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Report No. 3

Strengthening Nicaragua's Financial Sector and Enhancing the Availability of Credit for Agricultural Producers

Inter-American Management Consulting Corporation

Prepared by:
Robert Vogel and Donald Larson

April 1991

A Report To

The United States Agency for International Development

Nicaragua

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Introduction

The scope of work for this assignment originally focused on the use of local currency counterpart funds from the Economic Stabilization and Recovery III Program to enhance the availability of credit for domestic producers, including especially short-term credit for the next agricultural cycle. Although AID/Nicaragua might have preferred to use private-sector financial institutions to make this credit available, the main institution identified in the scope of work was the state-owned Banco Nacional de Desarrollo (BND) because it appeared to be the only existing institution with the necessary infrastructure for credit delivery to agricultural producers. Among the tasks originally identified were the design of agreements and mechanisms to guarantee the integrity of these funds, the definition of client groups to be included in the program, and recommendations as to how the BND could be re-organized to establish strict control over these funds and to insure a repayment rate of 95 percent. More general tasks included in the scope of work were to recommend approaches to changing from a financial system based on state-directed credit allocation to one based on market determination and an indication of near term possibilities for domestic savings mobilization.

In meetings with Mission staff, the scope of work evolved toward a more general programmatic approach to managing local currency counterpart funds in order to avoid excessive direct involvement with specific programming of these funds. This implied greater attention to high-priority policy reforms and institutional strengthening for the financial sector, including efforts to insure that whatever was proposed to increase the availability of credit in the short run would be consistent with appropriate financial sector development for the medium and longer run. With respect to the specific issue of possible efforts to enhance the availability of short-term credit for agricultural producers, heavy dependence on the BND was viewed as highly risky given the objectives of this institution and its record of loan recovery in recent years. Thus, a thorough search was made for alternatives to the BND, not for the purpose of totally excluding the BND from future AID-funded activities, but rather to attempt to open up the financial system to as many different institutions and mechanisms as possible.

The following report begins with a brief discussion of what are perceived to be the Mission's highest priority objectives for the financial sector in the medium term and the types of interventions that are most likely to help to achieve these objectives. Shortcomings of the Nicaraguan banking system are then discussed in some detail, especially as they inhibit USAID's achievement of its objectives. This is followed by a series of proposals to deal with USAID's short-term objective of enhancing the availability of credit for producers -- without endangering the attainment of its medium-term objectives. Most prominent among these proposals is greater use of marketing agents, including input suppliers and agro-industrial processors, as well as producers' associations, to provide credit to producers, as normally happens in other developed and developing countries. In addition, a severance payment mechanism is proposed for the BND that could create incentives for improved loan recovery while also bringing about a major reduction in the number of BND employees. After presenting a more detailed discussion of Nicaragua's agricultural credit system and the use of marketing agents and producer groups to channel credit, the report conclude with recommendations as to how the foregoing proposals might most quickly be implemented.

Achieving Medium-Term Objectives

For the medium term it is assumed that the main objective of USAID with respect to Nicaragua's financial sector is to create an efficient, open and competitive system that can mobilize funds and allocate these funds to their most productive uses (adjusted for risk). From a number of perspectives (e.g., the current shrunken and state controlled situation of the financial sector) this appears to be an extremely formidable task, but there are nonetheless certain reasons for optimism. For example, during the 1970s Nicaragua had, by all accounts, the best central bank and the best private banking system in Central America. Although these institutions have either vanished or been transformed into caricatures of their former excellence, most of the human capital that managed these institutions still survives. In fact, some of it may even have improved through continued involvement in financial activities elsewhere in Central America or in the United States. In addition, there is reported to be substantial amounts of financial capital awaiting proper policies to create proper incentives to return to Nicaragua.

It should be noted that proper policies and incentives to strengthen Nicaragua's financial sector do not include special subsidies to create new private-sector financial institutions. These institutions will emerge of their own accord when financial sector policies and public-sector infrastructure provide adequate opportunities to make profits by providing financial services efficiently. Interventions such as grants of capital to start new private-sector institutions or specially targeted rediscount lines carrying below-market interest rates will encourage rent-seeking behavior rather than the development of viable financial institutions. To achieve the medium term objectives what is most required at the outset is support to develop a modern central bank with appropriate monetary instruments and the ability to manage them, along with a supervisory entity for financial institutions empowered to limit the possibilities for excessive risk taking or fraud at the expense of the public in general.

USAID appears to be taking an appropriate approach to strengthening the Nicaraguan financial sector over the medium term. In particular, it appears to be about to focus on strengthening the central bank and assisting in the creation of an entity to supervise financial institutions. USAID should take care not to cede these crucial activities totally to other international organizations based on assumptions that these other organizations may have more specialized expertise than USAID. USAID largely has access to the same expertise and has the important advantage of a continuing presence in Nicaragua that most of these other organizations lack. Moreover, USAID's operating procedures may often be more flexible and less bureaucratic than those of other international organizations. In addition, these other organizations may not always be as dedicated to an open and competitive financial system as USAID, and this can have important implications with respect to key policy decisions.

The Law to Create a Superintendency of Banks

An important event with respect to the future development of Nicaragua's financial sector that while the consulting team was in Nicaragua: passage of a law creating the government entity to supervise banks and other financial institutions. The latest version of the law then available appeared to be generally quite good in providing an appropriate framework for the development of an entity that could minimize the possibilities for excessive risk taking and fraud by financial institutions without going into the kind of detail that could subsequently "tie the hands" of the supervisory entity or of the financial institutions that it is to supervise. Nonetheless, certain specific functions explicitly given to the supervisory entity might cause some problems in the future. For example, according to one section of Article 16, the end use of loans made by financial institutions is to be supervised -- but this is based on the same premises as the now-discredited concept of directed credit lines. According to Article 27, moreover, no creation or promotion of any instrument to mobilize savings is permitted without the explicit permission of the supervisory entity -- but this could easily lead to the suppression of innovation and competition while also possibly appearing to guarantee the instruments that are explicitly permitted. In addition, another section of Article 16 stresses confidentiality in a way that could inhibit the transparency of information that is so essential to the development of responsible financial institutions.

During the period that the consulting team was in Nicaragua most of the public controversy with respect to the law creating the government entity to supervise financial institutions surrounded the powers of the entity to determine who might be members of boards of directors of financial institutions. In any country, it is essential that the supervisory entity have the power to screen out individuals who have records of bankruptcy, fraud or incompetence and who cannot call on adequate capital to provide a margin of safety for depositors and other creditors of a financial institution. It is also essential that such decisions be made in a totally transparent, rapid and even-handed fashion to avoid even the appearance of special favors for some and arbitrary exclusion for others. In Nicaragua, moreover, transparent procedures will be especially important given the conflicts between those of different political persuasions and those who went abroad and those who stayed behind.

