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**DEVELOPMENT FINANCE IN RURAL NIGER:  
STRUCTURAL DEFICIENCIES AND INSTITUTIONAL PERFORMANCE**

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## **Abstract**

Niger has been poorly served by its formal rural financial system. The Caisse Nationale de Credit Agricole (CNCA) has incurred substantial losses through high transaction costs however its formal accounting procedures disguise this poor performance. Its role was little more than a conduit to supply inputs. Other properties of financial intermediation were ignored and counterproductive centralized targeting was rampant. Total transaction costs of the system were shown to be quite high and financial viability impossible in the current organization. Necessary organizational reforms to achieve viability are discussed.

# **DEVELOPMENT FINANCE IN RURAL NIGER: STRUCTURAL DEFICIENCIES AND INSTITUTIONAL PERFORMANCE**

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Carlos E. Cuevas, Douglas H. Graham, and Mario Masini<sup>1</sup>

## **Introduction**

The efficiency with which financial markets operate determines the magnitude of their contribution to economic development. Financial intermediaries mobilize funds from savers and make them available to investors. All transactions between these participants in the financial system involve explicit prices (interest rates) and non-interest transaction costs. The higher these costs, the less efficient the performance of financial markets.

Intermediation costs are particularly high in the development banks that operate in the rural areas of developing economies (Cuevas, 1988). The absence of appropriate means of transportation and communication increases the costs incurred by lenders and borrowers. Regulations and complicated loan procedures, associated with selective credit policies, further augment these costs. Even in the absence of cumbersome loan-targeting schemes, the operation of a conventional credit system implies high transaction costs for all participants in the loan contract.

The conventional loan process requires the use of real resources, for activities that can be classified into four groups:

<sup>1</sup> The authors acknowledge the support of the USAID Mission in Niger. Kifle Negash and Michel Keita were essential in the collection of the data supporting the findings reported here. The kind cooperation of Abdou Isaka, General Manager of the Caisse Nationale de Crédit Agricole, is gratefully appreciated.

(a) Evaluation and analysis of loan applications

This stage comprises the gathering of information about the loan applicant, the assessing of the value of collateral, and/or the evaluation of the investment opportunities available to the prospective borrower, in order to establish his creditworthiness.

(b) Loan disbursement

This involves making the loan available to the borrower, in cash or in kind, and recording and documenting the transaction.

(c) Monitoring

This stage implies obtaining information about the performance of the borrower's investment. Monitoring is more important when loans are disbursed in several tranches, over an extended period of time. Technical assistance and supervision may be components of this stage.

(d) Repayment

The last step is loan recovery. A well defined collection strategy is essential to attain financial viability and protect the loan portfolio.

None of these activities is, by itself, sufficient to guarantee good performance. Loan evaluation and recovery may be the two most critical stages, but good record-keeping and monitoring are still necessary to obtain satisfactory results. All four steps generate transaction costs for the borrower, as well. In a conventional credit system, the borrower must fill out forms and supply documents with the loan application. Several trips to the bank may be necessary, in addition, during the negotiation, disbursement, and repayment stages.

This chapter critically evaluates major features of the rural credit system of Niger. The nature and main components of the rural credit network are discussed first, with emphasis on the truncated role played by formal financial institutions. Next, the characteristics and performance of the key rural credit institution, the *Caisse Nationale de Crédit Agricole* (CNCA), are described and analyzed. Finally, the magnitude and distribution of transaction costs in the credit network are documented, while the disproportionate share of these costs borne by the institutions is highlighted. Concluding remarks and implications follow.

### The Rural Credit System of Niger

The major participants in the Niger rural credit system are:

- (a) the individual borrowers at the village level;
- (b) the *groupements mutualistes* (GMs) and cooperatives<sup>2</sup>; and
- (c) two institutions, the *Caisse Nationale de Crédit Agricole* (CNCA), and the *Union Nationale de Coopératives* (UNC)<sup>3</sup>. The CNCA is the lending institution, whereas the UNC deals directly with the cooperatives and GMs at the village level.

Institutional rural finance in Niger is **incomplete** in two very important ways. First, even though rural savings exist, they are not mobilized by the institution lending to agricul-

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<sup>2</sup> The GMs are village-level groups that comprise a cooperative.

<sup>3</sup> The institution dealing with input supply, the *Centrale d'Approvisionnement*, plays an important role in the input delivery process, but it is not considered here as part of the credit network.

ture. Instead, this institution relies exclusively upon government funds and external donor support. Second, the institutional credit network dealing with agriculture does not operate as a conventional and well-established credit system.

Of the four stages of the loan procedure, loan disbursement is probably the only phase that could be considered in place. However, even key record-keeping practices associated with disbursement are deficient. Evaluation and analysis of loan applications do not exist, and there are not systematic loan recovery efforts. In-kind loans are allocated among cooperatives, among *groupements mutualistes*, and among individual borrowers based on criteria that do not consider creditworthiness. This is partially due to the lack of appropriate records and of sufficiently trained personnel to engage in this activity.

