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## **AGRICULTURAL POLICY ANALYSIS PROJECT, PHASE II**

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## **AGRICULTURAL CREDIT**

### **MARKET ASSESSMENT IN EL SALVADOR**

**February 1993**

**APAP II  
Technical Report  
No. 130**

**Prepared for**

**USAID/El Salvador and AID/R&D/AGR/APP**

**Contract Nos. LAG-4084-C-2043-00 and DAN-4084-Z-00-8034-00**

**The views expressed in this report are those of the authors. They do not necessarily reflect the views of USAID, the Government of El Salvador, nor the institutions studied.**

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## ABSTRACT

A study of rural credit in El Salvador was made focusing on three areas. First, the report evaluated the impact of current monetary, credit, and exchange rate policy on the rural financial market. Second, it assessed the financial and institutional condition of the two remaining government-owned and -supported rural financial intermediaries, the Agricultural Development Bank (Banco de Fomento Agropecuario) and the Federation of Rural Credit Funds (Fedecredito). Third, it identified the critical constraints to effective credit delivery to small agricultural producers.

Principal findings include the need to restructure and strengthen the two intermediaries in the areas of general management, financial analysis, savings mobilization, and information management; to improve cost efficiency and reduce subsidy dependence; to further simplify the loan application and approval process; to recapitalize some of the Rural Credit Funds and to institute a personnel incentive program based on performance. In order to improve loan services and access for small borrowers, the two intermediaries should offer marketing loans, greater repayment flexibility, graduated loans, interest rebates for prompt loan payment, and mobile services. Third parties should develop an effective system of technical assistance and crop diversification for small farmers in order to improve their latent creditworthiness.

## ACKNOWLEDGMENTS

This report was prepared by Mark Wenner (agricultural economist) and Rafael Umaña (financial analyst), a two-person team from Abt Associates Inc., between November 1992 and February 1993. Generous assistance and support was provided by numerous persons and institutions, without which the report would not have been possible. We sincerely thank all those who contributed. Below we recognize the various types of assistance received.

The authors are particularly grateful to the staff of the USAID Mission in El Salvador for guidance and secretarial support. Michael Wise, the Agricultural Development Officer, informed us of Mission expectations for the report, thoroughly briefed us on agricultural policies and economic conditions in the country, and enthusiastically supported us in most administrative and contractual matters. Ana Luz Joya de Mena, the Rural Development Officer, shared valuable insights on rural credit and the institutional histories of the two intermediaries studied in the report. Gloria Olivia arranged appointments on extremely short notice and provided excellent secretarial assistance.

To the presidents, directors, and staffs of six institutions: the Central Reserve Bank of El Salvador, the Agricultural Development Bank (Banco de Fomento Agropecuario), the Federation of Rural Credit Funds (Fedecrédito), the Ministry of Agriculture, the Cooperative League of the United States (CLUSA), and the Ministry of Planning and Coordination for Economic and Social Development (MIPLAN) we express our deepest appreciation for the open sharing of views and information as well as for unstinting logistical support. José Roberto Orellena Milla, President, and Mauricio Antonio Gallardo, First Vice President of the Central Bank granted us easy access to technical staff and databases. Carlos Borja Letona, President of the Agricultural Development Bank, and Edgar Antonio Mejía Flores, General Manager of Fedecrédito, cooperated fully in procuring the necessary financial data for the report. Mercedes Llori, Special Adviser to the Minister of Agriculture, and Edwin Aragón, of the Agricultural Policy Analysis Unit in the same Ministry supplied agricultural price and cost of production data. Stanley Kuehn and Carlos Domínguez of CLUSA, shared insights and arranged visits to five cooperatives and several individual farmers. Juan Carlos Valdés of MIPLAN promptly retrieved credit data from a national-level household survey. Finally, Mauricio López of Fedecrédito and Rolando Irissari Rojas of the Agricultural Development Bank accompanied the principal investigator on visits to seven rural credit funds and rural bank branches.

In the Washington, D.C., office of Abt Associates Inc., we also would like to thank Gary Ender, Stan Hildebrand, Don Jackson, and Rubén Nuñez for technical review, Kathleen Poer for very competent project task management, Jack Hopper for editorial review, Rosemary Hyson and Kristen Kamp for able assistance in final document preparation, Marsha Strother for preparing graphics, and Donald Somervell for reproduction. All errors and omissions are accepted.

## **EXECUTIVE SUMMARY**

This study examines the impact of El Salvador's monetary and financial regulatory policies on the rural sector, analyzes the financial health of the two remaining state-owned rural financial institutions (Agricultural Development Bank and Federation of Rural Credit Funds), and identifies the main constraints to more effective small farmer credit delivery and recovery. The motivation for the study is the concern of policymakers to maintain and improve credit access for small-scale producers and entrepreneurs in a liberalized financial marketplace. Historically, delivering formal credit to small borrowers has always been problematical due to high lending costs, lack of secure collateral, and informational asymmetries.

Since 1989 the Government of El Salvador has adopted far-reaching economic and institutional reforms aimed at achieving macroeconomic stability and restoring economic growth. In 1991 the banking system was largely privatized and credit controls were lifted. To a large extent both the economy-wide and the financial sector reform programs have been successful. Inflation has been controlled; the currency, although devalued, has remained relatively stable; the massive amount of capital that has entered the country has significantly increased the volume of bank deposits; and real output has expanded. However, it is still possible that recapitalized and profit-oriented banks will abandon high-cost, high-risk, small-producer borrowers and thereby thwart rural economic development. Therefore, identifying and ameliorating policy, informational, and organizational impediments to better rural credit service is a critical follow-on activity. The reforms to date were necessary but alone they are not sufficient to guarantee sustained economic growth and income distribution improvements.

The review of monetary, credit, and exchange rate policies indicates that the implications for rural borrowers and savers are mixed in the short run but should be beneficial in the long run. There have been seven major financial and monetary developments: (1) interest rate liberalization and elimination of lending quotas, (2) rehabilitation of a sizeable portion of the bad debts in the banking system, (3) adoption of flexible exchange rates, (4) increased discount rates and fewer special lines of credit, (5) uniform legal reserve requirements, (6) increased capital requirements, and (7) increased use of loan-loss reserves. Most of these developments clearly strengthen the banking system and enhance depositor confidence. Some of these changes, however, in the short run, will make access more difficult for high-risk, small borrowers, which emphasizes the need to separate financial objectives from social objectives.

For example, higher interest rates improve the profit prospects of intermediaries and reduce rationing inefficiencies, but they may deter borrowers with low-return investment projects from applying for formal loans. The rehabilitation of bad debts clearly augments the net worth of banks by substituting interest-bearing bonds for nonperforming loan assets from the balance sheet. Allowing the currency to float has resulted in devaluation, which has improved export competitiveness in 1990 and 1991. Agricultural borrowers who happen to be exporters, as well

as producers of import substitutes, clearly benefit from the change. However, borrowers who are heavily dependent on imports for their production processes incur higher costs. The Central Bank's decision to increase the discount rate, pegging it to 180-day certificate of deposit rates, and to reduce the number of special credit lines, forces banks to mobilize more of their own funds and to be more prudent in borrower selection. Previously, the existence of numerous special lines of credit and highly concessional rates distorted credit allocation, created a dependence on soft external funds, and retarded the development of solid bank management and loan collection practices. Uniform reserve requirements remove the bias that favors savings and loan associations and puts all types of regulated financial institutions on equal footing. Increased capital requirements protect depositors from unexpected heavy losses. The use of a loan classification system and stipulated loan-loss reserves for the highest risk loans also protects depositors and strengthens the banking system in general. Small, higher-risk borrowers, however, will find qualifying for a loan more difficult.

The recurrent issues in formal Salvadoran rural finance have been borrower access, lender viability, savings mobilization, and the contribution of credit to economic growth. In recent years, while total credit has steadily expanded, agricultural credit as a share of total credit has remained relatively constant at 17 percent. In real terms, agricultural credit has experienced a marked decline. Despite efforts to increase the supply of formal rural credit, loan delivery and recovery remains very problematic.

Historically, access to rural credit has been limited due to a lack of clear title to land and high borrower transaction costs. Only between 11 and 27 percent of the rural population receive credit, but banks do not reject high numbers of applicants (93 percent of those who apply for credit are approved); self-selection is more important. A strong positive relationship exists between farm size and credit application/receipt. The larger the farm, the more likely that it produces one or two traditional exports (coffee, sugar, cotton, cattle) or a mix of grains and one or more export crops. Thus, coffee and livestock are the most readily financed activities, and the western and central regions of the country, where most of the coffee is grown, are the most favored regions.

In the 1980s when the banking system was nationalized, crop liens were used extensively in lieu of property titles as collateral. This allowed small borrowers greater access to credit, but the politicization of loan programs, the effects of war, low international prices, and lax loan collection practices combined to result in extremely high delinquency rates. The small farmer programs were more prone to default than any other lending programs in the two banks studied. In general, high operating costs and high delinquency rates reduced lender viability and forced a number of bank liquidations and mergers in 1990-91. With bad debt rehabilitation, publicly owned banks seem more cautious and, in the case of the Federation of Rural Credit Funds, mortgages on real fixed assets are preferred to liens or joint liability contracts.

The availability of credit is believed to be a critical factor in rural economic growth. Regression analysis of agricultural and crop value-added and total or crop credit disbursed shows

that cotton and corn are more credit responsive than other crops. While the role of credit is significant, other factors such as secure marketing channels, demand elasticities, and price stability also play a role.

The two institutions studied were designed initially as credit disbursement windows under the assumption that the rural poor cannot save. After years of heavy dependence on soft external funds and a change in development thinking, the two institutions have been forced to mobilize their own funds and become multiple-service intermediaries. The Agricultural Development Bank has succeeded in capturing substantially more savings deposits since 1990, but it lacks a feasibility study, a plan, the proper equipment, and the trained personnel to make a sustained, focused effort. The Federation of Rural Credit Funds, on the other hand, only has 6 large institutional investors and is currently insolvent, which makes launching a savings mobilization campaign unlikely in the near future.

The financial analysis of the Agricultural Development Bank using the CAMEL (Capital adequacy, Asset quality, Management assessment, Earning generation, and Liquidity) methodology clearly shows the bank's strengths and weaknesses. It has a very strong capital position (41 percent capital-to-total assets ratio compared with the minimum 8 percent required by law). Despite the rehabilitation of bad debts in 1991, the bank still has 322 million colones of uncollectible loans. In addition, the overall loan collection rate is 73 percent, considerably lower than the collection rates of successful Asian institutions, which range from 80 to 98.6 percent. Also, the delinquency rate on loans less than twelve months old is 21 percent.

In the management area, the critical weaknesses identified included lack of a strategic plan, a misallocation of personnel, a high personnel turnover rate, and lack of performance-based incentives. To the credit of the management, they have initiated aggressive loan collection activities, revised the loan application system, and promoted computerization of the institution. One glaring need, however, is modification of the stipulation in the bank's creation law that loans of more than 50,000 colones must be reviewed by the central office and approved by the board of directors, a requirement that significantly increases loan processing turnaround time. In addition, the assembly of governors should be abolished and the composition of the board of directors should be changed to include those with banking and finance experience. The bank needs to be insulated from political manipulation. Currently, these two governing bodies, largely composed of government ministers, serve to implement the social and economic policies of the reigning administration, often to the detriment of sound financial management considerations. Because of the write-offs of losses due to foreign exchange devaluation and bad debt provisions, the bank experienced losses from 1989 to 1991; but a profit was expected in 1992. However, troublesome patterns in operating costs are evident when the spread between interest paid on deposits and interest received on loans is 10 percent or more and yet there is little or no profit. Also noteworthy, is the high dependence on external subsidies, averaging 78 million colones a year.

In terms of liquidity, the bank enjoys an excess of cash over what may be needed to cover depositor withdrawals. It has on hand 1 colón for every 1.38 colón loaned. In summary, the Agricultural Development Bank needs to improve loan recovery, strengthen management practices and personnel incentives, reduce operating costs, and lend more.

The financial analysis of the Federation of Rural Credit Funds shows that it is in a very precarious situation and needs immediate and massive amounts of financial and technical assistance. The Federation is a two-tier institution composed of a central office that lends funds to 54 affiliated, autonomous credit funds, who in turn lend to individual borrowers. The Central Office is technically bankrupt with negative equity or capital (-47 million colones) in 1992. Currently, the Central Bank is studying how to best recapitalize the institution. Of the 51 rural credit funds operating in rural areas, 32 have capital-to-assets ratios greater than the minimum 8 percent stipulated by law. A process of triage is underway to identify the credit funds that are salvageable; those that are not will be liquidated.

Loan quality is weak; 32 percent of the loans less than twelve months are in arrears. Uncollectible loans, however, are not as sizeable as in the case of the Agricultural Development Bank. Most of the Federation's loans are Class C (deficient); only 87 million colones are Class E (uncollectible). Loan collection rates are comparable to those of successful Asian institutions and much higher than that of the Agricultural Development Bank. The Central Office conditions new lending to affiliates on the repayment of old debts. At the affiliate level, delinquency rates are very variable; some problem affiliates report delinquency rates of 40 percent or more.

In terms of management assessment, the Central Office has clear needs. It lacks a strategic plan, has a cumbersome loan approval process, experiences high personnel turnover, has no performance-based incentive program, and has a disproportionate number of custodial and security staff. The result is high operating costs. Earnings have been particularly weak, and losses have been reported for the last four years. At the affiliate level, only 22 of 51 rural credit funds reported profits in 1992. The Central Office is quite dependent on subsidies, receiving an average of 74 million colones annually. A vicious cycle has developed wherein the Central Bank and donors provide concessional funds, which are then loaned by the Federation. The loan collections of the Federation serve as the base for new lending but inflation erosion and the large number of nonperforming loans usually forces the Federation to seek new infusions of capital from the Central Bank and donors periodically. Liquidity management is satisfactory at the moment.

In summary, the Federation needs to be recapitalized, develop a strategic plan, augment reserves further, streamline operating procedures (especially loan approval and information exchange between the affiliates and the Central Office), reduce operating costs, give performance-based bonuses, and mount a massive training program for the salvageable affiliates.

In assessing the critical constraints to effective rural credit delivery in El Salvador, three general classes of impediments were identified: access problems, delivery and recovery problems, and externalities. The skewed land distribution pattern wherein small borrowers own or control marginal-quality land; the lack of guarantees; and the high borrower transaction costs were all found to be relevant explanatory factors as to why many small borrowers decide not to apply for formal credit. Using an archetypical simulation model, based on data from a farming systems study by Vilma Calderon and Clemente San Sebastian, most representative types of small and medium farmers were found to be credit worthy; that is, they had an economic and financial rate of return sufficient to pay off a loan even when interest rates were raised to 24 percent. Risk aversion was not considered important according to a 1980 study by Thomas Walker.

The second category of impediments includes delivery and recovery problems, loan program politicization, inopportune timing of disbursements, inadequate loan amounts, ineffective monitoring and collection efforts, and the lack of flexibility in repayment, all of which are real obstacles to a more efficient rural financial system. Politicization in the 1980's favored certain clients and regions over others and created the impression that the loan was political patronage and not a serious financial obligation. Ill-timed disbursements and insufficient loan amounts increase borrower costs and undermine the viability of investment projects. Lack of flexibility, that is the requirement to cancel all previous loans prior to receiving a second crop loan, force farmers to sell produce at inopportune times when crop prices are at their seasonal lows. All of these mentioned controllable factors combined with weak loan collection activities, contribute to loan delinquency problems.

External factors that have a negative effect on financed projects include, glaring lack of extension services, poor contract enforcement for those involved in nontraditional exports, and deteriorating rural/urban terms of trade. Nongovernmental organizations (NGOs), food processors, and exporters nevertheless have a potentially positive role to play in supplementing the formal intermediaries. NGOs could identify, organize, and train groups of high-risk farmers, monitor credit use, and provide auxiliary inputs such as extension and marketing services. After a period of nurturing, these small farmer beneficiaries, with improved debt capacities, could become formal bank loan applicants/recipients. The NGOs contacted, however, all need institutional strengthening and are reluctant to cooperate with state-owned banks and the Ministry of Agriculture. Food processors and exporters can serve as a secondary intermediary by using marketing contracts to enforce prompt repayment. The producer, the processor, and the bank would all benefit, since the producer would have assured credit and a secure market outlet, and the marketer could assure quality production and deduct loan repayments from final payments.

In conclusion, current macroeconomic policies are generally favorable to financial intermediaries and agricultural producers. The banking reforms of 1991 have improved and will continue to improve the integrity and efficiency of the entire system. Whether the macroeconomic program of tight monetary policy and stable currency is maintained depends on

the central government's success in controlling the fiscal deficit. At the microeconomic level, there is a clear challenge to improve the organizational efficiency of the two remaining state-owned financial institutions and to devise effective small-farmer outreach programs. While high-risk borrowers are increasingly being excluded, it is not sound policy to weaken financial institutions in order to satisfy popular demand. It is more important to have sustained access to credit than episodic access. To this end, bank managers need to be convinced that it is possible to have profitable, small-farmer credit programs through the proper borrower and personnel incentives and tight cost controls. Donors and the Central Government may assist by providing operational subsidies conditioned on the attainment of efficiency benchmarks. More emphasis ought to be placed on improving the x-efficiency of the organizations in question and not so much on procuring more computers and vehicles. Accordingly, institutional strengthening, targeted credit, and integrated rural development programs need to be designed and launched in order to remove the chief impediments identified. These impediments are: a lack of strategic planning and weak bank management practices; cumbersome, rigid loan approval processes and antiquated governing laws; lack of personnel accountability; lack of agricultural extension services; unenforced marketing contracts; lack of marketing loans; lack of loan roll-over flexibility; and inadequate resources devoted to loan collection efforts.

## LIST OF ACRONYMS

BAAC	Bank for Agriculture and Agricultural Cooperatives (Thailand)
BCR	Banco Central de Reservas (Central Reserve Bank)
BFA	Banco de Fomento Agropecuario (Agricultural Development Bank)
BH	Banco Hipotecario (Mortgage Bank)
BKK	Badan Kredit Kecamatan (Indonesia)
BUD	Bank Rakyat Indonesia Unit Desa
C	Colón. Salvadoran currency as of February 1993 US\$1 = C8.67
CAMEL	Capital Adequacy, Asset Quality, Management, Earnings, and Liquidity
CENTÁ	Centro de Tecnología Agrícola (Agricultural Technology Center)
CRS	Catholic Relief Services
DIVAGRO	Proyecto de Diversificación Agrícola (Agricultural Diversification Project)
FUSDADES	Fundación Salvadoreña para el Desarrollo Económico y Social (Salvadoran Foundation for Economic and Social Development)
FEDECAES	Federación de Cooperativas de Crédito y Ahorros de El Salvador (Federation of Salvadoran Credit Unions)
FEDECREDITO	Federación de Cajas de Crédito y de Bancos de los Trabajadores (Federation of Rural Credit Funds and Workers' Banks)
FIGAPE	Fondo de Inversión Garantizada para Pequeños Empresas (Small Business Loan Guarantee Fund)
FOGAMIPE	Fondo Garantía para la Micro y Pequeña Empresa (Micro and Small Business Loan Guarantee Fund)
FOGARA	Fondo Garantía Agropecuario (Agricultural Loan Guarantee Fund)
GB	Grameen Bank (Bangladesh)
LBF	Ley de Bancos y Financieras (Banking and Finance Law)
MAG	Ministerio de Agricultura y Ganadería (Ministry of Agriculture and Livestock)
Manzana	Area measure. Equals .7 hectare.
MIPLAN	Ministerio de Planificación y Coordinación del Desarrollo Económico y Social (Ministry of Planning and Coordination for Economic and Social Development)
NGO	Non-governmental organization
PRODERE	Fondo de Garantía del Programa Reactivación del Sector Agropecuario (Loan Guarantee for Agricultural Reactivation Program)
SSF	La Superintendencia del Sistema Financiero (Banking System Supervisor)
USAID	U.S. Agency for International Development

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## **PART I: OVERVIEW OF MONETARY, CREDIT, AND EXCHANGE RATE POLICIES**

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### **1. INTRODUCTION**

#### **1.1 Objective of the Study**

Since 1989, El Salvador has instituted significant economic policy and institutional reforms that are intended to stimulate allocative efficiency and restore economic growth. The financial sector has been liberalized but policy makers and the donor community are concerned that a market-oriented financial system may not serve small, high-risk borrowers, nor attempt to aggressively capture funds from rural savers. This study aims to:

- Analyze the impact of current monetary, credit, and exchange rate policy on the formal rural financial sector.
- Assess the financial and administrative conditions of the two leading rural financial institutions (Agricultural Development Bank and Federation of Credit Funds)<sup>1</sup>.
- Identify the critical constraints to effective credit delivery and savings mobilization<sup>2</sup>.

The study will serve as the basis for policy recommendations and the design of a multifaceted agricultural sector modernization project to be financed by the United States Agency for International Development (USAID).

#### **1.2 Banking and Financial Developments in the 1980s**

In 1980 the Government of El Salvador nationalized the banking system. The nationalized system set artificially low interest rates and directed credit to certain sectors of the economy in an attempt to stimulate investment and improve access for low-income borrowers and small enterprises. Previously, the banking system had failed to deliver substantial amounts

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<sup>1</sup> The original scope of work included an analysis of the Mortgage Bank (Banco Hipotecario) but since this bank was in receivership and the Central Bank was doing a similar analysis, the authors recommended that it be excluded. The USAID/El Salvador Mission accepted the modification to the scope of work on January 14, 1993.

<sup>2</sup> The original scope of work also called for a credit demand survey. Because of budget and logistical difficulties the execution of the survey was delayed and results will be reported in a separate document.

of credit to small and medium-size businesses and farmers. Politically, the move to nationalize was an attempt by reformist military leaders, who were in power at the time, to stem the tide of escalating political unrest and nullify the leftist opposition's charges that the reigning economic order was dysfunctional and insensitive to the poor. However, the nationalized banking system and the policy of directed, subsidized credit did not perform according to expectations. The magnitude of funds intermediated fell in real terms, delinquency rates remained high, and the distribution of credit continued to favor larger enterprises.

Between 1985 and 1990, the real volume of total credit distributed to the private sector fell 36 percent. Arrears on loans outstanding remained persistently high, approximately 55 percent for the two main agricultural banks and 24 percent for manufacturing loans at private commercial banks. Refinancings accounted on average for 29 percent of new manufacturing loans and 44 percent of other private sector loans in the period 1983–1987 (World Bank, 1989).

Access to capital continues to be problematic. It is estimated that 40 percent of rural households and 25 percent of urban households do not have access to formal credit and must rely on informal sources for credit needs (Cuevas and Graham, 1992). In both sectors, large-scale operators and cooperatives continue to be the main recipients of institutional credit.

Five factors, in addition to the negative economic consequences associated with the twelve years of armed conflict, help explain the less than expected outcome and loss of public confidence in the formal banking system.

First, persistent fiscal deficits contributed to high inflation rates and negative real interest rates. In such an environment, rational savers tend to substitute real assets for domestic financial instruments, thereby reducing the volume of loanable funds. Quasi-money, the sum of time deposits, savings, and trust fund deposits, as a percentage of gross domestic product (GDP)—peaked in 1984 at 21 percent then fell to 15 percent in 1989 as inflation rates consistently surged beyond the 20-percent mark, outstripping average deposit rates (See Tables 4.1 and 4.2).

Second, low loan recovery rates, especially by state-owned financial institutions, eroded the loanable base. By the late 1980s, three state-owned financial institutions and one private bank were insolvent. By 1988–89, an estimated 40 percent of all commercial bank portfolios were nonperforming. In the agricultural sector, the problem was particularly acute. Many large cooperatives that benefited from the land reform program were unable to service their debt obligations which accounted for large portions of the nonperforming portfolios of the main agricultural bank (World Bank, 1989).

Third, the narrow spread between deposit and lending rates constrained the profitability of several formal lenders and inhibited local mobilization of funds, thereby retarding institutional development and robustness.

Fourth, low-income borrowers and small-scale producers encountered problems with access to formal credit due to credit embargoes, inadequate collateral, deficient marketing channels and poor prices, and high transaction costs in loan procurement. The accumulated difficulties reportedly encountered in formal credit markets forced many borrowers to rely for funds on informal sources such as remittances, relatives, moneylenders, and nonregulated, special credit programs operated by nongovernmental organizations (NGOs).

Fifth, weak regulatory supervision by central authorities and politicization of banking decisions permitted the percentage of the portfolio that was nonperforming to become unmanageable. Credit appraisal systems designed to accurately quantify risk and collection activities were largely unsuccessful.

### **1.3 Financial Sector Reform of 1990**

Since 1989, the Government of El Salvador has undertaken macroeconomic policy reforms aimed at correcting trade and fiscal imbalances, stimulating savings and investment, and diversifying exports. Trade tariffs were reduced, price controls were lifted (except for those on certain commodities), government marketing boards (which had monopolized trade in the main exports) were abolished, public expenditures were curtailed, and the exchange rate was allowed to float.

To restore public confidence in the banking system and support broad macroeconomic goals, the executive and legislative branches of government initiated reforms in the financial sector that included adoption of a flexible exchange rate, liberalization of the interest rate, and pursuit of tight monetary policy.

In April 1990, the National Assembly enacted three laws that authorized the restructuring of the nationalized banks and savings and loan associations. Some of the specific measures passed included:

- Procedures for the privatization of banking institutions,
- Strengthening of the Superintendency of Banks,
- Liquidation of three state-owned banks,
- Requirement of loan loss reserves and strict adherence to a capital-to-assets ratio of 8 percent, and
- Establishment of a special fund to purchase the worst categories of nonperforming loans of commercial banks to be financed with a bond issue of the Central Bank.

By the end of 1992, most of the objectives of the bank reform program had been achieved. Solvency has been restored and banks are free to aggressively improve operational efficiency and the quality of services. Extremely weak institutions have either been consolidated or liquidated. For example, the number of commercial banks has decreased from twelve prior to 1990 to seven at present. One public bank is in receivership and all but two of the

commercial banks have been privatized. All loan portfolios have been classified according to risk by an invigorated Superintendency, and loan loss provisions have been augmented accordingly. Permission to charter new banks, an item included in the reform program, has been delayed until July 1993 to give existing banks a chance to stabilize and adjust to the new set of operating norms.

The easing of political tensions and the adoption of the above measures, especially the liberalization of interest rates and the rehabilitation of a substantial volume of nonperforming loans, have been successful in bolstering public confidence in the banking system. Two indicators of restored faith are the sharp rise in private sector liabilities or savings (up 31 percent in 1990 from the 1989 level) and the upturn in the ratio of quasi-money to GDP in 1990. Whereas the supply of loanable funds has increased due to large inflows of capital from abroad, credit delivery to and recovery from small, rural borrowers remain problematic. The majority of formal agricultural credit is still directed to coffee growers. In addition, state-owned financial institutions have continued to be very dependent on Central Bank funds for lending because they have been less successful than private banks in mobilizing savings.

#### **1.4 Organization of the Study**

The report is divided into five parts: (1) a review of monetary and credit policies and their implications for the agricultural sector; (2) an overview of credit volumes, distribution, and potential demand; (3) financial and management analyses of the leading agricultural lenders; (4) an analysis of constraints to effective delivery of credit to small farmers; and (5) a summary of findings and recommendations<sup>3</sup>. The first two parts are meant to serve as a point of reference for the substantive analysis in part III. Part IV is a general listing of the factors that must be accommodated to relieve the major constraints identified in the Salvadoran credit sector.

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<sup>3</sup> Please note that several of the recommendations listed were adopted by the Agricultural Development Bank management between March and May 1993 after receipt of an earlier draft version of the report in February 1993.

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## **2. STRUCTURE AND SIZE OF THE SALVADORAN FINANCIAL SYSTEM**

### **2.1 Types of Financial Institutions**

The Salvadoran financial system has five types of financial institutions: (1) monetary and supervisory authorities, (2) public banks and specialized financial institutions, (3) private commercial banks, (4) nonbanks such as savings and loan associations, credit unions, finance and currency exchange houses, insurance companies, and (5) informal lenders such as supplier-traders, moneylenders, friends, and relatives. Each type of financial intermediary serves a particular segment of the credit market distinguished by client risk profile, nature of investment projects, loan contract terms, and flexibility and quality of service.

Commercial banks tend to serve large private businesses, public sector enterprises, and well-established cooperatives by providing loans for working capital, investments, and construction. The loans extended tend to be well secured. Most commercial banks eschew smaller, high-risk, borrowers in the agricultural sector except for the coffee subsector. Over the years a well-functioning system of finance and marketing for coffee has developed, since it is the country's leading export. The data in Table 2.1 shows that the more profitable and larger commercial banks (in terms of total assets) tend to lend more for nonagricultural purposes. The private bank with the largest agricultural share (27 percent) is Banco Cuscatlán, and most of that lending is for coffee production and harvesting.

One government bank, the Agricultural Development Bank (Banco de Fomento Agropecuario [BFA]) and one bank about to be privatized, Mortgage Bank (Banco Hipotecario [BH]) have historically served rural borrowers. BFA has the most extensive rural network of branches, while BH and Banco Agrícola Comercial are tied in a distant second place. Most private commercial banks are concentrated in the capital city and the two next largest cities in the country, Santa Ana and San Miguel (see Table 2.2).

Savings and loan associations and finance houses are the most important nonbank, formal intermediaries. They specialize in providing home mortgages and consumer credit. Currency exchange houses facilitate external trade and travel.

The informal sector serves the sundry credit needs of small enterprises and low- and middle-income clients. These loans are for both production and consumption purposes with a wide variety of terms. Speed and flexibility in service are hallmarks of the informal lenders. In the decade of the 1980s, as the performance and access to the regulated banking sector worsened, informal financial institutions increased rapidly in importance, raising questions about the ability of the central government authorities to control monetary expansion.

Table 2.1: Size and Profitability of Salvadoran Financial Institutions as of December 1991

Name	Assets (Mil. Col.)	Profit/Equity Ratio (Percent)	Total Loans (Mil. Col.)	Agricultural Loans (Mil. Col.)	Agricultural Share (Percent)
<b>BANKS:</b>					
Banco Agricola Comercial	3633.2	22.1	1321.4	241.7	18
Banco Comercio de El Salvador /2	1846.3	7.8	802.2	81.4	10
Banco Cuscatlan	3694.2	20	2062.6	563.9	27
Banco de Desarrollo e inversion /2	1035.7	16	545.9	85.3	16
Banco de Fomento Agropecuario	1117.8	-21	553.9	421.4	76
Banco Hipotecario de El Salvador /3	na	na	813.5	162.7	20
Banco Salvadoreno/1	2389	7.8	1204.6	167.5	14
Citibank					
<b>SPECIALIZED INSTITUTIONS:</b>					
Fedecredito	220.1	-7.2	197.5	30.7	16

Notes: /1 Reporting Period: June 90-June 91

/2 Agricultural Lending is as of Sept. 1991

/3 All data is as of Sept. 1991 (Estimated)

Sources: Various annual reports of listed institutions and Central Reserve Bank

**TABLE 2.2: Locational Distribution of Commercial Banks and Credit Funds**

Name	No. of Branches in the Capital	No. of Branches Outside Capital
<b>Banks:</b>		
Banco Agrícola Comercial	17	10
Banco Comercio de El Salvador	12	11
Banco Cuscatlán	1	1
Banco de Desarrollo e Inversion	10	8
Banco de Fomento Agropecuario	3	27
Banco Hipotecario	6	10
Banco Salvadoreño	12	8
Citibank N.A.	1	0
<b>Specialized Institutions:</b>		
Fedecredito	4	61
Fedecaes	26	26

## 2.2 Powers and Responsibilities of the Monetary Authorities

Two institutions are directly responsible for setting monetary and credit policies and for safeguarding the solvency of the entire financial system in El Salvador: the Central Reserve Bank (Banco Central de Reservas de El Salvador [BCR]) and the Superintendency of Banks (Superintendencia del Sistema Financiero [SSF]). Prior to the reform of 1990, a monetary board composed of five ministers and the President of the Central Bank established policy and coordinated monetary and economic policies. Previously, these policies often accommodated political platforms to the detriment of macroeconomic stability. A new organic law, passed in 1990, abolished this board and granted greater policy-making autonomy to the Central Bank.

Some of the specific duties of the Central Reserve Bank are to: (1) print and issue money; (2) maintain currency convertibility and stability; (3) control inflation; (4) maintain the liquidity in the entire financial system; (5) regulate credit expansion; (6) promote efficiency and competitiveness in the financial system; and (7) administer international reserves. In pursuit of these goals, the Central Bank sets capital, reserve, and portfolio requirements for regulated financial intermediaries, manages the money supply through open market sales of bonds, controls credit expansion through rediscount loans and special lines of credit, and maintains an extensive

financial database. Prior to the 1990 reform, the Central Reserve Bank engaged in a policy of directed credit, relying on interest rate ceilings and sectoral credit quotas (International Monetary Fund, 1991).