Shortcomings of the Commercial Banking System

In the short term there are certain specific problems to be overcome, but in overcoming these problems it is important not to endanger the achievement of the medium-term objectives of a more efficient, open and competitive financial system. The major short-term problem is the need to provide credit and other financial services in a situation where there are not yet any effectively functioning financial institutions. The possibility of establishing private-sector banks is just now being fully legalized under the law to create a superintendency of banks and other financial institutions, while the public-sector commercial banks that currently exist can hardly be called effective. The Banco Popular and the Banco Inmobiliario are both very small and can scarcely be said to function, while the Banco Nacional de Desarrollo (BND) is so politicized that it collects few of its loans and is so overstaffed that it contributes significantly to the public-sector fiscal deficit. The Banco Nicaraguense de Industria y Comercio (BANIC) is perhaps the closest to a functioning financial institution, but even here there are serious shortcomings that will require more than simple training and rehabilitation programs to overcome.

Requirements for Successful Savings Mobilization

Doing something in the short term is further complicated by the need to have a fully credible stabilization program that can hold credit and monetary expansion to non-inflationary levels. This will require controlling the public-sector fiscal deficit and the overall expansion of credit to levels that can be financed by increases in the demand to hold domestic financial assets together with the foreign exchange that may be provided by USAID and other international organizations. An expansion of credit and the resulting expansion in the money supply that is not matched by an increase in the demand to hold domestic financial assets will create an increased demand for foreign exchange. If this increased demand for foreign exchange cannot met -- and currently the only apparent source of such foreign exchange is USAID and other international organizations -- the exchange rate will again collapse and inflation will re-accelerate.

As noted in the scope of work and emphasized by the foregoing discussion, appropriate conditions for mobilizing domestic savings are essential in the short term if the recovery of Nicaragua's financial system is to commence. Successful domestic savings mobilization, that is, an increase in real terms in the demand to hold domestic financial assets, requires not only credibility that the expansion of credit and monetary emission can be adequately controlled so that inflation will not again accelerate and the exchange rate collapse but also that adequate financial institutions exist. That is, there must be financial institutions that are willing and able to pay attractive rates of interest and to provide security and good service to depositors. The low level of deposits in the system suggests that institutional problems may exist, and this impression is strongly re-enforced by direct observation of work patterns at Nicaragua's public-sector financial institutions and especially by the frequent strikes that are totally inconsistent with meaningful service for depositors. To overcome these institutional problems will require not just routine training and technical assistance but rather a complete change in the basic incentives that influence behavior within Nicaragua's public-sector financial institutions -- as well as the emergence of private-sector institutions that are highly motivated to mobilize deposits.

Problems Facing Public-Sector Commercial Banks

Nicaragua's commercial banking system is currently owned and administered by a state-owned holding company called the Corporacion Financiera de Nicaragua (CORFIN). Although no private commercial banks operate officially at the present time, the law (discussed above) that creates a superintendency of banks and other financial institutions authorizes the superintendency to license private commercial banks as one of its functions. Among the four state-owned commercial banks, the BND is by most measures the largest. BANIC is the second largest, while the other two are, as noted above, very small. All four banks are supposed to offer basic lending and deposit services to clients, as well as a minimal number of other types of financial services. The BND primarily serves clients from the agricultural sector, together with a few clients from the industrial sector, while BANIC mainly serves industrial and commercial clients along with a few from the agricultural sector. The BND has a relatively large network of branches (127) located throughout the country, as well as in Managua, to serve agricultural producers and other clients. BANIC has 40 branches, but the actual difference between the two banks in number of branches may not be as large as stated, as some sources reported many BND branches may not in fact be functioning.

The public-sector commercial banking system has far too many employees for its present level of operations -- or for any level that could reasonably be contemplated in the foreseeable future -- and therefore needs to be downsized substantially. The BND appears to be the most heavily overstaffed of the state banks relative to the size of its current operations. As of June 30, 1990, the BND had 4,680 employees, almost half of the total of 9,570 employees for the entire public-sector banking system. Public-sector agricultural development banks in other developing countries (e.g., Honduras, Bolivia and the Dominican Republic) that have similar or larger loan portfolios already have fewer employees and are nonetheless downsizing further. It is thus reasonable to expect that the BND could provide all essential financial services for its present and future clients with one-third to one-half its current number of employees.

The total loan portfolio of the Nicaraguan banking system was about 154 million Cordobas Oro as of June 30, 1990 (US$154 million at the official exchange rate in effect at that date but now substantially less), consisting of loans to about 14,148 clients. The BND accounted for 63 percent of the borrowers (8,950) and 82 percent of the amount outstanding (about 127 million Cordobas Oro), thereby making the BND by far the largest bank in the system in terms of lending. In terms of deposits, however, the BND had only about 40 percent of the 84,088 depositors and 46 percent of the 83 million Cordobas Oro deposited in the banking system, thereby making it smaller than BANIC in this dimension. At the BND, moreover, deposits amounted to less than one-third of the amount of loans outstanding, thereby revealing clearly the inadequacy of the BND's performance in deposit mobilization and its resulting heavy dependence on external funds. In addition, two aspects of the composition of deposits suggest that deposits are minimal amounts held primarily to satisfy essential liquidity needs: (1) about 67 percent were in demand deposits, as compared with 22 percent in time deposits and 11 percent in savings deposits; and (2) about 62 percent of deposits were in domestic currency with the remaining 38 percent in foreign currencies (largely dollar deposits).

