member states of the Union. These central banks are also responsible for the pooling of the Union foreign exchange reserve; the keeping of the accounts of the member states' treasuries; and the definition of the banking law applicable to banks and financial establishments (BCEAO, 2000).

The exchange rate parity (currently 1 FF = 100 CFAF), which is guaranteed by the French treasury, gives the CFA franc zone countries a freely convertible currency and eliminates all exchange-rate risk for trade with France and other countries of the franc zone. However, it also eliminates any independence of monetary policy (which is determined by the exchange rate policy) for these countries and makes their exchange rate subject to fluctuations between the FF and other major world currencies, which often has little relation to the economic performance of the WAEMU countries.

The structural adjustment programs adopted by Mali and other countries in the CFA zone in the mid 1980s ignored exchange rate adjustment, as that was considered a separate matter between the WAEMU countries and France. However, the overvaluation of the CFA franc during the 1980s and early 1990s was destroying the production apparatus in the country members (van de Walle, 1991). Overvaluation of the CFA franc increasingly hindered the competitiveness of the union's countries. The agricultural sector was particularly hurt, as the

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7 CAEMC state members: Cameroon, the Central African Republic, Chad, Congo, Equatorial Guinea, and Gabon.

overvalued exchange rate made imports of cereals (particularly rice) very cheap and hindered the competitiveness of exports, most of which were agricultural (Yade et al. 1999). The local products were unable to compete with imported goods. Agricultural production shifted away from tradable goods (e.g. rice, cacao) to the use of imported inputs as factors of production.

To address this situation, Mali and the CFA franc zone countries consulted with one another and with the International Monetary Fund (IMF) and France to devalue the currency. The argument for devaluation was that changing the nominal interest rate would increase incentives for domestic production of tradable goods (exportable goods and import substitutes) and discourage consumption of imported goods. Another argument in the favor of the devaluation was that it would permit the countries to loosen the credit constraints facing many firms. With an inability to change the nominal exchange rate, one of the few tools available to the central bank to deal with trade imbalance was to constrain demand through tight monetary policy, which resulted in high real interest rates that choked off economic growth (Staatz et al; 1994).

In January 1994 the CFA franc was devalued from CFAF 50 = 1 FF to CFAF 100 CFAF = 1 FF. Devaluation aimed to put these countries back on a path of sustainable growth by helping them regain their competitiveness in the world market. It encouraged exports at the expense of imports because it enabled CFA franc zone countries to sell their products for

half as much (in terms of foreign currency) but required them to buy products from other countries for twice as much (in terms of local currency).

### **3.3. Structure of the Financial System from Independence to the Present**

Mali, like many Sub-Saharan countries, inherited a post-independence financial sector with lending policies modeled on those employed in its former colonial power (France). Often, the types of collateral they require are inappropriate and inadequate in the Malian context. After independence, the government believed that it could support Mali's development objectives through a selective credit allocation. As a result, the government became directly involved in the operations of the financial sector and even created commercial banks and a development bank (Mehran et al, 1998).

The Malian financial sector is primarily dominated by the banking sector, which has played an increasingly important role in economic development. For example, the ratio of broad money to GDP has increased from less than 3 percent in 1970 to 15.6 percent in 1980, and further to 22.6 percent in 1998 (IMF, 1999). In Mali, there are both foreign and locally owned commercial banks. The financial sector is very concentrated. Prior to 1998, the banking system was composed of seven banks, and three financial institutions<sup>8</sup>. Apart from one private bank, the others were owned in majority by state entities, with a very low private

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<sup>8</sup> The banks are: Banque Commercial du Sahel (BCS); Banque de Développement du Mali (BDM); Banque de l'Habitat du Mali (BHM-SA); Banque Internationale du Mali (BIM-SA); Banque Malienne pour le Commerce et le Développement

participation in the capital. This resulted in a less competitive banking system. Efforts are being made to reduce or/and eliminate government participation in the capital structure of the banks. In the process of privatization, the government is in many cases assuming the bad debts of commercial banks. The competitive environment is slowly changing. In 1998, two international commercial banks<sup>9</sup> were created. These newly established banks are still learning about their operating environment. These banks are mainly targeting urban clients, and are mostly providing short-term loans. The total balance sheet of the commercial banks went from CFAF 347 billion (US\$ 588 million) in 1998 to CFAF 467 billion (US\$ 778 million) in 1999, or a 35% increase. This large increase is explained by the entry of the two new commercial banks in sector. As a whole, the well-being of the banking system in Mali has improved since 1995, and most banks showed a profit in 1997 and 1998. However, the sector remains fragile, as most of the banks do not respect a number of the prudential ratios set by the banking commission. Only the Agricultural Development Bank (BNDA) respects all the prudential ratios. The percentage of gross non-performing loans remains high. It was approximately 26 percent of the banks' portfolio of credit to the economy as at the end of 1998; provisions for doubtful loans totaled 64 percent of this amount (IMF, 2000). Table 1 illustrates the different banks and their shareholding structures.

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(BMCD); Banque Nationale de Développement Agricole (BNDA); Bank of Africa (BOA); The financial institutions are: Crédit Initiative du Mali (CI-SA), Société Malienne de Financement (SOMAFI), and Equip-Bail Mali.  
<sup>9</sup> Banque Internationale pour le Commerce et l'Industries (BICIM-SA); and Ecobank.

**Table 1. Capital Structure of Banks**

	<b>Shareholders (Percent of Total Shares)</b>	
<b>Banque de Développement du Mali (BDM-SA)</b>	Government	20
	BCEAO	20
	BOAD*	20
	Private national shareholders	23.3
	Moroccan Bank	16.7
<b>Banque Nationale de Développement Agricole (BNDA)</b>	Government	39.5
	BCEAO	16.8
	Caisse Française de Développement	19.6
	Deutsche Entwicklungs Gesellschaft	18.5
	BDM-SA	5.6
<b>Banque Internationale du Mali (BIM-SA)</b>	Government	61.5
	Private national shareholders	38.5
<b>Banque Malienne de Crédit et de Dépôt (BMCD)</b>	Government	100
<b>Bank of Africa (BOA)</b>	Private national shareholders	75.6
	Private foreign shareholders	24.4
<b>Banque Commercial du Sahel (BCS)</b>	Government	49.5
	Foreign Arab Banks	50
	Private national shareholders	0.5
<b>Banque de l'Habitat du Mali (BHM-SA)</b>	Government	14.8
	Institut National de Prévoyance Sociale (Security social)	37.1
	Agence de Cession Immobilière (ACI)	25.9
	Banque Internationale du Mali-SA	7.4
	Private national shareholders	14.8
<b>Banque Internationale pour le Commerce et L'Industrie du Mali (BICIM)</b>	Banque Nationale de Paris	20
	SFOM Interafrica	50
	Banque Mauritanienne pour le Commerce Nouakchott	15
	Private national shareholders	15
<b>Ecobank</b>		
	Ecobank Transnational Incorporated	50
	Ecobank Bénin	30
	Ecobank Togo	20

Source: BCEAO; \* Banque Ouest Africaine de Développement.

### **3.4. Banking Services in Rural Areas**

In this section the question that needs to be answered revolves around the current coverage of rural areas by financial institutions. In Mali, there is a large gap between the banking services in urban areas and rural areas. The commercial banks in Mali, like in many developing countries, are biased in favor of urban areas. In Sub-Saharan Africa, the abolition of the directive credit system led to decreasing financial services in the rural areas. In the past, banks were extending their services in rural areas under pure regulatory pressure. The 1989-93 financial reform (adaptation of indirect financial instruments by BCEAO in conducting monetary policy) and the structural adjustment programs have changed Mali from a centrally planned to a market economy. Today in Mali, most banks have withdrawn from non-profitable lending to small farmer borrowers, who are perceived as costly and risky clients. Except the mobilization of some small urban deposits, these banks ignore microcredit, particularly in the rural areas.

Commercial banks have closed loss-making branch offices situated in the rural/remote areas and thus deprived people from banking services. The scaling down of commercial banks' activities in Mali led to the expansion of the microfinance institutions (MFIs). The microfinance institutions in Mali can be classified in four main categories: (i) mutual savings institutions, whose main activity is to mobilize savings, and which take the form of mutual or cooperative systems, (ii) direct credit institutions, whose main activity is to provide credit to meet the needs of small borrowers, along the lines of the Grameen Bank (Bangladesh); (iii)

financial institutions, whose activities are linked to development project; and (iv) traditional finance institutions, which include various rural associations and tontines operating as saving and rotating credit institutions (IMF, 1999; CAS/SFD, 1999).

Many observers believe that these services to the rural population create opportunities for the poor to create, own, and accumulate assets and to smooth their consumption. The field of microfinance was pioneered by the Grameen Bank (Bangladesh), specialized NGOs and commercial banks such as BRI-Unit Desa (Indonesia), among others. These first experiments have demonstrated that poor people, who have been traditionally excluded by the formal financial sector, can, in fact, be a commercially sustainable and viable market niche for innovative banking services. The microfinance approach represents a significant departure from earlier exercises in providing credit to the poor through financial institutions (often public institutions) at subsidized rates with little or no recovery rates (Charitonenko, 1998).

The number of commercial bank offices in rural market areas typically is quite low; and the percentage growth in offices tends to cluster around regions with high agricultural potential, such as the cotton and the rice production regions. Table 2 illustrates the geographic distribution of the bank network in Mali as of June 1998.

**Table 2. Mali: Geographic Distribution of Commercial Bank Network, June 1998**

<b>Region</b>	<b>Area (Sq. km.)</b>	<b>Population (1995)</b>	<b>Branches</b>	<b>Population per Branch</b>
<b>Bamako</b>	252	793,642	18	44,091
<b>Kayes</b>	119,743	1,261,842	8	157,730
<b>Koulikoro</b>	95,848	1,414,931	4	353,732
<b>Sikasso</b>	70,280	1,568,775	16	98,048
<b>Segou</b>	64,281	1,339,631	7	191,376
<b>Mopti</b>	79,017	1,452,912	3	484,304
<b>Tombouctou</b>	496,611	505,506	4	126,377
<b>Gao/ Kidal</b>	322,022	422,823	3	140,941

**Source:** Groupe de Réflexion sur le système Financier au Mali (GRSF); Rapport sur le Système Bancaire, September 1998.

In Mali, commercial banks services appear to be quite static in rural areas. Most of the existing rural branches are understaffed, making it very difficult to segregate between incompatible duties' such as maintaining accounting records and cash accounting. The same person is found to do the analysis of the loan request, the approval, and authorize and make payments. As a consequence, there are always mismanagement and embezzlement cases happening in commercial bank offices in rural areas.

Today, Microfinance Institutions (MFIs) are slowly replacing the non-performing rural commercial bank offices. Microfinance institutions have grown rapidly to try to meet this



demand. However, their outreach remains very small compared to the demand – in 1999, less than 20 percent of the estimated poor households had access to microfinance services (BCEAO, 1999). Table 3 illustrates the evolution of the MFIs' outreach in Mali.

**Table 3. Evolution of Access to MFIs 1995-1998 (In thousands)**

<b>Year</b>	<b>Total Clients (Members and users) (a)</b>	<b>Total Population (b)</b>	<b>Number of Households (c) = (b)/6*</b>	<b>Penetration Rate (in %) (d) = (a)/(c)</b>
<b>1995</b>	87	8,700	1,450	06.0
<b>1997</b>	219	9,600	1,600	13.7
<b>1998</b>	259	9,886	1,648	15.7
<b>1999</b>	337	10,500	1,750	19.2

Source: BCEAO

According to the Central Bank, although the MFIs are expanding, their shares of total deposits and loans in the country remain small compared to the banks. Table 4 illustrates the shares of the deposits and loans of the MFIs and the banks in 1998.

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\* Hypothesis: a household of on average 6 persons

**Table 4. Comparative Shares of the Deposits and Loans of Malian Banks and MFIs in 1998**

(in million CFAF)

	<b>Deposits</b>	<b>%</b>	<b>Credits</b>	<b>%</b>
<b>Banks</b>	224.5	96	255	95.7
<b>MFIs</b>	8.5	4	12.2	4.3
<b>Total</b>	<b>233</b>	<b>100</b>	<b>266.4</b>	<b>100</b>

Source: BCEAO

However, it is not possible to compare the two types of financial systems, as they do not target the same client base. According to the Central Bank, the comparison cannot go beyond a mere comparison the financial volumes of the two types of institutions. Table 5 illustrates some key indicators for the MFIs and the banks in 1998. From the table we can see that the MFIs have better outreach that the banks.

**Table 5. Comparison of Some Key Indicators between the Banks and the MFIs as of December 1998**

	<b>Banks</b>	<b>MFIs</b>
<b>Number of Deposit Counters</b>	148	721
<b>Deposit Interest Rate</b>	15% maximum	8% to 84%
<b>Lending Interest Rate</b>	4.5%	3% to 36%

Source: BCEAO, 1999

Currently in Mali several MFIs are emerging in areas where the commercial banks are absent. The activities of microfinance started in mid 1980s in Mali and their legislative framework was defined in 1994 (approval for the networks of mutual savings and loans, recognition for the other types of networks). In 1997, Mali defined a national strategy for the activities of microfinance and worked out an action plan for their promotion. A National Advisory Group in microfinance was created in 1998. The BNDA was member part of it. Table 6 illustrates the geographic distribution of the microfinance network in Mali as of December 1998.

**Table 6. Mali: Geographic Distribution of MFIs, December 1998**

<b>Region</b>	<b>Population (1995)</b>	<b>Number of Branches</b>	<b>Population per Branch</b>
<b>Bamako</b>	<b>793,642</b>	<b>50</b>	<b>15,873</b>
<b>Kayes</b>	<b>1,261,842</b>	<b>4</b>	<b>315,460</b>
<b>Koulikoro</b>	<b>1,414,931</b>	<b>31</b>	<b>45,643</b>
<b>Sikasso</b>	<b>1,568,775</b>	<b>63</b>	<b>24,901</b>
<b>Segou</b>	<b>1,339,631</b>	<b>89</b>	<b>15,052</b>
<b>Mopti</b>	<b>1,452,912</b>	<b>2</b>	<b>726,456</b>
<b>Tombouctou</b>	<b>505,506</b>	<b>1</b>	<b>505,506</b>
<b>Kidal</b>	<b>48 524</b>	<b>N/A</b>	<b>N/A</b>
<b>Gao</b>	<b>374,299</b>	<b>N/A</b>	<b>N/A</b>

*Source: CAS/SFD*

The density of MFIs is highest in the areas with the most dynamic local economies: Bamako

(the capital), Ségou (rice) and Sikasso (cotton and horticulture).

### **Evolution of the MFIs' Networks**

Here we present the evolution of the MFI system in Mali.

#### **a) Membership evolution**

As of December, 1998, the number of members in the system attained 300,709 (against 229,684 in 1997). Mutual savings and loans associations accounted for 169,341 (56.3%), self-managed saving and credit unions accounted for 71,340 (23.8%) and interdependent credit unions' accounted for 59,938 (19.9%). The number of women in the network was 137,016 as of December 1998 (or 45.6%). In 1997, the number of women was 98,503 and was 42.9% of the membership. The increase in total membership was 30.9% between 1997 and 1998 (CAS/SFD, 1999).