The Superintendency of Banks is an autonomous and independent agency affiliated with the Central Reserve Bank. The organization is charged with conducting periodic audits of regulated banking institutions, enforcing banking regulations, imposing penalties, classifying risk exposure, and, as a last resort, seizing control of insolvent institutions (BCR Annual Report, 1990).

## **2.3 Principal Rural Financial Institutions**

Historically the four formal agricultural lenders that serve medium- and small-scale producers are the Agricultural Development Bank, the Federation of Credit Funds, Banco Agrícola Comercial, and the Mortgage Bank, each with a different orientation. The latter two are private or about to be private banks and will not be discussed in detail. The first two are the remaining state-owned institutions and will be discussed in greater detail because they may receive sustained assistance from international donors and the central government.

### **2.3.1 Agricultural Development Bank**

The Agricultural Development Bank was founded in 1973 as an autonomous, public-sector, specialized financial institution. It superseded the Peasant Social Welfare Administration (Administración de Bienstar Campesino [ABC]), which, as an arm of the Ministry of Agriculture, had operated a supervised credit scheme since 1962. It was supposed to develop into a full service bank but has continued to emphasize credit delivery to medium- and small-scale farmers and the cooperatives of the reformed sector since 1980<sup>4</sup>. In addition to lending activities, it sold inputs, mostly fertilizer, and marketed grain. These nonbanking activities ceased with the 1990 banking reform program and more attention has since been focused on mobilizing savings.

The bank is governed by a board of governors that comprises the president of BFA, representatives from ministries concerned with economics, officials from the cooperative sectors, and the Central Bank president. The board sets policies that are implemented by the board of directors and the top management of the bank. The chief responsibility of the board of directors

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<sup>4</sup> Starting in 1980, a land reform program has transferred control over the 250 largest properties in the country to 370 production cooperatives in Phase I and land to thousands of former rental tenants in Phase III. Phase II was supposed to be the transfer estates between 50-500 mz, but it was canceled. Throughout the 1980's, the 370 reform cooperatives did not experience access problems. Although their land is encumbered to the Land Bank and the Government, the use of guarantee funds and the pledging of moveable assets (farm equipment and cattle) have permitted them to qualify for collateral-based lending.

is the weekly monitoring of developments and the approval of loans over C50,000 (US\$5,847). The bank has a staff of more than 1,500 employees and a network of twenty-seven branches.

### **2.3.2 Federation of Credit Funds**

The Federation of Credit Funds (Fedecredito) was founded in 1943 under the Rural Credit Law as an autonomous, public sector, specialized financial institution. Its governing law was revised in 1991 (Law of Credit Funds and Workers' Banks) but its principal objectives remain largely unchanged. Instead its institutional structure became more complicated.

The Federation's two-tier design is intended to promote the cooperative credit movement among small farmers, microentrepreneurs, and artisans. The primary level is where community loan funds are organized and operated. At the secondary level, a central office serves as an intermediary and guarantor for the local organizations with third parties, receives time deposits, and provides regulatory oversight and technical assistance to the local organizations. Parallel to the network of rural credit funds are workers' banks, located primarily in cities, that serve the needs of wage earners for consumption credit.

Governance is provided by a General Board, a Governing Board, and a President. The General Board, which consists of the presidents of all the affiliated rural credit funds and urban workers' banks board of directors, meets once a year to review and approve the plan of action, the budget, and the annual report. The Governing Board, which consists of the president (named by the Head of State); one representative each from the Ministries of Economy and Agriculture and the Central Bank; and four representatives from two rural credit funds and two workers' banks elected by the General Board, is responsible for setting policy and meets on a more frequent schedule. The President along with managers for administration, finance, credit, and operations are responsible for planning, implementing, and monitoring daily operations and compliance with all pertinent laws and financial regulations.

There are presently 62 rural credit funds, but 10 are being liquidated and 8 are in receivership. The staff of the central office numbers 292 and the staff of affiliated, functioning credit funds numbered 516 as of the end of 1992. The major problem facing Fedecredito is insolvency.

### **3. MONETARY, CREDIT, AND EXCHANGE RATE POLICIES**

#### **3.1 Policy Objectives of the Central Reserve Bank**

The current Monetary and Financial Program of the Central Bank is based on the Economic and Social Plan proposed by the Cristiani administration in 1989. The fundamental objectives of the monetary program in order of importance ("Informe Económico 1991", Banco Central de El Salvador, pp 5) are to:

- Control inflation,
- Stabilize the exchange rate,
- Maintain levels of liquidity in the financial system that are compatible with productive economic activity,
- Consolidate the financial sector reforms initiated in 1990,
- Complete the privatization of commercial banks,
- Restructure public finances, and
- Stimulate higher levels of real production.

#### **3.2 Instruments of Monetary Policy**

The instruments currently available to the monetary authorities (Acevedo, J. McQuire, J., Protasi, J. C. et al., 1989) are:

- Legal reserves,
- Rediscount rate,
- Obligation of banks to purchase government bonds,
- Open market operations,
- Portfolio ceilings,
- Purchase and sale of international reserves.

Previously the monetary authorities used interest rate ceilings as the main instrument of monetary control, used international reserves to support a fixed exchange rate, and financed the public deficit through the forcible placement of debt instruments with financial institutions. Since the 1990 reforms, the monetary authorities are relying increasingly on open market operations to manage short-term liquidity problems, and are controlling the money supply through the discount rate and cash reserves.

Below is a discussion of how each of the instruments is being currently used and the implication for future monetary policy.

### 3.2.1 Legal Reserves

Reserve requirements obligate member banks to deposit with the Central Bank a certain proportion of their individual deposits in colons and dollars. Legal reserves serve three purposes in El Salvador. First, they are used as a safeguard against unexpected episodes of deposit withdrawals that may threaten the liquidity of member banks. Second, they are a discretionary means of controlling the money supply, and concomitantly, inflation rates. If the reserve requirement is high, less money circulates, which restrains lending and economic activity. If the legal requirement is low, more money is available for lending and more economic activity is likely to be generated through a multiplier effect. Third, the Central Bank in the past, by setting high legal reserve requirements, used reserves to extend loans to the Government thereby financing the fiscal deficit and helping the Central Government to avoid having to resort to more expensive sources of funds.

**TABLE 3.1: Reserve Requirements**

Years	December 31					July 31
	1986	1987	1988	1989	1990	1991
<u>Reserve Requirement</u>						
Commercial banks:						
Local currency deposits						
Demand	20.0	20.0	19.0	19.0	23.0	25.0
Savings	20.0	20.0	19.0	19.0	23.0	15.0
Time	20.0	20.0	19.0	19.0	15.0	15.0
Trust fund	20.0	20.0	19.0	19.0	--	--
Foreign currency deposits						
Regular	20.0	20.0	19.0	19.0	50.0	50.0
Special	10.0	10.0	10.0	10.0	50.0	50.0
Savings and Loan Associations:						
Local currency deposits						
Savings	10.0	10.0	10.0	10.0	10.0	15.0
Time	10.0	10.0	10.0	10.0	10.0	15.0

Sources: International Monetary Fund and Central Bank of El Salvador

Current reserve requirements are considerably lower for commercial banks than they were in the late 1970s and early 1980s, and they are the same for savings and loan associations for local currency time deposits. The uniformity of rates across institutional type is intended to remove bias in the rate of implicit tax since the reserve deposits are unremunerated (Table 3.1). Unremunerated reserve accounts are common in developing countries as are substantially higher rates against foreign currency accounts. Unremunerated accounts do not impose a fiscal cost and the high rates on foreign currency serves to sterilize capital inflows. Previously, the Central Bank imposed higher reserve rates on commercial banks than on savings and loans in an effort to stimulate the housing and construction industry.

As can be seen in Table 3.2, prior to reform the reserve requirement was effectively circumvented when short-term loans from BCR were subtracted from the deposits held in reserve (net coefficient of liquidity) prior to 1990. Since then, the banking system has exhibited excess liquidity both in gross and net terms

**TABLE 3.2: Gross and Net Coefficients of Liquidity**

Year	Gross Liquidity Coefficient/1 (%)	Net Liquidity Coefficient/1 (%)	Approx. Legal Reserve Rate/2 (%)
1987	19.08	14.27	19
1988	29.09	18.10	19
1989	20.69	6.53	19
1990	28.96	16.86	20
1991	27.19	24.78	21

Notes: /1 Coefficients of liquidity: Gross= reserve deposits + cash in vault/total deposits; Net= reserve deposits+cash-BCR loans/total deposits.

/2 The rates were differentiated by type of deposit to a greater extent between September 1990 and July 1991. The figure noted is an annual approximation.

Source: Revista Trimestral April-June 1992, Banco Central De Reservas, El Salvador.

Because of underdeveloped capital markets and in particular the small volume of outstanding government securities, the Central Bank has historically relied on second best instruments (high reserve requirements and rediscounts) to control monetary aggregates instead of open market operations.

### 3.2.2 Rediscount Loans

Rediscount loans are loans from the Central Bank to member banks at below market or preferential rates. As a monetary instrument, rediscounts have two purposes. First, they affect

the money supply. Rediscounts constitute money expansion at the time of issuance to member banks who in turn relend to the private sector. Second, discount policy can be used for sectoral targeting and refinancing. Special discount lines of credit can be used to stimulate certain high-priority productive activities, or can be used as a form of social insurance to restructure bad loans where nonperformance is due to external shocks such as droughts or the client is deemed too large and threatening to the health of the exposed intermediary.

Historically, the Central Government and external donors relied heavily on discount lines of credit to pursue particular development objectives. Prior to 1989, the Central Bank administered more than 80 different lines of credit. Since then, the number of lines has been reduced and rediscount rates are not as heavily subsidized as they were in the past. In fact, rediscounts are viewed as "lending of last resort" by banks with liquidity problems.

As of September 1992, the Central Bank was administering 53 targeted discount lines of credits, 15 with its own resources, and 38 with external funds, for activities ranging from the 1992-93 coffee harvest to the rehabilitation of clinics and health centers damaged in the 1986 earthquake (BCR Revista Trimestral July-September 1992). For foreign lines of credit, the Central Bank assumes the foreign currency exchange risk and passes the funds to bank intermediaries according to the conditions negotiated with the international agency. Usually, the interest rates are highly subsidized, and the final user receives a loan that charges interest only 2-4 percent above what the Central Bank pays. At maturity, the intermediary assumes default risk and must repay the Central Bank in full.

Discount instruments were also used to refinance bad debts of intermediaries in order to protect them, and thus to maintain political stability. This practice was quite common, and was justified on the basis that many investment projects failed because of the civil conflict during the 1980s and the poor export markets for traditional products, especially in the latter part of the decade.

Since 1992, the Central Bank has avoided expanding the number of special credit lines, and instead has focused on two lines, a line for agriculture (Ventana Unica de Resdecuento) and a line for member bank liquidity management (Ventana Liquidez Automatico). Each of these lines is governed by a set of very transparent norms, unlike other special directed lines.

The agricultural line is meant to encourage member banks to engage in more agricultural lending as well as to guarantee sufficient funds for seasonal demand. The discount rate is calculated by adding 1 percentage point to the previous month's 180-day interest rate on term deposits. The maximum amounts are linked to the amount of legal reserves deposited and the amount the total savings deposits of individual banks. The two linkage formulas allow greater access to the line during the months of October-February, when coffee and sugar are harvested, and permit greater access to banks with more savings mobilization. As of January 8, 1993, C177.8 million was outstanding.

The automatic liquidity line is meant to accommodate credit supply shortfalls of individual member banks. The maximum term is 30 days, the interest charged is the previous month's 180-day interest rate on term deposits plus 7 percentage points, and the maximum amount of withdrawal is equivalent to 5 percent of the individual member bank's legal reserve. As of January 8, 1993, the outstanding balance on this line was 0.

Since the 1990 reform, the Central Bank has attempted to liquidate discount lines of credit because they tend to misallocate resources, induce credit rationing, worsen income distribution, and make intermediaries overly dependent on external funds for lending instead of mobilizing their own funds.

### **3.2.3 Obligation to Purchase Government Funds**

The monetary authorities, in addition to the reserve requirement, used to require intermediary banks and financial institutions to hold 10 percent of their portfolio in government securities as a way to finance the fiscal deficit. However, in the spring of 1992, the policy was revised and deemed incompatible with a liberal financial environment. In the summer and fall of 1992, the Central Bank, fearing an uncontrolled surge in inflation, required banks in the system to purchase nonnegotiable bonds valued at C1.15 billion at 9-percent interest. By the end of the year the outstanding balance was C837.6 million.

Since then, the Central Bank has been slowly exchanging these bonds for bonds that pay 14-percent interest. These are Central Bank liabilities and will affect the Bank's balance sheet. Nonetheless, the new policy orientation of the Central Bank authorities is to use obligatory placements as a last-resort instrument in liquidity control and is laudable.

### **3.2.4 Open Market Operations**

The monetary authorities can sell bonds to and buy bonds from the private sector. However, because the capital market in El Salvador is embryonic with a few participants consisting of autonomous government agencies, financial institutions, and insurance companies and few tradeable financial products. The Government tends to issue fixed rate instruments without repurchase and discount options, the yields on government bonds tend to be less than the rate on savings or time deposit accounts. Thus, many in the private sector find the yields unattractive and prefer to invest in other financial instruments.

As of December 1992, according to the information provided by the Central Bank, C341.6-million in voluntary bonds (Certificado de Estabilización Monetaria) were outstanding. The vast majority (95%) of the instruments were for a term of 91 days; the interest rate ranged from 11.91 to 14.74 percent.

### 3.2.5 Portfolio Requirements

For commercial banks and savings and loan associations, the Central Bank has relaxed its portfolio distribution requirement governing the mix of loans for high-priority productive purposes and loans for low-priority purposes such as commerce and luxury housing construction (Table 3.3). Before 1990, banking institutions were required to keep at least 85 percent of their loans in "high-priority, productive end-uses" and up to 15 percent of their loans in "low-priority, luxury end-uses." The low-priority areas are generally interpreted to be services and luxury construction. As of July 31, 1991, the portfolio split became 75 percent and 25 percent, respectively.

The authorities have relaxed the standards but still seek to channel the majority of credit funds to activities with multiple growth impacts. The real impact of the requirement seems to be negligible. Bank authorities did not report it to be a bothersome measure.

**TABLE 3.3: Portfolio Requirements**

Regulation	December 31					July 31
	1986	1987	1988	1989	1990	1991
<u>Portfolio Requirements</u>						
Class A, high-priority	85.0	85.0	85.0	85.0	75.0	75.0
Class B, low-priority	15.0	15.0	15.0	15.0	25.0	25.0

Source: International Monetary Fund

### 3.2.6 Purchase and Sale of International Reserves

During the 1980s, Central Bank authorities used the purchase and sale of international reserves as the main instrument to control the money supply and prevent acute inflation. The strong balance-of-payments support provided by the U.S. government during that decade permitted the Central Bank to continue in this vein after the buildup in reserves from the coffee boom of the late 1970s was depleted.

Since 1990, the Central Bank has abandoned currency operations as a major monetary tool. The Central Bank allowed the colón to float, liberalized interest rates, and tried to control the rate of growth in the money supply. As a result, expectations of a coming devaluation led to a real devaluation and induced higher nominal and real interest rates, which in turn improved the capital account. Abandoning the fixed exchange rate regime has allowed international

reserves to recover to the point where the country enjoys three-months' import cover. In 1992, the Central Bank had net purchases of dollars equivalent to US\$14.9 million.

### 3.3 Other Regulations Affecting Financial Institutions

Chartered, deposit-taking, and specialized institutions are subject to a number of regulations that are intended to safeguard the deposits of savers while maintaining competitiveness and efficient loan intermediation. Direct regulations on financial institutions include:

- Capital requirements
- External audits
- Loan risk classification and provision
- Chartering

#### 3.3.1 Capital Requirements

Capital requirements are defined as the ratio of paid-in capital to total loans and investments. They averaged 5.4 percent between 1986 and 1990; the level was raised to 8 percent in 1991 (Table 3.4). Higher capital requirements slow bank entries and reduce leverage ratios, but they safeguard deposits.

**TABLE 3.4: Minimum Capital, Legal Reserve, and Portfolio Requirements  
(in percent)**

Regulation	December 31					July 31
	1986	1987	1988	1989	1990	1991
<u>Capital Requirement</u>	6.5	6.5	4.0	5.0	5.0	8.0

Sources: International Monetary Fund and Central Bank of El Salvador

#### 3.3.2 External Audits

The Superintendency of Banks conducts periodic audits of banks in order to determine adherence to rules and regulations of their charter and to check for general solvency. The frequency of audits and penalties for noncompliance are unknown. Since the 1990 reform program, bank supervision has increased substantially.

### 3.3.3 Loan Risk Classification and Loan Provisions

The Superintendency of Banks requires banking and specialized lending institutions to rank their loans according to the following categories, and to set aside the specified loan loss reserves.

The purpose of the loan classification system is to make risk exposure explicit and to require the lending institution to protect its solvency by taking precautionary measures.

**TABLE 3.5: Loan Risk Categories**

Risk Type	General Borrower Characteristics	Required Loan Loss Reserve (percent)
A	Excellent capacity to repay and solid project proposal	0
B	Feasible project but technical and marketing risk exist	0
C	Manageable technical, labor, and marketing problems	10
D	Delinquent less than 180 days on previous loan	50
E	Delinquent more than 180 days on previous loan, no guarantees	100

Source: The Superintendency of El Salvador

### 3.3.4 Chartering

According to the Banking and Finance Law (*Ley de Bancos y Financieras*) that governs the incorporation of banks, the chief requirement is a capital subscription of 20 million colones and officers who are in good financial standing, older than twenty-five, and without known criminal convictions. There are no prohibitions against foreign-owned banks by the Banking Privatization Law (*Ley de Privatización de los Bancos Comerciales y de las Asociaciones de Ahorro y Préstamo*), although there is a moratorium on new bank charters until July 1993 to allow sufficient time to complete the privatization process and to allow the restructured banks time to adapt to the liberalized environment.

## 4. IMPACT OF MONETARY, CREDIT, AND EXCHANGE RATE POLICIES ON FINANCIAL INSTITUTIONS AND THE RURAL SECTOR

### 4.1 General Economy-wide Effects

The Government of El Salvador has achieved considerable success in controlling inflation, maintaining a stable currency, and liberalizing the financial sector. The remaining challenges are to refine liquidity management techniques, to strengthen the embryonic capital market so that businesses can rely more on equity than on debt financing in order to be less vulnerable in periods of tight credit, and to encourage intermediary banks to mobilize more of their own funds.

Six significant monetary and financial developments occurred during the 1989-1992 period that helped to reduce the debilitating burdens of previously ill-conceived lending practices, restore depositor confidence in the financial system, and contributed to economic growth and an improved capital accounts position. These developments included: (1) liberalization of interest rates, (2) tightening of money supply growth, (3) adoption of a flexible exchange rate, (4) consolidation of all outstanding central government and nonfinancial public sector debt and arrears into two bond issues totaling C3.9 billion, (5) establishment of a special fund to exchange the weakest categories of nonperforming commercial bank portfolios for interest-paying government bonds up to a budgeted amount of C1.9 billion, and (6) privatization of commercial banks and savings and loan associations<sup>5</sup> (IMF, Recent Economic Developments, 1992).

Interest rates, exchange rates, international reserves, and money supply are interconnected in the modern open economy and not all variables can be controlled through policy instruments at the same time. Therefore adoption of a floating exchange by Salvadoran authorities implied the adoption of either free interest rates and targeted money supply growth rates, or fixed interest rates and accommodating money and international reserves policy. Since monetary authorities were very concerned about inflation, they settled for a free interest rate-targeted money supply regime.

Below is a discussion of how the current monetary regime has affected various macrofinancial variables.

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<sup>5</sup> The special fund was created November 1990 and is called the Fund for the Rehabilitation and Strengthening of Banks and Savings and Loan Associations (FRS). It issued bonds with 10-year maturities and a fixed interest rate of 10 percent.

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### **4.1.1 Monetary Aggregates**

Money supply growth in 1991 was the lowest recorded in the last twelve years, reflecting the monetary authorities' strong anti-inflationary stance. In 1989-90, the government deviated from its stated goals, expanding credit substantially as a result of the 1989 guerrilla offensive. Growth in money (M1) averaged 7.5 percent in the 1989-91 period while growth in quasi-money (M2) averaged 20.6 percent; this represents a significant increase in deposit confidence over that of the previous three years. Financial deepening as measured by the ratios of Money/GDP and Quasi-Money/GDP show offsetting trends. Over time Money/GDP has declined while Quasi-Money/GDP has remained fairly steady (Tables 4.1 and 4.2).

In the 1985-89 period, net domestic credit expansion averaged 17 percent (Table 4.3). In 1990, the rate slowed to 7 percent and in 1991 it jumped to 21 percent. More important, however, the destination of credit changed. The private sector is receiving increasingly more of the credit relative to the amount received by nonbank intermediaries such as marketing boards and public enterprises. The public enterprises are receiving more financing from external sources, thus leaving more domestic resources for private businesses. (See Tables 4.1 and 4.2).

### **4.1.2 Inflation Rates**

Through a tight credit policy the monetary authorities have succeeded in lowering inflation from a high of 32 percent in 1986 to 14 percent in 1991. This slowing of inflation is even more notable on a quarterly basis. Inflation is in a secular, downward trend. Between the third quarter of 1989, when the Cristiani administration assumed power, and the second quarter of 1990, the quarterly changes in inflation were greater than 5 percent. Since the third quarter of 1990, the quarterly changes have averaged 3.6 percent, with no individual figure above 5 percent (Table 4.4).

### **4.1.3 Interest Rates**

Interest rates were liberalized and lending quotas were abolished in March 1992 after decades of ceilings and lending quotas. Since the mid-1980s, rates were slowly raised, then bands were experimented with, and finally, full liberalization occurred. As of November 1992, lending rates reflect the opportunity cost of capital and project risk, and they generally remain around 20 percent. Interest rates on deposits, too, have been freed, with an observable minimum of 15 percent on bank time deposits and 8 percent on sight deposits.

Table 4.1: Selected Financial and Economic Growth Rates

Variable	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
(Annual percent change)												
Inflation Growth Rate /1	17.36	14.81	11.73	13.31	11.51	22.32	31.94	24.86	19.76	17.64	24.00	14.45
Growth in Nominal GDP	3.60	-3.03	3.69	13.23	14.82	22.94	37.90	17.09	18.26	17.77	27.39	16.24
Growth Real GDP /1	-8.67	-8.28	-5.61	0.80	2.27	1.98	0.63	2.69	1.63	1.06	3.40	3.47
Growth in Money	8.18	0.56	13.64	-2.27	14.66	17.16	20.57	-1.32	7.53	15.31	22.07	-14.76
Growth Quasi-Money	0.89	23.08	14.53	23.69	21.53	13.72	26.14	10.49	11.10	13.88	37.18	10.87
Growth in Money Supply	4.82	10.53	14.08	10.56	18.46	28.67	27.25	5.68	9.24	11.26	31.70	2.77
Growth in Internat. Reserves	-46.30	10.32	6.16	3.22	4.31	3.56	1.86	3.74	4.01	4.82	5.40	136.51

Source: International Monetary Fund, International Financial Statistics Yearbook

Notes: Inflation and Deflator Index equals 100 in 1985

Table 4.2: Total Holdings of Financial Wealth

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	Prelim 1991
In Millions Colones												
Money	1429	1437	1633	1596	1830	2144	2585	2551	2743	3163	3861	3291
Quasi-Money	1135	1397	1600	1979	2405	2735	3450	3812	4235	4823	6616	7335
Other \1	NA	NA	NA	NA	NA	570	899	965	1027	920	1252	1428
Total Money Supply	2564	2834	3233	3575	4235	5449	6934	7328	8005	8906	11729	12054
Nominal GDP	8917	8647	8966	10152	11657	14331	19763	23141	27366	32230	41057	47725
Total as % of GDP	28.75	32.77	36.06	35.21	36.33	38.02	35.09	31.67	29.25	27.63	28.57	25.26
Money as % of GDP	16.03	16.62	18.21	15.72	15.70	14.96	13.08	11.02	10.02	9.81	9.40	6.90
Q-Money as % of GDP	12.73	16.16	17.85	19.49	20.63	19.08	17.46	16.47	15.48	14.96	16.11	15.37
Other as % of GDP	NA	NA	NA	NA	NA	3.98	4.55	4.17	3.75	2.85	3.05	2.99

\1 Includes financial claims of nonbank financial institutions such as INAZUCAR and INCAFE

Source: International Monetary Fund, International Financial Statistics Yearbook

Table 4.3: Domestic Credit Claims

Categories	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
In Millions of Colones												
Domestic Credit	3868	4700	5344	5341	5818	6966	7457	8290	9110	10859	11667	14065
Central Gov't	866	1570	1436	1349	1381	1517	1037	1324	1136	2412	3699	4769
Rest of Nonfin. Gov't			290	289	299	323	360	429	393	347	12	1
Private Sector	3002	3130	2624	2902	3199	4075	4981	5400	6070	6604	7345	8608
Nonbank Intermediaries\1			865	672	806	919	947	1005	1310	1305	560	633
(Annual Percent Changes)												
Domestic Credit	27.87	21.51	13.70	-0.06	8.93	19.73	7.05	11.17	9.89	19.20	7.44	20.55
Central Gov't	61.27	81.29	-8.54	-6.06	2.37	9.85	-31.64	27.68	-14.20	112.32	53.36	28.93
Rest of Nonfin. Gov't				-0.34	3.46	8.03	11.46	19.17	-8.39	-11.70	-96.54	-91.67
Private Sector	-6.16	4.26	-16.17	10.59	10.23	27.33	22.23	8.41	12.41	8.80	11.22	17.20
Nonbank Intermediaries\1				-22.31	19.94	14.02	3.05	6.12	30.35	-0.38	-57.09	13.04

\1 Includes Coffee and Sugar marketing boards, INCAFE and INAZUCAR, respectively, as well as specialized lending institutions.

Source: International Monetary Fund

Table 4.4: Comparative Consumer Price Indices (1985=100)

Year	Quarter	El Salvador	Percent Change	United States	Percent Change	Salvadora Trend
1988	I	183.0	11.1	107.9	2.2	6.9
	II	196.4	7.3	109.2	1.2	6.6
	III	202.9	3.3	110.7	1.4	6.3
	IV	206.9	2.0	111.8	1.0	6.0
1989	I	214.1	3.5	113.1	1.2	5.7
	II	224.0	4.6	114.9	1.6	5.4
	III /1	238.8	6.6	115.9	0.9	5.1
	IV	251.5	5.3	117.0	0.9	4.8
1990	I	270.6	7.6	119.0	1.7	4.5
	II	287.2	6.1	120.2	1.0	4.2
	III	291.2	1.4	122.3	1.7	3.9
	IV	302.1	3.7	124.3	1.6	3.6
1991	I	316.0	4.6	125.3	0.8	3.3
	II	325.5	3.0	126.0	0.6	3.0
	III	337.7	3.7	127.0	0.8	2.7
	IV	338.2	0.1	128.0	0.8	2.4

Note: /1 Cristiani Administration assumes power and economic reform program starts.

Source: International Financial Statistics

**TABLE 4.5: Interest rates**

	From Aug. 1, 1989, to Aug. 31, 1990	From Sept. 1, 1990, to April 21, 1991	From April 22, 1991 to present
<b>I. Interest Rates on Loans</b>			
<u>Bank's own resources</u>			
Less than 3 years	22.0	15-17	Free (min. 20 percent)
3 years and over			
(a) Banks	20.0	16	Free
(b) Savings & loan			
1. Up to C40,000	20.0	14	Free
2. Over C40,000	20.0	15-16	Free
<u>Class A (regular)</u>			
Less than 3 years	22	20	Free
Over 3 years	20	21	Free
<u>With Central Reserve Resources</u>			
Preferential rate	17	17	Free
Basic rate	18.8	19	Free
<b>II. Interest Rates on Deposit Liabilities</b>			
<u>Savings deposits</u>			
Without prior notification (accounts under C10,000)			
(a) Banks	10	10	Free
(b) Savings & loan assoc.	11	11	Free

	From Aug. 1, 1989, to Aug. 31, 1990	From Sept. 1, 1990, to April 21, 1991	From April 22, 1991 to present
With 30 day prior notification (accounts over C10,000)			
(a) Banks	11	11	Free
(b) Savings & loan assoc.	12	12	Free
<u>Bank Time deposits</u>			
60 days	14.5	14.5	Free <sup>2</sup>
120 days	16	16	Free <sup>2</sup>
180 days	18	18	Free <sup>2</sup>
<u>Foreign currency deposits</u>	Up to 2% below LIBOR	Up to 2% below LIBOR	Up to 2% below LIBOR
<u>S&amp;L Certificates of saving deposits</u>			
60 days	14.5	14.5	Free <sup>2</sup>
120 days	16	16	Free <sup>2</sup>
180 days	18	18	Free <sup>2</sup>

<sup>1</sup> Preferential rate extended to small scale coffee, cotton, sugar, and basic grain producers.

<sup>2</sup> Observed minimum of 15 percent.

Sources: International Monetary Fund and Central Reserve Bank of El Salvador

#### 4.1.4 Exchange Rates

Exchange rates have been floating since March 1990. Between that time and November 1992, the currency has experienced only a 24-percent devaluation due to massive infusions of worker remittances and official aid.

As can be seen in Table 4.6, while the nominal exchange rate has moved only 6 percent in annual terms between 1990 and 1992, the real effective exchange rate appreciated in 1991 and

is expected to do so again in 1992, which will reduce export competitiveness. Persistent real effective overvaluation in the face of a stable nominal colón is of continuing concern to policy makers because it tends to widen the trade deficit.

Table 4.6: Exchange Rates: Nominal and Real

Year	Nominal Exchange Rate /1	Nominal Exchange Rate Index 1980=100	Real Effective Exchange Rate 1980=100 /2
1980	2.5	100	100
1981	2.5	100	117
1982	2.5	100	123
1983	2.5	100	138
1984	2.5	100	144
1985	2.5	100	153
1986	5	200	126
1987	5	200	141
1988	5	200	161
1989	5	200	159
1990	8.03	321	142
1991	8.08	323	146
1992	8.55	342	155

Notes: /1 1992 rate is as of November.

/2 1991 is average of Jan. to Sept. rates. 1992 is a projection.

An increase means appreciation and a decrease means devaluation.

Source: International Monetary Fund, International Financial Statistics and unpublished report.

#### **4.1.5 Economic Growth**

Slower money supply growth, reductions in fiscal deficits, and changes in the incentive structure have contributed to a real GDP growth of 3.4–3.5 percent in 1990 and 1991, compared with negligible or negative growth in previous years. The agriculture sector has shown a particularly strong recovery. Whereas the growth in agricultural value-added GDP averaged –1.24 percent per year in the 1986–89 pre-reform period, it has averaged 5.25 percent in the 1990–91 period<sup>6</sup> (Table 4.7). The leading commodities are coffee, sugar, and nontraditionals such as sesame, copra, balsam, and fruits and vegetables. The basic grains subsector has not grown as rapidly in the reform period as in the pre-reform due to exceptional variation in bean production between 1987 and 1988 that skews the mean upward. Since the reform, yearly growth figures have been strongly positive for beans, but have fluctuated for corn, rice, and sorghum.

#### **4.1.6 Balance of Payments**

The high rates of interest on deposit accounts attracted more savings, especially from abroad, which improved the capital accounts. Increased demand for imported intermediate inputs and consumer goods as the pace of economic growth quickens, compared with low international prices for traditional exports, however, widens the trade gap. In the absence of financial reform, the situation would have been considerably worse.

### **4.2 Specific Effects on Agriculture**

While the general economy-wide effects of the current monetary policy regime and the consolidation of the various financial reforms have contributed to aggregate economic growth, it is important to ask if specific aspects of monetary policy discriminate against the agricultural sector relative to other sectors.

Twelve specific financial and monetary policy changes that affect agriculture have been identified as occurring between 1989 and 1992. They are: (1) interest rate liberalization and elimination of lending quotas; (2) uniform legal reserve requirements on local currency deposits in regulated institutions; (3) an increased rediscount rate and tying it to the 180-day time deposit rate; (4) increased capital requirements; (5) privatization of the banking system; (6) rehabilitation of nonperforming loan portfolios; (7) adoption of a loan risk classification system and increased loan-loss reserves; (8) improved bank supervision; (9) financing of nonfinancial public enterprises with external or central government funds; (10) heavier Central Bank reliance on open market operations; (11) changes in portfolio requirements; and (12) adoption of a flexible exchange rate.

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<sup>6</sup> President Cristani took power in June 1989 and reforms started shortly thereafter. Because the data is reported on a yearly basis and policy lags are unavoidable, the 1990-91 average was deemed representative of the reform era.