Three major implications of the underdevelopment of the institutional credit system in Niger can be outlined. First, the system does not and cannot perform any meaningful resource allocation role through financial intermediation. Second, the system does not provide the financial intermediary with instruments of credit rationing in the presence of fixed interest-rate ceilings prevailing in Niger. Third, as a loan delivery system, the credit network of Niger should be a low cost operation. Existing procedures are simple and institutional resources are scarce; the transaction costs associated with the system would be expected to be low. This, however, should not be interpreted as an indicator of efficiency. Rather, these costs are merely a measure of the resources involved in operating an input delivery system, without the key components and functions of a complete credit system.

### **The Caisse Nationale de Crédit Agricole: History and Performance**

For almost 20 years, the CNCA has carried out the function of channeling funds, for the most part indirectly through parastatal organizations, towards the rural sector. It was created as a division of the *Union Nationale de Crédit et de Coopération* (UNCC). The UNCC had been established to provide greater central control over cooperatives and through time had taken on a variety of functions, from input supply to credit distribution, peanut marketing, seed distribution, the management of development projects, cooperative education, farmer training, functional literacy, supplying products of primary necessity, and distributing grain in times of scarcity.

Some of these functions were subsequently transferred to other specialized parastatal agencies, as in the case of the grain marketing agency, the *Office des Produits Vivriers du Niger* (OPVN), established in 1970; the *Office National de Aménagements Hydro-Agricoles* (ONAHA), the irrigation authority established in 1978; or to specialized services still within the UNCC, such as the *Centrale d'Approvisionnement* (CA), the input supply agency, created in 1978; and the *Ateliers de Fabrication de Matériel Agricole* (the agricultural equipment workshops).

When the credit function was passed over to the CNCA, strong links were maintained. By law, the chairman and members of the board of the UNCC were respectively the chairman and members of the board of the CNCA. The representative of each agency at the regional level was one and the same until 1980, when the government took a firmer stand in trying to set up the CNCA as a full-fledged agricultural credit institution.

The CNCA continues to rely heavily on the parastatal agencies, both as a device for indirectly channeling credit to farmers, and to perform critical functions in identifying, selecting, and monitoring its final direct borrowers, that is, the farmers in the village *Groupements Mutualistes* (GMs). Several of these separate village level GMs make up the multi-village cooperatives. Transferring the credit function to the CNCA did not automatically create the necessary banking skills nor were the extension and follow-up skills of the parastatal agencies improved. On the contrary, incentives were created that made the situation worse on both fronts.

The CNCA, trapped by its own mission, could not afford to establish contact with many of its farmer borrowers in the rural areas. Working through other institutions to reach them reduced its chances of learning how to effectively perform its own banking functions. In particular, it could not develop direct bank-customer relationships.

From the point of view of learning processes within the CNCA, the situation worsened when large-scale Productivity Projects entered the scene. The predefined goals and prescriptions embedded in these programs erected a strong barrier to any attempt by an external institution, such as the CNCA, to understand and much less participate in the loan evaluation and loan administration activity where these projects operated. In short, the CNCA became a mere conduit to channel funds, rather than an active participant in the decision-making process of assessing the risk and creditworthiness of potential clients.

The agents of the parastatal agencies and the productivity projects, on the other hand, found in this situation incentives to reduce the quality of their own performance, both with regard to the support services offered to the CNCA and in their own operations. First,

the transfer of loans from their books to the CNCA obviously reduced their motivation in assessing creditworthiness and loan collection on behalf of the CNCA. Second, the opportunity to influence credit allocation and loan repayment created a situation in which the negative effects of their own, possibly inappropriate, technological advice and even fraud could be temporarily covered up with resources borrowed directly by them or by their project farmers. The disbursement of these loans could mitigate the losses growing out of poor research and extension efforts and reduce the complaints of the farmer-borrowers, as they were not asked to repay. In short, as long as the loan program is labelled *experimental* and the experiment proves deficient, parastatal agencies and the productivity projects can save face with their farmer-borrowers by not pushing aggressively for loan repayment.

Thus, recourse by the CNCA to draw in the parastatals and projects for supporting services in credit delivery and loan repayment can paradoxically create incentives and opportunities for the same entities to work against rather than in support of loan repayment. This is to be expected when an entity that is essentially a wholesale borrower (i.e., the parastatal), also assumes a retail role as a credit officer and loan collection agent for its creditor, (i.e., the CNCA). The conflicts of interest inherent in these split roles weaken and eventually destroy rigorous loan management and loan recovery practices. The CNCA is left defenseless in this system in which the farmer borrowers are expected to repay the field level parastatal extension agents who in turn are expected to repay the CNCA.