**Table 7. MFIs' Membership Evolution 1997-1999**

<b>Membership</b>	<b>1999</b>	<b>1998</b>	<b>1997</b>
<b>Men</b>	N/A	163,693	131,181
<b>Women</b>	N/A	137,016	98,503
<b>Total</b>	<b>337,000</b>	<b>300,709</b>	<b>229,684</b>

Source: CAS/SFD, 1999; NA: Not Available

#### **b) Evolution of the Deposits**

In December 1998, the total deposits in the microfinance institutions amounted to CFAF 8.5 billion, or an increase of 36% compared to 1997. In the system of mutual savings and loans

institutions, the deposits totaled CFAF 6.5 billion (77% of the total). The total deposit amounts for self-managed saving and loans union and interdependent credit union were 17% and 6% of the total, respectively.

### **c) Lending Activities**

In December 1998, the total loans granted by the microfinance institutions amounted to CFAF 12.2 billion, or an increase of 37% compared to 1997. The average loan size also increased, going from CFAF 101,000 in 1997 to 127,000 in 1998.

## **3.5. Description of the Major Agricultural Subsectors and their Main Sources of Finance**

In this section, we will describe the cotton, rice, and other crop (coarse grains and horticulture) subsectors with implications for financing, while emphasizing the role of interlinked markets in dealing with information asymmetries and transaction costs. First we describe the integrated system in the cotton subsector, which has the best access to financial services. Second, we present the fragmented credit system inherited from the cereal market liberalization. The third analysis is on other subsectors that have historically lacked formal financing systems.

Many small farmers concentrated in areas called the Malian Company for the Development of Textiles (CMDT) zones characterize the cotton subsector in Mali. The cotton subsector is

a monopsony. CMDT handles the cotton marketing in Mali. Many small farmers and buyers characterize the rice, the coarse grains and the horticulture subsectors. Those subsectors are operating under an open market system (See table 8).

**Table 8. Characteristics of the different actors by sector**

	<b>Subsector</b>			
	<b>Cotton</b>	<b>Rice</b>	<b>Coarse Grains</b>	<b>Horticulture</b>
<b>Buyers</b>	One large	Many small	Many small	Many small and few large
<b>Farmers</b>	Many small	Many small	Many small	Many small
<b>Financing schemes</b>	Input Credit/ Output payment (Interlinked Markets)	Group loans/ Micro-financing	Input credit/ Output payment Commercial banks and informal credit	Commercial banks and informal credit

**Borrowers** - The following actors borrow for agriculture:

Farmers as individuals or as groups (called village associations (AVs)) need access to credit for long-term land improvement and capital expenditures (equipment) as well as to meet short-term seasonal needs for their inputs (fertilizers, seeds, water). The seasonal loans are usually short-term, due in a maximum of six months. The investment loans are mostly medium-term, payable over three to five years. However, those loans are very hard to get, are very time-consuming and thus involve very high transaction costs.

Traders need marketing credit. They need working capital. They use the loan to buy cereals

from the farmers, to pay for the transport of cereals to the different markets, and to pay for storage fees. They also need long-term loans to purchase trucks in case the trader wants to handle his own transportation, or to build storage facilities.

Small food processors need both short-term and long-term loans. The short-term credit is for the purchase of the required raw materials for processing activities. Long-term loans are for the acquisition of small-scale processing equipment.

**Sources of lending** - In Mali, agricultural lending is mainly from two sources: the formal and the informal sectors. The formal sector consists of commercial banks, development banks, and microfinance institutions. The informal sources of lending include self-financing through household savings and loans from private traders, and relatives or friends. The commercial banks, development banks, and microfinance institutions also supply credit to other sectors. Loans to farmers represent a small share of the total loans granted by the commercial banks.

**Sources of funds**-Banks mostly get their funds from customer deposits (individual, private firms, and local and foreign government agencies) and retained earnings. The resources of the microfinance institutions (MFIs) are mainly from equity, internal savings, mobilization of savings, and subsidies and credit lines from commercial banks, the government, and international organizations.

### 3.5.1. The Cotton Subsector: Malian Company for the Development of Textiles (CMDT)

CMDT is a parastatal marketing company that manages cotton marketing in Mali. Cotton is a cash crop produced mainly for export. It provides more than 50% of the state revenue (FEWS 1997). In 1998, the cotton production reached its highest--level 522,000 m.t., compared to 406,000 m.t. in 1996. This increase in production was partly due to a very good rainy season and improvement of the yield per hectare. This good crop year has led to an increase in farmers' revenues.

**Table 9. Mali: Cotton Production 1992/1993-1997/1998  
(Gross production, in thousands of metric tons)**

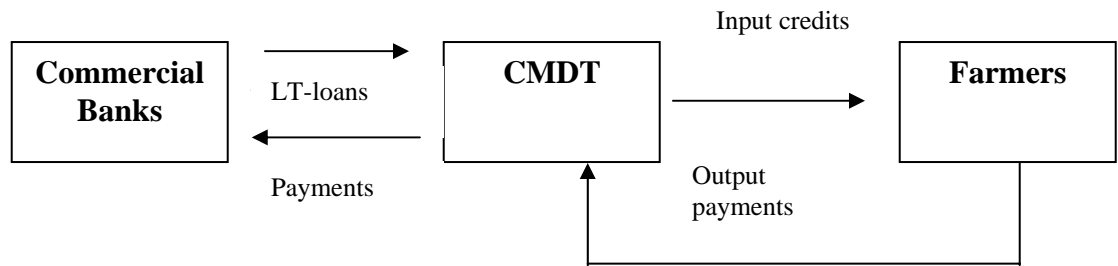
	1992/1993	1993/1994	1994/1995	1995/1996	1996/1997	1997/1998*
<b>Cotton</b>	319	240	293	406	452	523

Source: IMF, 1999

Financing is not major issue in the cotton subsector, as farmers easily obtain credit from CMDT. In return, CMDT is financed by the local commercial banks (see figure 2). The marketing company offers two types of credit to farmers: seasonal credit for inputs such as seeds and fertilizers; and long-term investment loans for the purchase of equipment. CMDT has the monopsony purchase rights to output, which ensures the credit recovery.



**Figure 2. Financing Scheme**



CMDT's marketing activities are fully financed by local banks. The government (a major shareholder in CMDT) guarantees the company's loans, which explains its easy access to credit. Farmers can borrow as individuals or as a group from banks, but because of high transactions costs related to the alternative of individually borrowing from the banks, such as remote location of banks and lack of conventional guarantees, they do not often exercise that option. There is no credit demand from Malian private traders for the commercialization of cotton, as the subsector is still inaccessible to them.

### **3.5.2. The Irrigated Rice Subsector: Office du Niger (ON)**

ON is the oldest and largest government-established rice production area. It has historically produced nearly half of Mali's domestic rice production and the majority of the domestic rice entering the market (Dembélé and Staatz 1999). The rice production is carried out by several hundred small producers. The smallholders lease land from the ON and are obliged to grow rice. The combined effect of the liberalization of cereal marketing in 1985 and the intensification of rice growing allowed clear improvement of the rice production. The yield

increased from 1.6 ton by hectare in 1984 to 3 tons by hectare into 1990 before reaching 5 tons per hectare in 1995.

**Table 10. Evolution of Rice Production in Mali's Office du Niger 1996-2000**

<b>Agricultural Year</b>	<b>Area (Ha)</b>	<b>Production/Paddy (T)</b>	<b>Yield (T/Ha)</b>
1996-1997	55 519	293 696	5,29
1997-1998	55 774	306 199	5,49
1998-1999	55 114	330 684	6,00
1999-2000*	61 961*	384 158*	6,20*

*Source:* Cissé, 2000.

\* Estimations

This increase in rice production led to an increasing demand for financial services in the ON zone. Prior to the cereal market liberalization, ON had in a place an integrated financing system similar to the one used in the cotton subsector. The ON, through its program of Village Development Funds (FDV) and the Agricultural Development Bank (BNDA), ensured the financing of rice production until 1994. During that period, the outstanding loan amounts combined for both institutions were estimated to CFAF 3 billion. Following liberalization, such finance has not been easily available to private traders, who took over the marketing functions previously carried out by the state. Commercial banks in Mali provide credit only on a short-term basis, and the interest rates are very high. Such measures allow the banks to reduce their risks. Malian banks' tight credit policies make local financing difficult to obtain if a firm is not an established customer. Nevertheless, new private traders and businesses are granted loans if they demonstrate that they can manage their inherent risks. In Mali, the lack of finance for private traders has emerged as a significant constraint

to the emergence of a dynamic private sector able to take over the bulk of trading from state trading bodies. In the cereal sector, measures were taken to remedy the financing problems created by the reduced role of the parastatal the Agricultural Products Office of Mali (OPAM).

In 1994, the FDV was placed among the units to be privatized or liquidated. Consequently, the FDV was transformed into a network of mutual microfinance institutions called the Fédération des Caisses Rurales Mutualistes du Delta (FCRMD).

Currently, four financial institutions operate in the zone: a bank and three networks of saving and loans.

- the Agricultural Development Bank,
- the Fédération des Caisses Rurales Mutualistes du Delta (FCRMD).
- the Network of Credit and Saving banks of Mali (Nyesigiso), through the PACCEM (Project to support the commercialization of cereals in Mali)
- the Network of the Self-managed Saving and Credit institutions: CVECA-Niono.

The BNDA, the FCRMD and the CVECA-Niono network act in concert regularly through a centralized credit reporting system established since 1996. During the marketing year 1999/2000, the three have invested more than CFAF 1.76 billion in rice production (Cissé 2000).

According to CVECA-Niono, the loans in zone were provided as follows:

- **BNDA:** CFAF 137 million (or 8%, all in direct financing to farmer organizations),
- **FCRMD:** CFAF 978 million (or 56%, through group and individual loans),
- **CVECA-Niono:** CFAF 647 million (36%, through group and individual loans)

### 3.5.3. Other subsectors

*Coarse grains-* In Mali, the coarse grains subsector involves many small producers and traders. There is no formal lending system in the coarse grains subsector. In CMDT zones, where coarse grains are grown with cotton, farmers can benefit from the integrated credit system in place to support cotton production. The producers outside of the CMDT zones, for the purchase of their inputs, rely on self-financing, with funds obtained from friends and family, retained earnings from cash crop or other businesses, and participation in informal groups.

**Table 11. Mali: Coarse Grain Production 1992/1993-1997/1998**  
(Gross production, in thousands of metric tons)

	1992/1993	1993/1994	1994/1995	1995/1996	1996/1997	1997/1998*
<b>Millet</b>	582	708	898	707	739	649
<b>Sorghum</b>	602	777	746	710	541	559
<b>Maize</b>	193	283	322	264	294	341

\*Estimates

Source: FAO/CILSS

*The Horticulture* subsector comprises a few large operators who have largely self-financed their entry into the European market, medium to small producers who are only able to sporadically export to Europe, and smaller producers, especially women's groups, who produce exclusively for the domestic market. Also, the devaluation of the CFA franc in 1994 led to a boom in the regional trade for horticulture products (e.g. potato producers in Sikasso began exporting large volumes to Côte d' Ivoire). Formal financial sources play only a minor role in financing the horticulture sector; in particular, small producers rely on self-finance or informal sources of finance. The financial arrangements used in the subsector are dominated by self-finance, with funds obtained from friends and family, retained earnings from other businesses, and participation in informal groups. The formal finance is confined almost exclusively to well-established large exporters.

## **CHAPTER IV**

### **TRENDS IN CREDIT ALLOCATION IN THE MALIAN ECONOMY**

#### **4.1. Introduction**

In chapter three, we presented the structure of the financial markets in Mali. Following the SCP framework, in this chapter we discuss how the structure of the financial markets has influenced the conduct of the banking system.

#### **4.2. Total Loans**

##### **4.2.1. Loans to the Economy**

The total loans to the economy (companies and households) is defined by the Central Bank as all the loans granted by the banks; the loans granted by the financial institutions and refinanced by the banks and the Central Bank; guaranteed loans; and doubtful and litigious loans since October 1985.

In observing the data, we notice that the banking sector's lending to the economy expanded substantially in real terms. Real loans are calculated as nominal loans deflated by the GDP deflator, with the 1995 CFAF as base year. The GDP deflators used were obtained from the World Bank's 1999-World Development Indicators database. The real credit to the economy went from CFAF 160 billion in 1986 to CFAF 248 billion in 1999, a 56% increase. The majority of loans to the economy are short-term. In 1999, 71% of the loans were short-term credits (STC). The medium-term credits (MTC) and long-term credits (LTC) were 16% and

3 %, respectively. During the same period, 9% of the outstanding loans were doubtful. Table 12 shows the loan distribution to the economy in real term. From the table we can see that from 1989 to 1993, the percentages of long-term credits were very high. This was in expectation of the devaluation of the CFAF. Banks were lending more than usual to prevent people from taking the money out of the country. From 1996 to 1999, the medium-term loans suddenly skyrocketed. The unusually high credit balance resulted from banks granting in banking-pool large medium-term loans to the cotton parastatal to build new processing factories in the expectation of higher production with the increasing world cotton price.

Data on loan distribution by type of economic activity are not very detailed. The information is collected on an aggregate level. It is very difficult to know exactly the amount of loans extended by type of economic activity, as the only credit records are the ones declared in the Central of Risk (credit report issued by the central bank). However, there is a minimum balance set by the Central Bank for loans that can be recorded in the Central of Risk. The floor amount varies from country member to country member. In Mali, the minimum amount is CFAF 5 million. This minimum amount set by the central bank is way above the amounts often requested by smallholders (CFAF 500,000 or less) and small traders (less than 2 million); thus no data were available on lending to small traders and smallholders. Given the immateriality of the small loans, the central bank does not required banks to report them by sector. Small traders and smallholders are completely rationed out of the formal bank loan market in the absence of explicit or implicit government guarantees and formal bankruptcy

laws and priority rules, as reinforcing loan contracts becomes complex.

Also, the banks at their level do not maintain a detailed accounting by type of borrowers. This makes it difficult to trace the amount of loans going to smallholders and small traders. The lack of adequate accounting information system shows the inefficiency of bank management, how it limits decision-making. The decisions are made based on perceptions and experiences rather than on hard data.



**Table 12. Loans to the Malian Economy by Malian Financial Institutions, 1986-1999  
(in CFAF million)—Real Figures (1995 CFAF) \***

	Loans				
	Short-Term	Medium-Term	Long-Term	Bad	Total
<b>1986</b>	116,178 (72%)	12,438 (8%)	9,462 (6%)	21,673 (14%)	159,751 (100%)
<b>1987</b>	103,580 (67%)	14,395 (9%)	9,904 (6%)	27,542 (18%)	155,419 (100%)
<b>1988</b>	53,795 (47%)	12,191 (11%)	30,516 (27%)	17,839 (15%)	114,339 (100%)
<b>1989</b>	52,366 (38%)	21,550 (16%)	45,798 (33%)	18,662 (13%)	138,375 (100%)
<b>1990</b>	51,129 (38%)	20,648 (15%)	44,382 (33%)	18,405 (14%)	134,562 (100%)
<b>1991</b>	49,796 (37%)	10,094 (7%)	42,198 (31%)	33,111 (25%)	135,201 (100%)
<b>1992</b>	52,961 (37%)	11,169 (8%)	41,081 (29%)	36,038 (26%)	141,248 (100%)
<b>1993</b>	47,318 (34%)	12,819 (9%)	40,321 (29%)	40,055 (28%)	140,512 (100%)
<b>1994</b>	52,818 (55%)	12,189 (13%)	3,095 (3%)	27,626 (29%)	95,727 (100%)
<b>1995</b>	79,093 (61%)	22,305 (17%)	4,962 (4%)	23,911 (18%)	130,270 (100%)
<b>1996</b>	87,370 (54%)	48,619 (30%)	7,848 (5%)	17,157 (11%)	160,995 (100%)
<b>1997</b>	101,454 (56%)	51,584 (29%)	5,752 (3%)	22,224 (12%)	181,014 (100%)
<b>1998</b>	147,849 (67%)	46,586 (21%)	6,237 (3%)	20,637 (9%)	221,309 (100%)
<b>1999</b>	177,489 (71%)	40,694 (16%)	7,021 (3%)	23,279 (10%)	248,482 (100%)

Source: BCEAO;

\* Figures in parentheses are percents of total loans extended for a given year.