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Table 4.7: Agriculture Value Added in Constant 1962 Dollars (Percent Change)

Item	1987	1988	1989	1990	1991	Avg. '86-89	Avg. '90-91
Agriculture	2	-4	-1	12	-2	-1.24	5.25
Exports:	5	-19	-1	19	-1	-4.99	9.39
Coffee	7	-19	1	21	-2	-3.43	9.20
Cotton	-9	-16	-29	-29	-24	-18.01	-26.51
Sugar Cane	-7	-20	-5	24	19	-10.58	21.47
Grains:	-2	29	-3	5	-8	8.02	-1.18
Corn	32	3	-1	2	-16	11.39	-6.95
Beans	-51	133	-22	30	16	20.26	23.06
Rice	-21	36	11	-9	6	8.81	-1.46
Sorghum	-81	496	-2	11	-2	137.54	4.39
Other:	-2	-1	1	2	7	-0.62	4.47
Panela	2	0	-2	0	0	-0.15	0.00
Tobacco	-11	5	-12	-3	4	-6.02	0.06
Cotton seed	-13	-17	-28	-33	-13	-19.36	-22.92
Hemp	9	-16	14	2	15	2.43	8.35
Kenaf	30	2	38	0	15	23.09	7.69
Others	-2	1	2	4	6	0.14	5.05
Livestock	6	4	4	1	1	4.51	1.21
Forestry	0	-1	1	1	1	0.00	1.03
Fisheries	-8	4	-14	-17	0	-6.01	-8.57
Apiculture	0	-4	-9	3	6	-4.02	4.89
Poultry	2	6	5	2	4	4.27	3.30

Source: Quarterly Journal, Central Reserve Bank of El Salvador, Sept. 1992.

Together these twelve financial reforms strengthen the banking system and should lead to efficient intermediation. In the long run a banking system that captures funds from savers and transfers them to investors with high-potential projects benefits the entire country through employment, income, and consumer demand growth. In the short run, however, differential sectoral impacts are possible and likely.

In the case of El Salvador's reform program, the most pronounced and visible impact is higher interest rates. Interest rates from the borrower's perspective serve as signals to reallocate funds from low-return to high-return uses. Thus, many small-scale, agricultural borrowers with a limited array of investment projects may be forced out of the formal credit market if their projects do not generate a return sufficient to meet the higher repayment obligations. Savers, on the other side of the intermediation equation, will clearly benefit from the higher rates paid on deposits, which increase their earned interest income.

The second most important policy change has been the adoption of a flexible exchange rate. Combined with an anti-inflation monetary policy and higher interest rates, the Salvadoran colón should depreciate in real terms, bestowing advantages on agricultural commodity exporters. If reliance on imported inputs is modest, the net income benefit could be very pronounced.

The other ten policies tend to restrict the rate of credit expansion but should improve operational efficiency and profitability and bolster depositor confidence in the surviving financial intermediaries. These policies present a mix of positive and negative implications. Savers in both rural and urban areas benefit overwhelmingly from most of the remaining financial reforms. Borrowers in general suffer from the reduced credit expansion and closer regulatory scrutiny, but agricultural borrowers are more vulnerable due to their less attractive risk profiles. Some reforms benefit all borrowers, however, such as the massive bond issues used to retire nonperforming loans and the almost exclusive use of external funds to finance the nonfinancial public sector entities. This limits the "crowding out" of the private sector from the credit market.

More detailed explanations of the impacts of the specific monetary policy changes follow.

#### **4.2.1 Interest Rate Liberalization and Elimination of Lending Quotas**

Small-scale borrowers, especially those in agriculture, with a limited range of investment projects, weak managerial skills, and insecure collateral face higher interest rates and lower aggregate loan volumes in the current regime than they faced in the previous fixed interest rate regime. Manufacturing and commercial projects are generally able to tolerate higher interest payments and thus are better poised to outbid agriculture for loanable funds.

Eliminating lending quotas makes banks more responsive to market forces. Since credit is fungible, many of the previous "agricultural loans" were already being diverted to nonagricultural uses based on expected rates of project returns and borrower preferences. One of the central lessons of finance is that the ability to repay is more important than controlling end use. Borrowers are rational and will use the funds to maximize their utility levels. As long as the borrower has an adequate income flow and forecloseable assets, consideration of end use is not critical.

Graphically, the economic effects of interest rate ceilings and subsequent liberalization are depicted in Figures 4.1 to 4.3. In Figure 4.1, an interest ceiling at  $i^r$  results in excess loan demand  $Q^d$ , which banks find unprofitable to satisfy since it is below their marginal cost of funds, denoted at the intersection of  $L_s$  and  $i^*$ . Consequently, loan volume supplied is  $Q^r$ , which is less than the market clearing equilibrium value at  $Q^*$ . Banks use nonprice mechanisms to discourage the excess number of borrowers in the market demanding  $(Q^d - Q^r)$ . Low-income borrowers are the least able to bear the higher transaction costs, and thus drop out. Historically, lengthy and complicated application processes have been one such mechanism. Adams and Nehman have conducted studies in Bangladesh and Brazil that suggest that small, rural borrowers are much more sensitive to the travel costs, loss of income, and bribes that are necessary to win favor with loan officers, and incidental fees for stamps, and the economic costs of untimely loan disbursements typical in subsidized credit regimes than to the nominal interest rate charges (Adams and Nehman, 1979).

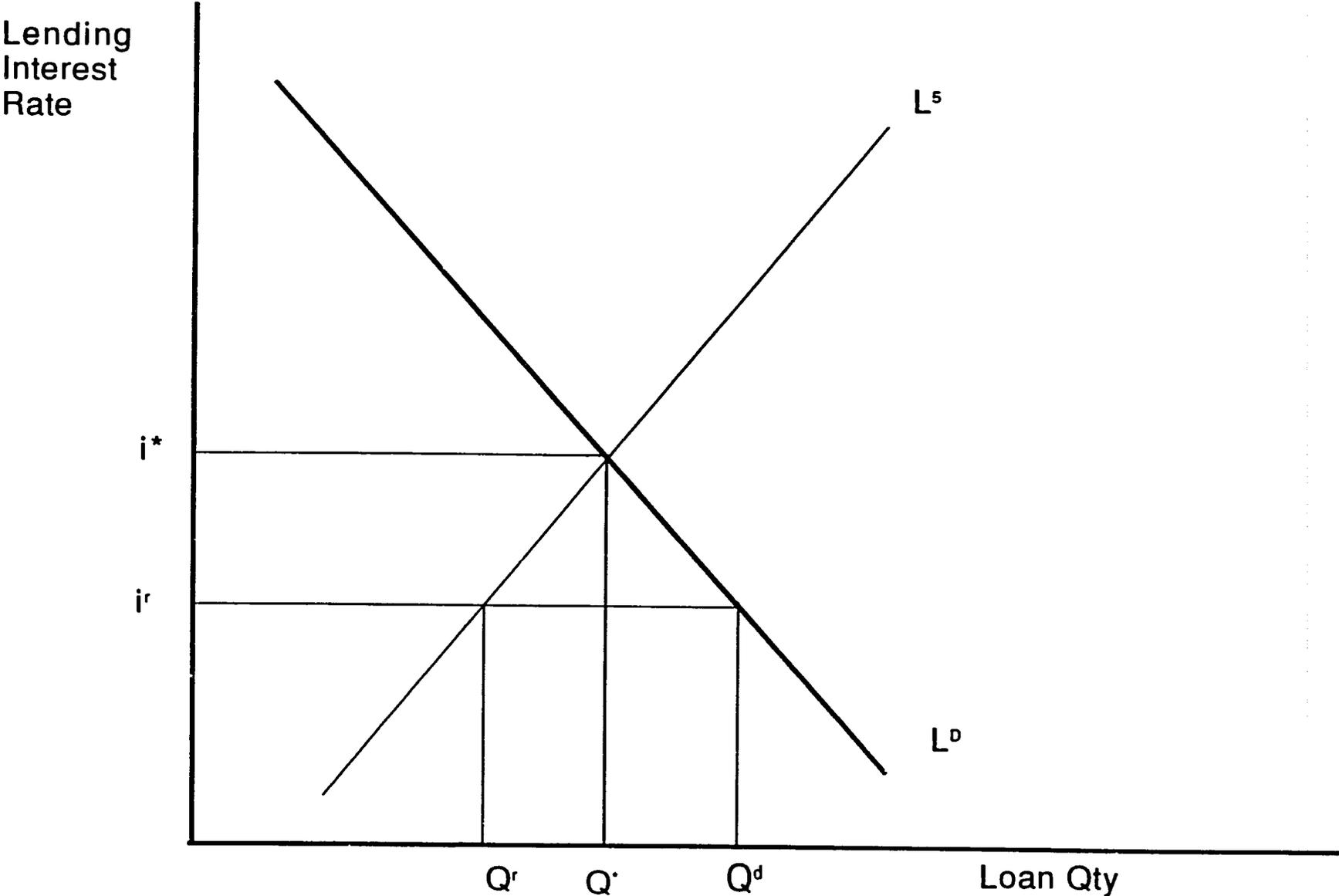
In a liberalized environment, these transactions costs should diminish and the emphasis should be on estimating ability and willingness to repay. Application and disbursement processes should become streamlined. However, the high-risk profile of borrowers still limits their access to loans. Figure 4.2 depicts a monopolistic banking structure similar to the one that exists in El Salvador in this early period of domestic liberalization. There are significant barriers to entry and the small number of banking institutions have little incentive to lower their marginal costs of providing loans and can discriminate between borrower risk types using firm size as a proxy indicator. Type A borrowers are large firms with a variety of available, high-rate, investment projects and secure collateral. Type B borrowers have a limited range of low-return investment projects and insecure collateral.<sup>7</sup> Thus, profit-maximizing banks will

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<sup>7</sup> The model assumes that domestic banks can correctly identify borrower types, that they know exactly what the project investment is and there is no diversion, and that there is no involuntary default risk because they not extend a loan amount to a borrower greater than the expected project return including allowance for the finance charges. Thus, adverse selection problem that Stiglitz and Weiss identified in their seminal 1981 paper is avoided. Small borrowers with their more limited range of profitable projects will drop out of the market at interest rates higher than  $i^*$ . Furthermore, since we assume that domestic bankers overcome the information problem by using size as a proxy, the marginal cost curve is single valued. The relevant variable is the opportunity cost of capital. The purpose of the graph is to show that even with interest rate liberalization, a noncompetitive bank structure can still permit a distortion to persist.

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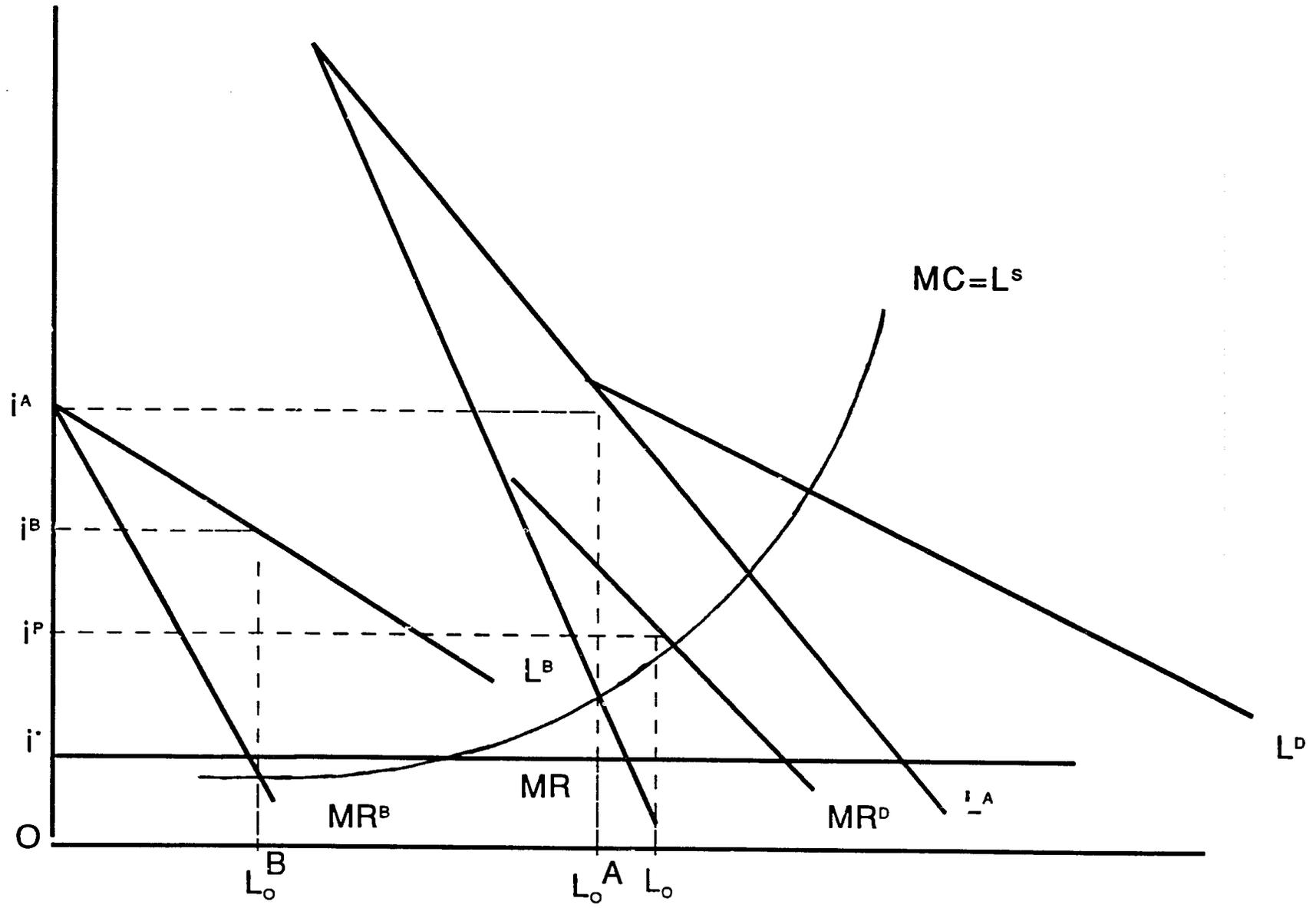
Figure 4.1: Credit Rationing Due to Interest Rate Ceilings



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Interest rate ceiling ( $i'$ ) intended to make credit affordable to low-income borrowers, results in excess demand conditions ( $Q^d - Q^r$ ). Actual loan volume  $Q^r$  will be less than  $Q^*$  the free market equilibrium amount.

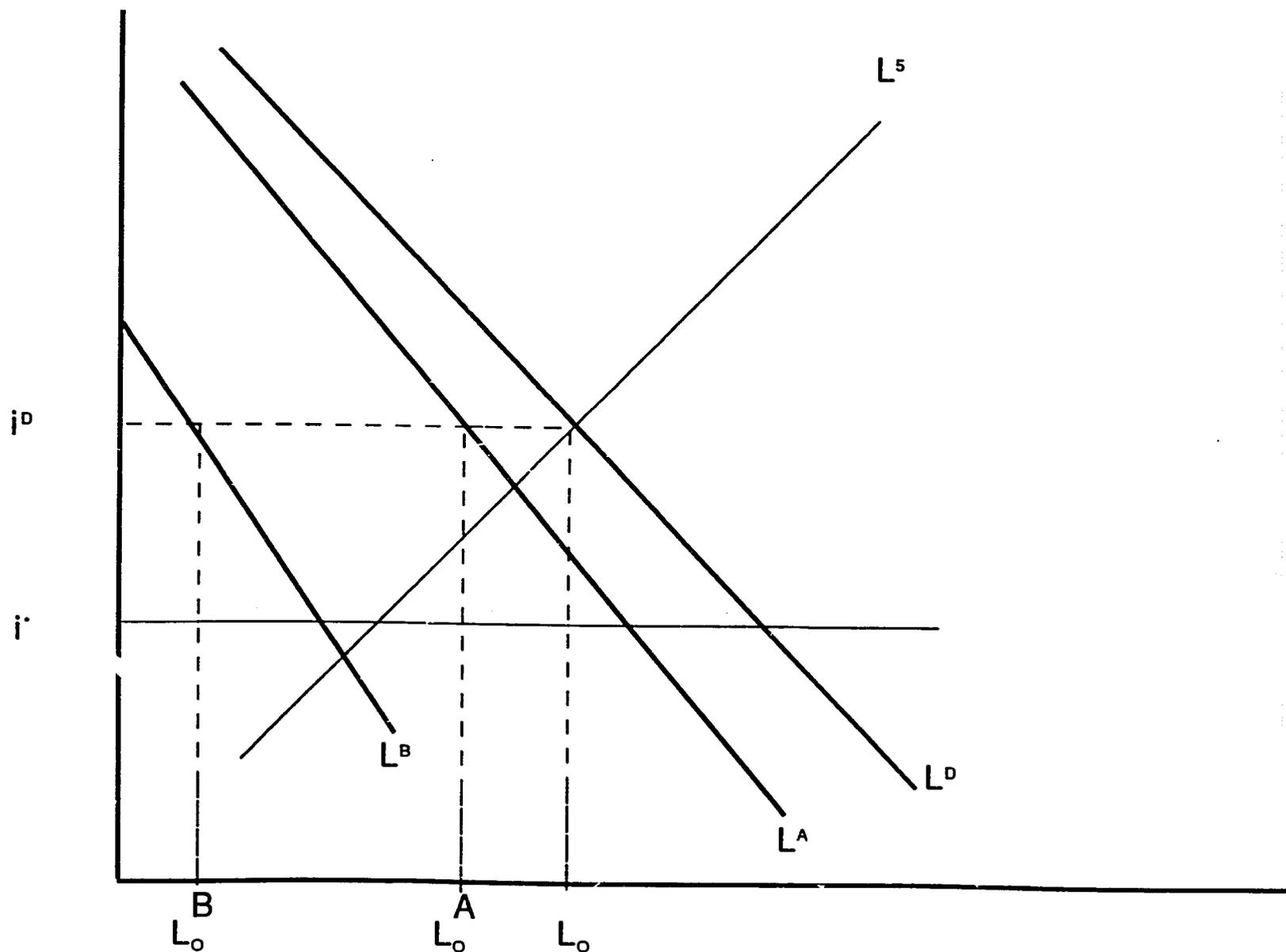
Figure 4.2: Monopolistic Banking Structure with Price Discrimination



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Monopolistic banking system where banks behave as price discriminators and there are two different borrower types - Type A large borrowers and Type B small borrowers.

Figure 4.3: Competitive Banking Structure With Restrictions on Foreign Bank Entry



equate marginal revenue with marginal cost curves and charge the two borrowers different interest rates. Type A borrowers will pay interest rate  $i^A$  and receive loan amount  $L^A$ . In contrast, type B borrowers will pay interest rate  $i^B$ , and receive loan amount  $L^B$ . Type A borrowers have larger and more inelastic demands for loans and thus receive the largest share of total loans disbursed in the economy  $L^A/L^0$ . The monopolistic banks in this policy setting, where foreign borrowing and lending and foreign and domestic bank entry are prohibited, charge interest rates that are substantially above the international lending rate  $i^*$ . Furthermore, the social value of credit is larger than the private cost of credit to the banks implying welfare losses for borrowers since the lending rates  $i^A$  and  $i^B$  are higher than  $i^P$ , the marginal or opportunity cost of capital in the aggregate.

As the internal liberalization progresses, hopefully, the banking system will become competitive and fully integrated as depicted in Figure 4.3 where barriers to entry for domestic banks has been eliminated. The lending interest rate will be  $i^0$  and the total loan volume  $L^0$ , split between type A borrowers ( $L^A$ ) and type B borrowers ( $L^B$ ). The policy challenge of channeling more credit to small borrowers remains.

Economically rational policies for assuring a steady and adequate supply of loans to small borrowers therefore are mostly indirect. They include: (1) control of fiscal deficits and inflation rates, which tend to lower the opportunity cost of capital; (2) investments in agricultural research and extension services, rural infrastructure, and marketing facilities, which would improve the profitability of existing economic opportunities and create new ones; (3) improvements in credit appraisal systems and use of innovative contracts that overcome asymmetric or imperfect information problems by inducing self-selection and screening among small, high-risk clients; and (4) strengthening land market institutions such as the registry of deeds, improved titling efforts, land tax reform, and greater capitalization of the Land Bank, which hopefully would lead to transfer land to high-value, productive uses and provide more people with pledgeable assets in loan markets.

On the other side of the credit market, all savers clearly gain from the elimination of lending ceilings. As banks compete to attract funds, deposit rates are forced to rise. This has occurred in El Salvador. Previously sight deposit rates ranged from 10–11 percent, now they are 14 percent. Time deposit rates range from 15 to 19 percent.

#### **4.2.2 Uniform Legal Reserve Requirements on Local Currency Deposits**

Reserve requirements for time and savings deposits at commercial banks have been lowered from the 19–23 percent range to 15 percent, which should stimulate commercial bank lending. Most commercial bank clients, however, are urban-based manufacturing and service firms. Thus, rural-based, agricultural borrowers are not likely to benefit to the same degree from the increase in loan leveraging ability, since only two commercial banks have large agricultural portfolios.

The increase in reserve requirements for savings and loan associations from 10 to 15 percent will reduce lending activities by these entities. But the expected decrease in lending activity should not directly affect small-scale, rural borrowers seeking credit for productive purposes. Savings and loan associations, historically, have been active in the home mortgage market and the purchase of consumer durables. Their clients tend to be urban-based wage earners. The move to increase reserve levels for savings and loan associations was motivated more by a desire to bolster the health and integrity of these institutions, given their poor performance record in the late 1980s, than by credit supply concerns. These institutions overextended themselves in the 1980s and need time to reduce the relative proportion of nonperforming loans.

Savers at commercial banks lose deposit assurances while savers at savings and loan associations benefit from the higher reserve requirements because their deposits are less leveraged and the institutions are better protected in the event of a panic. Savings deposits at commercial banks are 3.3 times greater than savings at savings and loan associations. Thus, the negative effect of the lowered reserve rate for savers at commercial banks outweighs the positive effect for savers at savings and loan associations (BCR-Annual Report, 1990).

#### **4.2.3 Increase in Rediscount Rate to Equivalent of 180-Day Time Deposit Rate**

Increasing the rediscount rate helps reduce the rate of credit expansion, which is consistent with the stated macroeconomic goals of noninflationary recovery and adherence to a flexible exchange rate regime. This tightening of credit is likely to have a negative impact on all borrowers, but more so on the least attractive borrowers, who tend to be rural and tend to lack collateral. The two prominent rural financial intermediaries to date have been quite dependent on access to the BCR discount window. Thus, these institutions will be more pressed for loanable funds until they start to mobilize more savings.

The explicit tying of the discount rate to 180-day time deposit rates in leading commercial banks adds coherence to the financial market by making the opportunity cost transparent and predictable. Savers benefit because higher discount rates support a higher floor on deposit rates.

#### **4.2.4 Increase in Capital Requirements**

The increase of the capital requirement from 5 to 8 percent was motivated by the need to restore public confidence in the domestic banking industry. Nonetheless, it serves as a barrier to entry and can reduce industry competitiveness in the long run. Borrowers lose but savers gain because of the lower degree of leveraging.

#### **4.2.5 Privatization of the Banking System**

Provided there is uniform enforcement of banking regulations and no significant barriers to entry, the new banking system promises to be more profitable and more sound. Currently the banking system structure is concentrated with 3 of the 7 local banks accounting for 63 percent of total loans outstanding as of December 1991 (See Table 2.1). Neither are great differences observed in the types of products and terms offered. In this setting, interest rates on loans are likely to be higher than they would be in a more competitive market situation; thus reducing the borrower's access to loans. Despite the ominous implications of monopoly power, the quality of banking services should increase for both borrowers and savers because monopolistic competitors in theory tend to compete on non-price items.

#### **4.2.6 Rehabilitation of Nonperforming Loan Portfolios**

The conversion of uncollectible loan accounts to interest-paying bonds increases the profitability of ailing financial institutions and restores the confidence of depositors. The new income should help to strengthen banks and permit them to expand lending activity in the near term. In general, all borrowers gain both in the short and long term by the improved financial health of the banking system. Borrowers whose debts are officially written off as uncollectible stand to gain if they are permitted to refinance or are pardoned. If they are barred from future borrowing, these borrowers lose. Many who can substantiate a claim that their delinquency was caused by war-related activities stand to be rehabilitated in the near term. Decree 292 (*Ley para la Rehabilitación de los Sectores Productivos Directamente Afectados por el Conflicto [1980-1991]*) gives such delinquents until March 31, 1993, to qualify for refinancing of their previous debt at 8-percent interest for up to twenty years (*El Diario de Hoy*, Friday, November 13, 1992).

#### **4.2.7 Increased Loan-Loss Reserves and Use of a Loan Risk Classification System**

The requirement to increase loan-loss accounts reduces loanable surpluses and profits but increases depositor confidence. The banks most affected tend to serve small, rural borrowers, thus, the measure negatively affects their access to loans in the short run but increases the survivability prospects of banks in the longer term, provided that loan delinquency can be better avoided and overdue collection efforts enhanced.

#### **4.2.8 Increased Supervision of Financial Institutions**

Increased scrutiny by the Superintendency could tend to diminish the percentage of loan applications approved if the bank is found to be in violation of its capital and portfolio requirements. Increased strictness will therefore adversely affect marginal borrowers, who tend to be small-scale producers with weak collateral, limited managerial experience, and no previous credit history.

Savers stand to gain from greater regulatory surveillance and inspections. More conservative lending practices should translate into fewer nonperforming loans and greater institutional solvency.

#### **4.2.9 Financing of Nonfinancial Public Sector with External Funds**

Channeling less domestic credit to the nonfinancial public sector enterprises and depending more on external financing frees more resources for use by the private sector. Over time, the agricultural share of total domestic credit, however, has remained fairly constant, while the shares for manufacturing and commerce have increased dramatically. This trend is likely to continue in the current regime. Thus, one would expect the private, nonagricultural sector to be favored over the agricultural sector in the competition for domestic credit funds. Previously, both sectors had been crowded out by the public sector.

This action has a neutral impact on savers.

#### **4.2.10 Heavier Reliance by the Central Bank on Open Market Operations**

The increased use of open market operations, the development of a secondary market for bonds, and the increased capitalization of the stock exchange will all serve to improve liquidity management in the entire system and provide businesses greater access to equity financing. The profit position of rural financial institutions will be strengthened and the seasonal changes in liquidity demand will be better accommodated, than was possible under the traditional reliance on the obligatory purchase of bonds. Rural savers therefore benefit unequivocally by a movement in this direction, while rural borrowers benefit more so when open market purchases of bonds predominate because the credit supply will be expanded.

#### **4.2.11 Allowance for more Commercial/Luxury Investments in Portfolio Requirements**

Previously the Central Bank required that financial institutions allocate at least 85 percent of their funds to productive activities and no more than 15 percent to commerce and luxury construction. This requirement has been changed to 75 percent and 25 percent, a change that allows banks to make loans for more lucrative activities and to charge higher interest rates. These activities, while riskier, promise to increase bank profits provided that credit appraisal is rigorous and accurate and that loans are secured.

Agricultural borrowers may be disadvantaged in the short run by this change while all savers stand to gain provided that loan defaults can be managed.

#### **4.2.12 Adoption of a Flexible Exchange Rate**

Adoption of a flexible exchange rate regime facilitates macroeconomic adjustments to excess money. When there is excess, the currency devaluates. If domestic inflation is

controlled and its level maintained relative to the inflation rates of major trading partners, the currency can depreciate in real effective terms, bolstering exports and constraining import demand. The latter serves to improve the balance of payments. The colón in real effective terms depreciated by about 20 percent from December 1989 to December 1990. By September 1991, however, the colon had appreciated in effective terms by about 12 percent.

Real effective exchange rates were inversely related to real producer prices through the last quarter of 1990 (see Figure 4.4). The relationship was strongest for beans.

In summary, the effects of a flexible exchange rate regime are positive for savers in the sense that a stable nominal colón has served to attract overseas funds and make the banking system very liquid. During the period of real effective exchange rate declines real wages also fell reducing disposable income and savings generation for wage earners. For grain and agricultural export producers, the decline in real effective exchange rates until 1991, helped to increase incomes and savings potential. The inflow of remittances, however, seems to have swamped the negative effect of real wage declines as indicated by improved quasi-money to GDP ratio. Therefore, on balance, the current exchange rate regime can be said to positive for savers. For borrowers, the increased supply of loanable funds is a potential benefit, but access problems have prevented it from being an actualized benefit. For agricultural producers, the real effective exchange rate declines until the end of 1991 were a definite benefit.

The effects are reported in the following table.

**TABLE 4.8: Summary Effects of Financial Reforms on Rural Clients**

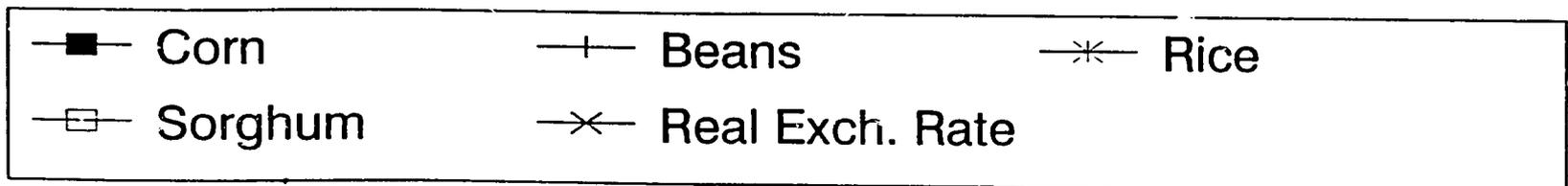
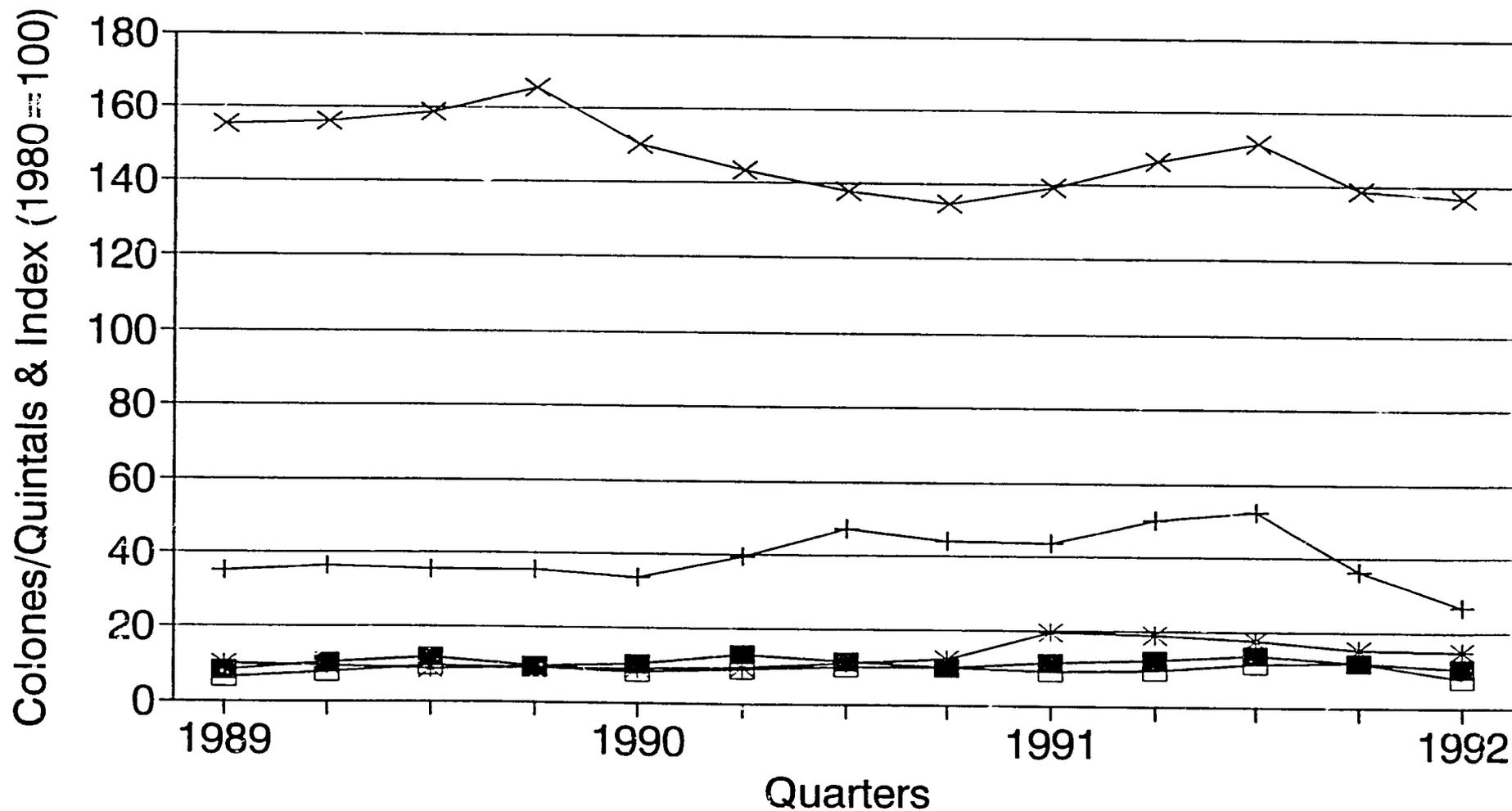
	Borrower	Saver
1) Interest Rate/ Quota Liberalization	-	+
2) Lowered Legal Reserves in Commercial Banks	+	-
3) Increased Discount Rate	-	+
4) Increased Capital Requirements	-	+
5) Privatization of Banks	+	+
6) Rehabilitation of Bad Loans	+	+
7) Increased Loan-Loss Reserve	-	+
8) Increased Bank Supervision	-	+
9) Reliance on Open Market Operations	-	+
10) External Financing of Public Sector Entities	+	0
11) Relaxed Portfolio Requirements	-	+
12) Flexible Exchange Rate	+	+

Policy Effect:

- + Positive
- Negative
- 0 Neutral

# Figure 4.4: Real Prices in El Salvador

## Basic Grains and Exchange Rate



## 5. CONCLUSIONS AND RECOMMENDATIONS

In general the monetary, credit, and exchange rate policies of the Salvadoran authorities are appropriate and necessary for laying the foundation for sustained economic growth. Slower growth in the money supply, in theory, negatively affects all productive sectors; however, between 1990 and 1992, the banking system has successively increased the volume of approved loans directed to the agricultural sector. This apparent contradiction can be accounted for by the excess liquidity in the financial system due to increased savings as well as to the lead role taken by the state-owned Agricultural Development Bank in sectoral credit expansion.