In this framework, the financial institution is not considered intrinsically useful in its own right, but rather a mere administrative device, completely subordinated to the purpose of channeling credit for predefined targeted uses. These uses are not chosen by the lender

or the borrowers, but by a development agency whose task is to stimulate the adoption of specific technologies or practices. Such an approach does not provide the incentives to develop, within the financial institution, the managerial and banking skills needed to administer a loan portfolio and develop a healthy bank-client relationship.

### Liability Management: Instability and Vulnerability

The evolution of the liabilities of the CNCA is reported in Table 1, which identifies the large share of total funds borrowed through the government and foreign donors. The variability of the rate of growth of these liabilities is substantial. This extreme instability and lack of diversification of funding sources grows out of the instability (i.e. feast or famine syndrome) of donor and government funding thereby affecting the overall rate of growth of the institution.

The Central Bank's rediscount lines on average accounted for about 45 percent of total CNCA borrowing over the period, while fixed-term deposits (mostly from the Treasury) and external lines of credit from international donors, under very soft conditions, accounted for 23 and 20 percent respectively. At the end of 1983-84, these three sources accounted for 91 percent of the CNCA's borrowed funds.

This composition of borrowed funds does not stimulate the development of the skills and procedures required to approach the general public for deposit mobilization. Nor does the CNCA benefit from the incentives that dealing with regular depositors creates for the improvement of banking skills and other procedures, such as effective loan evaluation and risk analysis, liquidity and cash management, and loan recovery practices.

In summary, when the structure of liabilities of a financial institution is dominated by government rediscount lines of credit or international donor funds, the institution becomes *borrower-dominated*. Namely, all the loan procedures and administrative practices are designed to favor the borrower's interest. Detailed farm budget studies and targeted clientele are emphasized (to introduce new technology or increase output), while rigorous creditworthiness analyses and loan recovery procedures are minimized. In short the institution loses its autonomy to shape its portfolio to secure viability.

In contrast, when the liability structure is dominated by deposits from the public, the institution becomes *depositor-dominated* in its operational philosophy. Loan management and administrative procedures are designed to favor and protect depositors' interests. High-cost loan-targeting programs are minimized, while loan evaluation and creditworthiness analyses are emphasized. At the same time, loan collection procedures are highlighted and recovery efforts are aggressively pursued.

Borrower-dominated institutions frequently experience severe difficulties, since financial viability is not a dominant priority. Depositor-dominated institutions, on the other hand, are usually more solvent, since the survival of the institution is important for depositors and viability becomes a dominant feature of managerial strategy. The structure of the liabilities of the CNCA makes it a classic example of a borrower-dominated institution, dependent upon government and donor funds, with all the weaknesses associated with this form of dependency.

### Asset Management: Portfolio Structure and Performance

The portfolio of financial assets of the CNCA (99 percent of which consists of loans and overdrafts) recorded an average annual growth of 17.6 percent over the period 1979/80 - 1983/84 (Table 2). This compares to an annual rate of inflation of 10.2 percent over the same time period (GNP deflator). The rate of growth over the same period, excluding doubtful loans, was 16.9 percent for overdrafts, 23.1 percent for short-term loans, and 25.7 percent for medium-term loans. The rates of growth for each type of loan are extremely variable over time, because of unstable seasonality coupled with end-of-period data, and of the very high concentration of borrowing entities.

Abrupt shifts in program funding through government and international sources introduces equally abrupt shifts in assets. Starting in 1983/84 and continuing in 1984/85, Table 2 shows a negative rate of change for all types of loans as donors reduced their previous rate of funding and the government reduced its capital subscriptions in these years of world recession affecting government uranium export earnings and tax revenues. These rapid shifts in liabilities and assets complicate loan management practices and compromise efficient loan recovery. Farm-borrowers (or cooperatives) are not inclined to repay loans to an institution that is experiencing abrupt funding problems, since the reward for repaying a loan (i.e., getting a new loan) appears unlikely. Thus, a growing image of instability in funding sources will induce a rising rate of loan delinquency.

Over two-thirds of the CNCA loan portfolio consists of overdrafts and short-term loans, less than one third is comprised of medium-term loans. Overdrafts fall into five main groups (Table 3). Crop loans consisted mostly of loans to the OPVN, the grain marketing

agency, and to a lesser extent to Riz du Niger and SONARA (rice and peanut marketing parastatals). Input supply loans went mostly to the Central d'Approvisionnement. Pre-financing loans were mainly for Productivity Projects (i.e., credit granted as an advance on the expected disbursement of lines of credit from external donors or the Fonds National d'Investissement). Advances went to the ONAHA directly and to some irrigation projects, while other advances on current account were for Productivity Projects.