#### 4.2.2. Credit to Agriculture

The banks are lending more to agriculture compared to a decade ago (Table 13). From 1990 to 1995, the total credit to agriculture averaged around CFAF 18 billion. In 1996, the credit to agriculture almost tripled because of the high promising cotton sector, with high world market prices. Mali became the second largest cotton producer in Africa. Thus, in 1997 the total loans to agriculture were at their highest level. Also, contributing to the increase of loan amounts to agriculture was the higher price of imported inputs, which sharply increased after the 1994 devaluation. We note that an estimated total credit of CFAF 101 billion (US\$ 182 million\*) was supplied to the agricultural sector during that period. The increase went largely to the cotton parastatal to expend its processing capacities. However, in 1998 the higher world prices did not occur and the world market price of cotton began falling. It fluctuated between U.S. \$1.30 and \$1.75 per kilogram in the recent past. Thus, in 1999 the amount of credit extended to agriculture decreased by a 10% compared to the 1998 figures, in part because of the Asian financial crisis, which dampened demand for cotton. The historically low world prices of cotton hurt the earnings of the cotton parastatal, which was not able to pay back the smallholders in time. This led to small farmers being in debt, and thus provided banks with an additional reason to stay away from the agricultural sector.

In 1999, the estimated credit to the agricultural sector was CFAF 49 billion (US\$ 82 million) or twenty percent (20%) of the total credit to the economy. The loans were distributed as

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\* 1994 Exchange Rate: CFAF 555 = US\$ 1 (World Bank)

76% short-term loans and with medium-term loans accounting for 22% and long-term loans 2%. The totality of the medium and long-term credits were granted to the cotton parastatal (CMDT) and the major food processing companies (*Huilerie Cotonniere du Mali* (HUICOMA), *Grande Confiserie du Mali* (GCM), *Grands Moulins du Mali* (GMM), etc.). The loans to agriculture are low relative to its 45% contribution to the GDP. However, the current share of loans going to agriculture is an improvement compared to ten years ago, when the total amount loaned to agriculture was only 10% of the total credit to the economy.

**Table 13. Allocation of Agricultural Loans Reported in the Central of Risk  
(In CFAF million)—Real figures (1995 CFAF)**

	Loan							
	STC	MTC	LTC	Total	STC	MTC	LTC	Total
<b>1990</b>	14,650	374	729	15,754	93%	2%	5%	100%
<b>1991</b>	14,067	517	698	15,282	92%	3%	5%	100%
<b>1992</b>	18,479	1,118	675	20,272	91%	6%	3%	100%
<b>1993</b>	14,541	1,007	625	16,172	90%	6%	4%	100%
<b>1994</b>	8,508	2,208	487	11,204	76%	20%	4%	100%
<b>1995</b>	8,338	2,240	486	11,064	75%	20%	4%	100%
<b>1996</b>	15,422	14,250	961	30,633	50%	47%	3%	100%
<b>1997</b>	41,270	59,025	476	100,771	41%	59%	0%	100%
<b>1998</b>	42,900	11,043	765	54,708	78%	20%	2%	100%
<b>1999</b>	37,369	10,961	736	49,066	76%	22%	2%	100%

\* Minimum amount for a credit to be reported is 5 millions CFAF; Source: BCEAO

The growth rate in commercial bank loans to agriculture is higher than the increase in

loans to other sectors. Banks are lending to agriculture at increasing rate. However, in absolute value, the total credit extended to agriculture is still very low compared to the amount of loans granted to the other economic sectors and it is concentrated overwhelming in the cotton sector.

### **4.3. Credit Allocation by Major Agricultural Sector**

#### **(1) Cotton**

The Mali banking system and financing services mainly focus on large commercial and industrial enterprises, where the elements of risk are easily computed. In general, banks have been lending where the returns are highest for the perceived level of risk. Malian commercial banks easily lend to CMDT, because this firm is regarded as creditworthy. Banks do not mind the integrated financing scheme, as it reduces their transaction cost and risk linked to loan recovery. In 1999, the cotton sector received CFAF 28.2 billion in marketing credits (short-term loans) from a consortium of five commercial banks (BNDA, BIM, BMCD, BCS, and Ecobank), with 70% of that amount (or CFAF 19.8 billion) provided by the Agricultural Development Bank.

The cotton producers in Mali-south also concluded, in 1987, an agreement in principle with the cotton company to promote a network of credit and savings banks called “Kafo Jiginew” (Granary Union). Kafo Jiginew has a unique advantage in that their lending operations are linked to CMDT. This allows Kafo Jiginew to lend to cotton producers and guarantee their repayment through CMDT, which ensures that Kafo Jiginew is repaid before cotton

producers are paid for their harvest. In 2000, 67% of Kafo Jiginew's resources, or CFAF 2.6 billion, were lent to the cotton sector. This was a decrease compared to the previous year, when 74% of Kafo Jiginew's resources (or CFAF 3.4 billion) went to the cotton sector. This reduction in amount of credit was the result of a prudent lending policy given that many farmers refused to plant cotton in 2000, as result of a decreasing world cotton price and increasing input costs.

## **(2) Rice**

In Mali, new credit schemes were set up in 1987 and 1988 to assist both traders and farmers in the procurement and inter-seasonal storage of grain. Funds from the donor-financed PRMC were channeled through the branches of the local banks so they could extend marketing credit to village associations (AVs). However, this system collapsed in part because of the lack of experience of the AVs in marketing and the lack of a reliable judicial system for contract enforcement. With the liberalization, farmers quickly realized that selling to private traders was more profitable than dealing with the government. Therefore, several AVs sold their production on credit to traders who failed to pay them back, leaving them with no funds to repay their marketing loans.

Another alternative for farmers was to hold their production late into the season, hoping to benefit from the future price increase, but in doing so, they failed to repay their credit on time. The farmers complained that the loan repayment time was too short (one month after harvest) and that the banks were conspiring with traders to force AVs to sell their production

very fast, thus depressing prices. Members of AVs that defaulted on their loans no longer had access to group credit and were forced to seek individual loans to purchase their inputs. This has caused serious problems of access to inputs, particularly for smaller farmers; thus, a major challenge in the Office du Niger is to develop effective input delivery and credit systems to replace the automatic credit recovery that was a feature of the state monopoly marketing system (Kelly et al. 1999). Practitioners believed that these problems were just transitional. However, they ended up being more persistent than imagined. According to the coordinator of CVECA-Niono, the number of AV members defaulting their loans is increasing in the ON zone at an alarming rate.

Banks also offer inventory credit to traders via a program supported by the PRMC (*tierce detention*). Inventory credit involves a borrower negotiating a line of credit, to be made available against the presentation of warehouse receipts. At harvest time, he or she deposits grain (purchased with the traders' own funds) at the warehouse as security for a bank loan. This can then be used to purchase further produce, which can itself be pledged as security for a further loan. In this way the borrower's stocks can be increased well beyond his or her initial means. When market prices rise, he or she repays the bank, either in full or in part, pays the warehousing charges and withdraws the relevant quantity of grain for sale on the market. If the borrower does not repay the loan by the due date, the bank seizes the grain and sells it to a third party.

There were many difficulties in administering these schemes. Processing of loans was extremely slow, and traders had to wait a month or more to obtain loans. The warehouse operators, who participated in the scheme, did not always satisfactorily perform due to poor management and low quality storage facilities. This diminished the commitment of the banks, whose performance was itself negligent, failing to manage the lending risk and failing to pursue unpaid debts. Banks might have performed better had their own funds been invested, but until 1991/92 the schemes were funded entirely with donor money through the PRMC loan guarantees. In the fact, banks simply administered the schemes on behalf of Government without ever having any real sense of ownership.

### **(3) Other Subsectors**

The notion of horticulture as a potential cash crop in Mali is fairly new. At first, local banks were interested in the sector, but were very cautious in committing their funds. However, a couple of success stories and government pressure were enough to convince banks to finance large traders and producers in the sector. Banks are slow in lending to horticulture producers for the same reason they do not individually lend to smallholders and small traders in other subsectors. Most of the producers in the horticulture subsector lack required collateral and their incomes vary a lot due to the nature of the products (perishable) and their dependency on seasons. We have two types of producers in the horticulture subsector. First, we have the large producers, mostly civil servants owning farms in the areas surrounding of the capital city, Bamako. Second, we have the small producers, who are mostly women with very small

land plots typically less than 500 square meters. The lands do not belong to them; they spontaneously occupy lands and plant.

In an attempt to solve the problem of access to financial resources in horticulture, APROFA<sup>10</sup> (Agency for the Promotion of Agricultural Subsectors) has approached the bankers in an attempt to convince them to invest in the sector. In spite of the support of the (US\$ 4.6 million) agency, the banks were hesitant to finance the sector because of the absence of sufficient guarantee and the low level of professionalism of the promoters. However, the effort was not entirely ineffective, as from Table 14 we can see that the banks financed more than CFAF 2.7 billion in the sector marketing the fruit and vegetables between 1996 and 1998.

From table16, we can see that the amount of loan decreased in 1998 compared with 1996. The decrease was due to banks' prudent lending policies to horticulture, as result of difficulties encountered during the recovery of the first loans.

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10 Agence pour la Promotion des Filières Agricoles (APROFA) was created by the Permanent Assembly to the Chamber of Agriculture of Mali (APCAM) to support the development of the different agricultural subsectors.



**Table 14. Bank Financing of Trade in a Few Commodities in the Horticulture Subsector**

**(in thousands of CFAF)**

<b>Product</b>	<b>Amount</b>			<b>Total</b>
	<b>1996</b>	<b>1997</b>	<b>1998</b>	
Mangoes	62,500	190,000	273,000	<b>525,500</b>
Potatoes	809,146	605,791	750,000	<b>2,164,937</b>
Sweetened pea	350,000	N/A	N/A	<b>350,000</b>
Green peas	N/A	30,000	20,000	<b>50,000</b>
<b>Total</b>	<b>1,221,646</b>	<b>825,791</b>	<b>1,043,000</b>	<b>2,740,437</b>

*Source: APROFA*

**CHAPTER V**  
**IMPACT OF FINANCIAL MARKET POLICIES ON LENDING TO**  
**AGRICULTURE**

**5.1. Introduction**

In Mali, the share of credit going to agriculture is increasing. However, the majority of the growth is going to the integrated cotton subsector and the large food processing companies. In 1999, more than 80% of the loan funds to agriculture went into the cotton subsector (BNDA, 1999). Many small traders and smallholders in other agricultural subsectors, such as grains and horticulture, have little or no access to credit. Inadequate Central Bank policy, weak regulatory framework, and inappropriate collateral laws partly explained the limited access of these groups to credit. This chapter provides an overview of the policy issues affecting lending to small traders and smallholders in the agricultural sector. As mentioned before, the policy environment surrounding Malian banks appears to encourage conservatism and discourage the development of new lending instruments. For years, the monopolistic right to the government budget, the liquidity controls imposed by the central bank, and the high level of interest that banks could obtain on treasury bonds, diminished their interest in finding new clientele. However, with the financial sector reform, these opportunities no longer exist. It is inevitable for the banks to adapt to the new financial environment and to the changing economic realities of the country. Those who will not do so will lag behind and/or will be forced to exit the banking system.

The chapter is organized as follows. Section 2 describes the financial sector policies, while section 3 presents the legal and regulatory framework. Section 4 examines the collateral laws in place. Section 5 concludes.

## **5.2. Financial Sector Policies**

Mali, like many African countries, did not escape from the wind of the financial sector reform that stormed through the developing countries in late 80's and early 90's. In 1989, a major financial sector reform program was implemented in the West Africa Economic Monetary Union. The aim of the reforms was to improve the soundness of the financial sector and to align its policies to the changing product markets.

This section describes the financial sector policies and reforms implemented in Mali since it rejoined the Union in June 1984, and analyzes their impact on lending to small traders and smallholders in the agricultural sector. This section is organized as follows. First, an overview of the pre-reform financial sector policies is presented. Second, the financial reform is described. Third, the impact of the different financial policies on the agricultural sector is assessed.

### **5.2.1 Post-Independence Financial Sector Policies**

Mali, like many Sub-Saharan countries, has inherited a post-independence financial sector, with lending policies modeled on those employed in France. Often, the types of collateral

they required are inappropriate and inadequate in the Malian context. After independence, the government believed that it could support Mali's development objectives through a selective credit allocation. As a result, the government became directly involved in the operations of the financial sector and even created commercial banks and a development bank (Mehran et al., 1998). The financial sector's pre-reform policies involved control over interest rates, attempts to control the sectoral allocation of lending, prudential regulation and supervision, and the establishment of financial institutions.

#### **5.2.1.1 Credit Controls**

Prior to 1989, the BCEAO controlled the total liquidity in the economy by fixing the amount of credit that the central bank could grant to the national treasury, banks and financial institutions in each country member. This credit ceiling was to secure an acceptable cover of monetary emission. The central bank also controlled the total amount of credit that an individual bank could lend to the economy during a given year. The non-respect by a bank of the credit ceiling quantity was sanctioned. The controlled credit policy was to regulate the liquidity in order to control inflation induced by high level of monetary transactions.

The central bank also had a sectoral credit policy. The policy mandated that a minimum of 80% of the credit granted to the economy must go to priority sectors such as agriculture, industry, mining, construction, and transport and the remaining 20% (maximum) to non-priority sectors such as the general commerce. A bank that did not respect these policies was

subject to penalties. However, the sectoral directives appear not to have been strictly enforced. Despite the controlled credit to priority sectors, such as agriculture and manufacturing, they remained under-funded with respect to the targets and constituted the largest percentage of the non-performing loans. Table 15 illustrates the distribution of credits between the priority sectors and the non-priority sector in Mali from 1986 to 1988. From this we can see that the sectoral policy was not successful in Mali. In fact, the same conclusion was reached by the central bank in each state member of WAEMU.

**Table 15: Credit Allocation in Mali 1986-1988**

	<b>Targeted</b>	<b>Realized</b>
Priority Sectors	80%	42%
Non-Priority Sectors	20%	58%
<b>Total</b>	<b>100%</b>	<b>100%</b>

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Source: BCEAO

Another control mechanism was that banks were required to obtain the approval of the Central Bank to lend any amount greater or equal to CFAF 30 million (\$ 86,000, using an average exchange rate of CFAF 350 = US\$1).