The privatization of the banking system, rehabilitation of loan portfolios, and improved prudent controls all serve to strengthen the Salvadoran banking system, which benefits all sectors. Prudential regulations, indirectly, facilitate the conduct of monetary policy. Active monetary policy introduces strong shocks to member banks, and weak banks tend to suffer more than strong ones. Accordingly, a system dominated by weak, low-profit banks will severely constrain the ability of monetary authorities to actively control monetary aggregates for fear of destroying weak member bankers (Baughn, 1988).

The stability of the colón in nominal terms helps attract capital from abroad and build the confidence of local businesspersons. Nonetheless, the appreciation of the real effective exchange rate undermines the competitiveness of Salvadoran exports, most of which are agricultural. The strong inflow of funds, especially concessional ones, can be seen as a temporary phenomenon that is artificially supporting the colón. In the long run, the flexible exchange rate regime will find its equilibrium value.

The main obstacle to better macroeconomic performance is the continuing weakness in fiscal policy. Public expenditures and net lending have improved (i.e., have decreased from 19.4 percent of GDP in 1986 to 5.8 percent in 1991), which in turn has allowed the deficits to decline in magnitude. Revenue growth, however, has been anemic, fluctuating in nominal terms but steadily declining from 14.6 percent of GDP in 1986 to 4.8 percent in 1991. This situation has resulted in gap financing pressures. While external financing of the deficit has diminished, internal financing pressures have mounted, thus undermining the stated objectives of monetary policy. Tax evasion and an erosion of the tax base have been cited as the main reasons for this situation. The central government responded by eliminating distortionary taxes, simplifying the entire system, and adopting a value-added tax in July of 1992 in an effort to broaden the tax base (IMF, Recent Economic Developments, 1992).

A tight monetary policy, over time, should be reinforced and complemented by improved tax administration, better targeting of subsidies, and control of the public deficit that is attributable to public enterprises, chief among which is the power utility. When the monetary authorities react to inflationary fears that stem from wavering fiscal policy by brusquely removing liquidity from the banking system, as occurred in the third and fourth quarters of 1992, the private sector pays the consequence by having less access to credit. If the tightening

occurs when seasonal demand is high, the policy, while correct, is poorly timed and could have serious contractionary effects.

## **5.1 Adequacy of Monetary, Credit, and Exchange Rate Policies**

Two critical questions to be asked about monetary, credit, and exchange rate policies are whether they are advisable and whether they are sustainable.

### **5.1.1 Appropriateness of Current Monetary Policy**

In a society that is recovering from a decade-long civil war and distortionary economic policies, and that is dependent on the export of largely income inelastic primary commodities (e.g., coffee, sugar), as well as the receipt of worker remittances, a tight monetary policy is appropriate in order to check inflation, support a stable currency, and attract capital inflows.

To restore noninflationary growth and reduce balance of payment pressures, aggregate demand must be reduced; a tight credit policy is one of the principal macroeconomic policy instruments available in pursuit of these goals. Given a flexible exchange rate regime, maintaining high interest rates is important in attracting capital inflows and thereby in strengthening the current accounts balance and moderating the fall in the colón vis-à-vis the U.S. dollar, the currency in which most of the country's trade is denominated. However, interest rates should be positive in real terms but not so high that they discourage businesses and trigger a recession. A loose or expansionary monetary policy would tend to lower interest rates, discourage savings, and fuel even higher import growth rates, thereby worsening the trade balance and ultimately weakening the colón vis-à-vis the U.S. dollar.

While the enhanced export competitiveness of a further devalued colón can be attractive, the negative impact of lost purchasing power, which would lead to scarcity of needed imported intermediate inputs and to capital flight, seems more important in the view of Salvadoran authorities. These authorities should remain vigilant, however, to make sure that the currency does not become appreciably misaligned. The exchange is a central variable and inconsistent macroeconomic policies can thwart supply response.

### **5.1.2 Sustainability of Financial Reforms**

The continued success of the financial sector reform program initiated in 1989-90 depends critically on four interrelated factors: (1) continued fiscal discipline by the central government, (2) continued substantial inflows of capital from abroad, (3) renewed investment activity, and (4) improvements in bank management and operational efficiency.

First, the central government has to continue to reduce the deficit as a percentage of GDP in order to prevent the "crowding out" of the private sector in credit markets and to maintain credibility with business investors and international creditors. Abandonment of fiscal austerity

would make a tight monetary policy untenable, increase balance of payment pressures, and could lead to rapid drawdowns of international reserves and more pronounced currency devaluations. Increasing current account deficits would necessitate additional international borrowing, which would raise risk premiums, contribute to unfavorable loan terms, and cause deterioration of international creditworthiness.

Second, El Salvador has enjoyed a significant inflow of capital from abroad. In 1990, expatriate workers, primarily in the United States, remitted an estimated US\$346 million; international donor agencies, principally the U.S. Agency for International Development, transferred in net terms US\$223 million; and a group of private international bank creditors, the Paris Club, rescheduled US\$135 million of external debt payments. The massive inflow of remittances supports many dependents in rural areas, alleviates poverty, and fuels housing construction and small business investments. The official aid provides critical balance of payment support and funding for land reform, infrastructure reconstruction, and social welfare programs. Any decrease in these flows would exacerbate income inequalities, force the government to either make painful cuts in social expenditures or resort to expansionary fiscal and monetary policies that would trigger inflation, skew investment patterns, and limit the overall growth potential of the economy.

Third, private investment has to increase significantly in the near to medium term. Without strong investment growth, overall economic growth will be anemic. The banking system is awash in loanable funds and price and incentive policies have been liberalized throughout the economy, making entrepreneurial undertakings auspicious. The keys to renewed and deepened confidence are continued progress on demobilization of the armed forces, settlement of land disputes in rural areas, lowered inflationary expectations, rapid reconstruction of vital infrastructure damaged in the war, and improved functioning of factor markets.

Fourth, banking management has to learn to operate in a liberalized environment. Business practices that worked in a protected environment will not suffice in the new environment. Loan risk assessment skills must be sharpened, loan collection activities must be strengthened, savings must be aggressively mobilized, and operating costs must be controlled and reduced. In addition, improvements in information management systems must continue to the point where the electronic transfer of credit information and funds nationwide becomes commonplace and cost efficient. Without strong management and improvements in efficiency, bank profits will tend to be low or nonexistent, thus threatening institutional viability. If delinquency problems reemerge, the Government of El Salvador will be hard pressed to finance another massive loan rehabilitation program.

## **5.2 Recommendations**

To abate some of the real and potentially negative consequences of the current monetary policy stance on rural borrowers, and in particular small-scale borrowers, the USAID Mission in El Salvador, in conjunction with representatives of the Salvadoran Central Government,

monetary authorities, and commercial banks, should undertake discussions, design and sponsor studies, and take actions aimed at improving liquidity management techniques, accelerating electronic modernization and integration across the entire banking system, and strengthening the operational efficiency of the banking system through the promotion of credit bureaus, management training, and testing of innovative credit delivery modalities aimed at small-scale borrowers. Areas of discussion should include methods to:

- Improve the competitive structure of the banking system,
- Reduce information costs in loan assessments,
- Mobilize more rural savings,
- Adapt innovative credit delivery systems targeted at the poor from other country experiences,
- Improve the functioning of collateral and land markets, and
- Improve the functioning of capital markets.

The general monetary policy stance is justifiable given the stated goals of macroeconomic stabilization. Therefore, the challenge is to develop cost-effective and efficient interventions that complement the current monetary stance. Minor changes are needed at the macrofinancial level.

Specific interventions, in support of the government's monetary policy, that may be forthcoming include: reducing the barriers to the entry of new banks (domestic and foreign) into the market; improving short-term liquidity; reducing the number of discount credit lines and encouraging savings mobilization; and promoting the establishment of credit bureaus.

### **5.2.1 Reduce Barriers to Domestic Bank Entry**

The number of commercial banks in El Salvador, given the size of its economy and in comparison with other Central American states, is very small and the variety of loans, terms, and other financial products offered is also limited suggesting a lack of competition and bold, innovative leadership. An increased number of bank competitors would tend to lower lending rates to a level closer to the international level. This competition would lower the marginal efficiency of capital and permit more small borrowers to qualify for loans from formal lending institutions. As soon as the moratorium on bank chartering expires, the monetary authorities should actively encourage new bank formation activity, including the attraction of foreign banks.

### **5.2.2 Improve Short-term Liquidity Management**

The monetary authorities should continue to rely more on open market operations and less on the obligatory placing of bonds with financial institutions. This would permit the development of a secondary market in government securities and permit commercial banks to better manage their own liquidity. Obligatory placements solves the (il)liquidity problems of a few at the expense of the many.

Another initiative should be to improve tracking of monetary aggregates and forecasting of seasonal liquidity needs, because untimely removals of liquidity to combat inflation can cause downturns in economic activity and unwarranted economic waste.

### **5.2.3 Further Reduce the Number of Discount Lines of Credit and Encourage Savings Mobilization**

The trend toward a reduced number of discount lines should continue; discounts for refinancing should be discouraged. In a liberalized environment, state and commercial banks should increasingly depend on savings mobilization.

### **5.2.4 Promote the Establishment of Credit Bureaus**

Rapid and low-cost access to accurate borrower information will expedite creditworthiness evaluations and shorten the loan turnaround time. This innovation will lower transactions for both lender and borrower. The current database operated by the Superintendency and the Banking Association is a good start, but; should be expanded to cover more variables. The ideal would be to have sufficient data to permit the construction of individual borrower credit scoring indices which will permit lenders to predict the probability of default.

A prerequisite condition, however, is the rapid spread and adoption of electronic information management systems and improved telecommunications. Financial institutions must computerize their own databases first and develop a cadre of personnel skilled in computer applications and information management.

### **5.2.5 Devalue the Currency**

A realistic real effective exchange rate is critical to the continued success of the reform program. It enhances export competitiveness, throttles import demand, increases the incomes of producers of tradeables, and helps reduce external account imbalances. If the exchange rate is allowed to become seriously misaligned, higher interest rates will be needed at a later date that can have dampened investment and economic activity. Central Bank authorities should verify the movements in real exchange rate indices through 1992 and 1993 and take appropriate actions.

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## **PART II: RURAL CREDIT SUPPLY, USE, AND BORROWER ACCESS**

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### **6. AGRICULTURAL LENDING AND DISTRIBUTION**

#### **6.1 Issues in Salvadoran Rural Credit**

The principal rural credit issues in El Salvador revolve around borrower access, lender viability, savings mobilization, term structure, and contribution to economic growth.

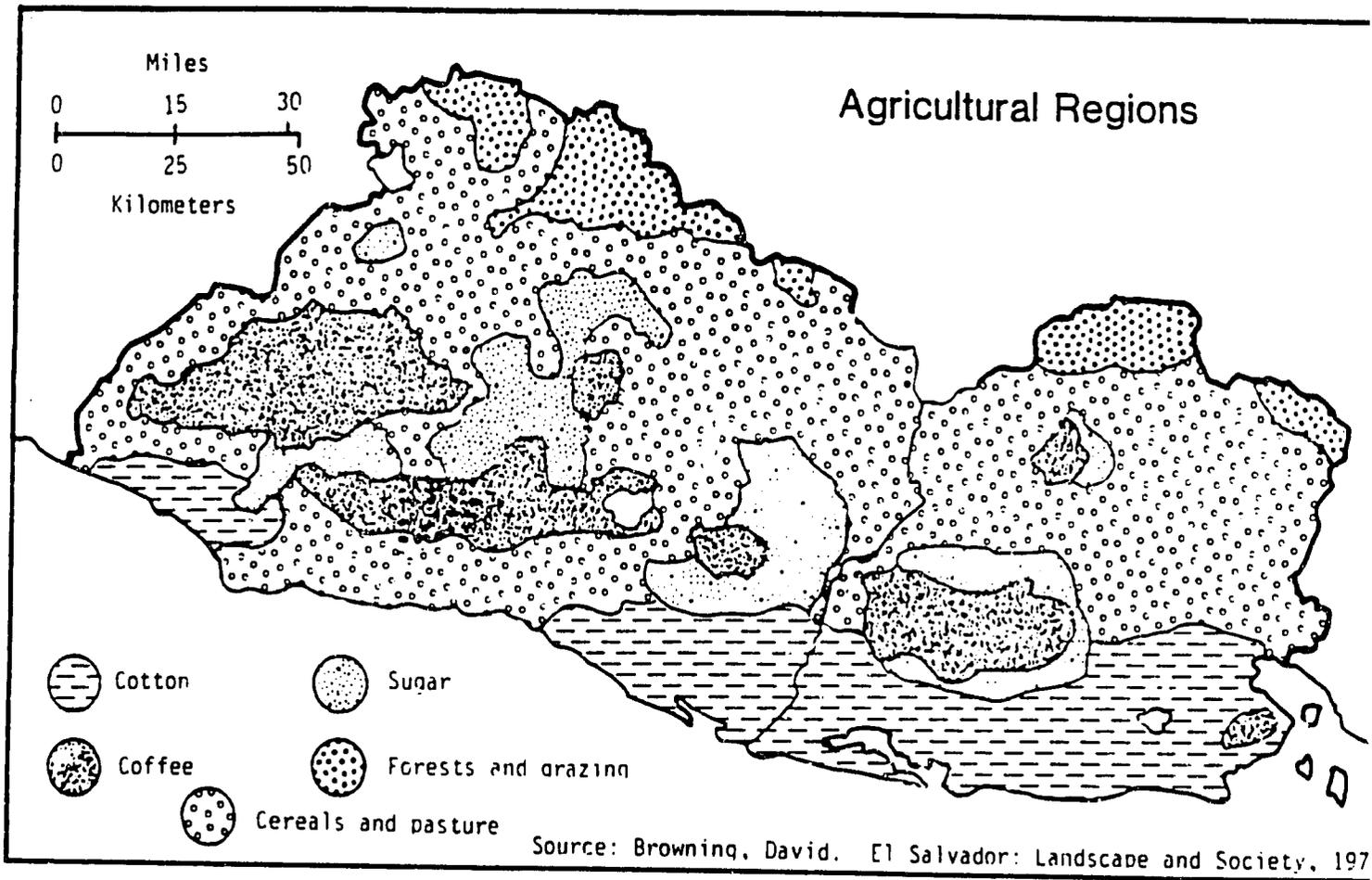
More than 93 percent of those who apply for credit receive it, but only 12 percent of the productive rural population are among them. Moreover, credit disbursement tends to be highly correlated with farm size, crop profitability, and region. Most credit in the agricultural sector is used to finance the production, processing, and marketing of traditional export crops such as coffee, sugar, and cotton. These crops tend to be grown in medium to- large-size extensions in their appropriate agronomic zones. Thus, coffee is cultivated in the western and central mountains, sugar along the entire coastal littoral and central valley, and cotton in the southeastern littoral where loamy, sandy soils dominate (see Figure 6.1).

Cheap credit policies, lax loan recovery procedures, agricultural pricing and marketing constraints, neglect of the importance of savings mobilization, bureaucratization, and the negative consequences of war have undermined the viability of the leading agricultural lenders. The lenders are plagued with low profitability, large nonperforming portfolios, high costs of intermediation, and heavy dependence on external institutions, namely the Central Reserve Bank, for loanable funds.

The lack of a well-articulated rural development strategy, inequitable resource allocation, unclear property rights, and war have combined to restrict agricultural profitability and dampen investor confidence. As a result, credit is used mainly for short-term working capital needs and less so for longer-term investments. The current term structure inhibits future accelerated economic growth.

This part of the report presents an overview of credit activity by documenting trends in loan volumes, sectoral destinations, regional distribution, borrower access, borrower size, loan recovery by borrower class, and savings mobilization. The purpose is to provide the reader with a context for understanding the more important discussions that follow, namely the financial and institutional analyses of the two main agricultural intermediaries, an analysis of the consequences of ineffective credit delivery to small producers, and recommendations for improvements.

FIGURE 6.1: AGRICULTURAL REGIONS



## **6.2 Patterns in Total Lending**

Total commercial bank lending has grown in volume from 5.316 billion colones in 1987 to 6.931 billion as of June 1991. The average annual rate of increase has been 7.4 percent with marked increases in 1988 (13.5 percent) followed by substantially lower increases (1 to 9 percent) in later years.

Prior to 1989, the Central Bank was a more significant source of credit than were commercial banks due to the civil conflict and to the deteriorating state of the economy. As can be seen in Table 6.1, during the 1985–1989 period, the Central Bank originated more credit in terms of net flow than the commercial banks and marketing boards in four of the five years. Since the economic reforms and the subsidence of the civil conflict, the roles have been reversed. In 1990 and 1991, the Central Bank has sterilized money while the commercial banks have originated significantly more credit.

In addition, the destination of credit has changed; substantial amounts are still directed to the central government, but increasingly more is being directed to the private sector and increasingly less to public sector enterprises. The market-oriented reforms are based on the private sector taking the lead in economic development. Public enterprises are being scaled back and funding for them is coming from the central budget, from their own revenues, and from external financing.

### **6.2.1 Sectoral Distribution of Commercial Bank Credit**

As can be seen in Table 6.2, refinancing consistently accounted for the largest share of credit distributed in the period between 1987 and June 1991. Due to the war-induced damages, the 1986 earthquake, and poor export prices during the period, banks adopted a liberal policy of refinancing delinquent accounts. With peace, this policy is expected to change because it serves to obscure the quality of bank assets and does not contribute to real economic activity.

Commerce and manufacturing received the largest volumes of new credit in any year, on average 1.336 and 1.453 billion colones, respectively. Their shares of the total amount disbursed have been relatively stable, averaging 21 percent with a standard deviation of 1.34 for manufacturing and averaging 23 percent with a standard deviation of 2.08 for commerce. Agriculture, in contrast, averaged only 1.044 billion and accounted for an average share of 17 percent. The variability of agricultural share in the total credit, as indicated by a standard deviation of 1.82, was less than commerce but more than manufacturing.

In terms of yearly growth, the most dynamic sector has been electricity. Much of the credit, however, was used to repair and replace facilities damaged during the civil conflict, and thus did not substantially increase the net stock of capital. Most of the nonagricultural sectors, with the exceptions of mining and services, showed considerable growth in 1990 and the first

Table 6.1: Credit Origin and Destination in Salvadoran Financial System

Items	1985 /1	1986 /1	1987 /1	1988 /1	1989 /1	1990 /2	Prelim. July 1990 to June 1991
(Flows in millions of colones)							
<b>Origin of Credit:</b>							
Central Bank	527.4	-76.2	354.7	546.5	906.6	-26.4	-632.2
Commercial Banks and others /3	494.5	1443.9	-81.8	359.3	640.1	816.4	1098
<b>Destination of Credit:</b>							
Nonfinancial public sector	204	-278.3	57.1	-428.2	1075.8	939.4	787.1
Private sector	874.4	905.3	420.8	670.1	533.2	1530.2	1021.8
Nonbank Intermediaries /3	-24.9	13.8	55.9	269.3	-34.8	-581	-566
Other /4	-32.1	726.9	-260.9	394.6	3.9	-1098.6	-1007.2
<b>Financing:</b>							
Net international reserves (- means increase)	-224.2	-208.7	-434.5	286.5	-124.3	-1241.4	-696.8
Medium and long-term foreign liabilities	5.1	-209.4	-305.5	-206	197.7	107.2	-246.9
Government trust funds	245.5	301.6	618.7	149	571.1	-770.9	-840.8
Liabilities to the private sector*	996	1484.2	394.2	676.3	902.33	2695.1	2020.3

Notes: /1 Foreign exchange flows valued at C2.5=US\$ 1 in 1985 and C5.00=US\$1 bet. 1986-90.

/2 Foreign exchange flows valued at C8.00=US\$1.

/3 Includes government marketing boards and trust funds.

/4 Includes allocation of SDR's and valuation adjustments.

Source: International Monetary Fund, 1991 Recent Economic Developments

Table 6.2: Distribution of Commercial Bank Credit to the Private Sector

=====							
Outstanding Loan Balances							
Activity/Years	1987	1988	1989	1990	June 1991	AVG.	STD
=====							
(Millions of Colones)							
Agriculture	890	908.3	1173.9	1257.7	992	1044.38	146.54
Mining	5.4	8.7	11.8	6.4	6.6	7.78	2.28
Manufacturing	1021.5	1312.4	1324.8	1436.8	1586.4	1336.38	185.72
Construction	425	484.3	513	419.5	389.2	446.20	45.44
Electricity, Water, Gas	1.6	1.6	2.2	4.8	7.9	3.62	2.44
Commerce	1235	1416.4	1421.6	1341.1	1851.1	1453.04	210.17
Transport	54.8	67.3	67.4	71.6	86.9	69.60	10.32
Services	224.3	276.7	300.5	285.3	263.3	270.02	25.86
Refinancings	1433.4	1552.1	1751	1672.7	1721.4	1630.12	111.42
Other	5.7	5.3	6.6	15.9	26.7	12.04	8.31
<b>Total</b>	<b>5316.7</b>	<b>6033.1</b>	<b>6572.8</b>	<b>6511.8</b>	<b>6931.5</b>	<b>6273.18</b>	<b>557.24</b>
(In percent of total)							
Agriculture	16.74	15.06	17.86	19.31	14.31	16.66	1.82
Mining	0.10	0.14	0.18	0.10	0.10	0.12	0.03
Manufacturing	19.21	21.75	20.16	22.06	22.89	21.21	1.34
Construction	7.99	8.03	7.80	6.44	5.61	7.18	0.98
Electricity	0.03	0.03	0.03	0.07	0.11	0.06	0.03
Commerce	23.23	23.48	21.63	20.59	26.71	23.13	2.08
Transport	1.03	1.12	1.03	1.10	1.25	1.10	0.08
Services	4.22	4.59	4.57	4.38	3.80	4.31	0.29
Refinancing	27.34	25.73	26.64	25.69	24.83	26.04	0.86
Other	0.11	0.09	0.10	0.24	0.39	0.18	0.12
(Annual Percentage Change in Volume)							
Agriculture		2.06	29.24	7.14	-21.13	4.33	17.90
Mining		61.11	35.63	-45.76	3.12	13.53	39.93
Manufacturing		28.48	0.94	8.45	10.41	12.07	10.11
Construction		13.95	5.93	-18.23	-7.22	-1.39	12.31
Electricity		0.00	37.50	118.18	64.58	55.07	43.06
Commerce		14.69	0.37	-5.66	38.03	11.86	16.82
Transport		22.81	0.15	6.23	21.37	12.64	9.70
Services		23.36	8.60	-5.06	-7.71	4.80	12.38
Refinancing		6.79	12.81	-4.47	2.91	4.51	6.27
Other		-7.02	24.53	140.91	67.92	56.59	55.48
=====							

Source: Central Reserve Bank Journal (September 1992)

half of 1991. Agricultural credit grew at a less impressive rate, averaging 4 percent and showing great yearly variability.

### 6.2.2 Borrower Size

Most disbursed private sector credit goes to larger borrowers. As can be seen in Table 6.3, approximately 78 percent of total loans were in the C2 million and above category, while loans under C100,000 constituted less than 3 percent. Between 1989 and 1990 the share of loans going to micro and small borrowers increased slightly at the expense of medium-scale borrowers.

**Table 6.3: Loan Size Distribution (Millions of Colones)**

Category	1989		1990	
	Balance	Percent	Balance	Percent
<u>Micro-Borrower</u> (Under C100,000)	107.4	1.96	135.6	2.20
<u>Small Borrower</u> (C100,000 < C750,000)	629.4	11.47	812.2	13.19
<u>Medium Borrower</u> (C750,000 < C2 million)	452.9	8.26	415.3	6.75
<u>Larger Borrower</u> (> C2 million)	4,295.6	78.31	4,794.4	77.86

Exchange Rate in 1989: C5=\$1

Exchange Rate in 1990: C8.05=\$1

Source: Central Reserve Bank of El Salvador

### 6.3 Patterns in Agricultural Lending

In the realm of agricultural lending, coffee and livestock absorb most of the yearly credit, averaging annually 54 percent and 11.6 percent of the total volume disbursed, respectively. Commodities (e.g., corn and beans) cultivated mainly by small holders did not receive large amounts of new credit. Their average annual shares were 1.9 percent and 0.2 percent, respectively. In real terms, the amount of credit to the sector has declined linearly for all commodities except sugar cane. The area that experienced the sharpest real decline was fisheries and beekeeping (Table 6.4).

Table 6.4: Credit Distribution in the Agricultural Sector

Item	1987	1988	1989	1990	June 1991
In millions of Colones					
Agricultural Production	890	908.3	1173.9	1257.7	992
Coffee	435.3	402.6	640.7	767	592.2
Cotton	91.2	90.6	86.7	77.8	41.4
Sugarcane	45.4	04	82.7	89.9	99
Corn	25.4	24.7	23.6	23.2	18.2
Beans	2.3	2.2	2.8	2.6	1.7
Rice	15.8	16.4	19.8	16.3	12.9
Other crops	53.8	64	62.9	74.3	51.6
Cattle and Hogs	137.6	132.4	131.8	103.8	90.6
Poultry	49.6	63.1	70.3	61.5	55.4
Fisheries and others	33.7	48	54	41.4	29
Agricultural Refinancing	559.4	559.1	603.8	559	588.3
Coffee	206.7	200.8	231.8	256	339.5
Cotton	166	162.7	151.6	100.2	92
Cereales	30	27.8	31.5	21.8	20.8
Sugarcane	11.7	14.3	13.9	8.9	4.6
Other	145	153.5	175.2	174.1	131.4
GDP Deflator (1985=100)	156.3	161.8	211.9	261.1	298.7
In Constant 1985 Colones					
Agricultural Production	569.42	499.61	553.99	481.69	332.11
Coffee	270.50	221.45	302.36	293.76	198.26
Cotton	58.35	49.83	40.32	29.80	13.66
Sugarcane	29.05	35.20	39.03	34.43	33.14
Corn	16.25	13.59	11.14	8.89	6.09
Beans	1.47	1.21	1.32	1.00	0.57
Rice	9.98	9.02	8.87	6.24	4.32
Other crops	34.42	35.20	29.68	28.48	17.27
Cattle and Hogs	68.04	72.63	62.20	39.75	30.40
Poultry	31.73	34.71	33.16	23.55	18.55
Fisheries and Apiculture	21.56	26.40	25.48	15.86	9.71
Agricultural Refinancing	357.90	307.54	284.95	214.09	196.95
Coffee	132.25	110.45	109.30	98.05	113.66
Cotton	106.21	89.49	71.54	38.38	30.80
Cereales	19.19	15.29	14.67	8.35	6.96
Sugarcane	7.49	7.87	6.56	2.64	1.54
Other	92.77	84.43	82.66	66.68	43.99

Source: Central Reserve Bank of El Salvador  
International Financial Statistics 1991 Yearbook

Traditional export crops such as coffee and livestock are attractive because of generally higher profit margins, well-developed infrastructure for their marketing, and the attractiveness of transferring credit risk to large cooperatives and processors who act as secondary intermediaries. The managers of these enterprises enjoy low-cost, privileged information about subloan clients and can use peer pressure, contract termination threats, and interlinked relationships such as employer-principal marketing agent or agricultural supplier-principal marketing agent to exact high repayment rates. Even so, repayment problems have not been avoided. Coffee accounted for 30-57 percent of all refinancings in any given year. The two main reasons for the poor performance were war-related harvest labor disruptions and the collapse of international coffee prices after the failure to renew the International Coffee Agreement in July 1987.

### **6.3.1 Growth Rates in Agricultural Credit**

The growth in agricultural credit has been generally negative for most commodities through 1990, except for coffee, sugar cane, and nontraditionals. In real terms all commodities exhibited negative growth rates (Table 6.5).

Given the low or negative growth rates in agricultural credit, realized growth in agricultural GDP is surprising. Farmers are either accessing informal sources of credit and remittances or are degrading their natural resource bases in pursuit of short-term gain.

### **6.3.2 Borrower Access to Rural Credit**

Access to capital remains problematic despite strong efforts over the last 40 years to increase the available supply of credit and the number of rural financial intermediaries. According to a 1987 study, only 11 percent of agricultural producers had received credit; the vast majority of producers, 88 percent, elected not to apply (Letona, CENITTEC 1991). A more recent 1991 multipurpose household survey confirms the same pattern (Table 6.6). Of 230,176 respondents over the age of 16, only 27 percent had applied for agricultural credit. However, of those who applied, 93 percent were approved. The decision of whether to solicit credit or not was found to be highly correlated with farm size. Those with less than 0.5 of a manzana and between 0.5 and 1 manzana, applied proportionately less, 12 and 19 percent, respectively. Those with more land, 1-4 manzanas, 5-9 manzanas, and 10-19 manzanas, applied in successively larger proportions. As farm size increases, it is more likely that the land worked is titled, that the farm operation is more integrated into the commercial marketplace, and that there are more moveable assets, namely cattle, that can be pledged as collateral. Farms less than 2 manzanas are rarely viable economic units.

The most typical sources of credit in the 1991 household survey were formal banks, followed by relatives and friends, then cooperatives (Table 6.7). For smaller farms, relatives and friends was the most common second source of credit. For the farms about 10 manzanas in size, cooperatives replaced friends and relatives. Interestingly, moneylenders and crop

Table 6.5: Growth Rates in Agricultural Credit: Nominal and Real

	1988	1989	1990	June 1991
--	------	------	------	--------------

(In Nominal Annual Percent Change)

Agriculture	2.06	29.24	7.14	-21.13
Coffee	-7.51	59.14	19.71	-22.79
Cotton	-0.66	-4.30	-10.27	-46.79
Sugarcane	40.97	29.22	8.71	10.12
Corn	-2.76	-4.45	-1.69	-21.55
Beans	-4.35	27.27	-7.14	-34.62
Rice	5.13	14.63	-13.30	-20.86
Other crops	18.96	-1.72	18.12	-30.55
Cattle and Hogs	-3.78	-0.45	-21.24	-12.52
Poultry	27.22	11.41	-12.52	-9.92
Fisheries and Apiculture	42.43	12.50	-23.23	-29.95

(In Real Annual Percent Change)

Agriculture	-12.26	10.88	-13.05	-31.05
Coffee	-20.48	36.53	-2.85	-32.51
Cotton	-14.59	-17.90	-27.17	-53.49
Sugarcane	21.20	10.86	-11.78	-3.74
Corn	-16.40	-18.03	-20.22	-31.43
Beans	-17.76	9.19	-24.64	-42.85
Rice	-9.62	-1.65	-29.64	-30.82
Other crops	2.27	-15.68	-4.13	-39.29
Cattle and Hogs	-17.28	-14.59	-36.08	-23.54
Poultry	9.37	-4.42	-29.00	-21.26
Fisheries and Apiculture	22.45	-3.48	-37.78	-38.77

Sources: International Financial Statistics 1991 Yearbook  
 Central Reserve Bank of El Salvador, Sept. 1992 Journal

Table 6.6: Access to Credit in El Salvador (1991/92)

Farm Size Category	Number Surveyed	Percent Didn't Ap	Percent Applied	Percent Approved	Percent Denied	Percent In Process
0-.5 mz	28563	88.20	11.80	95.94	2.02	2.05
.5-1 mz	67412	80.87	19.13	93.60	3.09	3.30
1-4 mz	116686	65.56	34.44	92.56	4.80	2.65
5-9 mz	6272	44.91	55.09	92.47	7.53	0.00
10-19 mz	1906	51.84	48.16	97.82	0.00	2.18
20-49 mz	1322	38.80	61.20	100.00	0.00	0.00
> 50 mz	570	32.46	67.54	81.56	0.00	18.44
Other	7445	96.17	3.83	92.98	7.02	0.00
TOTAL	230176	72.93	27.07	0.93	4.29	0.62

Source: Ministry of Planning Multi-purpose Household Survey , El Salvador  
 Note: Respondents are older than 16 years.