Medium-term loans accounted for 46 percent of the number and 28 percent of the value of total loans outstanding at the end of 1984/85. An important, although decreasing, proportion of these loans is accounted for by the consolidation of loans granted to crop marketing agencies, such as the OPVN, SONARA, Riz du Niger, and by a non-interest loan granted to the Government. The rest of the medium-term portfolio is represented by loans to cooperatives and to individuals (65 percent and 16.5 percent, respectively, at the end of 1984/85). The main use of the loans in the case of cooperatives is the acquisition of collective farm equipment, especially within the Productivity Projects. Other stated purposes for individual loans are preparation and planting of orchards, cattle herd reconstitution, and seed storage (mainly for groundnuts).

The build-up of retail lending by the CNCA, i.e., loans directly granted to cooperatives and individuals, is concentrated in short- and medium-term loans, but the proportion of these loans to the total value outstanding is insignificant, except for medium-term credit to cooperatives. The average amount per loan is so low, especially for short-term loans, that it is difficult to assume that the net interest margin is sufficient to cover operating costs. If, for example, the cost of funds is assumed to be equal to the preferential rediscount rate,

this margin is fixed at 2.5 percent, inclusive of commissions, for all loans to cooperatives. This means CFA 2,500 annually on a loan for CFA 100,000, which represents a cost of about 3 man/hours of work time valued at the average cost of personnel for the CNCA. Clearly, more time is spent in processing these loans, even in the imperfect loan delivery system within the CNCA and its associated parastatal institutions. A larger interest rate margin to cover these operational costs and risks is clearly in order.

The quality of the loan portfolio of the CNCA has been steadily deteriorating over the years. The CNCA reports as doubtful only those loans granted to individuals and cooperatives. All loans granted to or guaranteed by the Government are by law unable to be classified in default, therefore no loan loss provisions have been made for parastatal agencies, although many of these loans are clearly non-performing. The data for doubtful loans reported in Table 3 refer therefore only to loans for cooperatives and individuals. The CNCA considered 100 percent of the short-term credit to cooperatives and 50 percent of the short and medium-term credit to individuals as "not recoverable." If we accept, for the moment, this unrealistically narrow definition of non-performing loans, only 8.7 percent of the total loan portfolio was considered doubtful, and adjusted accordingly with increased loss provisions at the end of 1984-85. An alternative, more realistic, appraisal of the importance of doubtful loans would consider a substantial portion of the loans to government parastatals as equally doubtful. Thus, the misleadingly low 8.7 percent default estimate in Table 3 could be very easily adjusted upwards to represent a substantial majority of the total portfolio.

In this situation, the stability of the institution is undermined in many ways. On the one hand, the absence of loan turnover creates great liquidity shortages for the CNCA while, on the other hand, profitability is at stake both because of the increased cost of funds prompted by the liquidity crisis and due to the lost interest income and the loss in the value of assets. These effects can only be hidden partially by accounting practices.

### Profitability

The assessment of the CNCA's profitability depends critically on judgements concerning the actual value of its assets and of accrued interest. Data on revenues, costs, and profit margins are set forth in Table 4. Positive net profit and profit margins are evident throughout the period. These data could be taken at face value only if one had confidence in the data recorded as income from financial operations and provisions for loan losses, but unfortunately this is not the case.

Extraordinary items are related to the need to take into consideration profits and losses that escaped appropriate reporting in previous accounting periods. This reflects the difficulty of measuring the performance of the CNCA. Relevant factors increasing these items are the inefficiency of the CNCA's information system and the dispute surrounding the relationship between the CNCA and some of its important parastatal clients.

In summary, declining profits in recent years reflect the deterioration of the CNCA's portfolio. These findings are, in any case, greatly misleading, since actual profits (in contrast to accounting profits) are clearly non-existent. Estimates of "income from financial operations" are based on "accrued" interest, a conventional accounting term that considers all the

hypothetical (not necessarily paid) interest earnings as revenue. If, instead, one used interest payments actually received to estimate revenue, the CNCA would record losses instead of profits, and the trends noted above would document increasing losses rather than declining profits.

### **Transaction Costs in the Credit Delivery System**

The assessment of the transaction costs associated with the CNCA credit network is undertaken at three levels:

- (a) the individual borrower or household level,
- (b) the leaders of GMs and cooperatives, and
- (c) the UNC and the CNCA at their different levels of operation.

The magnitudes of transaction costs for all three levels are summarized in Table 5.

#### **Transaction Costs of Borrowing at the Household Level**

The findings reported in this section are based on a field survey undertaken in July-August, 1985. The sample included 900 households throughout different regions of Niger. There were two predominant types of loans among the sample of 482 borrowers from institutions<sup>4</sup>: equipment loans, with an average amount close to 132, 000 CFA, and seed

<sup>4</sup> This sample of institutional borrowers is comprised by all interviews in the overall sample of 900 households that had received a loan in the five-year period preceding the date of the survey. A detailed description of the sample is included in Graham, Cuevas, and Negash (1986).

loans, averaging about 1,000 CFA<sup>5</sup>. The results discussed below refer to equipment loans, since seed loans consisted primarily of aid in kind, distributed with minimum formalities.