### **5.2.1.2 Interest Rate Policy**

Prior to the reform, the central bank (BCEAO) determined the structure of bank interest rates, including the minimum interest rates for deposits and maximum lending rates. The tight control over the interest rate was to control inflation and capital flows in order to maintain the parity with the French franc. Riskier sectors such as agriculture were accorded a preferential discount rate. This resulted in real interest rates to these sectors being held below market equilibrium levels, which did not favor efficient allocation of resources. This interest rate policy made the central bank a source of cheap resources, which did not encourage commercial banks to make efforts to mobilize savings. Commercial banks were continuously borrowing from the Central Bank to finance the crop production and marketing and small and medium enterprises. Banks were even tempted to borrow locally and to reinvest the money in other state members' markets, where they were able to attract higher remuneration. Also, the Central Bank accepted the excess liquidity of commercial banks and lent to other banks in the WAEMU. This provided commercial banks in Mali with little incentive to compete with each other to provide attractive products and services to clients, and explains why the array of banking services is very limited.

### **5.2.1.3 Prudential Regulation and Supervision**

Finding the set of right prudential regulations suitable to the economic reality of the Union has always been a dilemma for the Central Bank. The regulators wanted to put in place regulations that will not compromise the flexibility of the financial system and at the same

time insure the depositors. Prior to the reform, the need for supervision by domestic regulators was limited because banks were largely owned by the states in partnership with established and reputable foreign banks, and were conservatively managed and subject to strict prudential controls from their parent banks. However, the fragility that emerged in the financial systems of the Union in the 1980s exposed the inadequacy of its prudential systems in the face of changes to the structure of their financial systems, notably in the ownership of banks. Supervisory departments were often grossly understaffed, and focused not on prudential issues but on enforcing economic regulations, such as compliance with foreign exchange controls.

#### **5.2.1.4 Establishment of Commercial Banks**

The central bank fixed the minimum required capital for the establishment of commercial banks and financial institutions. In the Union, the license to operate a commercial bank was recommended by the Central Bank and the approval was at the discretion of the host country's Ministry of Finance and Economy. The central bank also had the supervisory power to revoke licenses and to restrict bank activities. The government of Mali had a protectionist policy for its financial sector. Prior to 1998, it was almost impossible for a foreign bank to operate in Mali without the state and private Malian participation in its capital. This led to a less competitive banking system, with few banks controlling the sector, dividing the market shares among themselves and charging high enough interest and fees to capture excessive profits.

## **5.2.2 Financial Reforms**

After much consultation and empirical studies pointing out the inefficiency and ineffectiveness of the monetary policy in the Union, in 1989, the Central Bank decided to alter its policy by reducing the administrative burdens, and to offer a more flexible environment, which would increase competition in the banking system. The reform involved financial liberalization and institutional reforms. It was the first reform since the 1975 reform that gave central banks more administrative autonomy in conducting monetary policy. The reform was to replace direct instruments with indirect instruments of implementing monetary policy to the degree allowed by the link with the French franc. The financial reform was necessary because of inadequate macroeconomic policies such as controlled interest rates, sectoral credit directives and tight prudential regulation and supervision. Poor macroeconomic policies and mismanagement of banks, many of them government owned, led to economic decline of the financial sector in Mali.

### **5.2.2.1.Credit controls**

#### **5.2.2.1.1. Quantitative Control of Liquidity**

Taking into account the effects of credit distribution on external balance of payments and internal prices (inflation), a rigorous control over the quantity of credit and its components is



necessary. However, after the reforms, control was conducted with indirect financial instruments such as reserve requirements, securitization (debt), interest rate, and open market operations instead of administrative instruments such as the controlled credit.

- **A reserve requirement ratio** was introduced in 1993. It has replaced the credit ceiling for individual financial institutions. The credit ceiling fixed the quantity of credits that each bank could grant during a fiscal year. The reserve requirement is a flexible monetary instrument and an indirect instrument for money creation. Reserve requirements are computed as percentages of sight deposits and short-term loans that banks must hold as a non-remunerative deposit at the central bank. The reserve requirement is 1.5% for the commercial banks and 5% for non-bank financial institutions.
  
- **Overall credit ceiling per state member-** this policy remains practically the same as enacted in 1975. The only minor change is the inclusion under the credit ceilings of other type of credits such as agricultural production and marketing credit, which did not have any quantity ceiling. Therefore, since October 1989, the refinancing of agricultural production and marketing credit is subjected to the same conditions as any central bank credits to commercial banks
  
- **Securitization of Consolidated Debt of Governments to the BCEAO-** The consolidated debts constitute debit balances and frozen credits of financial institutions in

difficulties. These were debts owed to the financial institutions by national governments within the Union. The central bank consolidated, restructured and took ownership of this debt, which the national government agreed to pay off over a 15-year period, at 3% interest, following a 3-year grace period. This policy aimed to clean up banks' portfolios, and to institute a basis for future financial markets in the Union. The bonds representing this debt are monetary instruments that may be used by the central bank in its open market policy.

- **Open market operations** were established in 1996 in order to expand the money market. Open market operations are the central bank's most flexible means of carrying out monetary policy. Through open market operations, the central bank buys and sells BCEAO bonds and government securities in the secondary market in order to adjust the level of reserves in the banking system. Open market operations enable the central bank to influence short-term interest rates and reach other monetary policy targets.

#### **5.2.2.1.1. Qualitative Control or Sectoral Credit**

The reform of the monetary and credit policy implemented by the central bank beginning in 1989 eliminated the sectoral orientation of the credit in favor of a more flexible market-oriented system. Thus, the Board of Directors of the BCEAO and the Council of Ministers of the WAMU in 1990 approved the mechanism of loan classification, stressing its importance within the framework of credit management. The classification is based on a

credit-worthiness rating system that classifies the borrowers into 3 groups according to the quality of their reputation and limits the minimum amount that can be classified to CFAF 5 million. Loan classification replaced the credit pre-approval requirement. The system of loan classification is a more flexible mechanism, because it is based only on financial criteria. This system aims in particular to improve the quality of banks' loan portfolios and to determine those loans which are eligible for refinancing from the central bank (in posteriori); to encourage credit institutions to maintain healthy loans; and to give the persons in charge for the financial banks and establishments the autonomy to conduct a sound credit distribution credit. It is noteworthy that the system has been softened for certain categories of customers, such as village associations that do not maintain any accounting system. Assessment of loans to AVs is made according to forecasts of the incomes generated by each subsector during the coming year in which the AV is involved.

#### **5.2.2.1.2. Interest Rate Policy**

Prior to the reform, the central bank imposed a maximum interest rate on loans and a minimum rate on deposits. This administrated interest rate policy, instituted since 1975 ,had introduced a certain distortion into the optimal allocation of the resources. Commercial banks were discouraged from mobilizing long-term deposits, as they were required to pay higher rates, and therefore resources for longer-term loans were also diminished. Finally, in 1993 we witnessed a liberalization of lending rates, provided they remain below the usury rate--defined as two times the discount rate. The deposit rates were also liberalized except the interest rate on small saving and fixed term deposits of less than CFAF 5 million and of

duration less than 1 year. That rate is currently fixed at 3.5%. Allowances and other subsidies of the interest rate were abolished. The preferential discount rate to priority sectors was eliminated.

#### **5.2.2.2. Prudential Regulations and Supervision**

The BCEAO countries are in the initial stage of building their supervisory structures. Issues of prudential regulation and supervision in the financial sector have taken center stage (Vos, 1993; Nissanke, 1991). The latter issues basically comprise the following aspects: off-site inspection and supervision, licensing and capital adequacy (both initial capital and sustainable net worth), asset classification and provisioning, liquidity and portfolio concentration, enforcement power of supervisors, and auditing (World Bank, 1989: 91-94). While prudential regulation is the promulgation of laws in running banks, supervision is about assessing continued compliance with these laws (Bascom, 1994). Along these lines, Stiglitz (1993) argues for a firm government role in two areas: in the creation and regulation of new and existing financial markets (e.g. by setting accounting standards, creating and thickening markets for signaling) and in keeping and promoting stated social objectives (e.g. consumer protection, ensuring bank solvency, improving macroeconomic stability, ensuring competition, stimulating growth, improving the allocation of resources, etc.) (Seife Dendir, 1999).

In the banking field, the monetary authorities pursue two principal goals: the promotion of a healthy and effective financial intermediation and the security of the savings. In order to

achieve these goals, the authorities who control the banking environment give a particular attention to the conditions under which the banking profession may be exercised, by imposing strict rules on the credit institutions. Thus, since October 1, 1991, new prudential regulations applicable to the banks and financial establishments have been established. The main objective has been to ensure the solvency and liquidity of financial institutions, the balance of their capital structure and better coverage and division of the risks. The new rules relate to conditions of exercise of the profession, accounting regulations, regulation of the operations carried out by credit institutions, and management standards.

The accounting regulations relate to the obligation of publish of the annual statements, an external audit of the accounts, the definition of bad loans and the rules regarding the minimal reserve needed to cover substandard and bad loans. The rules require banks to hold assets equivalent to 20% of the outstanding balances on “substandard” loans, 50% of “doubtful” loans and 100% of “total loss” loans.

The key management ratios are as follows

**Startup Capital** has been fixed to CFAF 1 billion (US\$ 1.5 million\*) for commercial banks and CFAF 300 million (US\$ 462 thousands\*) for financial institutions. The minimum capital

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\* Exchange rate used: CFAF 650 = US\$1.

is appraised by the level of the own capital stocks that must permanently be superior to or at least equal to the specified amount.

**Capital ratio** – is based on the Basel standard. This is an international standard, which recommends minimum capital adequacy ratios, and has been developed to ensure banks can absorb a reasonable level of losses before becoming insolvent. Applying minimum capital adequacy ratios serves to protect depositors and promote the stability and efficiency of the financial system. The ratio is a measure of the amount of a bank's capital expressed as a percentage of its risk weighted credit exposures. It is currently fixed at 4%. It is planned to gradually increase it to 8%, which is currently the international standard.

**Coefficient of liquidity** is defined as the ratio of the availabilities and the credit receivables in less than 3 months with credit payable in less than three months. The minimum liquid asset requirement ratio is 60%.

**Coefficient of coverage of medium and long loans by more stable resources**-- This ratio aims to limit the transformation of the resources in sight or short-term into medium and long-term resources. It is measured by the ratio between the total resources of more than two years and loans of same duration. The minimum acceptable rate is 75%. Thus, a 25% transformation is allowed.

**Division of the risks**-- This provision imposes on financial institutions a limitation of the amount of the relative risks to a single borrower. A bank is required not to risk more than 25% of its capital on a single borrower. The limit for connected borrowers (people working in their direction, administration, management, control or operation) is 20%.

**Portfolio structure ratio requirement** was part of the credit worthiness rating system that was implemented to govern the overall central bank refinancing policy. This requirement allows the central bank to put forth a posteriori control on the quality of the signatures held in the portfolio of the banks and financial establishments and to determine which loans can be subject to refinancing. At least 60% of the portfolio must be classified by the central bank as appropriate for refinancing.

#### **5.2.2.3. Establishment of Commercial Banks**

The Central Bank still fixes the minimum startup capital required for the establishment of a financial institution. The minimum capital requirements are unchanged. Under the pressure of the World Bank and foreign donors, the Malian banking is opening to foreign investors. Today, we are noticing the emergence of foreign banks in the Malian financial sector.

#### **5.2.3. Impact of Monetary Policies on Agriculture**

Interest rate liberalization, together with the removal of sectoral credit directives and the adoption of commercial lending policies by public sector banks, is intended to enhance the efficiency of credit allocation, by allowing the price mechanism and the commercial

judgment of bankers to determine credit allocation (Fry, 1988). A crucial premise underlying liberalization is that inefficiencies in credit allocation arising from market imperfections such as imperfect information are less important than government failures arising from directed credit policies. It is also assumed that there exists demand for loans from creditworthy borrowers with profitable investment opportunities that would be denied credit under a repressed financial system because administrative controls or the non-commercial lending policies of public sector banks channel the available credit to less efficient borrowers, such as loss-making state-owned enterprises. Hence, liberalization is expected to allow a reallocation of credit towards the users most capable of generating higher rates of return to capital. Liberalization could also reduce the pressure on banks to accommodate less creditworthy borrowers and therefore lead to an improvement in the quality of the banks' loan portfolios (Gelb and Honahan, 1991: *passim*). Many loopholes exist in the new reforms, however, that have negative impacts on agricultural financing.

The portfolio structure ratio tends to exclude smallholders not belonging to groups and small traders from the formal lending sector. This requirement stipulates that at least 60% of a bank's total credits must be classified by the Central Bank and the minimum loan amount that can be classified to CFAF 5 million.

Furthermore, in the liberalized financial sector, the Central Bank remains the preferred source of refinancing for commercial banks. Thus, banks are tempted to shoot for a 100%



classified loan portfolio. Therefore, this gives even a bigger incentive to fully ration small rural credits. There is no ceiling to the maximum percentage of the total loans that can be classified.

The fact that the interest rate is not fully liberalized hurt the MFIs. In economic environment where financial instability is a major concern, with inflation a fundamental threat to viability and sustainability, lending rates have to exceed the rate of inflation or the capital base of the credit institution will shrink in real terms (leading to steady decapitalization). The caps on deposit interest rates discourage savings mobilization, which is crucial for the long-term sustainability of MFIs. Thus, control over inflation is paramount. High nominal interest rates required in high inflation environments for credit institutions to remain viable are detrimental to MFIs development. When high inflation co-exists with a rigid interest rate policy, the effects can be even more detrimental. The inflation rate was high as it reached 24.8% in 1994. However, the 1994 inflation rate was abnormally high, resulting from the immediate impact of the devaluation. Generally, because of the tight monetary policy the CFAF zone, is a low inflation environment. The inflation rate was 12.4% in 1995 and then was further reduced to 6.5% during 1996.

Market failure, arising from informational imperfections, is pervasive in financial markets, and is especially severe in rural areas (Stiglitz, 1994). Market failures may prevent liberalization from improving the efficiency of credit allocation. In particular, potentially

profitable borrowers may be denied credit because of high informational and transactions costs. In Africa, the severe informational problems afflicting financial markets suggest that even the long-term benefits of liberalized financial systems may be small, while in the short term, financial liberalization might actually worsen the efficiency of intermediation because, lacking information about firms' expected profitability, banks lend on the basis of collateral values (Collier, 1994).

The prudential ratios from the Central Bank (BCEAO) are still very demanding on banks and further constrain them in lending to smallholders and small traders.

No deposit insurance is available. However, the Central bank is considering its implementation.

### **5.3. Legal and Regulatory Framework**

The fundamental purpose of financial regulation is to promote effective and efficient capital accumulation and resource allocation while maintaining the safety and soundness of financial institutions that take deposits from the public. Regulators achieve these objectives by imposing various restrictions on the risk exposure, accounting and reporting practices, and operations of financial institutions. This ensures that few bankruptcies occur and that the systemic economic effects of any bankruptcy are limited. The legal frameworks that will be analyzed here are the commercial court and the supervisory commission.

The basic functions of the legal and regulatory framework in supporting the financial system are:

- to establish clearly the rights, responsibilities and liabilities of the parties to financial transactions;
- to establish codes to support market forces in maintaining appropriate incentives and adequate information;
- to provide means to enforce legal obligations and claims efficiently.

In the absence of sound formal contract enforcement mechanisms, both formal and informal lending institutions face the problem of managing risk with loan administration practices that suggest greater emphasis on loan screening than on the monitoring of the use of such loans and the enforcement of contracts. The legal system is even more limited in rural areas compared to in the cities. Often, the formal lender has few options to induce repayment from delinquent borrowers. Nonresident bank agents have very little leverage or incentives to go in a village and or capacity to seize collateral.