Table 6.7: Sources of Credit in El Salvador (1991/92)

Source:	<.5 mz	.5-1 mz	1-4 mz	5-9 mz	10-19 mz	20-49 mz	>50 mz	Other	TOTAL
Bank	26.93	33.95	44.02	64.91	75.72	56.00	52.87	76.60	42.98
FEDECREDITO	10.98	9.14	11.84	11.27	9.02	14.96	16.88	7.55	11.21
Trader	0.00	1.11	1.20	5.01	0.00	0.00	0.00	0.00	1.28
Cooperative	11.50	17.98	12.96	6.98	0.00	11.74	16.88	0.00	13.34
Moneylender	3.37	5.57	4.86	2.63	0.00	8.53	0.00	0.00	4.73
Relatives/Friends	38.10	23.72	18.12	7.54	0.00	0.00	0.00	15.85	19.18
FUSDADES	0.00	0.41	0.13	0.00	0.00	0.00	13.38	0.00	0.24
Others	9.12	8.13	6.85	1.66	15.26	8.78	0.00	0.00	7.05
TOTAL	100	100	100	100	100	100	100	100	100

Source: Ministry of Planning Multi-purpose Household Survey , El Salvador

Note: Respondents are older than 16 years.

Note: Sources are where funds were solicited from but not necessarily obtained from.

purchasers did not appear as important sources of credit, suggesting that interlinked contracts (inputs–purchase of output) may not be very common, as they are in other parts of the world for one of three possible reasons. They are (1) cultural, (2) the disruption of war, or (3) strategic responses on the part of respondents.

Women, who lack control over productive assets, applied for credit in minuscule proportions; only 3.7 percent of all credit applicants were female. Female acceptance patterns, however, mirrored that of the general population. Ninety-four percent of those who applied received credit. As with men, the largest proportion to receive credit were those in the 1–4 manzana farm size class. Unlike men, few women controlled farms in the 5–9 manzana class and above. A more likely source of funds for women, unlike men, were friends and relatives. While 43 percent of men solicited credit from banks only 36 percent of women did so. A greater proportion of women (28.5 percent) compared with men (18 percent) solicited from friends and relatives. The third principal source of credit, cooperatives, was equally accessible to men and women, roughly 13 percent for each. In fourth place was Fedecredito but it was slightly more accessible to men than to women, 11.3 percent versus 7.8 percent (MIPLAN, Household dataset, 1991).

### **6.3.3 Market Share by Formal Agricultural Lender**

In terms of agricultural lending dominance, only three Salvadoran banks had a greater than 10-percent share of the market (Table 6.8). These banks, Agricultural Development, Commercial Agriculture, and Cuscatlán, account for 68 percent of all agricultural lending. Given that only two years of data are available and that many of the banks are restructured and under new management, future directions cannot be identified.

### **6.3.4 Selected Bank Distribution of Agricultural Credit**

As can be seen in Table 6.9, the Agricultural Development Bank concentrates most of its lending on export crops (coffee, cotton, and sugar). Between 1990 and 1992, the bank dedicated on average 44 percent of its portfolio to these crops. Next in importance were food grains; the bank allocated 27.6 percent of its portfolio to corn, beans, and rice. In third place was agroindustry, which accounted for an average 14.2 percent of total loans.

The term structure of loans was heavily skewed toward the short term. The low percentages of loans for machinery and equipment purchases and farm improvement underscore this tendency. Less than 2 percent in any year went to one of these two loan categories.

In the case of Fedecredito, disaggregation does not exist by crop use. However, according to Federation sources roughly 80 percent of the agricultural credit is used for basic grains. As can be seen in Table 6.10, the largest credit program is micro-enterprise credit, called popular credit. Agricultural lending is declining in importance for Fedecredito.

Table 6.8: Intermediary Shares of Formal Agricultural Credit Market

Intermediary	Oct. 1990- Sept. 1991 (Mil. Col.)	Percent Share	Oct. 1991- Sept. 1992 (Mil. Col.)	Percent Share
<b>TOTAL CREDIT</b>	<b>1555.8</b>	<b>100%</b>	<b>1698.3</b>	<b>100%</b>
<b>Banks:</b>				
Agricultural Development	490.9	32	485.2	29
Commercial Agriculture	216.8	14	301.8	18
Commerce	81.4	5	117.4	7
Cuscatlan	321.2	21	349.9	21
Development & Investment	85.4	5	110.4	7
Mortgage	162.7	10	136.5	8
Salvadoran	157.6	10	150.1	9
<b>Specialized Institutions:</b>				
FIDEX	0	0	9.4	1
Federation of Credit Funds	39.8	3	37.6	2

Source: Central Reserve Bank

Table 6.9: Agricultural Development Bank: Distribution of Agricultural Credit by Activity

Activities	(Mil. Col)	(Percent)	(Mil. Col)	(Percent)	(Mil. Col)	(Percent)
	1990	%	1991	%	1992 /1	%
Crops	449.5	92	371.9	88	393.8	90
Food Grains	141.2	29	105.3	25	125.3	29
Fruits and Vegetables	13	3	9.1	2	12.2	3
Export Corps	200.1	41	186.6	44	205.5	47
Forestry	1.9	0	2.7	1	1.5	0
Machinery & Equipment	3.3	1	7.2	2	2.1	0
Agroindustry	90	18	61	14	47.2	11
Livestock	41	8	48.6	12	45.5	10
Cattle	31	6	38	9	34.9	8
Other livestock	2.9	1	3.4	1	3.2	1
Pasture Improvement	4.9	1	5.5	1	5.4	1
Farm Improvements	1.5	0	0.9	0	1.2	0
Machinery & Equipment	0.7	0	0.8	0	0.8	0
Fisheries	0.5	0	0.7	0	0.3	0
TOTAL	491	100	421.2	100	439.6	100

Notes: /1 Contracted loans as of Sept. 30, 1992

Source: Various Annual and Quarterly Reports

Table 6.10: Federation of Credit Funds: Distribution of Credit by Program

Activities	(Mil. Col)	(Percent)	(Mil. Col)	(Percent)	(Mil. Col)	(Percent)
	1990	%	1991	%	1992	%
Current Operations /1	25.5	12	29.1	13	24.2	10
Popular Credit /2	111.5	54	123.4	56	187.5	74
Urban Community Development /3	7.3	4	3.7	2	0	0
Refinancing	0	0	17.5	8	0	0
Agriculture /4	37.3	18	47.8	22	42.2	17
Rural Community Development /5	23.5	11	0	0	0	0
<b>TOTAL</b>	<b>205.1</b>	<b>100</b>	<b>221.5</b>	<b>100</b>	<b>253.9</b>	<b>100</b>

Notes: /1 Personal consumer loans usually to salaried workers in urban centers.

/2 Individual liability micro-enterprise loans.

/3 Joint liability micro-enterprise loans for urban dwellers.

/4 Individual liability loans for agricultural production.

/5 Joint liability loans for agricultural production.

Source: 1990 Annual Report and Central Bank Summary Sheet

### **6.3.5 Distribution by Region**

No data exist at the national level that disaggregates total agricultural credit disbursed by region. However, the leading agricultural lenders disaggregate by rural branch office and these data can serve to give an idea of the scope of regional distribution, albeit not a precise one. The data that exist for some of the private commercial banks are not accurate in the sense that these banks have few branch offices and their clients tend to live in urban areas, contract loans in urban areas, but invest the funds in rural agricultural enterprises.

As can be seen in Table 6.11, most of the Agricultural Development Bank (BFA) credit is directed to the western coffee zone (41 percent). The largest BFA agency is located in the Department of Santa Ana in the center of the coffee producing area. The Santa Ana Department has a loan portfolio twice as large as the second largest agency. In contrast, the credit originating from Fedecredito is directed more to the central region of the country (49 percent). What explains the difference are the combination of the number of agencies, the average loan sizes, and the nature of financed activities. For example, Fedecredito has 25 branches, or rural credit funds, in the central zone; BFA has 13 and focuses more on commercial activity than on crop production.

### **6.3.6 Average Borrower Size**

BFA and Fedecredito, the two formal lenders studied, exhibit quite different characteristics in terms of loan size. The BFA has two general loan programs, General Banking for clients with more than C300,000 in assets, and Agricultural Development for clients with less than C300,000. Cooperatives dominate the General Banking program and the average loan size was C409,000 in 1992. The Agricultural Development program serves more than 8,000 clients and has an average loan size of C33 to C42,000 (Table 6.12).

In comparison, Fedecredito has fewer clients and finances more nonagricultural activities. Fedecredito's largest loan program is Popular Credit directed toward financing informal sector activities, usually the purchase and resale of goods either in marketplaces or on the streets. The average loan size was C1,899 in 1992. The Agricultural Development program of Fedecredito is considerably smaller (average size C8,700) than its counterpart in the BFA.

Over the last two years, the number of clients served by BFA has declined slightly from 9,253 to 9,024. This drop may be due to the increase of the required reserves for high-risk clients as a result of the 1990 financial reforms. The actual number of clients for Fedecredito is not available but it is believed that they too experienced a decline in the number served. While the number of Popular Credit loans surged from 68,000 to 98,000, agricultural clients fell from 5,460 to 4,744. Group lending programs virtually ceased due to delinquency problems.

Table 6.11: Distribution of Credit Balances By Region in 1991 (Thousands of Colones)

Region:	Agricultural Development Bank	Percent	Fedecredito	Percent
Western Zone /1	257282.9	41.82	47085.6	25.51
Central Zone /2	178925.8	29.08	90866.2	49.24
Metropolitan Area	81422.3	13.23	NA	0.00
Eastern Zone /3	97625.2	15.87	46602.9	25.25
TOTAL	615256.2	100.00	184554.6	100.00

1/ Western zone consists of branches in Departments of Santa Ana, Ahuachapan, and Sonsonate.

2/ Central zone consists of branches in Departments of Chalatenango, Sensuntepeque, and Cuscutlan, La Libertad, La Paz, and San Vicente.

3/ Eastern zone consists of branches in the Departments of Usulután, Morazón, San Miguel, and La Unión.

Sources: Agricultural Development Bank reports and Fedecredito Annual Report 1991.

Table 6.12: Average Approved Loan Sizes

Category	1991		1992	
	No. Clients	Avg. Size	No. Clients	Avg. Size
<b>Agricultural Development Bank</b>				
General Banking /1	302	664460	301	409502
Agricultural Development Refinancing	8951	33265	8723	42851
General Banking	52	212635	34	133647
Agric. Development	111	64901	690	20284
<b>TOTAL NEW CLIENTS</b>	<b>9253</b>		<b>9024</b>	
<b>Federation of Rural Credit Funds</b>				
Agricultural Development	5460	8761	4744	8894
Rural Community Development	0	0	0	0
Popular Credit	67765	1821	98718	1899
Urban Community Development	562	6703	0	0
Current Operations	1050	27743	945	25659
Refinancings	486	35998	0	0
<b>TOTAL NEW CREDITS /2</b>	<b>74837</b>		<b>104407</b>	

Notes /1 Many of the clients are cooperatives, thus the number of beneficiaries is considerably more.

/2 The number of distinct borrowers is considerably less. In the popular credit program the average loan term is less than a month.

Sources: Agricultural Development Bank and the Federation of Rural Credit Funds

### **6.3.7 Loan Recovery Rates by Borrower Class**

In terms of loan recovery, the two studied institutions exhibit contrasting patterns (Table 6.13). The Agricultural Development Bank substantially reduced its delinquency rate from 47 percent in 1990 to 31 percent in 1991, but it was unable to maintain the downward trend and the rate rose to 34.2 in 1992. Delinquency in the General Banking program remained virtually unchanged between 1991 and 1992, while the Agricultural Development showed some deterioration.

In contrast, Fedecredito showed a remarkable drop in the level of delinquency from 32 percent in 1991 to 12 percent in 1992. Most of the improvement came from sharp drops in the agricultural and employee credit lines. The strongest credit line was Popular Credit with a perfect record in 1992.

### **6.3.8 Types of Guarantee Accepted in Agricultural Lending**

For the data available from the Agricultural Development Bank, a step pattern is evident in the types of guarantees accepted (Table 6.14). For short-term loans less than 18 months, crop or animal liens were accepted 84 percent of the time. For medium-term loans up to 5 years, liens were used 44 percent of the time, but mortgages were used 31 percent of the time compared with a small percentage of mortgages used for short-term loans. For long-term loans over 5 years, mortgages were used 90 percent of the time. While definitive data from Fedecredito was not available, conversations with affiliated cooperatives revealed the same pattern. One difference was that of the new credits granted, 70-80% of them were secured with mortgages. This change signals a tightening of production credit to small farms without land titles.

The heavy use of liens by the Agricultural Development Bank, especially crop liens, suggests that a lack of fixed collateral is not a binding constraint in terms of access to credit. Often crop and animal liens are not executable because of poorly drafted legal documents, false animal registry, and the high legal and social cost of foreclosure. Thus, liens are not real guarantees and greater weight must be placed on borrower selection and monitoring. One indication that enforcement has not been particularly effective is the case of embargoed medium-term loans where 60 percent of the loans had mortgages compared with 32 percent for the entire medium-term portfolio. Mortgage-secured loans should theoretically perform the best.

### **6.3.9 Contribution to Economic Growth**

Many see the availability of credit as vital to the growth of the agricultural sector. In order to determine if there is any strong statistical relationship between credit use and growth total agricultural and individual crop value-added shares in gross domestic product were regressed on total agricultural credit or corresponding crop credit and a trend variable. A strong relationship will be indicated by a large, positive coefficient on the credit term (Table 6.15).

Table 6.13: Delinquency by Program and Total Portfolio

Program	1991	1992
(Percent)		
<b>Agricultural Development Bank</b>		
General Banking	38.2	38.5
Agricultural Development	28	32.8
Trust Funds		
PMA	71	85.6
German Foundation	16.2	19.2
Small Farm Guarantee Progra	0	NA
National Reconstruction Plan	NA	0
<b>TOTAL PORTFOLIO</b>	<b>31.7</b>	<b>34.2</b>
<b>Federation of Rural Credit Funds</b>		
Agricultural Development	11.3	2.1
Current Operations	3.52	1.6
Popular Credit	0.8	0
Credit for Education	1.1	1.3
Loans to Employees	6.98	3.44
Urban Community Developmen	4.36	2.9
Rural Community Development	4.63	0.4
<b>TOTAL PORTFOLIO</b>	<b>32</b>	<b>12.07</b>

Sources: Agricultural Development Bank and Federation of Rural Credit Funds.

Table 6.14: Agricultural Development Bank's Portfolio by Term and Type of Guarantee Accepted in 1991 (colones)

Term/Guarantee	Current	Percent	Overdua	Percent	Embargoed	Percent	Total	Percent
<b>Short Term:</b>								
Personal	19629277.79	7.28	7574483.61	10.25	1693923.06	7.69	28897684.46	7.91
Lien	231319511.95	85.81	59331853.48	80.32	17749945.97	80.56	308401641.4	84.38
Mortgage	18631565.98	6.91	6965290.36	9.43	2590228.96	11.76	28187085.3	7.71
<b>TOTAL</b>	<b>269580685.72</b>	<b>100.00</b>	<b>73871627.45</b>	<b>100.00</b>	<b>22034097.99</b>	<b>100.00</b>	<b>365486411.16</b>	<b>100.00</b>
<b>Medium Term:</b>								
Personal	35503553.97	24.67	12911230.85	31.55	1974481.24	10.48	50389266.06	24.74
Lien	63249499.53	43.95	19876976.46	48.57	5664473.75	30.06	88790945.74	43.59
Mortgage	45171265.8	31.39	8137966.95	19.88	11205915.07	59.46	64515147.82	31.67
<b>TOTAL</b>	<b>143924319.3</b>	<b>100.00</b>	<b>40926174.26</b>	<b>100.00</b>	<b>18844870.06</b>	<b>100.00</b>	<b>203695363.62</b>	<b>100.00</b>
<b>Long Term:</b>								
Personal	63374747.93	4.67	1539435.87	8.66	1664846.22	2.56	66579030.02	4.62
Lien	60797744.48	4.48	6700824.06	37.70	12095228.52	18.60	79593797.06	5.53
Mortgage	1233322468.5	90.85	9531459.18	53.63	51254280.28	78.84	1294108208	89.85
<b>TOTAL</b>	<b>1357494960.9</b>	<b>100.00</b>	<b>17771719.11</b>	<b>100.00</b>	<b>65014355.02</b>	<b>100.00</b>	<b>1440281035.1</b>	<b>100.00</b>

**TABLE 6.15: Regression Results**

Dependent Variable	Independent	Variables	R <sup>2</sup>	DW	Obs.
	Log Credit	Trend			
Log Agricultural Share GDP	.37* (1.95)	.004** (3.59)	.33	1.09	15
Log Corn Share in GDP /1	1.22** (9.95)	.18 (.50)	.88	1.31	15
Log Bean Share in GDP	-2.44 (-.6)	.01 (.9)	.02	2.25	15
Log Rice Share in GDP	.48 (.95)	.003 (1.35)	.13	1.17	15
Log Other Share in GDP /1 (Fruits/Vegetables)	.88** (9.31)	.53* (2.73)	.86	1.39	15
Log Coffee Share in GDP	.07 (.45)	.006** (6.29)	.06	1.2	15
Log Sugar Share in GDP	.56** (4.36)	.002** (-.51)	.64	1.43	15
Log Cotton Share in GDP	1.13** (3.99)	-.0008 (-.51)	.53	1.15	15
Log Livestock Share in GDP/1	.76** (4.27)	.59** (2.39)	.58	1.58	15
Log Poultry Share in GDP	.28** (4.16)	.004** (14.16)	.61	1.53	15

T-statistics are in parentheses.

\* Significant at 10% level.

\*\*Significant at 5% level.

/1 Positive serial autocorrelation detected and corrected.<sup>8</sup>

<sup>8</sup> Positive serial correlation was detected in the original specification:  $\ln \text{Commodity Share in GDP}_t = \ln \text{Commodity Credit} + \text{Trend}$ . Serial or Autocorrelation results in weak statistical tests of significance. Confidence intervals become unnecessarily wide and give a misleading picture of true population values. The Durbin-Watson (DW) statistic, the main test for the presence of autocorrelation, was lesser than the critical lower limit for the DW = .95 (N=15, k=2, 95% level of confidence) leading us to reject the null hypothesis of no positive serial correlation. A coefficient of autocorrelation ( $\rho$ ) was derived using the Theil-Nagar method for small samples and a generalized difference specification was estimated in order to correct the autocorrelation. The new specification was  $(\ln \text{Commodity Share in GDP}_t - \rho \ln \text{Commodity Share in GDP}_{t-1}) = B_0 + (\ln \text{Commodity Credit} - \rho \ln \text{Commodity Credit}_{t-1})$ . The new Durbin-Watson statistic was in the inconclusive zone for autocorrelation for Corn and Other but was in the null hypothesis acceptance zone for livestock. In all cases the R<sup>2</sup> were much improved indicating a better fit.

As can be seen, the growth responsiveness to credit is mainly inelastic (i.e., less than one) except in the case of cotton and corn. In general, if agricultural credit increases, then the attendant increase in growth would be 37 percent of the credit change. In the basic grains, only corn is very credit responsive (122 percent). No statistical relationship was found for rice and beans. Fruits, vegetables, and nontraditionals (sesame, balsam, hemp), labeled "Other," was found to be very responsive at 88 percent. These types of activities usually require a large amount of purchased inputs making the availability of credit more binding. For coffee, the leading export, there was no evident relationship. Fluctuations in real effective exchange rate and international prices are believed better explain the variability. Responsiveness was also modest for sugar (55 percent). For livestock and poultry, responsiveness was 76 percent and 28 percent, respectively. For crops where consumer demand is inelastic and marketing is secure, a high credit responsiveness was found. For crops with modest to low demand elasticities, uncertain marketing, and high final price variability, growth responsiveness to credit availability is lower. In short, credit is important but not the principal factor necessary to explain sectoral growth. If it were the amount of variation explained ( $R^2$ ) would have been higher.

#### **6.4 Savings Mobilization**

Savings mobilization has not been a priority of the two studied institutions. By law Fedecredito is not permitted to capture funds from the general public. The Agricultural Development Bank started to capture funds in 1980, but has not made a strong effort. Throughout its existence, the BFA has focused more on credit disbursement, asset growth, and outreach than on savings. It is not well equipped to capture savings because it lacks infrastructure and trained staff in the area, as well as a marketing plan.

Since the 1990 reforms, however, substantially more savings have been captured by the Agricultural Development Bank. The total volume captured has risen from C110 million to C173 million, a 57-percent increase. The average savings account is C3,322, 10 percent of the average individual agricultural loan. While a 30-percent or better leverage ratio would be desirable, the BFA has nonetheless made great strides in this area. In the case of Fedecredito, only five or six public agencies are depositors; the average account is more than C6 million (Table 6.16).

Both institutions remain quite dependent on the Central Bank (BCR) and on international donors for loanable funds (Tables 6.17 and 6.18).

Table 6.16: Savings Mobilization and Average Savings

	1990	1991	1992
<b>Agricultural Development Bank</b>			
Volume of Savings	110000000	139900000	173193554
Number of Savers			52134
Average Savings			3322
Growth in Savings		27.18	23.80
<b>Federation of Rural Credit Funds</b>			
Volume of Savings	29046900	42796900	40259000
Number of Savers /1	5	6	6
Average Savings	5809380	7132817	6709833
Growth in Savings		47.34	-5.93

Source: Agricultural Development Bank and Federation of Rural Credit Funds

Note: /1 Only autonomous government agencies are savers.

TABLE 6.17: Sources of Funds for Agricultural Development Bank  
(Millions of Colones)

Year	External		Internal	
	Rediscounts Central Bank	Interbank Loans	Banking	Non-Banking
1990	109.0	392.0	672.6	119.5
1991	192.4	969.5	773.7	117.5

**TABLE 6.18: Sources of Funds for the Federation of Rural Credit Funds  
(Millions of Colones)**

Year	External		Internal	
	Rediscounts Central Bank	Interbank Loans	Banking	Non-Banking
1990	198.6	NA	281.5	20.2
1991	83.7	NA	314.3	9.4

## 7. CONCLUSIONS

The Salvadoran financial market, especially the agricultural one, shares many of the characteristics of other developing countries in terms of borrower access, borrower size, credit destinations, term structures, delinquency patterns, and savings mobilization.

Agriculture received approximately 17 percent of the total annual credit while contributing on average 13.4 percent of the gross domestic product in the period 1986-91. Thus, it has not been disfavored in nominal sectoral distribution. However, agricultural credit has been heavily concentrated on a few traditional export crops: coffee, sugar, and cotton. These three crops receive from 61 percent to 74 percent of total agricultural credit in any given year, and the percentage has been increasing in the last few years. After the traditional exports, the most commonly financed crop was corn, the dietary staple of the country.

Borrower access is directly linked to farm size. In 1986-7 only 11-12 percent of the agricultural population were recipients of formal credit (Letona et al, 1991). According to the preliminary results of a 1991-2 study, some 25 percent of 230,000 agriculturally active respondents above the age of 16 received credit. Those who received credit tended to be males, the majority with farms in the 1-4 manzana size class. Interestingly, as the farm size class increased, the percentage who applied for credit increased. While 70 percent or more of small farmers did not apply, nearly 90 percent of medium and larger farmers applied. For those who applied the chance of approval was high (93 percent).

The principal sources of agricultural credit were three banks: Agricultural Development Bank, Banco Agro Commercial, and Banco Cuscatlán. In rural areas, friends and relatives were the secondary source of credit for women instead of cooperatives, which were the secondary source for men.

In the whole financial market, most loans were for C2 million or more, from the latest statistics available. In contrast, most agricultural loans were less than C 100,000, or microloans. Overall, loans of this size constitute only 3 percent of the total, indicating a high degree of concentration of capital and wealth. To add perspective, agricultural production loans for small farmers from the Agricultural Development Bank averaged C33,000. Loans to cooperatives and larger farmers generally ranged from C500,000 to C1.5 million.

Due to twelve years of political violence, uncertainty reigned in the countryside and dampened investor confidence to the point where, decapitalization occurred. Owners of property subject to land reform often sold equipment prior to transfer, and cattle herds were regularly slaughtered or stolen in the course of war. These factors in conjunction with bankers general reluctance to "borrow short (savers deposits tend to be sight deposits) and lend long" explain why the overwhelming majority of loans are short-term production loans. In the case of the Agricultural Development Bank, 42 percent of its portfolio is for short term loans compared with

22 percent for long term loans. This generalized pattern in the rural finance system limits future growth potential.

Delinquency has plagued formal agricultural lenders during the decade of the 1980s. The small-farmer loan categories of the two studied institutions were found to be more prone to default than the medium-farmer or the microenterprise programs. In response to this situation, the institutions have become increasingly strict, demanding more real guarantees, making more use of guarantee funds, and reducing agricultural lending as in the case of Fedecredito. As a result, access is becoming more difficult and the number of small-farm agricultural borrowers has decreased for both institutions.

The contribution of agricultural credit to economic growth has been significant but is not the sole factor as indicated by simple regression models constrained by small sample size. The general growth responsiveness to changes in credit volume has been roughly 37 percent. Certain crops, cotton and corn, have been more responsive to credit availability than others, but secure marketing channels, prices, consumer demand elasticity, and disposable income are other important factors that shape the dynamism of the agricultural sector.

Savings mobilization, long ignored, is gaining some attention. The two formal agricultural lenders serving small farmers were designed, and have functioned primarily as credit disbursement windows. Now, in a liberalized financial market place, greater reliance on their own funds is emerging as a necessity.

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### **PART III: FINANCIAL AND INSTITUTIONAL ANALYSIS OF BFA AND FEDECREDITO**

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The financial analysis of the Agricultural Development Bank (BFA) and the Federation of Rural Credit Funds (Fedecredito) was carried out using the same analytical procedures and guidelines used by the United States Controller of the Currency to examine U.S. banks. These procedures are identified by the acronym CAMEL, derived from the first letter of the five bank characteristics that are investigated: Capital adequacy, Asset quality, Management ability, Earnings level and adequacy, and Liquidity. Each of the aforementioned characteristics is studied and ratios that are commonly used as indicators in the financial industry are calculated. These ratios are then compared with the ratios from other similar financial institutions and are assigned a rating from 1 (excellent) to 5 (unsatisfactory). An advantage of CAMEL analysis is that it is a standardized and comprehensive evaluation methodology that can be easily updated as institutions change over time.

The Manual for Off-site Analysis of Financial Institutions in Developing Countries, prepared for the Office of Investments, Bureau of Private Enterprise, Agency for International Development, has been used as a guide. Great effort has been made to comply with all the quantitative norms required for the proper evaluation of each of the five characteristics of BFA and Fedecredito. Nonetheless, some caveats are in order. First, CAMEL analysis should include comparison with analyses of peer institutions. Peer institutions in this case would be development banks in Central America, but since no data were available, the standards of reference were four successful Asian rural financial institutions which were reviewed by Jacob Yaron (1992) in a recent World Bank study. Second, CAMEL conclusions are more reliable when data exist for a considerable length of time. Given the marked changes that have occurred in El Salvador since 1989, the analysis only covers that year to the present.

BFA and Fedecredito each play an important role in the delivery of credit to the rural sector, but they differ in many respects. BFA is a rural development bank with a charter that allows it to compete with commercial banks and financial institutions. Its capital base is one of the largest among Salvadoran financial institutions. Fedecredito, on the other hand, is a set of affiliated credit funds that consists of the central office (hereafter referred to as Fedecredito), 54 independently owned Rural Credit Funds, and 5 Workers' Banks. Another difference is that BFA offers a wide range of banking services (loans, savings, wire transfers, checking accounts, money orders), while Fedecredito offers only credit services.

Differences are also evident in their financial ratios. Fedecredito has higher productivity per employee (average loan amount divided by number of employees) than BFA (Fedecredito = 580,000 colones per employee, BFA = 300,000 colones per employee). BFA, however, is more efficient; that is, has lower average operating expenses per employee (BFA operating expenses per employee = 48,000 colones; Fedecredito = 67,000 colones per employee, the

latter figure calculated before consolidating the operating expenses of the individual rural credit funds and workers' banks). In short, Fedecredito extends more loans than BFA, which results in higher productivity; but the total volume of loans extended by Fedecredito is much smaller, which results in higher loan administration costs on a per loan basis.

The guiding principle for the CAMEL evaluation of BFA and Fedecredito was that the CAMEL methodology makes strengths and weaknesses very visible and allows donors and management to identify and focus on problem areas and to make recommendations to promote financial soundness.

## 8. CAMEL ANALYSIS OF BFA

### 8.1 Capital Adequacy

BFA is a state-owned bank founded in 1973. Its capital is provided by the government, but since the implementation of the new banking law in El Salvador, BFA is subject to the same legal requirements as a commercial bank.<sup>9</sup>

A bank's capital represents its capacity to absorb the potential losses inherent in lending, and thus its ability to protect its depositors and creditors. An indicator of the adequacy of a bank's capital is the ratio of capital to assets. BFA's capital-to-assets ratio is 41.3 percent (capital of 437.2 million colones and assets of 1,058.7 million colones) as of June 30, 1992. This ratio is higher than the capital-to-assets ratio of any other bank in the country, and well above the minimum required by the banking law.<sup>10</sup>

#### 8.1.1 Legal Framework

There are several legal rules that affect the amount of capital needed to operate a bank in El Salvador:

- The minimum capital required is 20 million colones, established in article 35 of the new Banking Law (*Ley de Bancos y Financieras*, [LBF]). This amount can be revised every two years by the Banking Superintendency (SSF) to adjust for inflation.
- The relation between the total available capital plus reserves and the weighted average assets of the bank, established in article 40 LBF, should not be below 8 percent of weighted average assets, giving a 12.5 times maximum expansion multiplier (leverage) of weighted average assets to total capital and reserves.
- The relation between the total available capital plus reserves and the total liabilities of the bank, also established in article 40 LBF, should not be below 4 percent, giving a 25 fold maximum expansion multiplier of liabilities to total capital and reserves.

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<sup>9</sup> Decree No. 312 of April 10, 1973, published in *Diario Oficial* No. 75, Volume 239, April 25, 1973. Modified by a new law passed on April 19, 1991. See next page.

<sup>10</sup> The Central Reserve Bank reported in its publication "Revista Trimestral" for the third quarter of 1992, that at the end of June 1992, the total assets of the commercial banks, including the mortgage bank, were 17,658.4 million colones, and the total capital and reserves were 765 million colones, giving a capital-to-assets ratio of 4.33%.

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If a bank is not complying with the legal provisions, it must increase the amount of capital, modify the mix of assets, or reduce the total volume of liabilities, or a combination of any of these financial measures. All the above listed requirements are applicable to BFA and take precedence over any disposition contained in BFA's creation law

### 8.1.2 Compliance with the Provisions of the Banking Law

BFA is in full compliance with all the applicable banking provisions.

- **Minimum Capital.** At the time of this report, the two years established by the Banking Law passed on April 19, 1991, to adjust the minimum capital for the effects of inflation have not expired, so the legal minimum capital is still 20 million colones. The amount of capital reported by BFA as of June 30, 1992 (437.2 million colones), exceeds the minimum capital required by law.
- **Relation with Weighted Average Assets.** In accordance with the Banking Law, the ratio between the total available capital and the weighted average assets at a minimum should be 8 percent. As of June 30, 1992, BFA's total capital was 437.2 million colones; the total gross assets (before any adjustment for quality) was 1,058.7 million colones.

BFA has an unadjusted capital-to-assets ratio of 41.3 percent, while the Banking Law allows a minimum of 8 percent. BKK in Indonesia reported a similar unadjusted capital-to-assets ratio in December 1989 (45.5 percent), but other successful agricultural development banks such as BUD (Indonesia) and BAAC (Thailand) reported a ratio closer to the minimum allowed by Salvadoran Banking Law. The exception is Grameen Bank (GB) in Bangladesh, which is highly leveraged, with a capital-to-assets ratio of 2.6 percent.