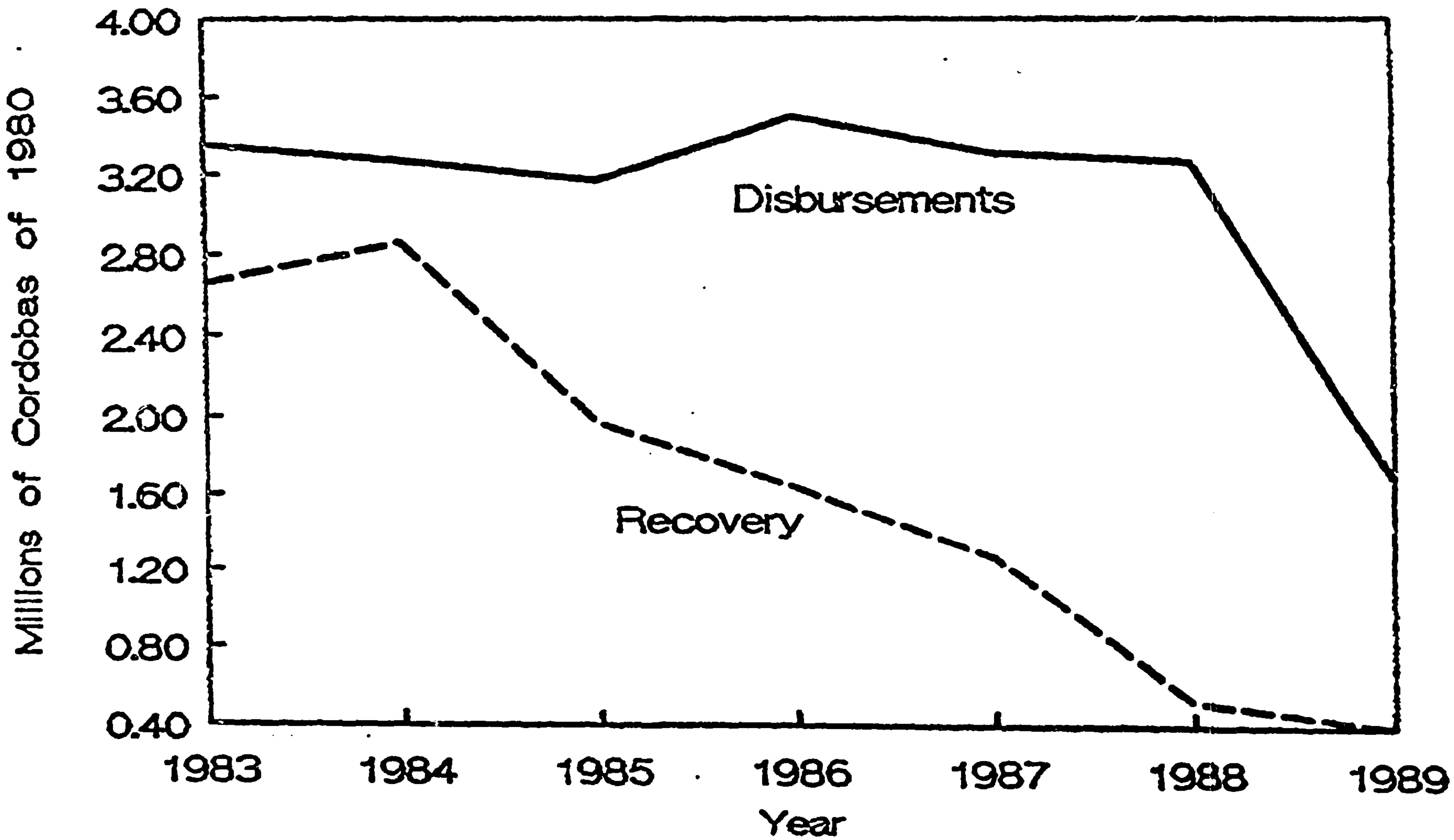
As suggested above, the small amount of deposits mobilized by the banking system is due in part to the problem of interest rates that were fixed at low levels in nominal terms and became highly negative in real terms with the hyper-inflation of the late 1980s. Savers therefore faced serious disincentives to hold deposits during that period and paid a high inflation tax on any deposits that they did hold. Borrowers, on the other hand, benefitted greatly from these negative real rates of interest as they received large subsidies even if they did repay their loans -- and the records indicate that many did not repay. Many loans were not repaid because, it is widely reported, they were considered to be grants from the government as part of a system of political patronage.

Recently, the Central Bank has proposed a new interest rate policy with a positive real rate of 18 percent to be charged on loans and 8 percent to be paid on savings deposits and 12 percent on time deposits. To maintain these rates in real terms, loans and deposits are to be adjusted for inflation by linking amounts outstanding to changes in the official exchange rate between the Cordoba Oro and the dollar (currently 5 to 1). Although moving to positive real rates of interest should be an improvement, the system that has been imposed has several potential problems. First, it provides strong incentives against devaluation since devaluation will be opposed by borrowers and costly for the public sector (a large net borrower). Second, borrowers whose incomes are not tied to the dollar (e.g., businesses producing non-tradeable goods and services) may have difficulty in repaying loans if adjustments in the exchange rate are significant. Third, it will be difficult to know if these are appropriate real rates of interest for the Nicaraguan economy since they are imposed rather than being determined by market forces.

It is well known that loan recovery has been a large and growing problem for the Nicaraguan banking system during the 1980s and especially for the BND which has been the principal lender to agricultural sector. Figure 1 shows loan disbursements and recoveries for the agricultural and livestock sectors from 1983 through 1989 in millions of Cordobas of 1980. Table 1 shows loan disbursements and recoveries for livestock and the major crops from 1983 through 1989 in thousands of Cordobas of 1980. These data show a dramatic decline -- more than 50 percent -- in the real value of agricultural credit by the end of the period. As would be expected in an inflationary situation, long-term credit declined at a much faster rate than short-term credit. It is also interesting to note that credit for export crops and livestock declined during the period, while credit for domestic crops increased, at least through 1988.

For agricultural and livestock credit overall, loan recoveries fell from the 80 percent range in 1983-84 to about 60 percent in 1985, to the 40 percent range in 1986-87, and to a low of 16 percent in 1988 before increasing slightly to about 24 percent in 1989. Patterns of loan recovery vary only slightly when comparing export crops to domestic crops to livestock, but recovery for short-term loans is better than recovery for long-term loans. The damaging effects of hyper-inflation and past government policies toward loan recovery are clearly evident in the low and generally declining rates of loan recovery. It is clear that such loan recovery performance would be unacceptable for USAID local currency

Figure 1: Loan Disbursements and Recovery in the Agricultural and Livestock Sectors, 1983 to 1989



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counterpart funds channeled through the banking system for credit to agriculture or to any other sector. New and innovative ways to lend and to recover loans are clearly essential in the Nicaraguan context to maintain the availability of funds for future lending -- irrespective of whether funds are obtained from USAID or other international organizations, the Nicaraguan Government or domestic depositors.

Balance sheets and income statements are available for Nicaragua's public-sector banks, but these provide relatively little useful information. Balance sheets do not discriminate between performing and non-performing loans, and totals are dominated by large amounts in such vaguely defined categories as "otros deudores" and "obligaciones diversas," while income statement totals are dominated by gains and losses from exchange rate adjustments. Moreover, in spite of the foregoing discussion of loan recovery problems, balance sheets show positive net worth, while income statements show profits. These problems, together with the lack of external auditors or a supervisory entity, suggest that any attempt at a thorough analysis of these financial statements would be futile. However, some other information that was obtained by the consultants in those moments when the public-sector banking system was not on strike make it possible to discriminate to some extent between the BND and BANIC. The information obtained from BANIC included a strategic plan, an analysis of past performance and a detailed breakdown of the loan portfolio, while the BND provided large amounts of political propaganda.