There is no adequate legal system protecting bank performance. A characteristic of Malian financial markets is the weakness of modern contract enforcement mechanisms. The judiciary apparatus does not contribute to the enforcement of contracts or to the recovery of bad debts. The weakness of the Malian judicial system is a setback to investment. The

corruption within the legal system undermines the public trust in the system. At times, banks that sue delinquent borrowers are themselves condemned by the courts for lack of thorough credit analysis. The court is right in some cases.

The government tried to remedy to this situation by establishing a special commercial court system to handle all business disputes. In November 14, 1998, the new charter of the Malian Chamber of Commerce and Industry was put in place and new adjudicators were appointed to the commercial courts. Steps were supposed to be taken by mid-September 1999 to ensure that commercial court adjudicators were representative of all economic sectors, including the banking and insurance sectors. However, still in July 2000, nothing was done. Civilians and lawyers, who banks claimed are biased against them, mainly constitute the newly created commercial courts. In personal interviews with bankers, they told me that they do not trust the new system and they believe that the procedures are complex and very time-consuming. Bankers all agreed that the new system is still not working properly. The banks are fighting to increase their membership presence in the commercial courts. Also, authorities are claiming that measures are being taken to computerize the clerks' offices of the commercial courts and to improve the training of judges and clerks' in recently adopted reforms under OHADA (Treaty on the Harmonization of Business Law in Africa) and CIMA (Inter-African Conference on Insurance Markets).

The legal framework, including inter-bank rules and procedures to ensure that payment

transaction processing is fully compatible from one participant to the other, and fully transparent for banks' clients, needs to be strengthened, in particular with regards to electronic payments. Inappropriate regulation tends to raise the cost of financial intermediation without offering a corresponding reduction in the risk to financial institutions.

A banking commission has been created. It is supranational, with authority to apply sanctions on all of the Union's member States.

The risks inherent in banking must be recognized, monitored and controlled. Supervisors play a critical role in ensuring that bank management does this. An important part of the supervisory process is the authority of supervisors to develop and utilize prudential regulations and requirements to control these risks, including those covering capital adequacy, loan loss reserves, asset concentrations, liquidity, risk management and internal controls. These may be qualitative and/or quantitative requirements. Their purpose is to limit imprudent risk-taking by banks. These requirements should not supplant management decisions but rather impose minimum prudential standards to ensure that banks conduct their activities in an appropriate manner. However, bankers are more interested in meeting the central bank's requirements than their own managerial needs. The dynamic nature of banking requires that supervisors periodically assess their prudential requirements and evaluate the continued relevance of existing requirements as well as the need for new requirements.

The health of Mali's banking system has improved since 1995, and most of the banks showed profits in 1999. However, their situation remains precarious, especially with regard to certain banks' compliance with the prudential ratios set by the WAEMU Banking Commission and the level of gross non-performing loans. At the end of December 1999, non-performing loans amounted to 25 percent of the banks' portfolio of credit to the economy. Loan loss provisions amounted to 61 percent of the amount of non-performing loans. In addition, the CMDT's financial difficulties in 1999 further weakened the banks, and, for most of them, the claims on the CMDT exceeded CMDT's actual equity capital. Conscious of the risks inherent in this situation, the government is committed to taking the necessary to financially rehabilitate the CMDT and to pursue the reform of the financial sector in determined manner. Accordingly, the consultations with the World Bank on an action plan for the financial sector were concluded. This action plan is aimed at improving the sector's legal and judicial environment, fully divesting the government's interests in the commercial banks by end of 2004, and determining the measures to be taken to resolve the problem of banks' non-performing loans and ensure compliance with prudential ratios.

#### **5.4. Collateral Law**

In Mali, commercial banks have very tight collateral requirements that must cover both the capital and the accumulated interest payments. Very limited amounts of acceptable banking collateral are available due to the limitations in quickly transforming them into liquidity.

This high collateral requirement is an attempt to overcome the problem of imperfect information and moral hazard in lending. Collateral has four properties (Binswanger et al; 1989). At a given interest rate, (1) it increases the expected return and reduces the variance of return for the lender; (2) it partly or fully shifts the risk of loss of the principal from the lender to the borrower;(3) it provides additional incentives for the borrower to repay the loan; (4) it helps in screening the pool of applicants, discriminating against rural borrowers who may be creditworthy but who have little or no suitable collateral.

Lack of suitable collateral is often mentioned as one of the main constraints to rural financing. Commercial banks rely on physical collateral, such as land, houses and buildings that can be appropriated in case of default.

There exists a well-established relationship between land tenure security, the readiness and commitment of farmers to manage land and other natural resources properly, and the private sectors' willingness to invest in such a sector. Farmers with secure rights to land will more likely make necessary improvements and take measures to conserve soils and maintain the fertility of the land, all of which will positively influence production and productivity. In addition, a tenure system influences the volume of agricultural credit and the actual distribution of credit, especially in Mali, where the existing credit systems place undue emphasis on land as a form of collateral. However, the land tenure legislation effective in Mali does not facilitate ownership of lands by smallholders and small traders. In Mali, the

state retains ownership over all land not officially registered. In 1998, it was estimated that only 9.1% of the cultivated land in Mali is registered as leasehold or freehold (Camara, 1999).

**Table 16. Evolution of land ownership in Mali 1994 and 1998**

<b>Type of Land Ownership</b>	<b>Farms (%)</b>	
	<b>1994</b>	<b>1998</b>
<b>Custom Attribution</b>	70.3	70.6
<b>Attribution letter</b>	6.0	12.3
<b>Permanent Title</b>	6.6	2.3
<b>Temporary Title</b>	9.2	5.6
<b>Lease hold</b>	7.8	9.1

Source: Survey DNGR, 1994; Survey Z. Camara, 1999.

The table shows that the customary attributions and leasehold are increasing while ownerships by title (temporary et permanent) are decreasing.

This low registration number is due to the fact that in Mali methods for registering and titling are complicated and expensive. The different administrative steps required to obtain property rights under the land-tenure law (Code Domainial et Foncier of 1986 & 1992) require large financial investment. Also, customary tenure remains the most important system through



which people manage and gain access to land. This reinforces the lack of necessity for registration given local recognition.

The current Malian land legislation does not recognize customary ownership. However, the majority of the agricultural sector's land is operated based on customary tenure and relatively short-term, non-tradable leases (zone Office du Niger), which due to their nature fail to serve as adequate collateral. Consequently, these forms of tenure do not provide smallholders with the security necessary to facilitate land transactions and the incentives to make medium and long-term investments.

This weakness in the land-tenure law was recognized, and alternative forms of collateral have been developed such as:

- group loans through solidarity groups (based on fear of social sanction of the community for those who default);
- third party guarantee;
- threat of lost access to future borrowing opportunities (push lenders to only give loans that are repetitive);

Third-party guarantees and solidarity groups are the substitute collaterals mainly accepted by commercial banks.

An example of third party guarantee is seen in the cotton production zone. CMDT, the parastatal marketing firm, guarantees the farmers loans in return for the monopsony right of purchasing all their production. This system is working efficiently in Mali. The credit recovery rate is close to 100%.

The solidarity group is a type of a collateral in which each member must sign an agreement guaranteeing the loan amount and repayment methods. This limits the access to credit for individual farmers. The group mainly approves loans that only when the majority of the group wants to borrow.

## CHAPTER VI

### IMPACT OF LOAN OFFICERS' POLICIES ON LENDING TO AGRICULTURE

#### 6.1. Introduction

In Mali, one of the main reasons why the commercial banks are staying away from rural financing is their lack of experience in assessing risks linked to that sector. This chapter discusses why the banks are reluctant in reaching and servicing the rural communities.

#### 6.2. Commercial Banks Experience in Rural Lending

Banking experience has shown that unsecured loans, loans to rural areas, and small business loans are fundamentally risky. This perception is understandable given that Malian banks regularly write off 10 to 50 percent<sup>11</sup> of their small business loan portfolios, all sectors combined. Since banks have few or no special financial products for small clients, they are reluctant to lend to them. The commercial banks mainly operate in urban areas. They have not voluntarily established extensive rural branch networks nor have they developed specific financial services for the poor rural clientele. They have not yet developed expertise in evaluating the risk of agricultural loans. Specialized state-owned institutions often use normal year projections as a basis for loan size and repayment capacity, even though agriculture is more vulnerable than other sectors to the vagaries of nature (Von Pischke, 1991). It is very difficult for bankers to diversify risks in rural areas, as all the producers are growing the same crops and have similar borrowing patterns. In Mali, no crop insurance

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<sup>11</sup> Computed from different annual financial statements and BCEAO data

program exists. The insurance industry in Mali is precarious and does not have any relationship with the banks. Insurance companies acknowledge that there is no sufficient data on yields to price insurance rationally. This lack of formal insurance markets further impedes the rural people in accessing credit.

As previously mentioned, only one bank is fully lending to the Malian agriculture: the National Agricultural Development Bank (BNDA). The general perception of banks on agriculture is that the sector is too risky and unknown. They prefer to lend to BNDA, which in turn lends to the farmers. The other banks believe that BNDA, given its many years of experience in the rural areas, knows better the field. Thus, the majority of the loans to agriculture are in a bank- pool, with the BNDA as the team leader.

### **6.3. Evaluation of the Banks' Lending Procedures**

As mentioned in chapter 1, during the evaluation of the loan officers' procedures three banks were selected: one development bank (BNDA) and two commercial banks (BIM-SA<sup>12</sup> & BDM-SA<sup>13</sup>). The findings are presented in the coming sections.

#### **6.3.1. Agricultural Development Bank**

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12 BIM-SA: Bank Internationle du Mali

BNDA has written procedures for each type of loans it offers. As an agricultural development bank, BNDA is mainly concerned with delivering loans in rural areas. Field size, yields, commodity market price, and prior loan performance are used to compute the farmer's repayment capacity. The loan officers do not formally classify the borrowers as acceptable or problem. They know with a high probability that they will recover at least 80% of the loan amounts, as those are directed to the interlinked cotton credit system.

BNDA continuously updates its lending procedures. However, the procedures have some loopholes in them. For example, the procedures use current market prices to estimate the farmer's expected revenues, which may be lower at harvest time, when the farmer is required to repay the loan. A plus for the procedures is the simplicity of the loan request form, and its availability in the local language (Bambara). This reduces the number of incomplete applications and the processing time, as loan officers spend less time in helping farmers filling out the forms.

In testing the compliance with the procedures at the BNDA, 100 loans were selected from each of the following subsectors: rice and cotton. These two subsectors are the main ones where BNDA makes loans.

**Table 17. Number of Loan Reviewed**

	<b>Complete</b>	<b>Incomplete</b>	<b>Total</b>
<b>Rice</b>	90	10	<b>100</b>
<b>Cotton</b>	98	2	<b>100</b>

Among the 200 loan applications tested, only 6% were missing one or another form of document required by the procedures. We noted that all of those incomplete files were for subsidized loans. This shows adverse selection by the loan officers. Loan officers tend to be more careful when it comes to obligating the bank's own funds.

This lack of attention in processing subsidized loans has also been noticed in the marketing loan programs that were put in place by the Cereals Market Restructuring Program (PRMC) after the cereal market liberalization in 1987 to assist small traders. The bankers, in extending the credits, computed the loan amount incremented by the interest receivable. The commercial banks that were participating in the programs extended loans haphazardly, without appropriate screening of borrowers. Radio announcements were made to market the cheap and guaranteed loans that were available to anybody who could prove that he was operating in the agricultural sector. The banks did not monitor the loans and did not make any effort to recover the loans, as they had already deducted their administrative fees from the loan amounts.

### **6.3.2. Commercial Banks**

The two commercial banks claimed to have written lending procedures. However, neither bank was able to present them. At the BIM-SA, a loan officer was finally able to locate a 15-year-old statement of procedures. This finding at both commercial banks was not surprising, as loan officers find it easier to follow and conduct their analysis based on prior existing files. Loan officers have no incentive to learn the procedures, as management does not have a strict policy on their application.

At the two commercial banks, all loans to agriculture were to the state-owned firms, such as CMDT, HUICOMA (state-owned vegetable oil company), and the large urban food processors. There were no loans to farmers, and most of the loans to small cereal traders were third-party guaranteed or on the referral of a bank's large client. The review of all the agricultural loan files showed that both banks seem to use a single procedure for any type of loan request. They have no specific procedures in assessing credit to agriculture. They apply the same lending criteria (CAE, 2000) as in any other sectors, which are:

- be a current client of the bank at least holding a checking account--showing continuous movements of deposits and withdrawals, as banks tend to measure companies' repayment capacity based on the volume of the monthly transactions)
- have a profitable project and sufficient working capital
- provide financial statements for the last three fiscal years
- have a minimum deposit, on average 25% of the requested amount

- provide collateral that covers both interest and principal payments.

These general lending procedures implicitly exclude smallholders and small cereal traders, who do not maintain accounting documents, and thus cannot provide financial statements. Most of their managerial decisions are based on quick mental computations. These borrowers also lack of the appropriate collateral generally accepted by the banks.

The review of the ITEMMA (partly state-owned textile company) loan file showed that the company was granted a bank-pool loan from five commercial banks although the financial analysis results illustrated a high likelihood of default. The banks claimed that they were forced by the government to extend a medium-term credit to the company. This is a typical example of how the government is still interfering with banks' lending procedures in directing credit to insolvent state-owned companies. The loan was to help the company to remodel its facilities in order to improve efficiency. However, the Director of the company, who is currently serving time in prison, embezzled a large amount of the loan and the banks ended up with another non-performing loan in their portfolios.

Overall, local banks do good jobs in screening the borrowers, but spend little time on monitoring the loan. This lack of monitoring increases the likelihood of the money being used for other purposes. This attitude of lack of supervision is at the root of the failure of many guaranteed loan programs in Mali. Often, credit programs are put in place by projects



to be managed by the extension personnel or local banks. In most cases, both the bankers and the project personnel are more concerned with attaining the targets set for credit supply, input supply or for the provision of equipment rather than assessing the loan repayment capacity and follow-up for credit recovery. Farmers benefiting from the program soon come to look upon credit as a donation from the project. This unprofessional approach leads to loan recovery rates that do not generate enough revenue to sustain the credit system.

From my experience as an employee in the loan department of a local bank, I realized that although that there are no written rules about segregating among the different type of borrowers, implicitly most of the banks tend to discriminate among borrowers. In deciding which investments to finance, banks need to initially assess the creditworthiness of the potential borrower. Moral hazard and information asymmetry limit banks in only knowing the expected return and risk of the average project in the economy for that type of firm. Thus, banks tend to categorize borrowers according to their financial information gathered about the firm in the course of a customer relationship. The borrowers are often classified into three distinct groups:

- Preferred Clients (PCs)
- Ordinary Clients (OCs)
- Informal and/or Farming-based clients (IFCs)

**Group 1: Preferred Clients (PCs)**

These clients are what the banks refer to as its preferred clients. They operate in the formal sector and maintain some type of accounting system. These are firms in excellent or good financial standing. These firms are profitable and have high returns. Banks see these clients as low-risk borrowers. They have the required collateral or are guaranteed by the government. The PCs usually have long and well-established client relationship with the bank. These are usually large private firms and government-owned firms, most of which are located in urban areas. These clients are large borrowers, and make frequent and substantial deposits. The transaction cost of doing business with the members of this group is almost zero. In Mali, banks gives full lending priority to this group.