Loan procedures were in general very simple for individual borrowers. There were not collateral requirements, but equipment loans would typically require a contribution or downpayment by the beneficiary. The loan was usually proposed or suggested to the borrower by someone else (i.e., a UNC agent or cooperative official), rather than an outgrowth of the borrower's own initiative.

In a large majority of the cases, the equipment and inputs had been received on time, and in satisfactory condition. An important shortcoming of the input delivery process was, however, the lack of knowledge for the correct use of the inputs received. Furthermore, only 50 percent of these farmers acknowledged having received some training in the use of the equipment and tools obtained as in-kind credit.

Over one-third of all the borrowers admitted to being delinquent in their payments. Among borrowers of equipment loans, 53 percent admitted to a delinquent status. Insufficient revenue was the most frequently cited reason for non-repayment. Another important explanation was the lack of recovery efforts on the part of the credit institution.

In summary, the loan procedure can be characterized as a relatively expeditious delivery system of credit in-kind. The major shortcomings are insufficient training and technical assistance for the borrowers, and poor loan recovery. The leaders of cooperatives and GMs appear to play an important role throughout the process. They seem to concentrate their efforts, however, on the disbursement stage, neglecting the repayment function.

<sup>5</sup> 1 US\$ = 330 CFA.

Even though all farmers are in principle members of a GM (hence, of a cooperative), the group itself does not perform a clear role in the operation of the system. There is no collective responsibility for the loans received, nor group pressure to repay or group support for those in arrears. The GM appears to operate primarily as a convenient group and locale to communicate the availability of credit and collect the names of interested villagers. These functions will certainly reduce transaction costs of borrowing, but will not improve the efficiency of the system as a resource allocation mechanism.

The measurement of transaction costs of borrowing at the household level considered two major components:

- (a) explicit travel expenses to apply for and negotiate the loan, receive the disbursements, and repay the loan, and;
- (b) the opportunity cost of the time spent in performing the activities involved in the different steps of the loan procedure. The opportunity cost of time was valued at 514 CFA per day<sup>6</sup>.

The transaction costs of borrowing for individual farmers are reported in Table 5. These costs are low by most standards. One percent of the amount of the loan represents less than one-tenth of the usual interest rates charged on loans (11-13 percent). Studies conducted in other developing economies have found transaction costs equivalent to at least 30 percent of the explicit interest rate, and as high as twice the level of the lending rate. As suggested earlier, these low cost levels reflect the incipient development of the credit

<sup>6</sup> Estimated value added per day per active person, based on the figures of rural GDP per capita reported in Cuevas (1987), the proportion of active population derived from the 1977 census, and an estimated ratio of value added to GDP of 0.6.

system, rather than a highly efficient operation. Most of these costs are generated at the disbursement stage, a finding that reinforces the impression that the Niger credit network performs primarily an input delivery function.

### Transaction Costs at the GM and Cooperative Level

This section relies upon data obtained in interviews with the leadership of 24 cooperatives and 73 *groupements mutualistes* (GM) carried out in January-February, 1986. According to these interviews, the responsibility of allocating credit among individuals was shared by the leaders of the GMs and of the cooperatives, and by the representatives of the UNC. The CNCA, i.e., the lending institution, was perceived as playing a major role in these decisions in only 7 percent of the cases. Numerous criteria were indicated for allocating credit to the individual beneficiaries. Most frequently cited by GM and cooperative leaders were the individual's ability to repay, in line with their rank order in the list of applicants, and their ability to provide a deposit (*caution*).

Less than half of the leaders interviewed were in possession of records indicating who was eligible for a loan among the members of the group. Only 18 percent had records or documentation indicating the amounts received by each farmer. These findings, consistent with the level of literacy documented in the survey, suggest that records about eligibility for credit and loan disbursements are kept in memorized form by the leaders of the organizations, rather than in written form.

The distribution of responsibilities in loan recovery were not clear. Most cooperative leaders felt that recovery was a role to be performed by the UNC official, whereas GM

leaders attributed this function to the cooperative leaders. Basic information for loan recovery, i.e., debt records, existed in only one-half of the cases.

The characteristics of the loan process at the GM and cooperative levels outlined above reinforce the notion that this credit network operates primarily as an input delivery channel. Input distribution appears to be performed with relative efficiency. The system fails in the areas of loan-allocation decisions, documentation of debts, and loan recovery. In all these areas, responsibilities and roles are not clearly assigned, and essential records and documentation are absent or deficient. It is not surprising then that the costs of operating the system at this level are minimal, as shown in Table 5.