The Fondo Nicaraguense de Inversiones (FNI) is not included among the four public-sector commercial banks but nonetheless engages in some commercial banking activities. The FNI is primarily a second level financial institution that was created on December 13, 1983, by decree number 1360. Although the FNI is administratively linked to the Central Bank and the President of the Central Bank is the President of the FNI's Board of Directors, the FNI is nonetheless a legal entity with its own net worth and ability to assume legal obligations. The main objectives of the FNI are: (1) to finance productive projects and feasibility studies that contribute to the economic and social development of the country; (2) to administer foreign and domestic resources assigned to it by the Central Bank for different types of investments; (3) to write proposals to seek external funds to finance productive investments; and (4) to guarantee the control and monitoring of projects financed directly by the FNI or through the state banks.

The FNI is not limited to any one sector of the economy and has financed activities in agriculture, agro-industry, fishing, mining, manufacturing, forestry, services, and energy. Although the FNI's main role is second level financing channeled through public-sector commercial banks, it also provides some financing directly to ultimate borrowers. The FNI appears to have a well trained professional staff that is able to assist in all aspects of financial operations, including proposal development, project financing, control and monitoring, evaluation, and technical assistance to recipients of financing. The professional staff consists of 90 employees, of whom 20 have graduate training, including three with master's degrees. Most of the staff studied economics, business administration or accounting. The FNI also has 106 support staff to carry out a wide range of technical and administrative duties. The FNI might thus be an appropriate financial institution to participate in handling USAID funds if the Mission were to decide to use one or more of the credit mechanisms described below.

Alternatives for Dealing with Short-Term Problems

The rehabilitation of public-sector financial institutions is not a short-term endeavor. The BND cannot be restructured for the upcoming agricultural cycle so that it will select among potential borrowers based on their likelihood of repayment and then effectively enforce loan repayment, nor can a section of the BND somehow be created that will follow such an approach. Some would argue that public-sector financial institutions can never be re-oriented to operate viably because they cannot be separated effectively from the types of political intrusions that make them unviable. Even under the best of circumstances, implanting viability will require an approach that goes to the basic issues of incentives, performance criteria and accountability and does not simply dole out training and technical assistance along with computers, vehicles and other paraphanalia that are often seen to be the fast track to successful rehabilitation. Moreover, given the difficulty in all countries of separating public-sector institutions from political intrusions, alternative financial institutions and mechanisms must exist -- not only to provide the required financial services but also to break the effective monopoly position of public-sector financial institutions that can largely negate whatever leverage USAID may have in the area of policy reform.

What is recommended in the following discussion cannot be guaranteed to be successful in the short term in insuring that credit will flow to the most productive activities and that loans will largely be recovered. Rather, the focus is on recommending alternatives that recognize the constraints imposed by current policy and institutional weaknesses, that have some chance of success, and that will enhance the likelihood of achieving an efficient, open and competitive financial system consistent with USAID's medium-term objectives. The focus is on a multiplicity of alternatives not only because such an approach will increase the probability of achieving some success in the short term but also because a multiplicity of alternatives is most consistent with achieving an open and competitive system in the medium term. Moreover, USAID will have little leverage in its discussions with the Nicaraguan Government and with the institutions that may participate if USAID is firmly tied from the beginning to only a single option that requires wide-ranging agreement.

What is recommended also avoids as far as possible the discredited approach of targeting of funds to end users and consequently avoids the monitoring and supervision of the end use of funds that is costly for both USAID and the participants. Instead, monitoring and supervision are to be kept to a minimum by using approaches that attempt to create and implement incentives for an optimum allocation of credit and aggressive loan recovery. For providing credit to producers for the upcoming agricultural cycle, two main approaches are recommended. The first is to use marketing agents -- primarily input suppliers and processors of output -- to supply credit because private-sector marketing agents are already widespread and because these agents have clear incentives to make and collect loans as part of their marketing relationships. The second is to continue to use the BND -- but under a new set of incentives to be created by tying loan recovery amounts to severance payments that would be made available to BND employees who volunteer to leave the BND as part of a staff reduction program.

Marketing Agents as Providers of Credit

The details of using marketing agents to provide credit to producers in the Nicaraguan context is elaborated in the following section of this report, but in this section it is nonetheless important to indicate some of the basic reasons that make this approach promising. Foremost is the fact that in all economies with any orientation toward the private sector and a use of markets and prices, marketing agents are among the most important providers of credit -- input suppliers through sales on time and output processors through advances to producers. These marketing agents have intimate knowledge about their clients and are therefore well placed to select clients that are most likely to be able and willing to repay. Moreover, they provide credit primarily in order to compete more effectively in selling their basic product or service, so that if some marketing agents agree to participate in the program that is suggested, others will find it difficult to refuse to follow. In the case of Nicaragua, the serious weaknesses in financial institutions noted above make it more promising to have BANIC or the FNI (both of which have indicated their interest) lend to a small number of marketing agents who can in turn lend to a large number of producers, rather than trying to lend to all these producers directly.

Under the proposal described in greater detail in the following section, private processors (e.g., rice millers, cotton gins, dairy processors) could receive credit from BANIC or the FNI for on-lending to producers at market rates of interest, with some spread available to these processors for assuming the added risks and costs of providing this financial service. A similar arrangement could also be made with producer groups for on-lending to their members, and this could be especially attractive in cases where producers need to be compensated for the damage done to them by PL-480 imports. Monitoring and supervision could be based primarily on evidence of loans made to producers, supplemented by an efficient ex-post sampling procedure, and would therefore be low cost. In addition, because of the multiplicity of alternative participants, those that do not achieve good loan recovery and hence do not repay BANIC or the FNI in full on a timely basis could be eliminated from participation in subsequent periods.

In the case of input suppliers, a program already exists, as described in more detail below, under which the BND guarantees repayment of the credits provided to agricultural producers by input suppliers. Guarantee programs of this type are inconsistent with a market orientation that is based on incentives for careful attention to client selection and loan recovery -- such guarantees undermine incentives to allocate funds to their best uses and make lenders permanently dependent. It is clear, however, that input suppliers will not be eager to give up the subsidy implicit in this guarantee program which allows them to forego risks in client selection. Nonetheless, since the current credit and guarantee program covers only the costs of imported inputs and not the selling price of the inputs as delivered to Nicaraguan agricultural producers, input suppliers would clearly benefit from access to additional credit to cover the domestic costs that are included in their selling prices. Moreover, input suppliers would benefit from an interest rate spread on these credit transactions to cover their increased risks and costs. In addition, as suggested above, if some input suppliers participate, competitive pressure is likely to force others to do so as well.