### **Group 2: Ordinary Clients (OCs)**

This group is made of firms with medium or satisfactory profitability. These firms do not have third-party guarantees like the state-owned firms nor are they as profitable as the large private firms. The OCs are regarded as medium-risk clients. Banks have an incentive to provide loan contracts to this group that are costly for the borrower to default. They do so by structuring loan contracts with non-price constraints such as high collateral requirements. Reputation is very important in the lending decision to this group. First time borrowers are often required to provide collateral that can cover both the principal and the interest payments. The collateral requirement decreases as the relationship is built. However, it remains high enough to make defaulting costly. Also, it

is not unusual over time to see the membership of certain members of this group to improve to a preferred client status. In practice, loans to this group are partially rationed.

**Group 3: Informal and/or Farming-based clients (IFCs)**

This group is constituted of firms in bad financial status. Also, this group includes borrowers with inadequate or no accounting records. These are in general actors in the informal sector, such as smallholders and small traders. Lending to this group is fully rationed. The banks see these borrowers as the ones carrying the highest risk. This group' members also lack of the appropriate collateral and returns from their operations are difficult to measure.

This methodology of categorizing clients is being widely used by commercial banks in Mali. A similar approach was used by the Central Bank prior to the reform to assess the quality of a bank's portfolio. Sikorski (1996) found similar evidence of this approach in many developing countries. This methodology definitely reduces the chance of smallholders and small traders in accessing credit.

## CHAPTER VII

### CONSTRAINTS LIMITING THE EFFECTIVENESS OF MFIs' LENDING

#### 7.1. Introduction

In Mali, the different components of the financial system tend to operate in isolation from each other. The banks are mainly concerned with serving the urban population and the Microfinance Institutions (MFIs) focus on rural population and low-income urban residents who are completely ignored by the commercial banks. In Mali, the MFIs are playing a key role in rural financing. They have been long recognized to render better financial services to poor and at a lower cost than the commercial banks. Lately, it has been noted that there are constraints limiting the effectiveness of the MFIs' lending activities. In this chapter we will look at how poor management of village associations (borrowing groups), the economic activity in which the borrowers are participating, and, as mentioned before, the inadequacy of the loan procedures used by bankers in evaluating agricultural loans are impairing the effectiveness of the MFIs in providing financial services to rural population, and thus contributing to the weak linkage between commercial banks and MFIs. In understanding the problem we will analyze the case of Kafo Jiginew, to see how those constraints mentioned above are beginning to affect its performance. Kafo Jiginew is selected, as it is the most important MFI in Mali. For example, it represents 14% of the service centers of all the MFIs and 24% of the loan funds granted. And in 1998 its share of total net profits realized by the MFIs was 37% (CFAF 220 million, or US\$ 373,000) (BCEAO/PA-SMEC, 1999). Kafo Jiginew is a success story, cited as an example of best practices in micro financing around

the world. Finally, we will make some suggestions on how the MFIs may better address these constraints.

## **7.2. Case Study: Kafo Jiginew**

Kafo Jiginew rightly claims being the first mutual savings and credit institution in Mali. It was established in October 1987 in the Mali-South region. Kafo Jiginew operates in an environment where a cash crop, cotton, is grown. The objective of Kafo Jiginew is to organize the smallholders and small traders in the cotton production zone in the south of Mali and give them access to adapted financial services, and help them meet the needs and challenges of today's agriculture.

Kafo Jiginew is organized in four levels: the local bank, local union, regional union and the federation.

*The local bank* is a basic financial institution wherein members serve as both clients and owners. The equity is voluntarily and fully funded by the inhabitants of several villages and neighborhoods. As of December 2000, Kafo Jiginew had 112 local banks, 5 of which were urban.

*The local union* regroups the local banks in the same locality (e.g. the CMDT zone). The local union provides administrative and training services to the local banks. The union is an informal group that elects the members of the regional union and the federation. Today Kafo Jiginew counts 14 local unions.

*The regional union* regroups all the local unions in the same region (equivalent to a state in the U.S.). A regional delegate, who is appointed by the Kafo Jiginew's management office, manages the regional union.

*The federation* supervises all the affiliated local banks. The federation defines the general administrative policies for the Kafo Jiginew's network. The federation coordinates and controls the activities of the local banks, local unions and regional unions. The federation provides local banks with different technical assistance services (training, accounting, information, internal controls, etc).

Kafo Jiginew is adept in providing financial services to rural poor, as it satisfied the criteria used to assess the performance of a financial intermediation such as progressiveness, sustainability and product suitability.

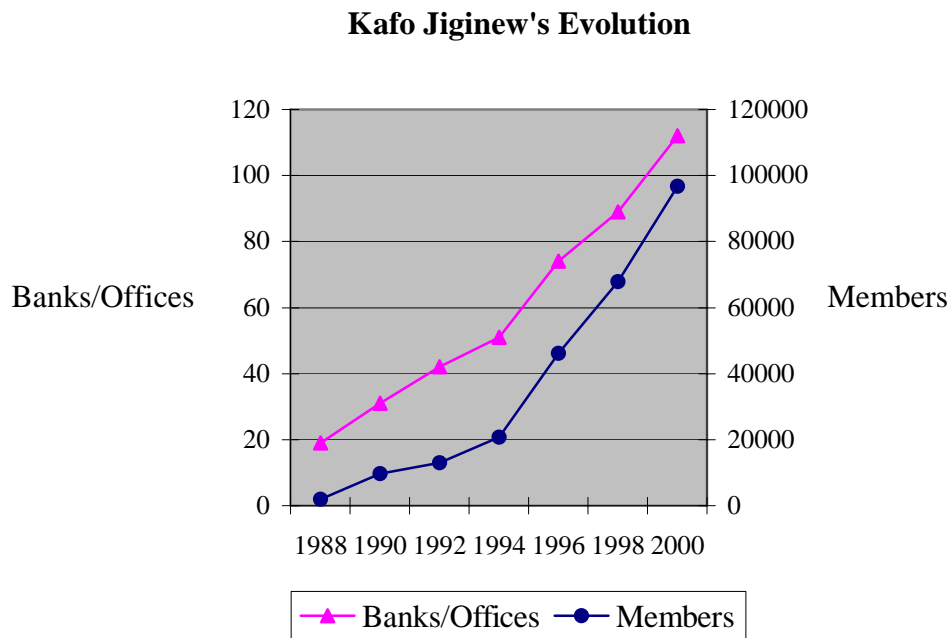
*Progressiveness*-Kafo Jiginew was first created for cotton producers, but it is currently benefiting the entire community. Today Kafo counts more than 96,740 members from all

social classes: heads of families, village associations, women, craftsmen and civil servants.

Kafo Jiginew's operating environment is also expanding. The number of offices has increased from 89 offices in 1998 to 112 in 2000, or a 26% growth (Kafo Jiginew, 2000).

Figure 3 illustrates the evolution of the Kafo Jiginew's network from 1988 to 2000.

**Figure 3. Growth of Kafo Jiginew's Network 1988-2000**



*Sustainability-* Kafo Jiginew's has a total balance sheet of CFAF 7 billion (US\$ 11.5 million) as of the end of December 2000(see Table 18). Kafo Jiginew is profitable (see Table 19). Kafo Jiginew made a net profit of CFAF 34 million (or US\$ 56,000) in 2000, despite the CFAF 133 million subsidies that it received during the same period. However, the 2000 net profit figures were a big decrease (87%) compared to the 1999 figures of CFAF 261 million

(or US\$435,000). The large decrease in Kafo Jiginew's profitability was substantially due to a falling world cotton price and the reduction of the cotton production by 52% during that period. In 2000, Kafo Jiginew's Return on Equity (ROE) and Return on Asset (ROA), both, decreased compared to the 1999 figures. The net profit, the ROE and the ROA figures indicate that Kafo Jiginew is generating low profits from its activities and assets. Kafo Jiginew had a financial self-sufficiency ratio<sup>14</sup> of 76%. Kafo Jiginew's operational self-sufficiency ratio<sup>15</sup> (OSS) is decreasing. The OSS was 80% in 2000, which was way below the average OSS (114.4%) for large African MFI group to which Kafo Jiginew belonged (see Table 20).

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14 Financial Self-Sustainability refers to the capacity of the microfinance institution to generate enough profit or mobilize enough savings to be economically viable without having recourse to subsidies.

15 Operational self-sufficiency = Operating income / Operating Expense



**Table 18. Kafo Jiginew's Balance Sheet (in CFAF million)**

<b>Assets</b>	<b>31/12/98</b>	<b>31/12/99</b>	<b>31/12/00</b>
Cash in Hand and Balance with other banks	930	711	2,294
Reserve at the Central Bank	-	-	-
Total Gross Loans	3,723	4,901	4,137
Provisions for Bad Debts	(55)	(63)	(198)
Short-term loan Receivables	305	302	285
Fixed Assets	392	485	491
<b>Total Assets</b>	<b>5,295</b>	<b>6,336</b>	<b>7,009</b>

<b>Liabilities</b>			
Compulsory-Savings	256	-	-
Voluntary-Savings	1,806	2,093	2,886
Term Deposits	724	1,102	1,015
Borrowings from Banks	1,000	600	500
Borrowings from Central Bank	-	-	-
Other Short-Term Debts	180	903	1,047
<b>Total Liabilities</b>	<b>3,966</b>	<b>4,698</b>	<b>5,448</b>
<b>Stockholders' Equity</b>			
Capital Stock	323	387	439
Retained Earnings	439	616	801
Other Reserves	567	322	321
<b>Total Shareholders' Equity</b>	<b>1,329</b>	<b>1,325</b>	<b>1,561</b>
<b>Total Liabilities and Shareholders' Equity</b>	<b>5,295</b>	<b>6,023</b>	<b>7,009</b>

Source: Kafo Jiginew

**Table 19. Kafo Jiginew's Income Statement (in CFAF million)**

	<b>1998</b>	<b>1999</b>	<b>2000*</b>
Interest and Fee Income from Loan Portfolio	614	827	818
Interest and Fee Income from Investments	20	28	29
Other Income from Financial Services	121	138	123
<b>Operating Income</b>	<b>755</b>	<b>993</b>	<b>970</b>
Administrative Expense	575	742	852
Total Interest Expense	94	139	179
Loan Loss Provision Expense	71	76	198
<b>Operating Expenses</b>	<b>740</b>	<b>957</b>	<b>1229</b>

<b>Net Operating Income</b>	<b>15</b>	<b>36</b>	<b>(259)</b>
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Other Income	51	57	63
Divers Subsidies	187	203	249
Other Expenses	33	35	19
<b>Net Consolidated Income</b>	<b>220</b>	<b>261</b>	<b>34</b>

Source: Kafo Jiginew

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\* The weaker performance in 2000 resulted from two factors: 1) the overindebtedness because of late receipt of cotton revenues from CMDT, 2) the falling world cotton price resulting to the refusal of farmers to produce cotton.

**Table 20. Profitability Indicators and Ratios**

	Trend Analysis				Africa-MFIs		
	2000	1999	1998	Trend	Large	Medium	Small
<b>Profitability</b>							
Profit Margin	26.7%	3.6%	2.0%	Decreasing	-2.1%	-57.2%	42.1%
Return on Equity (ROE)	2.2%	19.7%	16.6%	Decreasing	-4.4%	-23.2%	-8.1%
Return on Asset (ROA)	0.5%	4.1%	4.2%	Decreasing	-0.7%	-13.5%	11.4%
Operational-Self-Sufficiency (FSS)	78.9%	103.8%	102.1%	Decreasing	114.4%	75.2%	77.5%
Financial-Self-Sufficiency* (FSS)	76.4%	105.8%	98.5%	Decreasing	101.0%	72.7%	69.3%

Source: Kafo Jiginew 1999-2000; Microfinance Bulletin, 2001.

*Product Suitability*- In Mali the commercial banks normally require the borrower to put up collateral when he/she wants a loan. But the small borrowers have no collateral of significant value, which shuts them out of the commercial credit market. Kafo Jiginew lends against alternative forms of collateral, such as solidarity groups (or group lending) that is a lending scheme in which all members are jointly liable to repay the loan received by each member. Solidarity groups have proven around the world to be extremely effective guarantees in microcredit. In 2000, 80% of the total credits distributed by Kafo Jiginew used the group lending methodology or a hybrid model.

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\* Operational self-sufficiency adjusted for inflation.

In the next section we will discuss in detail the different products offered by Kafo Jiginew. Then we will explain their performances and present the different contracts used and hence the incentives.

### **7.2.1. Products**

Kafo Jiginew's products may be divided into two broad classes: savings and loan. Research on saving motives indicate that the availability of deposit facilities respond to an important demand of rural population (Jung 1987; Heidhues 1992). Accessibility to savings services enable rural households to adjust ex post their investments and consumption. Saving services reduce the stress of disposable income and improve households' risk-bearing capacity. A commonly recommended strategy for an MFI is first to provide saving services and then to offer credit services, which may be partially or fully funded by the members' deposits (Zeller, et al 1997).

#### **7.2.1.1.Savings Instruments**

Structured as a savings and credit union, Kafo Jiginew has been successful in savings mobilization. Kafo Jiginew offers two savings instruments to its members: savings accounts which pay 3% interest annually, and fixed term deposits which pay 4% interest annually (Kafo Jiginew, 2000). Savings deposits are an important source of liquidity for Kafo and

provide the bulk of the loan capital granted to borrowers. Until 1998, the demand for credit exceeded the supply of savings. Given the high seasonality of farming activities in the region, Kafo Jiginew's savings accounts fluctuate dramatically during the year. Thus, to meet all of the demand of its members in the region, Kafo has established a few lines of credits with the local commercial banks. These credits lines are as follows:

- From BIM-SA, a short-term credit for CFAF 275 million at an interest rate of 8% per annum. The credit was granted during 1998 and will come to term in 2002, or 4 years.
- With BNDA, a permanent overdraft facility for CFAF 600 million, and a short-term credit (granted in 1999, for 4 years) for CFAF 400 million at an interest rate of 9% per annum. The International Finance Corporation (IFC, World Bank Group) is guaranteeing the credit.

During the 2000 fiscal year, Kafo Jiginew succeeded in collecting more than FCFA 3.9 billion (US\$ 6.4 million) in savings (Kafo Jiginew, 2000).

#### **7.2.1.2. Loan Instruments**

Kafo Jiginew has the administrative capacity to manage multiple products. Kafo Jiginew proposes five types of financial products to its members, which are as follows: production credit, short-term credit, equipment credit, credit with education, and cereal credit.

**Production Credit** --covering six to nine months, this is intended for the financing of the cotton production, mainly for the purchase of fertilizers. The interest rate charged for this type of loan was 2% per month during the 2000 fiscal year.

**Short-Term Credit** - payable in three months maximum, is particularly useful during off seasons when the incomes from cotton are exhausted and cereal stocks are at their lowest points. The short-term credit makes it possible for farmers to better support the periods when they are short of liquidity. In 2000, the monthly interest rate on those loans was 2.5%.

**Equipment Credit**--payable in three years maximum, it covers investments such as improvement of the family home or modernization of agricultural techniques.

However, the acquisition of a tractor cannot be covered by this kind of credit. For the acquisition of heavy equipment such as tractors, the farmers usually request assistance from CMDT. The interest on this loan product was 1.5% per month in 2000. Kafo Jiginew uses the credit lines from commercial banks and the subsidies from international organizations, such as SOS FAIM, a Belgian NGO. The equipment purchased serves as security in addition to the personal guarantee and collateral requirements.