**TABLE 8.1: Comparative Analysis: Capital-to-Assets Ratio**

	PERCENT
Salvadoran Banking Law Minimum	8.0
Actual Ratios	
BFA June 1992	41.3
Asian Peer Institutions	
BKK Dec 1989	45.5
BUD Dec 1989	8.0
BAAC Dec 1988	8.1
GB Dec 1989	2.6

Source: BFA Statements and Yaron 1992

Salvadoran Banking Law gives zero weight to cash and deposits with the Central Bank and commercial banks, of which BFA had 63 million colones, as of June 30, 1992; and a weight of 20 percent to securities issued or guaranteed by the government, of which BFA had 175 million colones at the same date. If all the computations indicated by the Law are made, the total weighted average assets held by BFA are about 855.7 million colones at the end of June 1992, resulting in an adjusted capital to assets ratio of 51.1 percent.

Relation to Total Liabilities. In accordance with the Banking Law, total capital should be no less than 4 percent of total liabilities. As of June 30, 1992, BFA had total liabilities of 621.5 million colones, including Trust Accounts. Total capital was 437.2 million colones or 70.35 percent of total liabilities, well in excess of the minimum allowed by the law. Again, based on this indicator the capital of the bank is more than adequate for the volume of its liabilities.

### 8.1.3 Rating of Capital for CAMEL Analysis

In accordance with the provisions of the Salvadoran Banking Law and the procedures of the CAMEL analysis, the rating for the adequacy of Capital and Reserves of BFA is 1, Excellent.

## 8.2 Assets Quality

The average rating of BFA assets by the CAMEL analysis is 4, Marginal. This was computed by taking the average of ratings given to each asset category, as follows:

Cash and Banks	2	Satisfactory
Securities	5	Unsatisfactory
Loans	3	Fair
Fixed Assets	4	Marginal
Other Assets	4	Marginal
Average Rating	4	Marginal

### 8.2.1 Assets Composition

The assets position of BFA, expressed in million colones at the end of each fiscal period, is shown in Table 8.2.

**TABLE 8.2: Banco de Fomento Agropecuario Comparative Balance Sheet Statement in Million Colones, Current Prices, End of Period**

	ASSETS			
	1989	1990	1991	1992*
Total Assets	<u>1,204.2</u>	<u>1,239.5</u>	<u>1,117.8</u>	<u>1,058.7</u>
Cash and Banks	47.8	62.0	67.9	63.0
Securities	0.6	335.5	233.6	175.3
Loans	546.0	563.8	489.8	470.0
Fixed Assets	76.9	87.4	89.5	89.8
Other Assets	<u>316.0</u>	<u>98.2</u>	<u>131.1</u>	<u>118.2</u>
Tradables	17.1	21.8	25.1	57.7
Other	298.9	76.4	106.0	60.5
Trusts	<u>216.9</u>	<u>92.6</u>	<u>105.9</u>	<u>142.4</u>

Source: Audited Financial Statements, BFA.

\*Financial data as of June 30, 1992.

BFA has taken a risk position in all the items included in its assets portfolio except the Trust Accounts. According to BFA's management, the Trust agreements include clauses that protect BFA from any losses suffered by the Trust. BFA acts solely as an agent for the Trust and receives a guaranteed management fee. No mention of the Trust's terms and conditions is made in the notes to the audited financial statements.<sup>11</sup>

Total assets, valued at current prices, have been declining since 1990. If the year-end balances are adjusted for inflation (using the Implicit Price Index of the Gross Internal Product for the Agricultural Sector published by the Central Bank) the contraction in real balances is even larger, indicating that during the period under analysis, BFA has been reducing its services to the agricultural sector, financing each year a smaller volume of agricultural production.

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<sup>11</sup> It is convenient to determine if the accounting system used by BFA duplicates the records for the trust transactions, reporting them in (1) the Trust accounts, and (2) in Other Assets, Tradables.

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**TABLE 8.3: Banco de Fomento Agropecuario Total Assets at Constant Prices (Adjusted for Inflation) Balances at End of Year (Base 1989)\***

YEAR	MILLION COLONES
1989	1204.2
1990	1090.8
1991	927.8
1992	837.4

Source: Data in 8.2

\*Deflated by estimated index using data published by the Central Bank in Revista Trimestral, Third Quarter 1992, page 100, Table: "Indices de Precios Implícitos en el Producto Interno Bruto, Sector Agrícola." Adjusted in 1992 to reflect 6 months period up to June.

**8.2.1.1 Cash and Banks.** Cash and Bank Deposits represents about 6 percent of BFA's total assets. From the standpoint of liquidity, cash is the most secure asset. Risk of losses in the holdings and handling of cash are covered by adequate insurance contracts. The composition of Cash and Bank balances is shown in Table 8.4.

**TABLE 8.4: Banco de Fomento Agropecuario Comparative Statement in Million Colones End of Period, Cash and Deposits in Other Banks\***

Assets	1992	1991	1990
Cash and banks	<u>63.0</u>	<u>67.9</u>	<u>62.0</u>
Cash Colones	5.2	4.5	3.5
Foreign currency	0.2	0.9	1.3
BCR Colones	31.3	23.2	24.3
Foreign currency	0.6	0.2	1.1
Other local banks	19.2	23.9	23.0
Foreign Banks	5.8	12.4	7.6
Funds in transit	0.7	2.8	1.2

Source: Audited Financial Statements, BFA

\*Financial data as of June 30, 1992, from computer printout supplied by BFA.

Deposits with the Central Bank, which are as good as cash, cover the obligatory legal reserve to be maintained in relation to the volume of check, savings, and term deposits received

from customers. Deposits with other local banks provide the reserve that BFA needs to issue checks to its customers for advances on loans. In accordance with article 90 of the new Banking Law, these deposits have a guarantee of availability, up to 30,000 colones, in the case of bankruptcy of the receiving bank. Any balance in excess of that amount would be honored after liabilities with a priority have been paid. Given that BFA has large amounts deposited in these accounts and that there is no deposit insurance (other than the guarantee of availability for balances up to 30,000 colones per depositor per bank) these funds are considered to have some risk, especially if BFA is not monitoring the financial condition of the banks where it has deposits.

As of June 31, 1992, BFA reported deposits with foreign banks of US\$600,000, below the totals reported for December 31, 1991 (US\$1.5 million) and December 31, 1990 (US\$900,000). Depending on the type of account, these deposits might be covered by the Federal Deposit Insurance Corporation (FDIC) of the United States, up to US\$100,000, in case of difficulties within the U.S. bank. Deposits with non-U.S. banks have no insurance in case of a bank failure.

Funds in transit represent money received by BFA branches and deposited in a special account opened by the Head Office, or deposits made by the Head Office to BCR or commercial banks in the process of clearing. They are part of the normal activities of any financial institution and there is no reason to give to this type of asset a rating different from the one given to the final account where they are going to be credited, either with BCR or with a commercial bank.

The ratio of Cash and Banks to Total Assets has increased from 4 percent in 1989 to an average of 6 percent for the periods ending on December 1991 and June 1992 (Table 8.5). The decrease of total assets in real terms (Table 8.3) and the increase in percent participation of Cash and Banks indicates that resources have been transferred to Cash and Banks from other balance sheet categories.

**TABLE 8.5: Banco de Fomento Agropecuario Cash and Banks-to-Total Assets Ratio, End of Period**

YEAR	RATIO
1989	4.0%
1990	5.0%
1991	6.1%
1992	5.9%

The quality of this portion of the assets portfolio is good, and there is no extraordinary risk of losses, but the spirit of the new Banking Law BFA should monitor the commercial banks where it has large deposits, so that it can anticipate any unexpected changes in their solvency that may affect the availability of these funds.

**8.2.1.2 Securities.** As of June 30, 1992, securities, mainly Government and BCR-issued bonds (see Table 8.6), represented 16.6 percent of BFA's assets, having decreased from 27 percent at the end of 1990 and 20.9 percent at the end of 1991.

**TABLE 8.6: Banco de Fomento Agropecuario Comparative Statement in Million Colones  
End of Period**

<b>SECURITIES</b>			
Assets	<u>1990</u>	<u>1991</u>	<u>1992*</u>
Securities	<u>335.5</u>	<u>233.6</u>	<u>175.3</u>
Bonds			
Government bonds	227.9	225.0	174.0
FFRAP	85.7		
Agrarian Reform	12.9	0.8	
BCR	3.9		
FINATA	7.3	7.0	
Other	0.6	0.7	1.3
Other securities	0.1	0.2	
Less reserve	(2.9)	(0.1)	

Source: Audited Financial Statements, BFA.

\*Financial data as of June 30, 1992.

At the end of June 1992, the securities portfolio included only Government bonds. While they have the full guaranty of the state, the risk that cash will not be received when they become due is high given the fiscal situation of the Central Government. BFA might receive more bonds instead of cash in payment of interest and principal, which would limit its ability to serve its rural customers.

This part of BFA's portfolio is considered to have some risk from the standpoint of how easily the bonds are convertible into cash. In 1991, BFA management negotiated with the fiscal authorities and was able to use bonds to pay BFA debts. These methods cannot be used in the

future, however, because BFA has no more debts with the government, except for taxes on its banking activities and earnings, which do not represent large amounts relative to the investment in government bonds that BFA has in its portfolio.

**8.2.1.3 Loans.** In determining the quality of the loans portfolio it is necessary to assess the risk attached to loans. These loans are classified in accordance with the following categories:

- **Class A loans—Normal.** Risk weight 0 percent. These loans: (1) are properly covered by adequate guaranties, (2) are given to customers that have the capacity to pay because they have adequate cash flow, good organization, excellent management, and knowledge of the business activity financed with the loan, and (3) are given to customers with excellent credit records.
- **Class B loans—Subnormal.** Risk weight 0 percent. These are loans given to customers that are weak in any of the characteristics mentioned above but that, with proper support, will honor their credit commitments.
- **Class C loans—Deficient.** Risk weight 10 percent. These loans are considered collectible with some difficulty if the proper actions are taken by the bank. They have been in arrears less than 180 days, have been used to finance risky business ventures, or have been given to customers who do not have adequate management skills or personnel.
- **Class D loans—Difficult.** Risk weight 50 percent. These are loans that have all the weaknesses of class C loans plus a high probability of partial losses, even if the bank resorts to legal actions including execution of any guarantees received. They have been in arrears for more than 180 days and, in accordance with the latest evaluation, 100 percent of the outstanding balance cannot be recovered.
- **Class E loans—Uncollectible.** Risk weight 100 percent. These loans have been in arrears for more than a year, and, according to the latest evaluation, there is no possibility of recovery even if the bank seeks legal action or execution of guarantees.

An evaluation of BFA's loan portfolio, in accordance with the above classes, is shown in Table 8.7. The loans were evaluated by BFA personnel and reviewed by officers from the Superintendency (SSF).

In accordance with the information in Table 8.7, BFA had at the end of May 1992, reserves against bad debts amounting to 374 million colones. The SSF has reviewed these reserves for the periods ending November 1991 and May 1992, and found them acceptable as per instructives issued on this matter.

**TABLE 8.7: Banco de Fomento Agropecuario Comparative Statement in Million Colones  
End of Period, Loan Risk Classification**

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992*</u>
Loans	<u>546.0</u>	<u>564.0</u>	<u>489.8</u>	<u>483.6</u>
Class A-Normal		26.7	31.8	23.7
Class B-Subnormal		186.8	213.8	228.0
Class C-Deficient		213.8	244.8	224.8
Class D-Difficult		66.7	76.4	59.1
Class E-Uncollectible		278.1	318.4	322.0
Less Reserve		(208.1)	(395.4)	(374.0)

Source: Audited Financial Statements, BFA.

\*Financial data as of May 31, 1992, as per information from the Superintendencia del Sistema Financiero, in letter dated August 19, 1992.

Table 8.8 shows that the Loans to Total Assets percent has maintained, during the period under analysis at about 45 percent, indicating that the reduction in lending has been proportional to the reduction in total assets.

**TABLE 8.8: Banco de Fomento Agropecuario, Loans to Total Assets Ratio**

END OF PERIOD	
YEAR	RATIO
1989	45.3%
1990	45.5%
1991	43.8%
1992	45.6%

Source: Data Table 8.1

Given the large amount of credits classified at the end of May 1992 as Class B (228 million) and Class C (224 million), the large number of balances owed by small farmers, the high possibility of unexpected arrears in the loan portfolio caused by natural conditions (e.g., droughts, floods, winds, etc.), or market conditions (e.g., low prices, strong import competition, etc.), if BFA increases its lending activities, based on the historical distribution of loan balances by class and its associated risks observed during the past, the level of reserves might not be adequate, and more reserves will be needed to comply with present legal regulations.

**8.2.1.4 Fixed Assets.** Table 8.9 shows the distribution of Fixed Assets by banking and nonbanking use. The most salient feature of the fixed assets portfolio is the large proportion of assets used in nonbanking activities. Processing plants and warehouses/silos are valued at 30.8 million colones and 30.6 million colones, respectively. They represent almost 70 percent of the net amount invested in fixed assets. The largest item in the banking use category is Equipment, which includes Office Furniture (4.4 million colones), Motor Vehicles (10 million colones), Computers (8.6 million colones), Tools, and Other Miscellaneous (5.8 million colones), for a total of 28.8 million colones. When the accumulated depreciation (21.6 million colones) is applied to this total, there is a net value of only 7.2 million colones.

**TABLE 8.9: Banco de Fomento Agropecuario Comparative Statement in Million Colones End of Period, Fixed Assets\***

	<u>1990</u>	<u>1991</u>	<u>1992</u>
Fixed Assets	<u>87.4</u>	<u>89.5</u>	<u>89.8</u>
Banking use		<u>51.6</u>	<u>48.8</u>
Land	5.5	5.8	5.8
Buildings	5.8	6.0	6.3
Equipment	23.3	26.7	28.8
Furniture	2.7	2.7	3.0
Other	5.1	5.4	3.2
Work in Progress	42.9	5.0	1.7
Nonbanking use		<u>61.5</u>	<u>65.8</u>
Processing Plants		30.8	30.8
Store Buildings		30.7	30.7
Land Stores			0.8
Farm land			3.5
Less Depreciation	(17.8)	(23.6)	(24.8)

Source: Audited Financial Statements, BFA

\*Financial data as of June 30, 1992, from computer printout supplied by BFA.

The percent of Total Assets represented by Fixed Assets is shown in Table 8.10. During the period under analysis, Fixed Assets have increased from 6.4 percent at the end of 1989 to 8.5 percent at the end of September 1992.

**TABLE 8.10: Banco de Fomento Agropecuario Fixed Assets to Total Assets Ratio, End of Period**

YEAR	PERIOD
1989	6.4%
1990	7.0%
1991	8.0%
1992	8.5%

Source: Data in Table 8.2

**8.2.1.5 Other Assets.** At the end of June 1992, Other Assets (Table 8.11) represented almost 11 percent of Total Assets owned by BFA. Of this 11 percent, tradables represented about half. Potential losses in this category are in Receivables, which includes interest earned but not collected, commissions, and other financial charges to customers; and in Other Receivables, which includes items under special collection procedures.

These potential losses could occur when any Class A or Class B loan deteriorates and is reclassified to Class C or Class D, making it necessary to reserve interest and other financial services reported as income and to create additional reserves for the uncollectible amounts.

**TABLE 8.11: Banco de Fomento Agropecuario Comparative Statement in Million Colones End of Period, Loan Risk Classification, Other Assets**

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Other Assets	<u>316.0</u>	<u>98.2</u>	<u>131.1</u>	<u>118.2</u>
Other Net of Reserves	<u>298.0</u>	<u>76.4</u>	<u>106.0</u>	<u>60.5</u>
Receivables-Interest				47.2
Other receivables				8.9
Deferred expenses				4.4
Tradables	<u>17.1</u>	<u>21.8</u>	<u>25.1</u>	<u>57.7</u>
Agrochemicals		21.5	24.4	
Basic Grains at IRA		0.1	0.1	
Other		0.2	0.6	

Source: Audited Financial Statements, BFA

The amount reported in Tradables includes the existing inventory of agrochemicals, which BFA used to market and that in accordance with an agreement reached with AID, it will no longer sell, the inventory of basic grains purchased for the government's account under the Basic Grains Strategic Reserve Program and other similar trust activities.

Potential losses in this category could result if BFA is not recovering all its costs for performing these services, including storage, handling, insuring, receiving and delivering, and administering and controlling the grain inventories owned by the government.

Table 8.12 shows the percent participation of Other Assets, including the Trust Accounts, in Total Assets.

**TABLE 8.12: Banco de Fomento Agropecuario, Other Assets to Total Assets Ratio, End of Period**

YEAR	RATIO
1989	44.2 %
1990	15.4 %
1991	21.2 %
1992	24.6 %

### 8.2.2 Loan Loss Provisions/Nonperforming Loans

During 1991 and 1992, the collection rate has improved<sup>12</sup> from 65.2 percent in 1991 to 72.8 percent in 1992, which reflects the policies instituted by BFA's management. These percentages are still low when compared with the collection rates of other successful agricultural development banks (see Table 8.13).

**TABLE 8.13: Annual Loan Collection Percentages**

BFA		FDCC	BKK	BAAC	BUD	GB
1991	1992	1992	1989	1989	1989	1988
65.2	72.8	89.2	80	83	95	98.6

Source: BFA and FDCC Financial Statements and Yaron 1992.

<sup>12</sup> The collection rate is the result of dividing the annual loan collections by the sum of the old overdue loans plus current maturities that fall due within one year. (Yaron: 1992, 30)

Improvement in the collection rate has been accompanied by improvement in the annual provision for loan losses<sup>13</sup>. In 1991, BFA made a provision equivalent to 22.6 percent of its loan portfolio, while during the last revision available for 1992, it reversed some 21.4 million colones of excess reserves. When compared with other development banks, BFA has reserved a large percentage of its loan portfolio, as shown in Table 8.14.

**TABLE 8.14: Annual Provision for Loan Losses, Percentages**

BFA	FDCC	BAAC	BUD	GB
22.6	20.1	1.0	2.9	0.4

Source: BFA and Fedecrédito Financial Statements; Yaron 1992.

### 8.2.3 Age Structure of Total Arrears

The age structure of total arrears of BFA's loan portfolio at the end of 1990 and 1991, and as of September 30, 1992, is shown in Table 8.15. On average, about 20 percent of the loans granted during a twelve-month period fall into arrears.

**TABLE 8.15: Age Structure of Total Arrears**

	1990	1991	1992*
0 to 6 months arrears	8.6%	7.7%	17.7%
6 to 12 months arrears	14.6%	11.0%	3.2%
Subtotal: Up to 12 months	23.2%	18.7%	20.9%
Over 12 months arrears	76.8%	81.3%	79.1%

Source: BFA report dated Jan. 13, 1993

Note: \*Data as of September 30, 1992.

For the years 1990 and 1991, the two lines, 0 to 6 months and 6 to 12 months, include only loans granted during the calendar year. For 1992, the last line includes loans delivered during the fourth quarter of 1991.

At the end of 1991, total loan balance was 903.1 million colones, of which past due principal was 288.5 million colones (31.8 percent); at the end of September 1992, total loan balance was 937.2 million colones, of which past due principal was 320.8 million colones (34.2 percent). Thus, the increase in the volume of lending has been accompanied by an increase in the percent of past due balances to current loans.

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<sup>13</sup> The Annual Provision for Loan Losses Ratio is the result of dividing the amount of provision made during the year by the average annual loan portfolio. The ratio is shown as a percentage. (Yaron 1992)

1992 has been a normal agricultural year, with a bumper crop in basic grains. Nevertheless, there is an increase in past due balances for the current year's lending operations. During 1991 about 33.9 million colones of current loans had to be refinanced due to losses caused by climatological conditions, while in 1992 only 5.6 million colones are reported. Under these exceptionally good conditions, past due balances for loans granted during the current year should be below the level reported for the year ending December 1991, not increasing as reported by BFA data.

Table 8.16 shows the percent distribution of arrears for principal and interest for three quarters of 1992 (end of March, June, and September), compared with the distribution at the end of December 1991. The percent of arrears to total portfolio, including loans and interest receivables is over 40 percent.

**TABLE 8.16: Percent Distribution of Arrears to Principal and Interest Receivables**

Period ending on	
September 92	43.9%
June 92	47.8%
March 92	46.3%
December 91	41.0%

Source: BFA reports

These percentages are excessively high and reflect the impact of balances from the years before 1990. In accordance with a report prepared by BFA, 19.4 percent of total past due balances corresponds to loans granted during 1989, 11 percent to loans granted during 1988, and 40 percent to loans granted before 1987.

While loan loss reserves have been made for most of these balances, the figures indicate how important it is to strengthen the collection activities of BFA. BFA should consider contracting private companies to collect the oldest balances on its books.

### **8.3 Management Assessment**

Management assessment must take into consideration two aspects: (1) cost efficiency, and (2) general management and line staff quality.

Based on the limitations mentioned before of the management organization of BFA, which influences the financial results evaluated in the other sections of this report, the rating for the CAMEL analysis of the Management Organization is 3, Fair.

### 8.3.1 Cost Efficiency

For the first evaluation two indicators are used: (1) the ratio of operating expenses to average total assets, and (2) the ratio of operating expenses to average loan portfolio (Yaron 1992). Table 8.17 shows these two ratios for the years 1990 to 1992.

**TABLE 8.17: Banco de Fomento Agropecuario Operating Expenses as a Percentage of Total Assets and Loan Balances:**

	1990	1991	1992
Average Annual Total Assets	5.9%	6.5%	6.9% *
Average Annual Loan Balances	13.0%	14.5%	16.0%

Source: Financial Statements BFA

\* Note: 1992 Operating Expenses were extrapolated to C76.6 million. Data available were thru June, 30, 1992.

In both cases, the ratios show a tendency to increase, indicating that it is becoming more expensive to manage the volume of assets or loan portfolio in BFA's books. Nevertheless, when these ratios are compared with the same ratios of other successful rural development banks, BFA shows a lower ratio of operating expenses to average annual total assets than BKK (12.3 percent), BUD (10.2 percent), and GB (9.3 percent), all in 1989. Only BAAC had a lower ratio, 3.0 percent in 1988 (Yaron 1992).

The ratio of operating expenses to average annual loan balances is very close to those reported by the benchmark banks: BKK (14.3 percent), BUD (15.9 percent), and GB (16.7 percent), all in 1989. Again, only BAAC reported a lower ratio, 4.7 percent in 1988. These generally high ratios underscore the high cost of lending to the poor.

### 8.3.2 Organizational Structure and Lines of Authority

Any evaluation of BFA's management and organization must take into account what the enabling legislation of the bank defines as the management hierarchy. Article 9 of the BFA creation law states that the bank will be directed by the Assembly of Governors as the highest level of authority, and by a Board of Directors (Banco Agrícola Comercial, *Ley de Bancos*, 1991).

- The Assembly of Governors

The Assembly of Governors comprises the Ministers of Agriculture, Finance, Economy, Economic Planning, the presidents of the Central and the Mortgage Banks, plus

representatives of cooperatives created in Chapter V, articles 33–37 of the BFA creation law; the Cooperative System organized in accordance with the Commerce Code; the Rural Sector Professional Associations and the Agricultural Producers Associations registered with BFA (at least one year before the election of the Assembly of Governors), and the president of BFA.

The Assembly of Governors is a group intended to implement government policies in agricultural credit. The long-term viability of BFA as a financial institution to provide credit to the agricultural sector must be dependent on decisions being made on the basis of sound banking and financial analysis, not on political considerations.

The functions of the Assembly of Governors are listed in article 12 of BFA Law, and they include approving the contracting of external auditors, fixing the director's fees, approving the annual report and financial statements, approving the bank's budget and the distribution of profits. Also, it defines the general guidelines for the credit programs and other activities to be carried out by BFA during the coming agricultural season.

Few of the activities listed in article 12 of the BFA Law are within the realm of the professional management of a financial institution that does business in a market as difficult as that faced by BFA.

- **The Board of Directors**

The Board of Directors is formed by six members and their alternates. They are the President and Vice-President of BFA, who are selected by the President of the Republic, and directors elected by the Ministry of Agriculture, the Ministry of Economy, the Central Bank, the Cooperatives affiliated with BFA, and the Cooperatives organized in accordance with the Commerce Code.

The functions of the Board of Directors of BFA are listed in article 19 of BFA Law. Again, they are oriented more toward the general administrative area than to financial policy definition. It must be emphasized that what BFA needs most is a Board of directors able and willing to analyze the economic environment in which BFA is working and to define those policies that will protect the bank's equity while increasing the Bank's effectiveness as a source of credit to the agricultural sector. Without this definition of policies, BFA will continue to stumble from one crisis into another.

- **The President, Vice-President, and other Executives**

The functions of the President and Vice-President of BFA are listed in articles 20 and 21 of BFA Law. These articles do not define the President as an executive officer but only as a liaison between the Board of Directors and the rest of the administration. BFA

needs a strong management organization that is able to face the difficult problems inherent in supplying credit to small farmers.

Article 22 of BFA Law establishes that BFA will have a General Manager, Managers, and Assistant Managers to administer the bank. Article 23 lists the functions of the General Manager, which are mainly to oversee how the bank is functioning and provide the information requested by BFA's President.

The organization chart in the 1991 annual report (see Appendix A) shows a highly centralized structure with all units, at the main office and branch levels, reporting directly to the General Manager. BFA needs to be reorganized to facilitate the delegation of responsibility and authority to the field managers, while at the same time relying on a sound management information system that allows top management, including the President and the Board of Directors, to receive timely information on market conditions that affect the operations of BFA.

The present organization does not permit a reliable analysis of productivity. Presently BFA retains a large number of agronomists engaged in monitoring credit use and is less oriented toward the measurement of meaningful indicators of efficiency for deposits generation, credits processed, or volume of collections. The high turnover of personnel is a problem that must be solved because it affects the viability of the bank as an efficient credit intermediary. Table 8.18 summarizes the movement of personnel for the years 1989 through 1992.

**TABLE 8.18: Personnel Movement**

YEAR	HIRED	RESIGNED
1989	204	204
1990	231	315
1991	337	313
1992	339	231

Source: BFA Human Resources

In April 1991 BFA had 1,573 employees (Carrandi 1991). The information in Table 8.18 indicates that about 40 percent of the personnel rotates every year, a turnover rate that does not permit the acquisition and implementation, at the middle management level, of the experience necessary to operate the bank. The number of employees has increased during the last two years: 24 more employees in 1991 and 108 more in 1992.

One reason BFA management organization is weak is because the organizational framework defined in BFA Law and the lines of authority and responsibility defined in the present organization structure weakens management authority.

### **8.3.3 Strategic Plan**

BFA has prepared annual operation plans, but these plans have a time horizon of one year and in most cases do not present quantitative objectives. These two factors make it impossible to properly evaluate the effectiveness of the strategies or the success in implementing them.

The 1992 annual operation plan is a good start for a more formal process of strategic planning. Changes need to be made; some qualitative, such as the definition of the bank's missions, which should be more than merely a description of what the bank is, but an identification of the fundamental reason for the bank to exist and its relation to the target clientele. Other changes are more quantitative, such as the setting of operational efficiency, loan collection, and profit goals. The important element in the strategic plan is the section that defines the strategies that will be implemented to reach the proposed objectives. Because it takes time for the strategies to work, a strategic plan should cover a time span of three to five years, with yearly revision as necessary. Finally, pro forma statements with detailed financial projections for the balance accounts and the profit and loss statement for the period should be covered by the plan.

### **8.3.4 Education and Distribution of Personnel**

Most BFA personnel are in the main office (36 percent). The 27 branches have 55 percent and the stores (almacenes) have 9 percent. This distribution needs to be reviewed, with special emphasis on determining if the present organization delegates sufficient authority and responsibility to the branches. A different management organization will be required to assign more personnel to the field, where most decisions should be made, and fewer to the main office, which should be managing the bank based on reports received from the field.

Of the 1,573 employees reported as of April 1991, 957 had technical or professional education: 17.5 percent had professional degrees at the university level; 37.8 percent had education at the technical level; and 44.7 percent had the equivalent of high school education in different areas of specialization (Carrandi 1991). Since that date, at least 500 employees have retired and 600 new employees have been hired, which may have changed the percent distribution.

### **8.3.5 Personnel Incentive Structure**

The compensation package for employees consists of a fixed salary with a yearly cost-of-living allowance adjustment, social security, and health insurance. No bonuses are awarded for meritorious service. Performance incentives are nonmonetary and consist of plaques awarded at an annual dinner, recreational excursions, and extra liberal leave policy (usually a day or two off with pay).

Personnel evaluations, revived in December 1992 after a two-year hiatus, will be conducted every four months. Employees will be rated according to a set of pre-established and quantifiable goals. These goals are set by supervisors using the Annual Investment Plan as a

guide but making adjustments for employee skill level, years of experience, and the nature of work in the section.

Performance ratings determine salary increases, promotions, and transfers among agencies and departments. Two years ago the evaluation system affected morale and was criticized for being overly subjective and unfair because managers were exempt. Under new rules managers are to be evaluated, but those contacted did not receive official word of their rating although line staff have been evaluated and duly informed of the results. The new evaluation procedure is considerably more quantitative than the previous version.

The biggest weakness in the system is the lack of monetary reward. The pay levels are substantially below those of the private sector, raises are infrequent, and only extraordinary work is acknowledged at the annual awards ceremony. Ordinary line staff need to be motivated to excel and put forth extra effort. Funds should be procured, even at the expense of other line items in the budget, to establish a credible incentive program based on productivity, peer-recognized quality of work, and exemplary treatment of clients.

### **8.3.6 Training and Professional Development Opportunities**

The bank has an extensive system of employment testing and training programs for secretarial and clerical staff. Less frequently, training workshops are offered in computer operations, management, and credit monitoring. Depending on the yearly budget, a scholarship and tuition assistance program may be offered for university training in business administration, economics, law, computer science, and accounting.

The general experience with scholarship programs has been mixed. Higher management personnel who receive training usually stay with the bank, but younger staff often leave shortly upon return from overseas training or upon completion of university education in country. The more skilled computer programmers, accountants, and agronomists are the personnel who are most affected.

### **8.3.7 Technical and Infrastructural Assessment of Selected Agencies**

Four rural BFA branches were visited: San Francisco de Goterra in the northeast, Usulután in the southeast, Sensuntepeque in the north central, and Santa Ana in the west. The agencies were chosen to be representative of agroclimatic zones, loan portfolio size, and impact by the war. Santa Ana is the largest agency in the system; it has a loan portfolio of 116 million colones, twice the size of its nearest competitor. It is in a prosperous, diversified, humid area unaffected by the civil conflict. San Francisco de Goterra is the other extreme. It is located in a dry climate, has poor soils and a high poverty rate, and was the site of much conflict. Usulután is also located in a former zone of conflict that was hitherto the leading corn- and cotton-producing department in the country. Cotton collapsed in the mid to late 1980s and many farms are abandoned. The zone has high potential, but is awaiting a return of farmers to the

land. Sensuntepeque, located in the rugged north, was not as affected by the war as the latter two agencies. It is located in a zone known for cattle and dairy operations.

The branch managers from these four branches mentioned four areas where they had problems and needs: physical infrastructure and equipment, human development, governing rules, and policy.

Physical Infrastructure and Equipment:

- Lack of adequate space and not owning its own building (except Santa Ana)
- Lack of vehicles (jeeps and motorcycles)
- Lack of adequate computer capacity, speed, and compatibility in existing systems (except Santa Ana and Sensuntepeque)
- Lack of a modern phone system and a lack of sufficient lines for data transmission (except Santa Ana and Sensuntepeque)

Human Development Needs: Most expressed a need for staff training in:

- Financial analysis
- Credit monitoring and collection techniques
- Computer applications and programming
- Deposits operations
- Financial marketing

Changes in Governing Rules: All expressed the need to change the following rules.

- The size of the loan that can be approved at the branch level needs to be increased from C50,000 to C100,000 (C150,000-200,000 for Santa Ana). They estimated that such a change would reduce loan processing time by three to four weeks.
- The limits for discretionary spending should be increased from the current C800 without prior notice or receipt and up to C1,500 with a canceled receipt to more realistic levels such as C1,200 and C2,000, respectively. The Santa Ana chief requested substantially higher amounts, C5,000 and C10,000, respectively.
- The branches need to have more authority in staff selection because at times personnel assigned to the branches are not the favored candidate.

Policy Initiatives Recommended: Three common themes emerged in conversations with managers as to what action the bank should take.

- Launch a nationwide study of the feasibility to mobilize savings. Two managers feel that they have captive markets but do not have the infrastructure, trained personnel, or advertising budget to mount a serious campaign and operate the system efficiently.
- They all felt that there was a desperate need for better governmental interagency coordination, especially among BFA, MAG, CENTA, and the Secretariat of National Reconstruction. Three were displeased with the performance of MAG in their zones and mentioned that their attempt to coordinate the use of vehicles and to synchronize visits to struggling clients was to no avail.
- One mentioned the need for more stability in the top management in the central office. He felt that frequent changes created uncertainty in the ranks and did not give anyone time to define and implement an agenda.
- Another felt that an integrated diversification program was urgently needed in his zone to raise income levels and to break the cycle of poverty plaguing small grain farmers.