Overall, the low costs per CFA borrowed demonstrate the advantages of group borrowing, i.e., of handling large (multiple) loans through the common leadership of the organization. The low cost per loan, however, also indicates the lack of sophistication of the loan procedure. At the same time, it reflects weak loan allocation practices, poor documentation of disbursements, and deficient loan recovery procedures.

#### Operational Costs of Lending at the Institutional Level

The field survey undertaken in January-February, 1986 included interviews with 14 officials of the UNC and 5 CNCA branch managers. UNC officials devoted less than half their time to credit-related activities, whereas CNCA personnel, as expected, were dedicated exclusively to credit functions. These differences in the allocation of time were taken into account to compute the costs associated with credit activities.

Table 5 shows that the institutions in question bear a large proportion of the costs associated with the credit delivery system. The CNCA alone shows operational costs per cooperative in the portfolio equivalent to 5.44 percent of the average loan amount per cooperative. The UNC activity at the *arrondissement* level also results in rather substantial operational costs of lending.

It must be noted that the costs reported do not include expenses incurred at the central offices of the UNC and the CNCA. This implies that those costs will underestimate the total transaction costs of operating the credit delivery system. Given the distribution of personnel of the CNCA between the central office (43 percent) and the branches (57 percent), one could assume an overhead of about 75 percent attributable to central-office expenses. With this assumption, the CNCA costs per CFA lent increases to 9.52 percent, and the combined costs of the CNCA and the UNC rise to almost 12 percent of the amounts lent.

Finally, the costs measured for the CNCA correspond only to the non-interest costs of loan administration. These do not include the cost of funds (essentially determined by the BCEAO discount rates), or the risk premium (i.e., default cost). The latter reflects the effects of default risk on total transaction costs of lending of the institution<sup>7</sup>.

<sup>7</sup> The risk premium ( $r$ ) can be defined as:  $r = [d/(1-d)](1 + a + f)$  where  $d$  is the default on the loan principal;  $a$  is the cost incurred in administering these defaulted loans; and  $f$  is the cost of funds subsequently lost through default.

For the CNCA, the risk premium was estimated at 25.6 percent, using an estimated default rate of 18 percent of the CNCA portfolio<sup>8</sup>, the 9.5 percent administration costs reported above, and the preferential discount rate of the BCEAO as the cost of funds at 8 percent. This still represents a lower-bound estimate, since the default risk associated with loans granted to government, public, and semi-public enterprises were not included here.

With loan administration costs of 9.5 percent and a risk premium of 25.8 percent, total transaction costs of lending of the CNCA become 35.3 percent of the amounts lent. This is certainly a very high cost of lending, by any standard. This cost must be contrasted with the 2.5 percentage point margin allowed to the CNCA and other banks by the BCEAO for on-lending. The lending costs of the CNCA exceed this regulated margin by about 33 percentage points thus the CNCA incurs losses of 33 percent of the amount of loans granted every year.

In summary, even though the credit delivery system of Niger does not include a complete set of well-developed banking functions, the resulting costs appear even higher than those recorded in other development banks carrying out all these functions. Even without devoting sufficient resources to key activities such as loan evaluation and loan recovery, the costs of implementing the delivery of inputs to cooperatives and GMs are significant. The operations of the CNCA result in an annual loss equivalent to (at least) 33 percent of the funds lent by this institution.

<sup>8</sup> This default rate does not consider loans to government institutions and parastatals. Is since, by law, they cannot be labelled in default despite the fact many of these loans are non-performing.

### **Concluding Remarks and Implications**

The deteriorating performance of the CNCA in recent years can be largely traced to poor loan management procedures and practices and to an operational philosophy that prevents the institution from maturing sufficiently so that it can play a relatively autonomous role as a true financial intermediary. The institution has been forced to channel its funds to final borrowers on the basis of loan evaluation actions carried out by employees of other organizations. It has been compromised, further, in having these same agents of other parastatal organizations undertake loan recovery efforts on its behalf. In short, in being relegated to a wholesaling role, it has not been able to act as a bank, with its own staff acquiring on-site loan evaluation, risk management, and loan recovery skills.

The instability of funding sources in the structure of liabilities of the CNCA also introduces uncertainty into its loan programs and complicates loan administration. With all funding coming from international donors or the government's rediscount lines, the CNCA has become a borrower-dominated institution. Its organizational framework has created incentives for procedures and practices that favor the borrower's interests. Targeting criteria to reach selected farmers with new inputs are emphasized, while creditworthiness, risk analysis, and loan recovery procedures and efforts are minimized. The financial viability of the institution is not an overriding priority. Continual infusions of funds have been needed to subsidize the high costs associated with the expensive delivery of loans through an incomplete and truncated credit system that inevitably experiences growing default rates.