Although private-sector groupings that emerged under the previous Nicaraguan Government may have been important to defend private-sector interest, there is now a danger that these groupings could convert themselves into anti-competitive cartels. To avoid this, it will be necessary for USAID and the current Nicaraguan Government to take a strong stand in favor of an open and competitive system and against the kinds of special favors that are implicit in programs such as credit guarantees for input suppliers. In addition to input suppliers, there are potential cartels among producer groups and output processors, and many of these groups are currently seeking special favors based on notions similar to the discredited economic concept of countervailing power. Rather than creating subsidized and targeted lines of credit for groups that claim past or present discrimination against them, policies should be directed at encouraging as great a multiplicity of credit channels as possible in order to offer a range of choices and thereby insure against monopoly power and monopoly profits.

A New Approach to Credit through the BND

The second main approach to providing credit to producers for the upcoming agricultural cycle is to continue using the BND but with a new set of incentives. As indicated by the foregoing discussion of the Nicaraguan commercial banking system, the BND does not currently make lending decisions with careful attention to eventual loan recovery -- an attitude that would help to pressure borrowers to undertake productive activities in order to repay. As the foregoing discussion also emphasizes, to rehabilitate the BND to make it an institution that takes lending seriously is clearly impossible in the short run and may not even be achievable in the longer run. However, because of political pressures and the dangers from abandoning the present clients of the BND completely in the short run, the BND cannot be totally neglected. The new approach is that, while the BND would continue to channel credit to producers as part of the multiplicity of credit channels to be encouraged, it would do so under a new set of rules. This set of rules would, in the short run, create not only clear incentives for improved loan recovery but also a mechanism to implement sizeable staff reductions both of which are essential for the BND to have any chance for rehabilitation in the longer run.

As indicated by the discussion of the Nicaraguan banking system, the BND is vastly overstaffed and any attempt at its rehabilitation will need to begin with a reduction in BND staff to at most one-half or one-third of its present level. However, it is politically difficult in any country to dismiss public-sector workers, and this is especially so in Nicaragua under current circumstances. Having excess BND staff leave voluntarily would thus be a better alternative than dismissal, but this could be quite costly in terms of requirements for attractive severance payments. It is therefore recommended that a portion of USAID local currency counterpart funds that might be channeled as credit to agricultural producers be placed in a trust fund that promises BND workers who leave voluntarily the possibility of a highly attractive severance payment. (Those workers who do not volunteer to participate in the severance payment program would have to take their chances on what might happen to the BND later.) BND workers who sign <u>ex-ante</u> an agreement to leave the BND after one year would then receive <u>ex-post</u> a <u>pro-rata</u> share of the trust fund after the loans made to producers from the trust fund have been recovered.

Although this approach does not leave funds to channel to producers in subsequent years, it is highly unlikely that any significant amount of funds would be left for future years by any other mechanism that uses the BND to channel credit to producers. What this approach does accomplish, however, is that it creates specific incentives to promote loan recovery -- and such incentives are likely to be a more important legacy for the future viability of the BND, and hence for the future availability of agricultural credit, than any funds that might happen to be left over. Moreover, this approach can substantially reduce the vast overstaffing of the BND and thereby provide a more reasonable starting point for its rehabilitation (or liquidation). In addition, as noted above, the greater the number of viable alternatives available for channeling credit to producers, the less will be the ability of any one institution or group to extract rents by refusing to participate under the mechanisms proposed. Although the foregoing proposal was not discussed with BND management because of on-going strikes in the public banking sector, discussions with high level Central Bank officials produced considerable interest.

Channelling Agricultural Credit through Marketing Agents and Producer Groups

One major way to lend funds to agricultural producers that should ensure a high rate of loan recovery is to use input suppliers and the processors of agricultural products to on-lend funds to producers and then to collect these loans at the time the producers' output is sold. This type of lending is very common in most developing countries (e.g., Bolivia, Costa Rica, the Dominican Republic, Honduras, and the Philippines) as well as in the developed countries of the world. Although less common than credit provided by input suppliers and processors, lending by producer associations also appear to be a private-sector alternative for some products in a number of countries. Input suppliers and processors clearly have incentives to provide good credit service to producers as a way to increase sales of inputs in competition with other suppliers or as a way to try to insure that they can buy output from producers through giving advances on crops. Because these kinds of businesses are usually located in producing areas and because they typically have worked with producers in that region for many years, they know their clients and their clients' cash flows and hence can readily select only creditworthy borrowers who will repay their loans.

In Nicaragua, these could be important private-sector alternatives to the use of the current system for agricultural credit that depends solely on a government-owned bank, the BND, that has many serious problems (e.g., over-staffing, high costs of operation, low loan recovery and a high degree of politicization) that have already been discussed in an earlier section of this report. USAID/Nicaragua has indicated some interest in assisting the agricultural, livestock and agro-industrial sectors through additional credit for the 1991/92 production year and would appear to prefer to use some private-sector alternatives rather than continuing to rely solely on the BND. The remainder of this section of the report discusses some of these private-sector alternatives as well as some of the problems of the present agricultural credit system.

The Government's Approach to Allocating Agricultural Credit

Currently, agricultural credit in total and according to each individual crop or livestock product is allocated by the Central Bank in collaboration with national agricultural committees for each of the major export crops, for domestically-consumed commodities and for non-traditional exports. A centralized and restrictive administrative planning model is used to attempt to estimate credit needs and then to allocate credit for each commodity. The Office of Planning in the Ministry of Agriculture works with these committees -- each of which has producer, farm worker, and government representatives -- to decide on the area to be financed and the amount to be financed per unit of land (currently 70 percent of expected income) for each commodity. These recommendations then go to the credit manager and others at the Central Bank who adjust these recommendations to comply with the Nicaraguan Government's macro-financial program for the coming year. The BND (and other state banks that may also participate to a very limited extent) use these Central Bank credit lines as the main source of funds for agricultural credit.

For the coming agricultural year, 1991-92, the projected total amount of agricultural credit is about US$240 million, with US$48 million for grains, US$64 million for cotton, US$39 million for coffee, US$9 million for sesame, US$4.5 million for sugar cane, US$2.9 million for tobacco, US$0.7 million for soybeans, US$7.8 million for non-traditional exports and US$31.5 million for livestock.

Elaborate administrative credit targeting models such as the one described here have not worked well in other countries, nor has this approach worked well in Nicaragua (see Vogel and Larson on Colombia's version). Low subsidized rates of interest in combination with the creativity of individual loan recipients in using the fungibility of credit to achieve their own ends make credit allocation by administrative decision an impossible, as well as an undesirable, task. A decentralized and open competitive market model is likely to produce superior results for rural financial markets because such an approach eliminates rent-seeking behavior and the high administrative costs involved in attempting to enforce compliance with the credit plan. Moreover, positive real rates of interest on loans and deposits create appropriate incentives for the efficient use of funds by borrowers and savers. In this kind of rural financial market, private decision makers guided by their profit expectations for different investment alternatives will make the best use of funds and consequently will have the highest probability for repayment. Savers will also be rewarded for holding financial assets rather than being taxed through inflation and low interest rates, so that additional saving is encouraged.