**Credit with Education**— is a credit and savings program implemented in partnership with Freedom from Hunger, an American NGO. The financial service program is integrated with

an informal health and nutrition education for groups of rural women, who for long have been excluded from the formal lending system. The interest rate on these 16-week loans is 3% per month, which is higher than the other loan products.

**Cereals Credits-** the last loan product and the cheapest of the loan products, as the interest rate on them is 10% per year. They are very similar to short-term loans when it comes to the length of the loan; the only difference is that the required collateral is the harvest of the borrower.

### **7.2.2. Some Indicators of Performance**

In 2000, Kafo Jiginew lent more than CFAF 3.4 billion. This total was 32% less than the 1999 figures of CFAF 4.5 billion. As previously mentioned, the decrease was due to a decreasing world cotton price and the farmers' refusal to plant cotton. The average loan size of Kafo Jiginew was CFAF 100,000 in 1999, and its portfolio at risk over 90 days past due was 3.7 percent (Microfinance Network 1999). Table 22 shows Kafo's distribution of loans by type.

**Table 21. Volume of Loans and Recovery Rate by Product  
(in CFAF million)**

<b>Credit</b>	<b>1999</b>			<b>2000</b>		
	<b>Total</b>	<b>Share (%)</b>	<b>Recovery Rate</b>	<b>Total</b>	<b>Share (%)</b>	<b>Recovery Rate</b>
<b>Production</b>	3,362	74%	97%	2,270	67%	88%
<b>Short-Term</b>	166	4%	93%	265	8%	92%
<b>Education</b>	356	8%	99%	267	8%	92%
<b>Equipment</b>	618	14%	95%	529	16%	84%
<b>Cereal</b>	26	1%	100%	50	1%	100%
<b>Total*</b>	<b>4,528</b>	<b>100%</b>	<b>97%</b>	<b>3,382</b>	<b>100%</b>	<b>88%</b>

\* May not add-up because of rounding.

Source: Kafo Jiginew, 2000

**Production and Equipment Credits**—those two loans categories represented, respectively, 67% and 16% of the credits granted by Kafo Jiginew in 2000, or a total of CFAF 2,799 million (83%). Their cumulative shares of the total lending are decreasing, although the equipment credits have slightly increased. This decrease is due to a policy of Kafo Jiginew to diversify its loan portfolio to mitigate the risk of the expected decrease in the cotton production. The deterioration of the repayment rate is due to the reduction of the world cotton price, which is determinant of the farmer' revenues, hence their capacity of loan



repayment. During 2000, the average loan size for production credit was CFAF 70,000 and the average loan size for equipment credit was CFAF 405,000.

**Short-Term Credits and Credit with Education--**In 2000, they each individually represented 8% of the credits granted by Kafo Jiginew (or CFAF 265 million). The share of Credit with Education remained constant while the percentage of short-term credits in Kafo Jiginew's loan portfolio has doubled compared to the 1999 figures. These two loan products have also the same recovery rate: 92% as of December 31, 2000.

**Cereal Credits-** as of December 31, 2000, they had a 100% repayment rate. During that same period, they only represented 1% of the total loan portfolio, or CFAF 50 million, which remained constant compared to the 1999 figures.

### **7.2.3. Structure of Contracts and Hence Incentives**

Kafo Jiginew, like any MFI, is faced with the dilemma of providing financial services that address the two central problems of all financial markets: information asymmetry arising from imperfect information, and contract enforcement difficulties. Kafo Jiginew offers both group and individual lending. The principal (Kafo Jiginew) designs a set of loan contracts that it offers to the agent (small borrower). The agent has the option to accept or reject the contract. Generally, the agent will accept the contract if the contract assures him higher

utility than the other alternatives available to him. This utility level is referred to as the *reservation utility*. All the collective or individual loan requests are eligible for the group solidarity collateral programs. In addition, individual borrowers may provide other forms of collateral, such as land, cereals, etc. The loan repayments are made through the integrated cotton marketing company, or by cash payments. The next section discusses the different contractual arrangements used by Kafo Jiginew and their incentives.

### **7.2.3.1. Group Lending**

Today, membership in a group (village association, women groups) is a pre-requisite for accessing farm credit. In 2000, more than 80% of Kafo Jiginew's loan portfolio was based on solidarity groups. The credit group may be self-formed (e.g., women groups) or formed on the sole location criteria (village associations). Since members have privileged access to information about the other members (which the commercial bank/MFI does not have), they can avoid adverse selection (incorporation in the group of risky members) and moral hazards (members refusing to pay when they can or placing false claims for mutual insurance by other group members) by group members. The different types of groups that Kafo Jiginew is dealing with are Village Associations and Women Groups.

#### **7.2.3.1.1. Village Associations (AVs)**

Village associations (AVs) serve as intermediaries between lending institutions and borrowers. AVs are defined as farmers' organizations formed by farmers themselves or with

the support of the government, assisted by international donors and NGOs to easily channel development activities, such as agricultural extension in rural Mali. The AVs are formed mainly on the basis of same location: village. This means of access to credit is known as group or peer lending. The group is expected to analyze the need for credit by its members and take responsibility for its distribution among them. However, membership in an AV is voluntary. A farmer is free to join another AV at a different location. Although joining an AV in another village involves additional transaction costs, it may limit problems of being in a group not of ones own choosing.

#### **7.2.3.1.2. Women Groups**

The Credit with Education program uses women's groups as collateral. The contractual agreements work the following manner. The women form self-selected credit associations of 20 to 30 women and subdivide into solidarity groups of four to six members, for a two-tier system of joint guarantee. The credit association applies for a loan from the local Kafo Jiginew's office based on the individual loan requests of its members. Members can ask for as little as US\$5 and as much as US\$50 for their initial loan. Each cycle, the loan amount can be incrementally increased up to a maximum of US\$300. Each woman must get approval for her loan amount from her solidarity group as well as from the whole credit association. Then, when the group receives its loan, the credit is subdivided into the approved individual loans (Mknelly and Lippold, 1998).

### **7.2.3.2.Individual Lending**

If a household has accumulated enough assets, it can if desired, graduate to individual loan programs from the MFIs. For many households, this will not be possible. The individual lending made up 20% of Kafo Jiginew's portfolio in 2000. To receive one of these loans, members must wait six months after opening an account with a local bank. The most common loan product is the short-term credit obtained by farmers during the dry season before cotton planting and repaid after the harvest. In addition to personal guarantees, applicants must offer the crop harvest as collateral. Kafo Jiginew encounters few problems with individual lending. The repayment rate is above 90%. However, the shares of short-term individual loans as the total loan portfolio remains small, less than 10%. This is mainly due to the fact that the loan amounts are often small and cumbersome to manage. Therefore, Kafo Jiginew wants to make sure that it has the required administrative capacities before extending more of those individual loans.

Kafo Jiginew, like many MFIs and development banks in developing countries, is widely using the concept of solidarity group in its lending procedures. Solidarity groups are used to make collection easier, to reduce transaction costs and to minimize risks. The lending scheme relies on peer pressure to decrease the likelihood of loan defaults. The peer pressure is enforced by penalizing the entire group of borrowers for the inability of one or of a few

members to repay. The group-lending scheme has been proven to be an effective means in providing credit to the smallholders and small traders in low-income countries. Normally an argument in favor of group lending is that it reduces the moral hazard problem since the members of the group know and trust each other. But that only works if the group is self-selected (i.e., you pick your own group). As evidence, we can see that lending to women groups that are self-selected groups has a better repayment rate (92%) than lending to AVs(84-92% depending on the loan type).

#### **7.2.4. Current Challenges**

Today, the value of the solidarity group scheme is being currently tested in Mali. Many village associations (AVs) are experiencing crises within them, leading to their dismantlement. According, to Hoff and Stiglitz (1990), when lenders have imperfect information concerning the ability and the willingness of the potential borrower to repay the loan, three problems arise:

*Screening:* borrowers differ in the likelihood that they will default, and it is costly for the lender to determine the default risk of each borrower. Information asymmetries exist between borrower and lender because the borrower knows whether he intends to default, while the lender does not.

*Incentive:* it is costly to ensure that borrowers take those actions that make repayment more likely.

*Enforcement:* it is difficult to compel repayment.

A study financed by CMDT and Kafo Jiginew have identified that there are many reasons at the root of the actual crisis occurring within the AVs. Among them are social, economic, and institutional causes.

Economic causes:

With the world market cotton price going down, CMDT did not generate enough revenues to repay the farmers on time; hence the farmers were late in repaying their loans. This late receipt of payments led to the indebtedness of the farmers, and therefore resulted in a deteriorating loan repayment rate for Kafo Jiginew, which went from 97% in 1999 to 88% in 2000. This in turn increased the amount of non-performing loans, and hence reduces the quality of Kafo Jiginew's loan portfolio. During the 2000/2001 production season, the farmers refused to plant cotton, judging the market price too low and input prices too high; as outcome the cotton production decreased by more than half. It should be noted that the phenomenon of indebtedness of the zone has considerably decreased the saving capacities of the smallholders, which has appreciably reduced the deposits of the mutual saving and credit institution.

All of these economic problems have spilled over into the social structure of the AVs and led to the increase in opportunistic behavior. Also, the low remuneration of the administrative staff of the AV makes them more vulnerable to corruption.

Social Causes:

- High illiteracy among the producers, resulting often in misunderstandings over how interest rates are calculated. This misunderstanding raises the question if MFIs are clear in explaining to borrowers how they calculate interest charges. In other words, is this a problem of borrower illiteracy or a problem of lack of transparency on the part of the lenders? This is an interesting future research question.
- Moral hazard problem: Some borrowers disappear, leaving their peers to shoulder the repayment burden. As result, some members, tired of being penalized for the inability of one member to repay, leave the group.
- Because the AVs are not generally self-selected groups, sometimes jealousy can also creep in if one member is seen to be more successful in business than others in the group.
- Agency problem: In many associations there is a strong influence of the President and Secretary of the AV on the remainder of the group. There is little transparency within the group, as the group leaders, who have little accountability to the members, keep most

information about operations and do not provide a performance report on the AV. This intensifies the power of the leader and can lead to irregularities, such as inappropriate use of funds.

Institutional Causes:

- The size and composition of the group and the way groups are mobilized. The groups are often too big, 20 in minimum, and often do not regroup well-acquainted individuals, but people whose only common interest is getting credit. In negotiation and contract preparation, information asymmetry gives rise to adverse selection, thus raising the possibility of opportunistic behavior in the form of moral hazard. However, allowing groups' members to self-select each other will reduce the risk of adverse selection.

The crises in the AVs are bad news for the MFIs that entirely rely on them as an engine of their lending schemes. Despite all these problems, solidarity groups remain the preferred lending scheme used by Kafo Jiginew. Kafo Jiginew keeps lending through the AVs because the AVs are a legally recognized entity, contrary to other groups, which makes contract reinforcement easier. The solidarity group schemes help Kafo Jiginew to reduce transaction costs related to microcredits, and to achieve high recovery rates.

### **7.3. Economic Activities of the Borrowers**



The socio-economic environment in which the MFIs are operating has to be taken into account. As previously noted, the SCP of the product markets determines the SCP of the financial markets. The more profitable is the economic activity of the borrower the better credit access he/she has. The amount of loans granted to an AV is function to the nature of commodity planted by its members. Cotton and rice are the dominant commodities in which farmers have little or no difficulty in obtaining production credits. The ease of credit access is due to the high profitability of the two sectors and to the fact they rely less on the weather. It is totally a different reality in coarse grains, where production is rain fed. The unpredictability of the weather in Mali, where drought is random, makes the coarse grain sector the riskiest sector in agriculture to finance. The cotton sector receives 80% of the agricultural loans and the remaining 20% is divided among the remaining subsectors, with rice getting a larger share of credit than the other commodities.

Also, the existence of a loan recovery system (e.g. the interlinked system) in place facilitates access to credit. Limited infrastructure such as roads, communication systems and electricity increases transaction costs, delays bank's business activity, limits sources of information, and makes risk management difficult. Thus, banks tend to favor lending to communities and groups that tend to have a well established and certain recovery system.

#### **7.4. Weak Linkage between Commercial Banks and MFIs**

Commercial banks devote lot of energy in attracting and obtaining share of cash flows from the government budget, foreign donor programs and funded projects. Banks mainly operate on remunerations earned on these administrated funds. Thus, the banks see every new entrant into the financial sector as a threat to their shares of cash flow from local and foreign government agencies. In general, banks categorize MFIs as competition and not as potential partners. They do not differentiate between an MFI and another bank.

So far, the relation between MFIs and banks has been characterized and limited to two activities: the level of funds deposited by the microfinance institutions in the commercial banks; and the possibility of loan refinancing service (obtaining a new loan to replace existing loans) available to microfinances institutions from the banks.

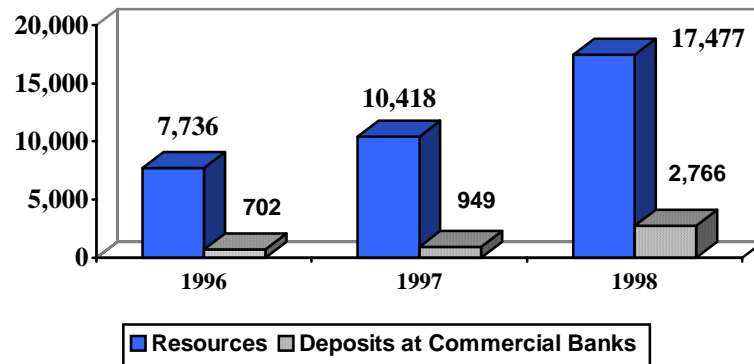
For example, in 1998, banks refinanced the microfinance institutions up to an estimated amount of CFAF 2.4 billion, compare to an amount of CFAF 1.9 billion in 1997. BNDA and BIM-SA provided these refinancing facilities. In 1998, BNDA, alone, was ready to refinance CFAF 2.2 billion of the MFIs' debts. However, this credit facility was not fully used by the MFIs.

The deposit level of the MFIs in commercial banks was estimated to be approximately CFAF 2.7 billion in 1998. These deposits were made up of sight and term deposits. The MFIs were able to mobilize a total of CFAF 17.5 billion in resources during 1998. The resources are

equity, savings and subsidies. Figure 4 illustrates the evolution of resources and funds flow from MFIs to commercial banks from 1996 to 1998.

**Figure 4. MFIs' Resources and Flow of Funds from MFIs to Commercial Banks 1996 to 1998**

(In CFAF millions)



Source: BCEAO

The MFIs are net savers in commercial banks. This implies a net flow of resources from rural to urban areas.

BNDA and BIM have been the leaders in approaching and cooperating with MFIs in Mali. However, in late 1990's, due to financial distress, BIM had to limit its interventions in the sector. Currently, only the BNDA maintains some type of business relationships with the MFIs. It collaborates with the principal decentralized financial systems such as the mutual savings institutions (Kafo Jiginew, Nyesigiso, etc.), the self-managed saving and credit union

(CVECA), and the interdependent credit unions (CANEF, NEF). This type of collaboration, mainly based on the remuneration of term deposits and extension of short-term loans, is not different from what other bankers claim to be ready to provide to an MFI with high quality management.