### **8.3.8 Central Office Technical Assistance Needs**

BFA has identified its needs for technical assistance. Emphasis has been placed on technical assistance for Credit and Collections, Financial Management, Legal, Data Processing, Administration and Human Resources, and Operations. Priority should be given to satisfy technical assistance needs of the bank's branches. See Appendix D.

A program of technical assistance should be designed and implemented that reviews the high turnover rate of personnel, evaluates the remaining employees, and presents guidelines for developing a strategic plan for the next five years. Only then will it be possible to determine technical assistance that is necessary to implement the strategies designed to reach the objectives of the bank in the medium term.

## **8.4 Earnings**

Taking into consideration the comments made in the previous sections, the fact that no meaningful ratios can be computed for an acceptable length of time for the return on assets (ROA) and return on equity (ROE), the high operating costs, and the dependency on subsidies to generate its profits, the Earnings Capacity of BFA is 5, Unsatisfactory.

### **8.4.1 Earnings Generation Capacity**

BFA experienced losses during 1989, 1990, and 1991 (Table 8.19), which were the result of either the need to cover foreign exchange losses on loans outstanding with foreign lending institutions or the need to create reserves for bad loans. The audited financial statement for the

first half of 1992 indicates a profit of 31.6 million colones, attributed in large part to the reduction of 20.8 million colones in bad debt reserves.

Several factors affect BFA's earnings. Table 8.19 shows that interest on loans has been declining during the last two and a half years as a result of lower interest rates and reduced lending activity. Extrapolating the interest income reported as of June 1992 results in a total of 89 million colones for the year, against 102.6 million earned in 1991 and 125.6 million earned in 1990. To improve the profitability of the bank it is important to reverse this trend; that is, to increase the total volume of lending.

The decrease in interest income from securities, which includes interest earned on deposits with commercial banks, is due to the smaller securities portfolio that resulted from the transaction with the government to pay BFA debts with government bonds.

BFA has many deposits in commercial banks that earn interest. It is not efficient to obtain deposits from customers, pay market interest rates on them, and deposit the funds with commercial banks. Even if the interest rates paid to customers and received by BFA were the same, BFA would lose money because it would not be using its resources for the main purpose of the bank—lending to its customers at a higher interest rate—and it is absorbing the costs associated with the legal reserve to be maintained with the Central Bank and the acquisition, handling, and controlling of deposits.

Operating expenses have leveled off during the last three years at about 70 million colones (Table 8.20). It is necessary to make an in-depth analysis of these expenses, since some reduction in total available manpower has occurred during the period and personnel deployment is not optimum, with a high concentration of employees in the central office and fewer employees in the field offices or branches.

#### **8.4.2 Return on Average Assets**

Return on average assets has been declining during the last four years. For the purpose of this analysis the figures used have been Gross Profits before Non Operating Transactions (reported in Table 8.19) and the average of Total Assets for the current year plus the previous year (reported in Table 8.2). Table 8.21 shows a declining trend for the Return on Average Assets since 1989, but in accordance with international benchmarks, they will be considered between "satisfactory, even if it may be below average in certain developing countries," for the 1.8 percent computed for 1992, to "strong by any measure," for the 2.1 percent computed for 1991 (IST 1989).

**TABLE 8.19: Banco de Fomento Agropecuario Comparative Statement in Million Colones, Profit and Loss\***

	1989	1990	1991	1992
Income	<u>147.8</u>	<u>182.4</u>	<u>159.7</u>	<u>70.0</u>
From Operations	<u>143.8</u>	<u>178.8</u>	<u>155.1</u>	<u>68.0</u>
Interest on loans		125.6	102.6	44.3
Interest on securities		20.0	33.7	19.1
Commissions on L/C		2.0	1.2	0.7
Commissions on loans		3.0	3.3	1.9
Other income		28.2	14.3	2.0
From Other Sources	<u>4.0</u>	<u>3.6</u>	<u>4.6</u>	<u>2.0</u>
Income on sale products		3.6	4.6	2.0
Expenses	<u>118.4</u>	<u>113.2</u>	<u>120.7</u>	<u>59.7</u>
Financial Expenses	<u>50.0</u>	<u>27.6</u>	<u>16.9</u>	<u>9.2</u>
Interest on deposits		10.9	13.2	6.3
Interest on loans		16.7	3.7	2.9
Operating Expenses	<u>67.9</u>	<u>72.3</u>	<u>76.5</u>	<u>38.3</u>
Other Expenses	<u>0.5</u>	<u>13.3</u>	<u>27.3</u>	<u>12.2</u>
Gross Income	<u>29.4</u>	<u>69.2</u>	<u>39.0</u>	<u>10.3</u>
Non Operating Transactions				
Bad Debts Provision	0.0	(112.8)	(183.6)	20.8
Exchange Loss	(81.9)	(135.1)	(2.2)	(0.2)
Adjustments		(8.2)	(6.0)	(0.7)
Sale of Loans		64.2		
Net Profit/(Loss)	<u>( 52.5)</u>	<u>(122.7)</u>	<u>(152.6)</u>	<u>30.2</u>

Source: Audited Financial Statements, BFA  
\*Financial data as of June 30, 1992.

**TABLE 8.20: Banco de Fomento Agropecuario Comparative Statement in Million Colones, Operating Expenses\***

	1990	1991
Expenses		
Operating Expenses	<u>72.3</u>	<u>76.5</u>
Payroll	33.8	32.9
Benefits	10.6	10.6
ISSS	2.0	2.1
INPEP	1.4	1.4
Advertising	0.8	0.9
Taxes	1.5	0.4
Rentals	1.4	1.7
Office Supplies	1.7	1.8
Fuels & lubs	2.0	2.0
Depreciation	2.7	6.0
Other	14.3	16.8

Source: Audited Financial Statements, BFA  
 \*Financial data as of June 30, 1992

**TABLE 8.21: Banco de Fomento Agropecuario, Return on Average Assets**

	1989	1990	1991	1992
Gross Profits	29.4	69.1	39.0	10.3
Average Assets	1204.2	1221.9	1798.4	1114.3
% of Return	2.4%	5.7%	2.1%	1.8%*

Source: Data in Table 8.2 and Table 8.19

\*Rate for the first semester of 1992 annualized for the whole year.

No statements were available for 1987, so 1989 Average Assets=1989 Total Assets.

In comparison, the return on average assets for BKK ranged from 13.5 percent in 1986 to 6.1 percent in 1989, the last year of available data. For BUD, the range was from @.5 percent to 2.8 in the same period. For Grameen Bank, the range was from .04 percent to .07 percent. The latter institution uses a particularly expensive loan delivery mechanism, group lending with intensive training, compared to the others (Yaron, 1992). Thus, for the one comparable data point, 1989, BFA compared favorably with BUD but less well with BKK, which has the most innovative rural banking practices.

### 8.4.3 Spread Analysis

The difference between the interest rate charged to borrowers and the interest rate paid to depositors and lenders is the spread used by the bank to cover its operating expenses and to generate profits. Table 8.22 shows, based on information from the audited financial statements, that the spread has declined during the past three years.

**TABLE 8.22: Banco de Fomento Agropecuario, Spread Analysis\***

	1990	1991	1992
Interest earned on loans	125.1	102.6	44.3
Average Loans	554.9	526.8	479.9
Interest rate charged	22.6%	19.5%	18.5%*
Interest expenses	27.6	16.9	9.2
Deposits + Loans	1343.0	471.4	353.2
Interest rate paid	2.1%	3.6%	5.2%
Spread (Interest Rate Charged-Interest Rate Paid)	20.5%	15.9%	13.3%

Source: Financial Statements BFA

\*Rate for the first semester of 1992 annualized for the whole year.

Noninterest earning deposits have been deducted from the Deposits + Loans figures. Nevertheless, the interest rate computed in Table 8.22 indicates that BFA was the recipient of concessionary credit from local and foreign sources. The amounts reported as interest expense might be lower because the interest on the dollar denominated loans was computed on the balance in colones registered in BFA books, before any adjustment for devaluation; this difference in interest plus the exchange adjustment is included in the exchange loss reported in 1990.

#### 8.4.4 Calculation of Efficiency Correction

Long-term financial viability of any credit intermediary is determined by the level of profits obtained by providing services to its customers. Year-end profits are the result of two basic conflicting forces: the average cost of administering the bank per colon of lending and the average cost of borrowing the resources used to lend to customers. High operating costs reduce profits. Low borrowing costs increase profits. What follows is an evaluation of the effects of both of these processes during the last three years at BFA. The results obtained will be used to calculate ratios that can be compared with ratios that are accepted as benchmark or normal ratios for operating expenses and financial costs.

A development bank such as BFA should have an average operating expense per volume of lending that is 50 percent above that of commercial banks in El Salvador (Table 8.23). The ratio for commercial banks in El Salvador is about 4 percent, therefore a benchmark value of 6 percent should be used to evaluate the performance of BFA.

**TABLE 8.23: Operating Expenses as a Percentage of Average Loan Balances**

	1990	1991	1992
Actual Average	13.0%	14.5%	16.0%*
Benchmark Ratio	6.0%	6.0%	6.0%
Excess	7.0%	8.5%	10.0%

Source: Data in Table 8.17

\* Note: Loan balances for 1992 extrapolated from first half of year data.

The cost of financial resources used by BFA is calculated by adding the average rate of interest paid to depositors and the transaction cost incurred by the bank in handling the deposits (which are estimated to be 4.5 percent of total deposits), as shown in Table 8.24.

**TABLE 8.24: Estimated Market Cost of Financial Resources Available to BFA**

	1990	1991	1992
Average Paid on Deposits	14.2%	13.9%	9.7%
Transaction Costs	4.5%	4.5%	4.5%
Total Cost of Funds	18.7%	18.4%	14.2%
Average Cost of Funds	2.1%	3.6%	5.2%
Concessional Interest Rate	16.6%	14.8%	9.0%

Source: Information supplied by BFA

Information in Table 8.24 shows that for the past three years, the average interest rate paid to depositors has been declining from a high of 14.2 percent in 1990 to 9.7 percent in 1992, while the average cost of funds has been increasing from 2.1 percent in 1990 to 5.2 percent in 1992. The main reason the average cost of funds has been increasing is due to less subsidized interest rates on sources of funds.

The information and calculations in Appendix C show that BFA has had low profits because of its high operating expense ratio. Annual subsidies in the form of below market interest rates paid on its resources have permitted BFA to continue operating (see Table 8.25).

**TABLE 8.25: Annual Subsidy Received by BFA**

	1990	1991	1992
Annual Subsidy in Million Colones	248.8	111.0	91.7
Index of Subsidy Dependence	198.4%	108.0%	103.3%
Average Interest Rate Charged on Loans	22.6%	19.5%	18.5%
Interest Rate on Loans Needed to Eliminate Subsidy Dependence	67.4%	38.3%	37.6%

Source: Appendix C

To become an efficient credit intermediary, BFA needs to control its operating expenses as a percent of its loan portfolio. The information in the previous table shows that during the

last three years, BFA's operating expenses have increased relative to its portfolio because it has reduced total lending and hired more personnel (Tables 8.18 and 8.19).

If the sources of concessionary funds had been eliminated in 1992, BFA would have had to increase its lending rate to 37.6 percent if improvements in efficiency were to be achieved, and to 27.6 percent if the operating expenses were to be controlled (see Appendix C). It must be emphasized that, in the financial environment of the 1990s, an agricultural development bank such as BFA must improve its efficiency, depend more on mobilized savings, and price its lending products at an interest rate high enough to provide a market return on the volume of assets managed and equity invested.

## **8.5 Liquidity**

Based on the information in Table 8.26, BFA's large holdings of Cash and Deposits with the Central Bank and other commercial banks exceeds what is necessary to honor any request for funds by its depositors and borrowers.

Almost 40 percent of funds received by BFA as deposits are available as cash or banks balances to cover the request for payment from its creditors (including depositors). Nearly 13 percent of total liabilities in 1992 were covered by available cash and banks balances. If the available balances of cash and banks are compared with the total disbursements for loans listed in Table 8.28, BFA has, on a monthly basis (37.9 million colones during 1992 assuming a linear distribution of disbursements), almost 1.66 colones for each colon lent to its customers.

The CAMEL analysis rating for the Liquidity of BFA is 2, Satisfactory.

### **8.5.1 Year-end Accounts Balances**

Financial institutions need to maintain adequate liquidity to meet any normal or unanticipated demand for cash from their customers. Normal demand for cash includes the statistically determined amount to be held available to honor all withdrawals from depositors and borrowers; it also includes exceptional movements in cash demand that result from business seasonality and holidays. While the concept of liquidity is easy to establish, it is very difficult to determine an adequate level of liquidity because there are many unknown factors, including the confidence that the public has in any specific bank. If confidence is lost and the public tries to withdraw their deposits all at once, a run on the bank results. Under such conditions, no bank will have enough liquidity.

In El Salvador, the new Banking Law does not define liquidity. The closest regulation to liquidity contained in the Law is found in article 40 LBF, which assigns different weights to certain groups of assets, taking into consideration how easily they are converted into cash. The purpose of this clause in the law is not to address the liquidity condition of the banks, but to give certain guidelines for controlling the leverage that the bank could have on its capital and reserves depending on the composition of its assets.

The most liquid assets, with a weight of 0 percent, are those formed by the cash on hand, deposits with and bonds issued by the Central Bank; next, with a weight of 20 percent, are bonds issued or guaranteed by the state and interbank credit with a maturity not longer than 30 days. These two categories could be considered the first line of recourse of a bank against a liquidity problem. BFA has a highly liquid position. Table 8.26 shows the year-end situation of BFA, comparing the total cash and banks balances with (1) total liabilities and (2) total deposits.

**TABLE 8.26: Banco de Fomento Agropecuario Comparative Statement in Million Colones: Liabilities and Deposits to Cash and Banks Ratio\***

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Cash and Banks	<u>47.8</u>	<u>62.0</u>	<u>67.9</u>	<u>63.0</u>
Liabilities	<u>712.4</u>	<u>989.6</u>	<u>606.3</u>	<u>479.1</u>
Cash and Banks/Liabilities	6.7%	6.3%	11.2%	13.1%
Deposits	<u>88.1</u>	<u>105.3</u>	<u>140.8</u>	<u>168.6</u>
Cash and Banks/Deposits	54.3%	58.9%	48.2%	37.4%

Source: Audited Financial Statements, BFA

\*Financial data as of June 30, 1992, from computer printout supplied by BFA.

The trend in total cash and banks deposits indicates that for the past three years, BFA has maintained an average balance of 64 million colones, independent of the total of its liabilities or deposits. Table 8.26 suggests that there is no liquidity management, but rather a target balance in cash and banks independent of the potential demand for liquidity resulting from total indebtedness, the level of deposits, or the volume of lending. In 1991, the sharp increase in the ratio of Cash and Banks to Total Liabilities resulted from a reduction of total liabilities when El Salvador's Government converted into capital a large portion of foreign debts owed by BFA.

### 8.5.2 Flow of Funds

Liquidity is a dynamic concept that changes continuously in response to actions taken by the bank customers and management, and so it can be analyzed on the basis of a yearly flow of liquid resources. Table 8.27 shows the sources of liquidity that BFA had for 1990, 1991, and 1992, and Table 8.28 shows the uses of liquidity generated during the same years. The largest source of funds for BFA are collections from loans, which represent on average more than 60 percent of incoming funds. Rediscounts with the Central Bank supply another 18 percent. Table

8.27 lists all the identified sources of funds, segregating them into those belonging to banking operations and to nonbanking operations.

**TABLE 8.27: Banco de Fomento Agropecuario Comparative Statement in Million Colones: Liquidity Generation\***

	<u>1990</u>	<u>1991</u>	<u>1992</u>
Total Incoming Funds	901.1	1083.6	884.1
From Banking Operations	781.6	966.1	819.2
Collections-Loans	517.4	540.8	528.7
Rediscount with BCR	109.0	192.4	172.7
Deposits from customers	(7.5)	36.8	32.0
Commissions and other income	14.1	19.1	13.5
Other Funds	42.8	94.8	21.3
Other Banking	20.9	28.2	44.9
Securities	84.9	54.0	6.2
From Nonbanking Operations	119.5	117.5	64.8
Sale of Products	71.7	114.1	33.5
Sale of Assets		0.8	
Trusts	45.0	1.9	30.0
Other nonbanking	2.8	0.7	1.3

Source: Computer Printouts, BFA

\*Financial figures as of October 31, 1992.

### 8.5.3 Total Loans/Total Savings

Deposits from customers have been growing during the last two years, and in 1992 were at a level where they represent an important source of liquidity for BFA. The ratio of loans to deposits has been decreasing during the last three years, from 5.7 times in 1990 to 4.3 times in 1991 to 3.1 times in 1992.

Nonbanking operations are declining with the reduction of marketing activities for agrochemicals. Trusts accounts should be analyzed to make sure that they fully reflect all the

transactions carried out on account of the government trust. It seems that some trust transactions are registered as Inventories in the general accounts of BFA.

**TABLE 8.28: Banco de Fomento Agropecuario Comparative Statement in Million Colones: Liquidity Consumption\***

	<u>1990</u>	<u>1991</u>	<u>1992</u>
Total Outgoing Funds	<u>909.7</u>	<u>1081.0</u>	<u>851.2</u>
For Banking Operations	<u>654.4</u>	<u>926.9</u>	<u>805.1</u>
Disbursements-Loans	359.4	441.4	455.6
Payments to BCR & GOES	46.9	146.2	202.2
Foreign Debt		18.1	
Interest & Other Financial Exp	31.6	26.8	33.7
Investment in Securities	85.7	50.1	22.3
Outgoing for Other Banking	20.6	31.8	23.5
Investment in Fixed Assets	5.0	4.5	7.4
Operating Expenses	70.4	70.5	60.4
Suppliers	34.8	137.5	
For Non-Banking Operations	<u>255.3</u>	<u>154.1</u>	<u>46.1</u>
Strategic Reserve	45.6	34.6	46.1
To BCR-PL480	119.0	81.3	
Purchases Agricultural Inputs	88.8	36.1	
To MAG-Basic Grains	1.9	2.1	

Source: Computer Printouts, BFA

\*Financial figures as of October 31, 1992.

Table 8.28 indicates that during the last two years of the period under analysis, BFA was almost in balance in its generation and consumption of liquidity. During 1990, BFA accumulated liquidity in the form of additional Cash and Banks balances, increasing its total holdings from 47.8 million at the beginning of 1990 to 62 million at the end of the year, an increase of almost 15 million colones. During the three-year period BFA reduced its lending

operations. The figures in Tables 8.27 and 8.28 are in current colones; if these figures are adjusted for the effects of inflation, the reduction in lending is even more pronounced.

**TABLE 8.29: Banco de Fomento Agropecuario Comparative Statement in Million Colones: Liquidity Movements on Cash and Banks\***

	<u>1990</u>	<u>1991</u>	<u>1992</u>
Balances beginning of year	47.8	62.0	67.9
Plus Cash generated**	901.1	1083.6	884.1
Less Cash consumed***	909.7	1081.0	851.2
Adjustments****	1.8	3.3	(3.0)
Balances end of year	62.0	67.9	63.0

Sources: Computer Printouts, BFA

\*Financial figures as of October 31, 1992.

\*\*From Table 8.27 "Total Incoming Funds".

\*\*\*From Table 8.28 "Total Outgoing Funds".

\*\*\*\*Adjustments needed to reconcile the computer printouts supplied by BFA with the figures in the Audited Financial Statements due to corrections made by the auditors in the year end balances not reflected in the computer printouts.

## 8.6 Recommendations

Based on the preceding review of various aspects of bank performance and management, the following recommendations are made.

### CAPITAL

- Annually increase the bank's capital in an amount equal to the loss of purchasing power caused by inflation, calculated on the equity (capital + reserves) at the beginning of the period.
- Annually increase the bank's capital, over and above what is needed to adjust for inflation, to give BFA a growing capital base to expand its monetary volume of operations.
- Initiate an aggressive program to collect past due balances to avoid affecting the capital of the bank with loan losses.

## ASSETS

### Cash and Banks

- Reduce the volume of deposits held with commercial banks to the minimum necessary to serve depositors, borrowers, and suppliers.
- Deliver credit to borrowers by depositing it in an account with BFA rather than by drawing a check against a commercial bank.
- Evaluate the tellers in each branch to determine if they can handle the additional work of delivering funds to BFA borrowers.

### Securities

- Convert the present securities portfolio into cash to be used to increase the lending activities of BFA.

### Loans

- Determine the mobility of credits from class B to C, D, and E in order to adjust the level of reserves needed to insulate BFA from unexpected losses.
- Increase Class B reserves from 0 percent to 10 percent and Class C reserves from 10 percent to 20 percent. Reserves classes D and E seem to be adequate. Compliance with this recommendation will require some 68 million colones of additional reserves to provide a higher level of insulation against unexpected losses.
- Increase the lending activities of BFA:
  - Define a policy for loans to solidarity groups (joint liability groups).
  - Define a policy for loans to women.
- Implement a program to contract with private companies for the collection of past due accounts, especially loans for which reserves have been created.
- Eliminate the program of supervised credit and concentrate the available manpower at the branches for the evaluation and approval of loans and for collections.
- Do not approve loans to borrowers in arrears.
- Establish a policy of rebates on interest charges for borrowers who pay promptly.

### Fixed Assets

- Divest through privatization of all nonbanking fixed assets.
- Create the reserves necessary to offset any potential losses in the sale of nonbanking fixed assets.
- Sell all extraordinary assets in the BFA portfolio, especially farmland.

### Other Assets

- Liquidate the agricultural inputs and machinery inventories.
- Organize a wholly owned subsidiary to handle the Basic Grains Strategic Reserve programs; this subsidiary could be privatized later.
- Recover all the costs of administering the Trust accounts plus an adequate margin of profit.

### MANAGEMENT

- Reform BFA creation law to eliminate the Assembly of Governors and to define the responsibility and authority of the President as the Chief Financial Officer and of the General Manager as the Chief Operating Officer.
- Restructure present management organization to give more responsibility and authority to the branch managers, allowing them to act as managers of a full-service branch in their respective geographic zone.
- Redeploy the available manpower to strengthen the lending and collecting activities at the branch offices.
- Improve BFA's management independence from political pressures, allowing them to function as managers of a credit institution, not as an arm for government rural policy.
- Negotiate technical assistance to prepare a strategic plan for the next five years. Prepare the necessary manuals for the yearly revision and updating of the strategic plan.

- Define an organization that will support the achievement of the objectives defined in the strategic plan, giving special emphasis to decentralization of decision making.
- Negotiate technical assistance to prepare training seminars for selected personnel from all strata in the bank in new management techniques, particularly Total Quality Management (TQM). Improving the morale and efficiency of employees has to become a top priority and traditional hierarchial techniques and existing behavioral conventions will have to change.
- Evaluate personnel in relation to the abilities needed to carry out the strategic plan, and identify the strong and weak points.
- Design a program of technical assistance to BFA's personnel to improve their knowledge and abilities so that they are able to implement the strategic plan.
- Design a program to evaluate and provide incentives for the personnel based on performance and implementation of the strategic plan.

## **EARNINGS**

- Develop guidelines for management to administer the bank's resources efficiently to obtain an adequate return on assets (ROA) and on equity (ROE).
- Adjust active interest rates to market rates competitive with the type of customers BFA is serving.
- Increase the volume and quality of lending. The ratio of weighted average assets to equity should be reduced from 51 percent at the end of 1992 to 20 percent within the next three years.
- Negotiate full compensation, plus adequate margins for the management of Trusts.
- Establish a cost reduction program that includes staff reduction and redeployment from the main office to the branches. The ratio of operating expenses to loans should be no more than 50 percent of the average value of this ratio for commercial banks. Over the last three years, the actual average ratios have exceeded the 6-percent benchmark by 7 to 10 points.
- Design an information system that keeps management up to date on conditions that affect the delivery of services to customers and the earning capacity of BFA

(e.g., interest rate spread, delinquency loans level, interest rate movements, gap analysis, duration analysis, branch efficiency analysis).

- Avoid foreign exchange exposures unless they are fully hedged, including those that result from issuing Letters of Credit to customers.

## **LIQUIDITY**

- Identify and quantify the pattern of liquidity requirements to guide liquidity management.
- Avoid depositing excess funds with commercial banks (see section 8.2.1.1).
- Design and implement a program to increase the number of depositors with BFA, with special emphasis in rural areas.
- Convert the securities portfolio into cash to be used to increase the lending activities of BFA.
- Increase the volume of deposits from customers.

## 9. CAMEL ANALYSIS OF FEDECREDITO

### 9.1 Capital Adequacy

Fedecrédito is a system of special credit cooperatives organized in 1943. On May 6, 1991, a new law was passed to update the legal framework that governs the functioning of the system. The new law included provisions for the operation of Worker's Banks, coordinated by the Central Credit Fund, which are engaged in rural lending. Presently, the system includes a Central Credit Fund (Fedecrédito) that operates as a supervising and coordinating unit, 54 privately owned Rural Credit Funds, and three Workers' Banks. The Rural Credit Funds are credit cooperatives that specialize in providing financial services, credit, and deposits, in rural areas, while the Worker's Banks are credit cooperatives that operate in the cities.

#### 9.1.1 Central Credit Fund

Article 5 of the Fedecrédito Law establishes that the capital of Fedecrédito is "variable and without limits," which means that there is no required minimum capital and, that it could be increased or decreased without the need to modify any legal document; be it bylaws or the main law creating the system. Nevertheless, Fedecrédito is considered to be a financial intermediary because it is authorized by its enabling legislation to receive deposits (Art. 26 Fedecrédito Law) and the provisions of the Ley de Bancos y Financieras related to the ratios of equity to weighted average assets (8 percent minimum) and to total liabilities (4 percent minimum) are applicable individually to each unit in the system. Neither the Central Credit Fund nor the Rural Credit Funds nor the Workers' Banks are subject to the minimum capital of 20 million colones required in the Banking Law.

Due to losses suffered in its loan portfolio and other activities, including exchange losses in dollar denominated debts caused by the devaluation of the colón monetary unit, the capital of Fedecrédito was negative as of November 30, 1992 (Table 9.1).

**TABLE 9.1: Fedecredito, Equity at Year End, Million of Colones\***

1992	(46.7)
1991	(40.1)
1990	(31.9)
1989	18.1
1988	92.5

Source: Fedecrédito Financial Reports

\*Figures as of November 30, 1992.

Fedecrédito is undergoing a strengthening process, directed by the Central Bank, to determine the most adequate procedures to restore its capital, eliminate the exchange losses, and provide technical assistance in the organization of its financial intermediation services. Unless its capital is restored, the inclusion of Fedecrédito as an efficient intermediary supplying credit to the rural sector of El Salvador, especially to small farmers, is not feasible.

### **9.1.2 The Affiliated Rural Credit Funds**

A revision of the individual balance sheets of 51 Rural Credit Funds operating in rural areas, shows that 12 have negative equity, 7 have an equity-to-assets ratio under the minimum required by the Banking Law, and 32 have a ratio in excess of the minimum (See Appendix B). The first two groups represent the problem Rural Credit Funds that need an increase of capital, improved management, and if necessary, given their poor financial situation should be closed. See Appendix B for full details.

Total equity for the 51 Credit Funds is 35.0 million colones. Credit Fund No. 03, Cooperativa de Joyeros y Relojeros, is not included in the list because it is not oriented toward the agricultural sector.

Twenty-one out of 32 Rural Credit Funds with an earnings-to-assets ratio over 8 percent have the capacity to expand their credit operations. Fedecrédito must give guidance to the managers of these Rural Credit Funds so that they can organize programs to identify new borrowers with sound investment projects. These projects can be financed with the unused lending capacity presently available at those Rural Credit Funds.

It is important to replenish the equity of those Rural Credit Funds that have lost their capital; also, the capital must be increased in those Rural Credit Funds that show an equity-to-assets ratio below 8 percent. This could be done by Fedecrédito through the purchase of capital stock in each individual Rural Credit Fund, but only after a thorough analysis of their financial and managerial status. The shares acquired by Fedecrédito can be sold later, through the local stock market (Bolsa de Valores), or through other capital market intermediaries. If no additional capital is made available to these Rural Credit Funds, the only option will be to close them and assign their member-customers to another Rural Credit Fund that is financially sound.

### **9.1.3 Rating of Capital Adequacy for CAMEL Rating**

Given its negative equity, Fedecrédito is technically in bankruptcy and is not complying with the legal ratios of equity to weighted average assets and total liabilities. The rating of its capital for the CAMEL analysis is 5, Unsatisfactory.

In summary:

- The capital of the Central Credit Fund needs to be replenished.
- The dollar denominated loans should to be converted to colones, or the foreign exchange losses, actual or potential, should be recognized.
- A decision must be made about the nineteen Credit Funds that are financially weak. This decision has two parts, one related to the capital and the other to the quality of the present management. If no program to increase the capital base of these Credit Funds is developed, it will be necessary to close most of them. The financial assistance to the Credit Funds must be organized only after the management assessment and retraining programs have been completed.

## 9.2 Assets Quality

The rating of Fedecredito (Central Credit Fund) assets for the CAMEL analysis has been computed as the average of the qualification given to each asset classification as follows:

Cash and Banks	2	Satisfactory
Securities	5	Unsatisfactory
Loans	3	Fair
Fixed Assets	3	Fair
Other Assets	4	Marginal
Average Rating	3	Fair

For the CAMEL analysis, the average rating of Fedecredito Assets is 3, Fair.

An analysis was also conducted on the 54 individual Rural Credit Funds, except for Cooperativa de Joyeros y Relojeros, a largely nonagricultural lender. The analysis groups the Rural Credit Funds in accordance with the three Equity conditions: (1) positive and above the legal minimum; (2) positive but below the legal minimum; and (3) negative. In general the situation is troubling. Most of the rural credit funds are very weak financially. See Appendix B for details.

### 9.2.1 Assets Composition

Table 9.2 shows the year-end balances of the assets accounts of Fedecredito. The most important item is Loans, representing, as of November 1992, 69.8 percent of Total Assets. This is a higher percentage than in 1991 (59.6%), 1990 (65.9%), or 1989 (62.2%).

Additionally, Total Assets have been reduced by the reserves for nonperforming loans. This affected both the Equity and Total Assets position of Fedecredito.

**TABLE 9.2: Fedecredito, Comparative Statement in Million Colones, End of Period, Assets\***

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Total Assets	343.7	355.3	287.5	287.8
Cash and banks	19.4	11.4	10.5	7.6
Securities	48.3	54.3	55.4	38.7
Loans	214.0	234.3	171.3	200.8
Fixed Assets	16.0	21.5	21.1	20.3
Other Assets	46.0	33.8	29.2	20.4

Source: Audited Financial Statements, Fedecredito.

\*Financial data as of November 30, 1992.

When valued at current prices (base year 1989), total assets have been declining from a high of 343.7 million colones in 1989 to a low of 287.8 million colones in November 1992 (Table 9.3). As mentioned above, Fedecredito has been devoting a larger percentage of its resources to finance loan operations.

**TABLE 9.3 Fedecredito, Total Assets at Constant Prices, Balances at End of Year (Base 1989)\***

YEAR	MILLION COLONES
1989	343.7
1990	312.7
1991	238.3
1992	219.6

Source: Data in Table 9.2

\*Deflated by estimated index using data published by the Central Bank in Revista Trimestral, Third Quarter 1992, page 100, "Indices de Precios Implicitos en el Producto Interno Bruto, Sector Agricola". Adjusted in 1992 to reflect 6 months period up to June.

**9.2.1.1 Cash and Banks.** Cash and Bank Deposits represents, as of November 30, 1992, 2.6 percent of the Total Assets of Fedecredito. This percentage has been declining from a high of 5.6 percent at the end of 1989. The largest portion of Cash and Banks are deposits with the

Central Bank. Tables 9.4 shows the composition of the Cash and Bank's balances, and Table 9.5 indicates the percent participation of Cash and Banks in Total Assets.

**TABLE 9.4: Fedecredito, Comparative Statement in Million Colones, End of Period, Cash and Banks\***

Assets	1992	1991	1990
Cash and banks	7.6	10.5	11.4
Cash colones	0.0	0.0	0.0
BCR colones	5.8	6.5	9.0
Other local banks	1.8	4.0	2.4

Source: Computer Print-outs supplied by Fedecredito

\*Financial data as of November 30, 1992, from data supplied by Fedecredito.

**TABLE 9.5: Fedecredito, Cash and Banks to Total Assets Ratio, End of Period**

YEAR	RATIO
1989	5.6%
1990	3.2%
1991	3.7%
1992	2.6%

Source: Data in Tables 9.2 and 9.4

**9.2.1.2 Securities.** Securities represent 13.4 percent of Total Assets held by Fedecredito. The total investment in Bonds was reduced by 17.7 million colones in 1992, when a reserve fund was formed. This reduced the percent participation in Total Assets from 19.3 percent in 1991 to 13.4 percent in 1992.