Total non-financial costs for all participants in the operation of the CNCA credit system are 9.14 percent of the amount of credit channeled from the institution to the

individual borrowers. If the estimated central-office costs of the CNCA are included in this estimate, total transaction costs per CFA increase to 13.22 percent. The largest share of these costs is borne by the participating institutions (86 percent of the total). Credit beneficiaries have access to in-kind loans at low transaction costs for them, but the costs incurred by the institutions involved are significant.

This chapter has shown that the institutional agricultural credit system of Niger is for the most part limited to the input delivery (credit disbursement) role. Despite the deficiencies of key lending practices, the costs of the system are substantial. The major implications are, first, that the system in its current state does not and cannot perform a resource allocation role through financial intermediation. Second, that the system does not provide the financial intermediary with instruments of credit rationing, i.e., risk management, autonomous loan evaluation, and overall portfolio management.

A viable, self sustaining, and efficient financial intermediary would have to reduce the currently high level of total transaction costs by altering their composition. Increased administrative costs on loan evaluation and effective loan recovery would be necessary to reduce the currently high level of defaulted loans. Furthermore, sufficient autonomy from centralized targeting schemes is required along with decentralized decision making with properly rewarded local managerial accountability. These branch level managers should have the flexibility to hire and fire employees along with the right to reject loans. At the same time, portfolio diversification reducing the relative role of high risk production loans and increasing commercial and non-agricultural finance would be necessary to smooth out the risks and returns to achieve financial viability. Finally a substantial effort in local deposit-

mobilization is required before any functional autonomy from loan targeting and political intrusions can be achieved. Only when these reforms are adopted can a viable formal financial intermediary emerge in rural Niger that can offer a self sustaining supply of financial services for a rural clientele.

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TABLE 1

**Structure and Evolution of  
CNCA Liabilities 1979-80 to 1983-84**

	<u>1979-80</u>	<u>1980-81</u>	<u>1981-82</u>	<u>1982-83</u>	<u>1983-84</u>
	(1)	(2)	(3)	(4)	(5)
<b>A. Structural Composition (Percentages)</b>					
Central Bank	42.5	38.3	40.2	54.8	47.9
Checking Accounts	2.7	2.6	8.8	5.5	5.4
Current Accounts	1.7	7.0	3.5	2.7	4.1
Banks and Correspondents	4.9	6.9	4.7	1.3	---
Fixed-Term Deposits	30.2	22.6	24.3	17.8	18.9
External Lines of Credit	17.9	22.6	18.5	17.9	23.7
<b>B. Annual Rate of Change (Percentages)</b>					
<u>Liabilities</u>					
Central Bank	4.0	- 0.7	15.3	67.5	- 25.2
Checking Accounts	208.2	5.8	273.5	- 23.0	- 15.9
Current Accounts	64.2	352.0	- 45.8	- 4.7	27.7
Banks and Correspondents	236.6	54.6	- 24.4	- 66.4	-100.0
Fixed-Term Deposits	126.5	- 17.5	17.5	- 9.5	- 8.9
External Lines of Credit	270.2	39.0	- 10.3	18.5	13.7
Total	60.2	10.3	- 9.7	49.3	14.3

SOURCE: CNCA, Rapport d'Activite, 1982/83 and 1983/84.

TABLE 2

Structure and Evolution of the Financial Assets of the CNCA  
1978/79 to 1983/84

	<u>1978/79</u>	<u>1979/80</u>	<u>1980/81</u>	<u>1981/82</u>	<u>1982/83</u>	<u>1983/84</u>
	(1)	(2)	(3)	(4)	(5)	(6)
<b>Financial Assets</b>						
<b>A. Annual Rate of Change (Percentages)</b>						
Cash, CCP, Central Bank	----	- 57.5	541.0	- 78.0	112.7	- 21.9
Banks & Correspondents	----	119.6	37.8	- 96.0	284.3	349.5
Overdrafts	----	37.8	5.5	21.0	36.4	- 16.1
Short-term Loans	----	- 30.6	155.9	- 10.6	14.4	- 13.8
Medium-term Loans	----	111.9	18.1	- 0.9	3.5	- 4.0
Doubtful Loans <u>less</u> Provisions	----	----	29.2	66.2	- 63.9	-100.0
Total	----	52.9	13.3	10.8	24.0	- 12.9
<b>B. Structural Composition (Percentages)</b>						
Cash, CCP, Central Bank	0.4	0.1	0.7	0.1	0.2	0.2
Banks & Correspondents	0.6	0.9	1.0	0.04	0.1	0.6
Overdrafts	69.7	62.8	58.5	63.9	70.3	67.7
Short-term Loans	3.5	1.6	3.6	2.9	2.6	2.6
Medium-term Loans	24.3	33.7	35.1	31.4	26.2	28.9
Doubtful Loans <u>less</u> Provisions	1.5	1.0	1.1	1.6	0.5	----

SOURCE: CNCA, Rapport d'Activite, 1982/83 and 1983/84 and unpublished data in CNCA files for 1984/85.