Input Suppliers as Sources of Credit

Discussions with several members of the Asociacion del Sector Privado de Distribuidores y Formuladores de Agroquimicos (ANIFODA) suggested that credit from BANIC or the FNI to these input suppliers for on-lending to agricultural producers might be a viable alternative to the current agricultural credit system that relies almost exclusively on the BND. Other types of input suppliers such as seed, feed and machinery dealers might also participate in this alternative approach, but no meetings were held with these groups during this initial stage of discussion. ANIFODA has 14 members that have extensive networks of sales offices located throughout the main producing areas of the country. They import, formulate and market chemicals and other products including tools and small equipment. These input suppliers sell to producers who are financed by the BND, and they may also provide technical assistance. ANIFODA members have contacted the Nicaraguan Government and USAID about the problems that they see in the current credit system, and they have proposed a solution. This report presents a different alternative for consideration by the input dealers and by the Government, as well as by USAID.

Under the current credit system, agricultural producers apply to the BND for the financing of their annual production. Purchased inputs, hired labor and other items are typically included within the approved amount of financing. The resulting loan is usually for a one-year production cycle that begins about May 1, with repayment due the following April. When the loan is approved by the BND, the producer does not receive any cash to purchase his inputs, but instead he is authorized by the BND to buy inputs from the input supplier through a voucher and bank guarantee. At this point, the input supplier receives no cash from either the producer or the BND, but with the sales receipt and the guarantee from the BND, the supplier is guaranteed payment by the BND whether or not the producer pays his loan to the BND. The main problem from the input supplier's perspective is the one-year wait to be paid.

The producer is supposed to be under pressure to repay his loan when he sells his crop because the crop lien that the BND holds requires that the check for the sale of the crop be made payable to BND, so that the BND can deduct the amount of the loan balance due from the total amount of the sale and then pay the producer the remaining amount. However, many things have gone wrong with this model (e.g., political programs of loan forgiveness, loan re-financing, disguised identity of the seller, and hyper-inflation) so that less than 30 percent of the real (inflation-adjusted) amounts lent by the BND to producers have been repaid in recent years. For the 1990-91 crop year, loan recovery is expected to be less than 30 percent, but no one has yet offered an estimate of exactly how much may be collected. When the producer repays the BND, it is clear that the input supplier will be paid, but even in the event of loan default by the producer, the BND must still pay the input supplier. Although the input supplier must wait about one year to be paid in cash for his sales, he eventually receives payment on all sales because of the BND guarantee. As a consequence, under this system the input supplier assumes no risk and thus has no incentive to be selective in attempting to sell inputs to more productive farmers.

From the input suppliers' perspective, the problem with this system is that they must wait as long as a year to receive any cash to cover their operating expenses for wages, fuel, repairs, utilities, etc. On the other hand, because the products that these input suppliers sell are imported, the cif dollar value of these imports is financed under bank guarantee by the seller/manufacturer on international markets (with Central Bank approval that dollars will be available to the input supplier for payment at a fixed date). Since the credit for the imported component need only be repaid by the input supplier when the BND covers for the producer, there is no cash flow problem for the input supplier on this portion. However, in addition to the cif value, input suppliers spend an estimated 30 percent of the selling price of inputs on expenses within Nicaragua related to duties, port charges, transportation, formulation, marketing, etc. for which they can obtain no financing.

Since over 95 percent of all input sales in Nicaragua are made on a delayed-payment basis, input suppliers can have serious cash flow problems. Input suppliers must find external and internal funds to finance their operating costs during the year from the sale of the inputs until payment is made by the BND. Moreover, even when input suppliers have been promised credit to help with this cash flow problem, the Nicaraguan Government has been unable to deliver due to the credit program constraints of the Central Bank. ANIFODA has thus proposed to USAID and to the Central Bank that their members be provided with local financing for their in-country costs, and with that they could cover their operating costs in addition to the costs of their imported inputs and thereby solve their cash flow problems.

The alternative approach proposed in this report would involve private input suppliers more directly in the credit process, and at least some input suppliers expressed interest in trying this approach. The approach proposed here would allow the input supplier to finance the total selling price to the producer, that is, all the costs incurred in selling inputs to the producer could be covered by credit, but the input supplier would also be required to assume the risks of recovering the loan from the producer in addition to the normal task of selling inputs. The input supplier would obtain a line of credit from BANIC or the FNI, consistent with the value of his sales and his creditworthiness, and would sell inputs on credit to producers. The supplier would be responsible for selecting borrowers, collecting loans and repaying on time his line of credit with BANIC or the FNI. The benefit to the input supplier for assuming this added risk would be the increased amount of financing available to him, plus the interest rate spread that he could earn along with his usual profit margin on the sale of inputs. To be attractive, the additional credit and the interest rate spread would have to be large enough to cover the added costs and risks of being fully involved in the credit process. Under the Central Bank's proposal to fix interest rates in real terms at 8 to 12 percent on deposits and 18 percent on loans, a significant proportion of the 6 to 10 point spread might be allocated to suppliers for their credit functions.

Input suppliers clearly have incentives to provide good service to clients in terms of input sales and their financing in order to be competitive with other suppliers. Moreover, since input suppliers are located in producing areas and have worked with producers for many years providing technical assistance on input use, they know their clients well and have incentives to select only creditworthy borrowers because repayment risk is their own responsibility. In BND lending, in contrast, loan officers have little incentive to perform well and no risk of loss -- and input suppliers have no risk of loss either under the current system. In addition, BANIC and the FNI should find it easier to impose repayment discipline on suppliers than on producers because suppliers who fail to perform well can more easily be cut off from future credit. Input suppliers should also be able to repay their credit lines even if they occasionally have loan collection problems with some producers. A key to implementing this approach will be to identify at least a few input suppliers who are willing to lend to producers at their own risk. Once these input suppliers offer improved credit service, competition will force the others to offer the same type of service.

Agro-industrial Processors as Sources of Credit

Processors of some products such as coffee, cotton, milk, rice, sorghum and sugarcane where private processing firms operate could also be invited to participate in the proposed lending system for agricultural producers. The use of processors to channel credit to producers has the same basic advantages as the use of input suppliers. Processors also typically live in the same area as producers, know the management skills of producers and, most importantly, know the cash flow patterns of producers through regular purchases of output. The processor credit system would function in a manner similar to that described above as the processor would obtain a line of credit from BANIC or the BND and make credit available to the producer. The only difference would be that the processor would actually advance cash to the producer at planting time and/or during the growing season to help the producer finance his costs. The processor would collect the loan from the producer when the product is sold to the processor, and the processor would be responsible for repaying his own loan to BANIC or the BND. The risks and rewards would be similar to those for input suppliers. The main advantage for processors is that such credit arrangements permit more efficient planning of processing operations because processors then know how much raw material to expect, when to expect it and from whom.