This limited relationship between banks and decentralized financial systems is characterized by a lack of communication between the parties. Both parties blame each other for the lack of collaboration between them. The commercial banks claim that they are willing to work with the MFIs, however the MFIs are reticent or slow in approaching them. According to the MFIs, the conditions required by the banks to grant loans are difficult to meet. Generally, a bank will lend to an MFI an amount less than or equal to twice of the deposits on term within the MFIs plus MFI's equity. They also require the MFIs to use solidarity groups in their lending and to have accumulated savings accounts of 10% to hold on reserve against loans.

Commercial banks believe it is expensive to lend to MFIs for two main reasons: high transaction costs and risk.

**Transaction Costs**--In Mali, the transaction costs related to farm credit are similar to fixed costs; thus, smaller transactions will incur a higher proportion of transaction costs. The high transaction costs associated with small transactions, highly segmented markets, and the

provision of services to dispersed rural populations involved in risky economic activity, mainly agriculture, have kept the commercial banks away from agricultural financing.

Commercial banks have difficulty measuring the cost of making loans. From interviews with banks, we found out that no bank allocate its costs based on the type of borrower. Therefore, it is difficult or almost impossible to know what expenses relate to which type of borrower. Many banks have rudimentary management information systems and reporting systems. They have not yet learned the value of reliable management information, and if they have in principle, they still need to learn exactly what information is worth getting and how to get it in a timely fashion. On the accounting side, cost accounting is a widespread weakness. Banks do not maintain a cost accounting system, as most of the statistics requested by the Central Bank (BCEAO) are macro information. Banks are having difficulty differentiating between the central bank informational needs and their own managerial needs, despite the BCEAO's stating that its texts and regulations should not in any case be treated as an alternative for banks to conduct sound management. Most of the banks do not see the importance of allocating costs based on activity, which would allow them to identify and control their high cost operations. The lack of adequate data did not allow me to compare the transaction cost from lending across borrower types: small holders, small traders, and other economic sectors.

A bank's costs are usually computed by transaction, not by loan product. So, banks think their costs are the same whether the loan is CFA 100,000 or FCFA 100 million. In addition, commercial banks typically assess their branch managers on branch profitability, so they choose the most profitable use of their money, i.e. larger loans. This in turn create a market bias toward larger loans and saving deposits, and therefore a bias against small holders and traders, who request small loans and make infrequent and little deposits.

**Risk**--According to the commercial banks, risk is inherent to agriculture. Thus, most of them see lending to rural population as highly risky, because most of those people are in some type of agricultural related activities. Also, under the directed credit system, banks' experience has shown that unsecured loans, loans to rural areas, and small business loans are fundamentally risky. This perception is understandable given that the majority of the non-performing loans are in their small business loan portfolios. Commercial banks are hesitant to lend to MFIs that serve the low-end of the market, because of their limited understanding of managing microloans.

However, some banks are ready to give consideration to the MFI sector with a loan guarantee, like BNDA and BIM are doing for Kafo Jiginew with guarantee funds from the IFC, SOS FAIM, and other international organizations. This is a non-risk deal for the commercial banks, which shows that Malian commercial banks are still not ready to bear risk linked to microfinancing.

## **7.5. Suggestions for Improvements**

Assuming the commercial banks want to lend to rural areas despite the high risk and transaction costs, a linkage model between commercial banks and MFIs would be advantageous to both parties. It would greatly reduce the bank's transaction costs entailed in retailing micro loans to the poor individually. Group schemes would also allow the lending institutions to gain economies of scale by lowering unit transaction costs.

According to Kafo Jiginew's management, the unstructured granting of consumption and production credits to the cotton producers must be stopped, as they have led to a phenomenon of indebtedness in the zone. The solidarity group, the only moral guarantee of the loans, was misused everywhere in the region. As previously mentioned, all the collective or individual loan requests are eligible for the group solidarity collateral programs. This led to an abuse of the principle of group solidarity based on "one for all and all for one". It has been noted in the field that there are problems inside the AVs when the loans and the activities to be guaranteed are not decided by the general assembly. According to Kafo's management, the joint and several guarantees of the loans by the members of the AV at the BNDA must be limited to the productive uses such as production and marketing of cotton. However, I believe that this should also be true for other subsectors, such as cereals.

The groups must be allowed to self-select each other to have to credit, and their sizes must be limited to reduce the risk of free-rider in the group.

A more measured view of MFIs' credit schemes must be adopted, and there is a need for recognition that they are not magical development solutions, but they can nevertheless be important catalysts for other social and economic change.

Making such loans a function of saving will induce the members eager to obtain consumption loans to save more.

With respect to the economic and social environment collapsing due to managerial problems at CMDT in the Mali-South, the search for the immediate and durable solutions implying all the partners of the zone is imminent.

After having known extraordinary successes since its creation in 1987, the microfinance network Kafo Jiginew is going through a critical stage today. The crisis, which has just shaken the cotton belt of Mali, stronghold establishment of Kafo Jiginew, made the effect of a public warning. There is a need to surely and slowly develop diversified and sustainable production systems that in the long run will make full use of local knowledge, increase self-reliance and have strong links to the local rural economy. However, the question that



remains is: how will a reliable repayment scheme be devised for this more diversified, less cotton dependent economy?

## **CHAPTER VIII**

### **CONCLUSIONS AND FURTHER RESEARCH NEEDS**

Since the introduction of the agricultural marketing reform, Malian agricultural production has significantly increased on yearly basis, on average of 5%. The private traders are full participants in the commercialization of cereals. However, one of the major challenges facing the agricultural sector is a sustainable production credit system. The cereal market liberalization reform policies and the devaluation of the CFA franc have radically changed the Malian agricultural environment. It has changed from subsistence agriculture to a more commercial and processing-oriented sector. In the meantime, the banking sector has retained its character of providing short-term finance, and capital markets remain either weak or absent in the majority of cases. Banking and finance structures in Mali remain underdeveloped. The financial markets are characterized by the limited outreach of the commercial banking system, which operates with a high urban bias. Banks are located in the capital city, with just a few branches in the rural areas. Thus, rural people (over 80 percent of the population) have limited or no access to formal financial services, (Ouattara et al. 1999). A real gap has emerged in development investment finance that needs to be filled. To improve the performance of the financial intermediation in servicing the citizens of Mali, the financial institutions will need to change to their conduct in providing financial services. In this chapter, we will present the main conclusions and some of the changes that need to be done in the monetary policy, loan evaluation procedures, and how to improve the linkage between commercial banks and the microfinance institutions.

## **Monetary, legal and regulatory Policies**

Prior to the financial sector reform policies, the government and the Central Bank rules such as excessive bank reserve requirements, directing a large share of bank credit to parastatals, risky sectors, and other unproductive investments, fixed interest rates, and usury laws distorted the efficient allocation of resources and increased information asymmetry between the different participants (financial intermediaries, borrowers, and depositors) in the financial sector (Yaron et al. 1997). The monetary policy had usury laws that were making it impossible to make the kinds of small, risky, high-cost loans that are typical in rural areas. In Mali and in all state members of the WAEMU, the monetary policy was ineffective in its quantitative and its selective control objectives Masini, 1987).

Prudential regulation and supervision in the financial markets are essential elements in preserving the stability of the international monetary and financial system. In this respect, we welcome the progress on the strengthening of capital standards, including the recent agreement on capital adequacy standards for banks' exposure to market risk, improved disclosure and enhanced surveillance. The solvency of the banking system is in question. Based on my own observations and various discussions with experts in the sector, we conclude that Mali's financial system is characterized by poor management of financial institutions, weaknesses in internal structures, lack of internal controls, inadequate analysis of requests for credit, weak monitoring of outstanding loans, and poor recovery systems.

### **Loan Officers' Policies in Lending to Agriculture**

From the analysis of the 3 banks, only BNDA has a formula for determining creditworthiness. In most cases, the loan officer must assemble and evaluate information and then determine what the entire picture looks like. The approach is similar to what the traditional bank lenders refer to as the “Four Cs” of lending: Credit, Capacity, Collateral, and Character. Commercial banks use the same rigorous credit assessment principles, but apply them to situations in which the lender must rely on borrower character and cash flow from the business. The loan application and the first meeting with the borrower are the first screen of whether a business is a potential candidate for credit. Beginning with the first meeting, the lender must evaluate the quality of the business deal, the fit with the borrower’s experience and capacity, and whether the financing amount and structure is appropriate. This approach is not different from what other banks do in richer countries. However, loan officers in developing countries have more difficulties in complying with the procedures due to the problem of information asymmetry.

In Mali, loan officers are using lending procedures that are inadequate for the liberalized cereal subsector. The whole farm credit system should be modified from a limited informal, traditional, local savings and lending arrangement to an integrated, formal, national savings and credit system. Commercial banks have no or little experience when it comes to rural financing. Most of the banks lack incentives and resources to train their personnel properly

and to create innovative lending methods. Many banks have inherited civil servants, who lack the appropriate training in the banking sector. Most of those ex-civil servants have learned banking on the job. Therefore, they cannot detect weaknesses in the system due to their limited insight and training. During the study, when asked why they are using these procedures to process the loans, the typical reply was: “because it has always been done this way”.

Also, few qualified financial training service providers exist in Mali. This makes it very difficult for a bank’s managers to provide its staff with appropriate training. The local training institutes do not have the capacity to develop the courses and then deliver them simultaneously over a very tight timeframe. The alternative solution is to send the loan officers to neighboring countries such as Cote d’Ivoire, Senegal and Morocco, or to Europe and the US. This last option is expensive and requires the loan officer to be away from his daily duties. The opportunity cost is too high, as loan officers manage large numbers of loans.

In Mali, commercial banks will not have any incentive to increase their activities in rural areas unless new lending procedures are developed, which will mitigate the risk and reduce transaction costs. To do so, specialized public guarantee facilities, which go beyond the mere provision of a guarantee, should be created. These institutions should also provide other services to encourage bank lending. For banks unfamiliar with the sector of small

borrowers, it is extremely difficult and costly to identify potential borrowers and to collect the required information on their financial needs, their business proposals, their collateral situation and their management capabilities. Therefore, donors could work in conjunction with both the banks and the MFIs. Instead of channeling all their funds into loan guarantees or interest-rate subsidies, the donors could provide funds to the banks to subcontract to the MFI's to do their loan screening and supervision of loans to farmers. According to the banks, the largest share of transaction costs related to lending to small borrowers is from the loan recovery costs. Therefore this type of support from the donor may thus result in a considerable cost reduction for the bank.

BNDA should use a mix of expert opinion and a simple price-forecasting model to forecast prices for each subsector where they intervene. The forecasted prices should be used to compute the farmer's repayment capacity not the current market prices. The Observatoire du Marché Agricole (OMA) could help develop such price forecasting tools.

The association of bankers should develop a *Lenders' Guide to Best Financial Practices*, and install training and microfinance technology packages to help banks in adopting innovative lending practices better tailored to the current Malian economic environment. In developing this guide, consultations must be held with individual lenders to discuss the value of the Guide and to tailor it to the needs and requirements of the various institutions.

## **Linkages Between Commercial Banks and MFIs**

There are unexploited opportunities for greater integration or collaboration between the commercial banks and MFIs in serving agriculture. By taking advantages of these opportunities, the banks will reduce their administrative costs, as the MFIs will be the intermediaries between the commercial banks and the rural clients. The MFIs could mobilize the savings and supervise the loans. In exchange, the MFIs could expand their services, as they would have access to more liquidity through the commercial banks. To reduce the barriers between banks and MFIs, it is worth exploring ways to exchange staff members, either by seconding bankers to work in an MFI or by having MFI managers work at a bank. This will help address the capacity challenges faced by MFIs and will educate bankers about the real risks of micro lending. An MFI can also achieve this education objective by inviting commercial bankers to sit on its board. Once bankers understand its operations, they are more likely to consider lending to the MFI.

## **Recommendations**

The following recommendations are the ones that we found pertinent given the current situation of the Malian financial system.

1. There is an urgency to implement a social security number system similar to the existing one in the US namely a system, where a unique identification number will be assigned to each citizen. This unique number will make it easier to identify and locate people, and keep track of individual credit history.

2. A Central of Risk should be created for the MFIs like the one for the commercial banks. The central of risk will be a report where all the different actors operating in the micro-credit system will be required to provide information on the type and amount of loans they grant. Such a report will reduce the information asymmetry between the lender and the borrower. The lender will be able to assess the true reimbursement capacity of the farmers, which until now he has been unable to do. This inability to track repayment capacity has led some farmers to take multiple loans from different MFIs and fall increasingly into debt. This report could be issued by the Central Bank or an independent agency.

3. The monetary union needs to fully liberalize interest rates.

4. The government should stop directing the government budget, foreign donor programs



and funded projects to its banks. In Mali, most of the banks are state-owned. Therefore, the government feels obligated to channel enough funds through its banking system so they can earn enough revenues to be self-sustainable. The state went to the extreme of forcing every civil servant with a salary higher than CFAF 50,000 to open a bank account in its banks in order to be paid (salary) on time. The banks should compete for the right of deposits of those funds. Only the banks that offer the best quality services and fees should earn the right to the state budget.

5. There is a need to stop overwhelming the MFIs with foreign funds. We all understand that today more than ever, the public, tax-payers and politicians of donor countries, want more and better results from international organizations. Therefore, the international organizations are scouring the world for success stories to jump in and be part of. This is not always a good idea, as they may disrupt the system in place. In Mali, donors founded Kafo Jiginew. In the 1990s, with the success of Kafo Jiginew, everybody wanted to be involved with it. Thus, the MFI received funds from every imaginable international financial institution. According to the Director General of Kafo, “if the fall of the prices of cotton persists, that will undoubtedly affect the situation of Kafo Jiginew. Even if external partners can support us in the short run, the imbalance between the saving that we mobilize and masses of credit we allocate, risks to compromise our financial independence.”

The argument used to justify the use of outside funds is that they have allowed the MFIs to

better meet an increasing demand for larger loan amounts and longer terms to maturity, which was not being met through mobilized deposits alone. Thus, for the ultimate borrower, the arguments goes, these are not subsidized funds and are not different in price from loans based on deposits. This is not the case in Mali. Farmers are well informed about the source of these funds. Despite measures taken to inform the farmers that the foreign funds are not donations, the farmers, who do not trust the formal system private or governmental system, believe that they are given the money and have little obligation to pay it back.

6. Fulfill the capacity-building needs of the banking system and regulatory/legal authorities. There is a need to train bank employees and help banks in implementing sound managerial systems. Some measures have been already taken to remedy to this situation. The World Bank has just approved a loan for Mali to strengthen its financial system through restructuring and capacity building.

7. The challenge now is to implement the policy, legal, and regulatory reforms needed to create an environment that favors the development of financial markets. The legal and judicial reform is a vital part of the overall transition because it provides the structural framework for economic and other reforms. A viable legal system is also needed to attract investment. Many of the basic laws are already in place. The problem is that the laws, even if they are well drafted, are not being enforced correctly, fairly, or evenly.

## Questions for Future Research

1. The cotton parastatal (CMDT) is on the verge to be privatized, which effect will this have on financial intermediation in the cotton production zone, as the interlinked credit system will no longer exist?
2. Will the privatization of state-owned banks improve rural financial intermediation?
3. Will the decentralization improve contract reinforcement in Mali?
4. What are farmers doing to improve their reputations with the commercial banks?
5. Is it good business for a commercial bank to serve smallholders/small traders' financial needs?

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