TABLE 3

**Distribution of Loans by Type of Beneficiary, Term Structure, and  
Selected Indicators for the CNCA Credit Portfolio  
1984-85**

Beneficiaries Date	Number of Accounts		Amount Outstanding (000,000 CFA)		Doubtful Loans (000,000 CFA)		Doubtful Loans (%)	
	<u>30.9.84</u> (1)	<u>30.9.85</u> (2)	<u>30.9.84</u> (3)	<u>30.9.85</u> (4)	<u>30.9.84</u> (5)	<u>30.9.85</u> (6)	<u>30.9.84</u> (7)	<u>30.9.85</u> (8)
<b>Medium - Term</b>								
Cooperatives	1.160	1.160	2299.4	2531.8	31.4	362.3	1.37	14.31
OSEMs	5	5	596.3	383.0	----	-----	----	-----
State	1	1	1016.1	338.2	----	-----	----	-----
Individuals	3.219	3.219	665.2	641.0	300.2	298.3	45.13	46.54
<b>Short - Term</b>								
Cooperatives	1.548	1.548	208.7	256.3	10.8	256.3	5.13	100.00
Individuals	3.396	3.396	202.0	143.5	74.8	69.7	37.13	48.58
<b>Overdrafts</b>								
Crop loans	2	1	2522.2	150.9	----	-----	----	-----
Input supply	5	5	2629.0	3430.3	----	-----	----	-----
Prefinancing	16	16	762.9	567.1	----	-----	----	-----
Advances ONAHA and AHA	43	43	2072.7	2390.9	----	-----	----	-----
Other Advances on c/a	111	111	2164.8	3084.9	189.3	220.0	8.74	7.13
<b>Total</b>	<b>9506</b>	<b>9505</b>	<b>15199.4</b>	<b>13918.0</b>	<b>606.7</b>	<b>1206.7</b>	<b>3.99</b>	<b>8.67</b>

SOURCE: CNCA, Rapport d'Activite, 1982/83 and 1983/84 and unpublished data from CNCA files.

TABLE 4

**Revenues, Costs, and Profit Margins for the CNCA  
1978/7 to 1983/4  
(in millions of CFA Francs)**

	<u>1978/79</u> (1)	<u>1979/80</u> (2)	<u>1980/81</u> (3)	<u>1981/82</u> (4)	<u>1982/83</u> (5)	<u>1983/84</u> (6)
1. Income from Financial Operations	537.5	1030.8	1281.5	1664.0	2230.6	1899.5
2. Charges on CNCA Borrowings	282.5	537.9	682.5	1053.6	1486.3	1001.5
3. Gross Margin on Financial Intermediation	255.0	492.9	599.0	610.4	744.3	898.0
4. Provisions for Loan Losses	42.6	80.0	217.9	159.6	222.5	360.8
5. Net Margin on Financial Intermediation	212.4	412.9	391.1	450.8	521.8	537.2
6. Operational Costs	165.5	181.4	308.9	291.0	324.9	285.2
7. Operating Margin	46.9	231.5	72.2	159.8	196.9	252.0
8. Extraordinary Items	-6.1	-15.0	+78.7	-19.8	+3.7	-65.1
9. Net Profit	40.8	216.5	150.9	140.0	200.6	186.9
10. Profit Margin (%)	7.6	21.0	11.8	8.4	9.0	9.8

\* Net profit/Income from financial operations.

SOURCE: CNCA, Rapport d'Activite, 1982/83 and 1983/84.

TABLE 5

**Institutional Credit. Summary of Transaction Costs Incurred by  
Different Participants at Different Levels of the Credit Network**

Level / Participant	Average Cost per Loan CFA	Average Loan Amount CFA	Cost per CFA %
<b>Household Level</b>			
Individual borrower	1,120.7	131,557.0	0.85
<b>GM Level</b>		604,583.9	
GM leaders	1,843.2		0.30
UNC, Arrondissement	2,823.3		0.47
UNC, Department	218.4		0.04
Sub-total GM level	4,884.9		0.81
<b>Cooperative Level</b>		1,659,960.8	
Cooperative leaders	1,969.6		0.12
UNC, Arrondissement	29,288.7		1.76
UNC, Department	2,699.4		0.16
CNCA, Department	90,238.5		5.44
Sub-total cooperative level	124,196.2		7.48
<b>Total Transaction Costs per CFA<sup>a</sup></b>			<b>9.14</b>
<b>Summary by participant:</b>			
Individual borrower			0.85
GM and cooperative leaders			0.42
Institutions			
	UNC		2.43
	CNCA		5.44

Source: OSU Surveys, 1985 and 1986.

a Does not include costs of the central office of the CNCA. If these are considered the total cost per CFA increases to 13.22 percent.