Producer Associations as Sources of Credit

Producer associations represent another possibility for channelling credit to producers that could be used for some products where a responsible association exists and where it would be useful to provide more competition to input suppliers and agro-industrial processors or where no private-sector processing alternative exists such as for sugar cane and cattle. A recent report by Fledderjohn, Oberbeck and Roof identifies and analyzes the private associations for cotton (CAAN), cattle (FAGANIC), coffee (UCAFENIC), rice (ANAR), dairy (FONDILAC), sugar cane (ASCANIC), sorghum (ANPROSO), banana (ANPROSO) and non-traditional exports (APENN). Based on their report and field interviews, the strongest commodity organizations that might be included in the credit program appear to be those for cotton, cattle, coffee, rice and dairy. However, all these organizations have recently begun processes of rebuilding, so that credit through this option would have to proceed slowly. Moreover, many of them may have cartel-like aspirations, as noted earlier in this report, so that it would be especially important to insure a high degree of openness in these organizations and to minimize the presence of any subsidy elements in the credit program. Thus, criteria for access to credit would have to be transparent, interest rates and other loan conditions would have to be uniform and in keeping with those in other credit markets, and loans would have to be repaid on time.

PL-480 Producer Compensation Funds

Nicaragua imports large amounts of food through a PL-480 agreement with USAID. About 5,000 metric tons of rice, 7,000 metric tons of vegetable oil, 20,000 metric tons of corn and 54,000 metric tons of wheat, as well as other foods will be imported from March 1 to September 30, 1991. Local producer groups are justifiably concerned about the depressing effect of these imports on the domestic prices of these products and competing products and have contacted the Nicaraguan Government and USAID about their concerns.

The members (85 to 100) of the rice producers association, Asociacion Nicaraguense de Arroceros (ANAR), have proposed the establishment of a fund from the proceeds of some of the PL-480 rice sales to provide credit to member producers through their marketing association, Coordinadora Arrocera, S.A. (COARSA). ANAR/COARSA, which represents the private irrigated rice producers, estimates that a fund of about US$2.5 million would be adequate for this marketing credit. COARSA would advance to rice producers about 70 percent of the market price (currently about US$ 21.00 per quintal of milled rice) for each quintal delivered. The delivered rice would serve as collateral for the advance to the producer, but with the producer retaining ownership of the rice and assuming the risk of price changes. After the rice has been sold and the marketing costs deducted, COARSA would pay the balance to the producer. Given that rice can be produced throughout the year in the irrigated areas, this mechanism would provide rice producers with a rotating credit fund to finance the production of the next crop on delivery of the harvested crop.

This proposal appears to be quite consistent with the options discussed above and to be a useful opportunity to begin a private-sector credit program in the near term using PL-480 funds to assist a producer group that is being damaged by PL-480 imports. Positive real interest rates as proposed by the Central Bank should be charged for these funds, and good loan repayment performance should be required for the program to continue. An additional US$5 million could be recommended from the PL-480 fund for medium-term financing (four to five years) for tractors, harvesters, pumps, well drilling, land levelers and other improvements and machinery to further the task of rebuilding the rice industry. In addition, at least some of these inputs could be made available on credit through input suppliers as part of the objective of opening up as many different credit channels as possible.

In the case of cotton, a similar producer compensation fund could be established from the PL-480 sales of imported edible oils and soybean meal because of the damage that these imports do to the price in Nicaragua of cotton seed and cotton seed oil. This credit fund could help to improve the production and marketing of cotton so that Nicaragua might again become competitive in a good where it once had a strong comparative advantage. Just as in the case of rice, these funds could be used for short-term production credit (about US$8 million) and for four to five year credit (about US$15 million) to finance land improvements and machinery purchases such as tractors, harvesters, etc. Positive real rates of interest would also be charged on these loans, and good loan repayment performance would be a requirement for continued participation in this credit program.

Recommendations

If the suggested approaches for channeling credit to agricultural producers in the short term appear useful to USAID and to the Nicaraguan Government, it would be important to have follow-on expertise as soon as possible so that these additional funds could begin to flow early in the agricultural cycle. In order to implement a program that uses marketing agents (e.g., inputs suppliers and agro-industrial processors) as channels to enhance the access of agricultural producers to credit, expertise in agricultural marketing, agricultural credit and banking procedures would be necessary. The expert(s) in agricultural marketing and credit would identify the most important types of marketing agents that are well positioned in their knowledge of actual and potential clients to be able to sell inputs on time and to give advances to producers in ways that make loan recovery highly likely. This analysis would involve seeking as wide a multiplicity of suppliers, processors and other types of marketing agents as possible, as well as agricultural producer groups, in order to minimize the likelihood of monopoly profits accruing to the agents that participate in channeling credit.

The expert(s) in banking would determine the procedures, terms and conditions for lending (presumably by the FNI and BANIC) to marketing agents in ways that would enhance the likelihood of loan recovery while keeping administrative costs to a minimum. These procedures would include as strong incentives as feasible for prompt loan repayment, not only from producers to agents but also from agents to banks, as well as simple and transparent means to verify (by efficient ex-post sampling) that credit was in fact made available to agricultural producers in the amounts reported. In the case of credit channeled through producer groups, effort would be made to design procedures to insure that individual producers are excluded only because of the likelihood of non-repayment of loans. Use of guarantees and monitoring of the end use of funds would be avoided. Interim reports from these experts could be provided to allow implementation to begin as soon as possible with those marketing agents and producer groups for which acceptable procedures have been designed.

For USAID to achieve its medium-term objectives of creating an efficient, open and competitive financial system that can mobilize funds and allocate these funds to their most productive uses, two USAID interventions should be emphasized at the outset: (1) support for the development of a modern central bank with appropriate monetary instruments and the ability to manage them; and (2) support for a supervisory entity for financial institutions empowered to limit the possibilities for excessive risk taking or fraud at the expense of the public in general. Although these are public-sector entities, they are nonetheless essential infrastructure for the development of private-sector financial markets and institutions.

In order to determine in greater detail what specific USAID interventions would be most useful to support the strengthening of the central bank and the supervisory entity for financial institutions, an assessment of Nicaragua's financial sector would be extremely helpful if not essential. An outline for a proposed assessment of Nicaragua's financial sector, which is presented as Annex A, consequently emphasizes macro-financial policies, central bank operations and the role of regulation and supervision. In addition, some attention is given to the existing Nicaraguan public-sector banks and greater attention to the possible role of informal financial markets in supplying financial services in the absence of private banks. The usefulness of such an assessment is not only to provide USAID with a basis to make decisions about possible interventions but also to provide the basis for dialogue with the Nicaraguan public and private sectors with respect to programs that could be of mutual interest.

Annex A

Proposed Assessment of Nicaragua's Financial Sector

Macro-Financial Policies

The Fiscal Deficit and its Financing
The Foreign Exchange Regime and the Exchange Rate
Credit Policies
Interest Rate Policies
Determinants of the Money Supply

Demand for Financial Assets:
- Implications for Inflation, the Exchange Rate, Credit Availability, and Saving and Investment

Central Bank Operations

Degree of Independence
Extent of Power
Focus of Operations
Organizational Structure
Analytical Capabilities for Monetary Management

Monetary Instruments:
- Reserve Requirements, Rediscounts, and Open Market Operations

Implementing Regulation and Supervision

Rule for Chartering of Financial Institutions

Assessing Solvency of Institutions:
- Quality of Loan Portfolios and other Assets
  - Non-performing Loans, Accrued but Uncollected Interest, and Rollovers
  - Portfolio Concentration and Loans to Related Parties
- Adequacy of Provisions for Losses
- Contingent Liabilities
- Exchange Rate and Interest Rate Risk

Disclosure of Information
Dealing with Insolvent Institutions
Advisability of Deposit Insurance

External Audits:
- Complement and or Substitute for Public-Sector

Supervision
Generally Accepted Accounting Principles
Capabilities of Auditors and Accountants

Adequacy of the Legal and Judicial Framework:
Property Rights
Secured Interests
Contract Enforcement

Assessing Public-Sector Banks (CAMEL Approach)

Capital
Asset Quality
Management Quality
Earnings
Liquidity

Informal Finance (see Annex B)

Financial Sector Activities of International Organizations

Annex B

Proposed Study of Informal Financial Markets in Nicaragua

Background

In order to understand the nature of financial services currently being provided in Nicaragua, an investigation of informal financial markets is essential. Such an investigation would reveal the types of informal agents and financial services being provided, the terms and conditions of these services, the techniques employed by informal agents in client selection and loan recovery, the lessons that might be learned by formal financial institutions, and the policies that could enhance the services being provided by informal agents. Because of the lack of prior studies, the proposed investigation of informal financial markets in Nicaragua will have to rely primarily on field survey work. Undertaking such survey work requires attention to two main issues: (1) the topics to be investigated, and hence the questions to be asked; and (2) whom to ask, that is, the approach to sampling.

Topics for Investigation

1. Identification of main types of informal financial agents and arrangements (e.g., marketing agents, input suppliers, pawn shops, rotating savings and credit associations and other types of group savings institutions, money guards, friends and relatives, professional moneylenders).

2. The terms and conditions of loans and other financial services provided by each of the above that is found to be important in Nicaragua (e.g., explicit interest rates, fees and commissions, implicit interest in the prices of related goods and services, amounts, durations).

3. Techniques employed by each of the above in client selection and loan recovery (e.g., physical guarantees, fiduciary guarantees, information about clients from other economic and social relationships, use of courts, other sanctions for nonrepayment).

4. Techniques employed by each of the above that can make depositing attractive (e.g., interest rates, safety, liquidity, convenience).

5. Estimation of transaction costs incurred by the providers and users of the informal financial services noted above (mainly making and recovering loans and taking and returning deposits) taking into account the difficulty of separating joint costs when more than one relationship is involved.

6. Characteristics of clients of the different types of informal financial agents and arrangements noted above (e.g., income, wealth, occupation, location) with particular attention to comparisons among different types agents and arrangements and with those who use formal financial institutions and those who use no financial services.

7. Sources of financing for the different types of informal financial agents and arrangements noted above (e.g., own capital, funds borrowed from formal financial institutions, funds borrowed informally).

8. An estimation of the extent and sources of monopoly for the different types of informal financial agents and arrangements noted above, with particular attention to precise identification of the barriers to entry that permit monopoly to exist in each case.

9. An assessment of the extent to which the different types of informal financial agents and arrangements noted above base their operations on the avoidance of regulatory controls and implications for the appropriateness of these controls.

10. An assessment of the extent to which the techniques developed by the different types of informal financial agents and arrangements noted above might provide useful lesson for formal financial institutions to improve their operations.

11. An assessment of the possibility of creating links between formal financial institutions and the different types of informal financial agents and arrangements noted above.

12. An assessment of the possibilities for interventions to enhance the operations of the different types of informal financial agents and arrangements noted above.

<u>Approaches to Sampling</u>

Sampling for a field survey of informal financial agents and arrangements presents a major difficulty in any country because there will be no complete listing from which to draw the sample for obvious reasons (i.e., regulatory avoidance and hostility toward moneylenders and other informal financial agents). Consequently, it is necessary to begin with a sample of possible users of informal financial services which, in any case, would be necessary to ascertain the types and importance of different informal financial agents and arrangements. The main decision to be made is whether this sample should be drawn from all inhabitants or should be focused on producers. The results of this survey will not only provide relevant information with respect to the topics listed above but will also provide the basis for a survey of the informal financial agents and arrangements themselves.

Nonetheless, it is not likely to be possible in the survey of informal financial agents and arrangements to follow an approach to sampling that would allow the kind of statistical inferences that are normally drawn from a sample survey. This is true for two reasons: (1) those interviewed in the initial survey may often be unwilling to identify by name and location the informal financial agents with whom they deal; and (2) those informal financial agents identified may often be unwilling to respond for the reasons indicated above, thereby resulting in too large a nonresponse bias to allow meaningful statistical inferences. Consequently, it is recommended that the survey of informal financial agents and arrangements take the form of a series of in depth case studies with those who can be identified and are willing to respond. While more in the nature of economic anthropology than econometrics, such an approach should nonetheless provide important insights into the topics listed above.

Implementation of the Study

The types of professionals required to carry out this study would include the following: a senior level financial economist with specialization in informal finance, a senior level expert in credit with specialization in informal finance, a senior level statistician with specialization in sampling techniques and survey research, and individuals with experience in carrying out surveys in Nicaragua or similar countries. It might also be desireable to include a senior level economic anthropologist with specialization in informal finance. All senior level professionals should have a PhD. or equivalent and several years of experience involving nalysis and field work in one or more Latin American countries.

Because of the time required to develop and test uestionnaires, to develop appropriate samples, to train nterviewers, to carry out a significant number of interviews, and o analyze a substantial volume of data, six months to one year ould be required to carry out the study. The following steps uld be required and would have to be carried out in sequence: sign of questionnaires, pilot survey to test questionnaires, vision of questionnaires, selection of sample, execution of rvey, analysis of survey data, selection of informal agents for se studies, in depth interviews with informal agents, analysis of terview data, and preparation of report.

Annex C

Persons Contacted in Nicaragua

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