The three kinds of bonds held are all issued by the government: Finance Fund for the Reactivation of Productive Activities (FFRAP), Agrarian Land Reform (FINATA), and Stabilization Bonds for the Consolidation of Internal Debt. At the end of 1992, the majority of the C56.4 million in bonds held were FRRAP (69%), followed by Consolidation bonds (28%), and by FINATA bonds (3%). The most profitable are Consolidation bonds, which pay 14 percent. The others pay 6-7 percent. Table 9.6 shows the balances of Securities at the end of the years 1989, 1990, 1991 and as of November 1992.

**TABLE 9.6: Fedecredito, Comparative Statement in Million Colones, End of Period, Securities**

Assets	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Securities	<u>48.3</u>	<u>54.3</u>	<u>55.4</u>	<u>38.7</u>
Bonds				
Government bonds	48.3	54.3	55.4	56.4
Ratio to Total Assets	14.0%	15.3%	19.3%	13.4%

Source: Computer Print-outs supplied by Fedecredito.

**9.2.1.3 Loans.** Table 9.7 shows the distribution of Loan's balances in accordance with the classification for risk of noncollection. These balances are consolidated and include loans made to and by the Rural Credit Funds or Workers' Banks. In accordance with Article 29 of the new Law of Credit Funds, Fedecredito can extend credit only to Rural Credit Funds or Workers' Banks; any other borrower must apply to a Credit Fund or Workers' Bank directly to receive financing.

**TABLE 9.7: Fedecredito, Comparative Statement in Million Colones, End of Period, Loan Risk Classification**

	1990*	1991**	1992***
Loans	<u>234.3</u>	<u>171.3</u>	<u>200.8</u>
Class A-Normal	5.3	27.7	17.0
Class B-Subnormal	49.1	82.4	49.9
Class C-Deficient	129.7	92.1	112.0
Class D-Difficult	31.6	41.2	54.6
Class E-Uncollectible	43.5	93.7	86.5
Less Reserves	NA	NA	NA

Source: Computer Print-outs supplied by Fedecredito.

\*Financial data as of November 30, 1990.

\*\*Financial data as of November 30, 1991.

\*\*\*Financial data as of May 31, 1992.

Table 9.7 shows that the balances of class C and D loans have increased, while the balances of class A and B loans, which are the most desirable, have declined. Class E loans have been reduced from 93.7 million in 1991 to 86.5 million as of November 1992.

The percent participation of Loans in the Total Assets of Fedecredito has been increasing during the period, reaching 69.8 percent as of November 1992 (see Table 9.8).

**TABLE 9.8: Fedecredito, Loans to Total Assets Ratio, End of Period**

YEAR	RATIO
1989	62.3%
1990	65.9%
1991	59.6%
1992	69.8%

Source: Data Table 9.2

**9.2.1.4 Fixed Assets.** An inventory of Fixed Assets was taken during 1990 and the necessary adjustments were made to the accounting records. It is important to determine if the values registered in the books reflect the real market value, less the accumulated depreciation of the assets, or if the balance is the total of the original cost plus repairs. The building owned by the Central Credit Fund, was damaged during the 1986 earthquake and later repaired. Table 9.9 shows the year-end balances of Fixed Assets for 1991 and as of November 1992.

**TABLE 9.9: Fedecredito, Comparative Statement in Million Colones, End of Period, Fixed Assets\***

	1991	1992
Fixed Assets	<u>21.1</u>	<u>20.3</u>
Land		
Buildings	14.5	14.3
Equipment	6.6	7.1
Furniture		
Revaluation	7.1	6.5
Less Depreciation	<u>(7.2)</u>	<u>(7.7)</u>

Source: Computer Print-outs supplied by Fedecredito

\*Financial data as of November 30, 1992.

Since 1989, the percent participation of Fixed Assets in Total Assets increased from 4.7 percent to 7.1 percent as of November 1992, mainly due to the reduction in Total Assets. The investment in Fixed Assets has been declining due to depreciation. Table 9.10 shows the percentages for Fixed Assets during the years 1989, 1990, 1991, and November 1992.

**TABLE 9.10: Fedecredito, Fixed Assets to Total Assets Ratio, End of Period**

YEAR	RATIO
1989	4.7%
1990	6.1%
1991	7.3%
1992	7.1%

Source: Data in Tables 9.3 and 9.9

**9.2.1.5 Other Assets.** The most important components of Other Assets are Interest Receivables, Other Receivables, and Miscellaneous, which together represent between 80 and 90 percent of the balance after deducting the applicable reserve (Table 9.11).

**TABLE 9.11: Fedecredito, Comparative Statement in Million Colones End of Period, Other Assets\***

	1991	1992
Other Assets	29.2	20.4
Receivables-Interest	27.6	11.9
Other receivables	8.8	7.7
Deferred expenses	0.8	1.0
Tradables	0.0	1.2
Extraordinary Assets	1.9	1.9
Miscellaneous	6.4	3.6
Less Reserves	(16.3)	(6.9)

Source: Computer Printouts supplied by Fedecredito

\*Financial data as of November 30, 1992.

Other Assets have been declining as a percent of Total Assets, from 13.4 percent at the end of 1989 to 7.1 percent as of November 1992. Table 9.12 details the participation of Other Assets in Total Assets for the years 1989, 1990, 1991, and as of November 1992.

**TABLE 9.12: Fedecredito, Other Assets to total Assets Ratio End of Period**

YEAR	RATIO
1989	13.4%
1990	9.5%
1991	10.2%
1992	7.1%

Source: Data in Tables 9.3 and 9.9

### 9.2.2 Loan Loss Provision/Nonperforming Loans

The annual loan collection rate for 1991 was 89.2 percent, higher than the 88.1 percent for 1990 and quite competitive when compared to BKK (80%) and BAAC (83%) but inferior to BUD (95%) and GB (99%). This change in collection rate reflects changes made by Fedecredito management in 1990 when it organized a department specializing in the analysis of loans (Departamento de Préstamos).

The annual provision for loan losses has been high due to the creation of reserves during 1991. Given the increase in the annual collection rate and the more stringent procedures for approving and collecting loans granted to the Rural Credit Funds, management expects that during the next years, the annual provision for loan losses will be a lower percentage of the loan portfolio than in 1991. Fedecredito's rate of provision for loan losses (20.1%) compared well with that of BFA in El Salvador (22%), but is much higher than BAAC in Thailand (1.0%), BUD in Indonesia (2.9%), and GB in Bangladesh (.4%).

### 9.2.3 Age Structure of Total Arrears

Available information for Total Arrears indicates that there has been a reduction in the percentage of arrears over twelve months, from 72.5 percent in 1991 to 68 percent as of November 1992. This is a result of increased efforts by the different departments responsible for managing the approval and collection of loans.

**TABLE 9.13: Fedecredito, Age Structure of Total Arrears<sup>14</sup>**

	1991	1992
Up to 8 months arrears	22.4%	24.2%
From 8 10 12 months arrears	5.1%	6.8%
Subtotal: Up to 12 months	27.5%	32.0%
Over 12 months arrears	72.5%	68.0%

Source: Fedecredito report dated Jan. 4, 1993

### 9.3 Management Assessment

Based on the organization of Fedecredito discussed in this section, the financial results evaluated in other sections of this report, and relations with the member Rural Credit Funds, the rating for the CAMEL analysis of the Central Office Management is 3, Fair.

Article 34 of the enabling legislation defines the administrative organization of the Rural Credit Funds. It is established that the Rural Credit Funds will be organized as cooperatives, will have a General Assembly of members and a Board of Directors. Day-to-day operations could be handled by the directors or by a manager.

The system requires a clear definition of the relationship between Fedecredito and the Rural Credit Funds. As mentioned before, some directors of the Rural Credit Funds are members of the Board of Directors of Fedecredito, which is empowered to define the credit and collection policies to be enforced by the Fedecredito management. Fedecredito must define how to implement them. Correcting the ratios for the individual Rural Credit Funds (detailed in the Assets Quality, section 9.2) will require strong action by Fedecredito's management. This could be opposed or resented by directors who represent their own interests rather than the interest of the Fedecredito system. The present composition of the Board of Directors should be revised once the objectives of the system have been defined and a decision has been made as to how the authority of Fedecredito should be used to make the individual Rural Credit Funds comply with sound credit practices.

It is probable that if an evaluation of the management capabilities of the individual Credit Funds were included in this assessment, the rating for the CAMEL analysis would be downgraded from 3, Fair, to 4, Marginal.

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<sup>14</sup> Data as of November 30, 1992.

### 9.3.1 Cost Efficiency

Using Operating Expenses as an indicator for the cost of the management organization, two ratios have been calculated: (1) the ratio of Operating Expenses-to-Average Annual Total Assets, and (2) the ratio of Operating Expenses-to-Average Annual Loan Balances. From 1990 to 1992, both of these ratios increased as a result of the reduction in Total Assets. This reduction was due to the creation of loan loss reserves and to the fact that no compensating lending was granted. The challenge for Fedecredito is to increase its loan portfolio and total assets without increasing operating expenses.

**TABLE 9.14: Fedecredito, Operating Expenses as a Percentage of:**

	1990	1991	1992
Average Annual Total Assets	5.6%	7.7%	7.4%
Average Annual Loan Balances	8.8%	12.3%	11.4%

Source: Financial Statements Fedecredito

The ratios shown in Table 9.14 are below those reported by successful foreign agricultural development credit organizations (see section 8.3.1). When compared with BFA in El Salvador, Fedecredito has higher ratios of operating expenses-to-average annual total assets, but lower ratios of operating expenses-to-average annual loan balances.

### 9.3.2 Organizational Structure and Lines of Authority

Fedecredito's organizational structure and lines of authority are detailed in Chapters III to V of its Organic Law (Banco Agricola Comercial, *Ley de Bancos*, 1991). Chapter III and IV contain the regulations that concern the General Assembly and the Governing Board. Chapter V lists the requirements for the President and the Manager.

- The General Assembly

The highest authority of Fedecredito is the General Assembly, which consists of the Presidents or members of the Board of Directors of all the Rural Credit Funds and Workers' Banks. The General Assembly will meet at least once a year or as often as required by the Governing Board. The General Assembly will approve the Annual Report, the year-end financial statements, and the report from the external auditor. It will also approve the application of profits, the remuneration for the President, the nomination of the external auditor, and the business plan for the next year.

- **The Governing Board**

The Governing Board has eight members: a president nominated by the president of the Republic; three directors nominated by the Minister of Economy, the Minister of Agriculture, and the Central Bank; and four directors, two representing the Rural Credit Funds and two representing the Workers' Banks. The latter four directors must be members of the Board of Directors of a Rural Credit Fund or a Workers' Bank.

The Governing Board is empowered to approve the policies to be applied by Fedecredito, including establishing the interest rate and other commissions applicable to the credits extended by the Central Credit Fund. It also has regulatory functions as the authority that approves the opening and closing of Rural Credit Funds and Workers' Banks.

- **The President and General Manager**

Chapter V of the Organic Law describes the functions, responsibilities and authorities of the President and General Manager. The President is the legal representative of Fedecredito and is considered the Chief Executive Officer of the organization. He reports to the Governing Board. His specific functions are described in article 22 of the Law. The General Manager could be considered the Chief Operating Officer of Fedecredito. He reports to the President and his functions are described in articles 23 and 24 of the Law.

In addition to the General Manager, Fedecredito will have personnel (managers, technical and administrative) required for an efficient administration. The current organization chart is included in the Appendix A.

Total personnel is estimated to be 292 employees, and there is a high turnover rate (see Table 9.15). Although Fedecredito has been reducing the total number of personnel, about one third of the employees are new every year.

**TABLE 9.15: Personnel Movement**

YEAR	HIRED	RESIGNED
1989	53	117
1990	24	181
1991	54	72
1992 <sup>15</sup>	44	55

Source: Fedecredito Report

<sup>15</sup> As of September 1992.

### **9.3.3 Strategic Plan**

Fedecredito prepares a yearly operations plan and, as with BFA, a more structured strategic planning process is needed in order to guide the restructuring of its system. The comments discussed in the management section about BFA are also applicable to Fedecredito.

### **9.3.4 Education and Distribution of Personnel**

Of the 292 employees at the end of 1992, 149 (51%) had some college education. Most are accountants (37.0%), followed by secretaries (25.3%), then custodians and security guards (17.0%). The most highly trained had masters of business administration (3.7%), or are lawyers (1.7%), agronomists (1.3%), engineers (1.0%), and economists (0.6%). High school graduates (4.1%) and technical school graduates (2.3%) complete the distribution.

It appears that there is a disproportional share of secretaries, custodians, and security guards. Streamlined procedures and computerization could reduce the number of secretaries. A closer investigation is needed to assess the need for so many custodial and security employees.

### **9.3.5 Personnel Incentive Structure**

The compensation package consists of a fixed salary, life insurance, health insurance, social security, lunch allowance, free emergency medicines for minor ills on the job, and an annual cost of living adjustment. Pay levels are substantially below the private sector for skilled staff but higher in comparison for unskilled staff. However, the levels of benefits far exceed other public agencies (lunch allowances, uniforms, transportation, education, eyeglasses, medical insurance, and social security). Performance bonuses are not granted. Personnel evaluations are performed annually to identify weaknesses and encourage improvement, although the criteria are mostly subjective.

Low pay is suspected to be the main reason for the high turnover rate, which occurs most often in the skilled, university-educated cadre. Above average rates of nonmedical-related absenteeism (352 person-days) have also been detected but no clear reasons were mentioned. To improve the situation, quantifiable goals should be used to link productivity and quality to pay. Moreover, a review of management techniques and an evaluation of supervisors are needed to determine if poor management and negative work environments are also significant reasons for the high turnover.

Rural Credit Funds pay scales are varied and are directly correlated to the health of the individual Credit Fund. Weak Rural Credit Funds have the lowest paid employees. While they need strong, competent managers to extricate them from their difficulties, they cannot afford to hire them.

### **9.3.6 Training and Professional Development Opportunities**

Fedecredito offers several seminars and in-house courses (most in computer applications) but does not offer tuition assistance for university education. In the last year, eleven courses and workshops were offered which benefited 117 employees. Overseas scholarships are rare, averaging about two a year. Higher level management personnel are usually the beneficiaries.

The Management of the Affiliated Cooperatives department provides training to staff of Rural Credit Funds, but the department is short of personnel, equipment, and vehicles. The manager of this department would like to have full-time trainers, but must rely on specialists from other departments. Training delays occur when the instructor-specialists cannot be released from primary assignments, and when the eight vehicles owned by Fedecredito are overscheduled.

### **9.3.7 Technical and Infrastructural Assessment**

Three affiliated Rural Credit Funds were visited: Sonsonate, Quezaltepeque, and San Sebastian. They represent, respectively, a strong, profitable rural credit fund, a very weak but salvageable credit fund, and a mediocre credit fund.

Physical Infrastructure and Equipment: All managers expressed a need for more computer equipment and vehicles. The San Sebastian credit fund also expressed a need for desks, adding machines, and typewriters.

Human Resources Development: All managers requested training for staff in the following areas:

- Computer Applications
- Accounting
- Public Relations
- Financial Analysis
- Secretarial Skills
- Credit Collection

**Policy Changes Recommended:** All affiliated Rural Credit Funds managers urgently requested the following:

- Increase the margin of intermediation from 1 percent to 3–4 percent. The current narrow margin restrains profitability and forces the rural credit funds to abandon agricultural lending, which is the most costly to administer and has the slowest capital turnover rate.
- Raise the loan limit maximum for local approval from C25,000 to C50,000, which would greatly reduce the time needed to process a loan.
- Improve the functioning of the information management system in the Central Office (Fedecredito). The Rural Credit Funds spend time complying with requests for the same information presented in slightly different forms to three or four different departments in the Central Office. In addition, the current computerized accounting system is too complicated and rigid, which makes it necessary to engage in manual adjustments in order to reconcile the accounts, which then quickly diverge once again.
- The Rural Credit Funds desire a more cordial and professional relationship with the Central Office.

#### **9.3.8 Central Office Technical Assistance Needs**

Fedecredito has identified its needs for technical assistance in the different departments. See Appendix D for a complete list of the different areas and specific courses considered necessary for Fedecredito, the Rural Credit Funds, and the Workers' Banks.

As was the case for BFA, a program of technical assistance should be designed and implemented after a review of the circumstances relating to the high turnover of personnel and an evaluation of the remaining employees, and a strategic plan developed for the next five years. Only then will it be possible to determine the technical assistance necessary to support the strategies to be implemented in order to reach the medium-term objectives of Fedecredito.

#### **9.4 Earnings**

Based on the analysis in the forthcoming sections and the fact that no meaningful ratios can be computed for an acceptable length of time for the return on assets (ROA) and return on equity (ROE), the high operating costs, and the dependency on subsidies to generate its profits, the Earnings Capacity of Fedecredito is rated at 5, Unsatisfactory.

Only 22 of 51 individual Rural Credit Funds showed a profit in 1992, indicating weak earning capacity. The consolidated profits for all the Credit Funds is C609,000, but since each individual Rural Credit Fund is a separate, independently-owned organization, there is no way for the system to compensate for the losses of some Rural Credit Funds with the profits of others. See Appendix B for full details.

#### 9.4.1 Earnings Generation Capacity

Fedecredito experienced losses in 1989, 1990, 1991, and 1992. These losses resulted from exchange rate losses on loans outstanding with foreign lending institutions or from the creation of reserves for bad loans. The financial statements as of November 1992 show a loss of 7.3 million colones after an adjustment of 6.6 million colones for exchange losses. Table 9.16 details the transactions for the years from 1989 to 1992.

**TABLE 9.16: Fedecredito, Comparative Statement in Million Colones, Profit and Loss<sup>16</sup>**

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Income	<u>31.8</u>	<u>48.9</u>	<u>49.2</u>	<u>45.4</u>
From Operations	<u>28.7</u>	<u>45.9</u>	<u>39.8</u>	<u>39.5</u>
Interest on loans	25.5	41.6	35.5	38.6
Commissions on loans	3.2	4.3	4.3	0.9
From Other Sources	<u>3.1</u>	<u>3.0</u>	<u>9.4</u>	<u>5.9</u>
Income on sale products	3.1	3.0	9.4	5.9
Expenses	<u>90.1</u>	<u>41.2</u>	<u>51.3</u>	<u>45.1</u>
Financial Expenses	14.4	21.5	26.4	23.9
Operating Expenses	19.3	19.7	24.9	21.2
Other Expenses	56.4			
Gross Income	<u>(58.3)</u>	<u>7.7</u>	<u>(2.1)</u>	<u>0.3</u>
Non Operating Transactions				
Bad Debts Provision			(47.2)	(0.9)
Exchange Loss		(25.0)		(6.6)
Adjustments	(0.2)	(0.7)	(0.7)	
Sale of Assets				(0.1)
Net Profit/(Loss)	<u>(58.5)</u>	<u>(18.0)</u>	<u>(50.0)</u>	<u>(7.3)</u>

Source: Audited Financial Statements, Fedecredito

<sup>16</sup> Financial data as of November 30, 1992.

Financial and Operating Expenses are within the levels of previous years. Table 9.17 gives the composition of Operating Expenses for the years 1989 through 1992.

**TABLE 9.17 Fedecredito, Comparative Statement in Million Colones, Operating Expenses<sup>17</sup>**

	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>
Expenses				
Operating Expenses	<u>20.2</u>	<u>19.7</u>	<u>24.9</u>	<u>24.2</u>
Payroll	7.3	5.9	5.2	6.4
Benefits	4.3	4.1	4.5	3.6
ISSS	.7	.6	.6	.5
INPEP	.76	.6	.6	.6
Advertising	.4	.6	.6	.8
Taxes	0	0	0	.1
Rentals	.14	.6	0	0
Office supplies	.4	.3	.5	.5
Fuels & lubs	.2	.15	.2	.1
Depreciation	1.0	1.21	.9	1.04
Other	.4	1.40	1.0	3.05
Services	4.6	4.24	10.8	7.55

Source: Audited Financial Statements, Fedecredito

#### 9.4.2 Return on Average Assets

Return on Average Assets has been erratic during the last four years because Fedecredito showed losses in 1989 and 1991 and profits in 1990 and 1992, before charges for nonoperating transactions. The percentage of return on average assets is very low during this year, estimated at 0.1 percent; it was 2.2 percent in 1990. Table 9.18 details the Return on Average Assets for the years 1989 through 1992.

<sup>17</sup> Financial data as of November 30, 1992.

**TABLE 9.18: Fedecredito, Return on Average Assets**

	1989	1990	1991	1992
Gross Profits	(58.3)	7.7	(2.1)	0.3
Average Assets	343.7	349.5	321.4	287.8
% of Return	(17.0%)	2.2%	(0.7%)	0.1% <sup>18</sup>

Source: Data in Tables 9.2 and 9.16

In comparison, the return on average assets for BKK ranged from 13.5 percent in 1986 to 6.1 percent in 1989, the last year of available data. For BUD, the range was from @.5 percent to 2.8 in the same period. For Grameen Bank, the range was from .04 percent to .07 percent. The latter institution uses a particularly expensive loan delivery mechanism, group lending with intensive training, compared to the others (Yaron, 1992). Thus, for the one comparable data point, 1989, Fedecredito did not compare favorably with any of the Asian peers, because it lost money in that year.

### 9.4.3 Spread Analysis

The difference between lending rates and cost of funds (spread) in the lending operation of Fedecredito has been reduced during the last three years, from 11.4 percent in 1990 to 7.7 in 1992, as a result of an increase in the interest paid by Fedecredito for its sources of funding. The concessionary funds received during 1990, and in previous years, were primarily loans denominated in foreign currencies. These caused severe exchange losses. The exchange risk was not taken into consideration when the interest rates were established. Table 9.19 shows the composition of the spread for the years 1990, 1991, and 1992.

**TABLE 9.19: Fedecredito, Spread Analysis**

	1990	1991	1992
Interest Earned on Loans	41.6	35.5	38.6
Average Loans	224.2	202.8	186.1
Interest Rate Charged	18.5%	17.5%	20.7% <sup>19</sup>
Interest Expense	21.5	26.4	23.9
Deposits + Loans	298.7	305.6	308.6
Interest Rate Paid	7.1%	8.9%	13.0%
Spread (Interest Rate Charged-Interest Rate Paid)	11.4%	8.6%	7.7%

Source: Financial Statements Fedecredito

<sup>18</sup> Rate for eleven months of 1992 annualized for the whole year.

<sup>19</sup> Rate for eleven months of 1992 annualized for the whole year.

#### 9.4.4 Calculation of Efficiency Correction Index

The following analysis evaluates the effects of the average cost of administering Fedecredito per colon of lending and the average cost of borrowing the resources used to lend to its customers. The results obtained for the last three years are compared with estimated ratios that could be accepted as benchmarks or normal ratios for operating expenses and financial costs.

In the case of average percent operating expenses per volume of lending, a ratio 50 percent above the average for the commercial banks in El Salvador is considered adequate for a rural credit system such as Fedecredito. The medium-term rate of operating expenses for the commercial banks has been around 4 percent; thus a benchmark ratio of operating expenses-to-loans of 6 percent has been used to evaluate Fedecredito's performance.

**TABLE 9.20: Operating Expenses as a Percentage of Average Loan Balances**

	1992	1991	1990
Actual Average	13.0%	12.3%	8.8%
Benchmark Ratio	6.0%	6.0%	6.0%
Excess	7.0%	6.3%	2.8%

The cost of financial resources used by Fedecredito is obtained by adding the average rate of interest paid to depositors to the transaction cost incurred by Fedecredito in handling deposits, which are estimated at 4.5 percent of total deposits.

**TABLE 9.21: Estimated Market Cost of Financial Resources Available to Fedecredito**

	1990	1991	1992
Average Paid on Deposits	15.7%	14.5%	16.0%
Transaction Costs	4.5%	4.5%	4.5%
Total Cost of Funds	20.2%	19.0%	20.5%
Average Cost of Funds	7.1%	8.9%	13.0%
Concessional Interest Rate	13.1%	10.1%	7.5%

Source: Information supplied by Fedecredito

Information in Table 9.21 shows that for 1992, the average interest rate paid to depositors increased to a high of 16.0 percent. The cost of borrowed funds increased from

7.1 percent in 1990 to 13.0 percent in 1992, which affected the spread in interest rates on resources used by Fedecredito.

Table 9.22 indicates that if the sources of concessionary funds are eliminated, Fedecredito will need to increase its lending rate to 46.5 percent if improvements in efficiency are not achieved or to 39.5 percent if the operating expenses are controlled (see Appendix C). It is important to emphasize that in the financial environment of the 1990s, Fedecredito will need to improve its efficiency and to price its lending products at an interest rate high enough to provide a market return on the volume of assets managed and equity invested. These interest rates might be unaffordable for small borrowers with limited investment choices, thus there is a role for donors and the central government to play by providing operational subsidies on the condition that improvements be made yearly in efficiency.

**TABLE 9.22: Annual Subsidy Received by Fedecredito**

	1990	1991	1992
Annual Subsidy in Million Colones	74.4	96.9	51.4
Index of Subsidy Dependence	179.5%	273.0%	126.6%
Average Annual Rate Charged on Loans	18.5%	17.5%	20.7%
Interest Rate on Loans Needed to Eliminate Subsidy Dependence	56.5%	70.9%	46.5%

Source: Annex C

## 9.5 Liquidity

For the purposes of the CAMEL analysis, the liquidity at Fedecredito is rated as 2, Satisfactory.

At the end of November 1992, the individual Rural Credit Funds had available 15.3 million colones in Cash and Banks, which exceeds the balance held by Fedecredito. Since the total deposits registered by the Rural Credit Funds were only 608 thousand colones and the outstanding borrowing with Fedecredito was 183 million colones, the source of these funds is Fedecredito. An adequate liquidity management policy is needed to avoid this accumulation of cash in certain Rural Credit Funds.

### 9.5.1 Year-end Accounts

The ratio of coverage of Cash and Banks-to-Liabilities declined over the past three years: it was 2.3 percent as of November 1992, which seems to be adequate. The ratio of Cash-to-Deposits is high because the level of Deposits is quite low. It might be possible, however, to increase the volume of deposits without increasing the balances held in Cash and Banks, which would reduce this ratio. Table 9.23 details the relations of these ratios for the years 1990, 1991, and 1992.

**TABLE 9.23: Fedecredito, Comparative Statement in Million Colones Liabilities and Deposits to Cash and Banks Ratio<sup>20</sup>**

	<u>1990</u>	<u>1991</u>	<u>1992</u>
Cash and Banks	<u>11.4</u>	<u>10.5</u>	<u>7.6</u>
Liabilities	<u>323.4</u>	<u>327.6</u>	<u>334.5</u>
Coverage			
Cash and Banks	3.5%	3.2%	2.3%
Deposits	<u>30.4</u>	<u>42.8</u>	<u>38.6</u>
Coverage			
Cash and Banks	37.5%	24.5%	19.7%

Source: Audited Financial Statements, Fedecredito

The principal sources of funds for Fedecredito and the Rural Credit Funds are collections from loans and rediscounts from BCR(see Table 9.24). The latter source could be reduced if a change in the present credit policy is realized by the authorities at BCR.

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<sup>20</sup> Financial data as of June 30, 1992, from computer print out supplied by Fedecredito.

**TABLE 9.24: Fedecredito, Comparative Statement in Million Colones, Liquidity Generation**

	<u>1990</u>	<u>1991</u>
Total Incoming Funds		
From Banking Operations	<u>572.5</u>	<u>453.4</u>
Collections-Loans	188.6	209.1
Rediscount with BCR	198.6	83.7
Commissions and other income	31.1	35.5
Other Funds	61.8	69.7
Sale of Products	20.2	9.4
Non cash generating transactions	72.2	46.0

Source: Audited Financial Statements, Fedecredito

Note: Audited Financial Statements for 1992 were not available.

### 9.5.2 Flow of Funds

The funds are used primarily to pay the balances owed to BCR and to provide new loans. A comparison of the information in Tables 9.25 and 9.26 indicates that Fedecredito has been reducing its outstanding balance with BCR and delivering a lower volume of funds to its customers, a result of collecting more every year than it has been lending.

**TABLE 9.25: Fedecredito, Comparative Statement in Million Colones, Liquidity Consumption**

	<u>1990</u>	<u>1991</u>
Total Outgoing Funds For Banking Operations	<u>572.2</u>	<u>455.1</u>
Disbursements-Loans	196.3	157.2
Payments to BCR	267.4	175.6
Interest & Other Financial Expenses	43.4	74.5
Investment in Securities	6.1	1.6
Outgoing for Other Banking	20.5	18.1
Operating Expenses	16.4	17.2
Suppliers & Others	4.8	3.2
For Non-Banking Operations		
Purchases Agricultural Inputs	17.3	7.7

Source: Audited Financial Statements, Fedecredito

Note: Audited Financial Statements for 1992 were not available.

Liquidity management at Fedecredito seems to be aimed at a specific amount rather than at a percent of assets, deposits, or lending. The Cash and Banks balance has varied only by 1.7 million colones as shown in Table 9.26.

**TABLE 9.26: Fedecredito, Comparative Statement in Million Colones, Liquidity Movements on Cash and Banks**

	<u>1990</u>	<u>1991</u>
Balances beginning of year	12.8	13.1
Plus Cash generated <sup>21</sup>	572.5	453.4
Less Cash consumed <sup>22</sup>	572.2	455.1
Balances end of year	13.1	11.4

Source: Audited Financial Statements, Fedecredito

## 9.6 Recommendations

### 9.6.1 Fedecredito

#### CAPITAL

- Recapitalize Fedecredito with sufficient funding to support the volume of financial services so that its rural credit system will develop in accordance with the strategic plan that is developed.
- Annually increase Fedecredito's capital in an amount equal to the loss of purchasing power caused by inflation, calculated on the equity capital plus reserves, at the beginning of the period.
- Annually increase Fedecredito's capital over and above what is needed to adjust for inflation, in order to give Fedecredito a growing capital base to expand its volume of operations.
- Initiate a more aggressive program to collect past due balances to avoid affecting the capital of the bank with loan losses.

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<sup>21</sup> From Table 9.24.

<sup>22</sup> From Table 9.25.

- Increase the participation of the individual Rural Credit Funds and Workers' Banks in Fedecrédito's capital base.

## ASSETS

### Cash and Banks

- Define the amount of Cash and Bank deposits as a percentage of total assets or total liabilities plus lending commitments, rather than as a targeted amount.

### Securities

- Convert the present securities portfolio into cash to be used to increase the lending activities of Fedecrédito.

### Loans

- Determine the mobility of credits from class B to classes C, D, and E in order to adjust the level of reserves needed to insulate Fedecrédito from unexpected losses.
- Increase Class B reserves from 0 percent to 10 percent and Class C reserves from 10 percent to 20 percent. Reserves for classes D and E seem to be adequate. Compliance with this recommendation will require 20 million colones of additional reserves to provide a higher level of insulation against unexpected losses.
- Increase interest rates to an adequate level to provide incentives to borrowers to pay promptly and to generate enough income to Fedecrédito. Conditioned operational subsidies may be needed.
- Establish a policy of rebates on interest charges for borrowers who pay promptly.

## MANAGEMENT

- Reform Fedecrédito's enabling legislation to restructure the Governing Board, giving more representation to Directors from private enterprise and revising the loan limits approval authority. Additionally, sound Rural Credit Fund managers should have greater loan approval authority.
- Restructure the present management organization to give more attention to the functioning of the individual Rural Credit Funds, based on predetermined financial ratios to be used as guides for the evaluation of their financial and organizational accomplishments.

- Investigate the legal ramifications of redeploying manpower from the Central Office of Fedecredito to strengthen the lending and collecting activities at selected Credit Funds.
- Improve Fedecredito's management independence from political pressures, which would allow management personnel to function as managers of a credit institution rather than as an arm of government rural policy.
- Design a program of technical assistance to Fedecredito's personnel to improve their knowledge and abilities in order to have a trained staff that is able to implement the strategic plan.
- Design a program of evaluation and personnel incentives based on performance and implementation of the strategic plan.

## EARNINGS

- Develop guidelines for management to administer the resources of Fedecredito and the Rural Credit Funds efficiently to obtain an adequate return on assets (ROA) and on equity (ROE).
- Adjust active interest rates to market rates that are competitive with other financial intermediaries with a clientele similar to that of Fedecredito.
- Increase the volume and quality of lending.
- Establish a cost reduction program that includes redeployment of resources from the Central Credit office to the Rural Credit Funds. The ratio of operating expenses to loans should be no more than 50 percent of the average value of this ratio for commercial banks.
- Organize an information system that keeps management up to date on conditions that affect the delivery of services to customers and the earning capacity of Fedecredito and the Rural Credit Funds (c.g., interest rate spread, delinquent loan levels, interest rate movements, gap analysis, duration analysis, efficiency analysis for the Credit Funds and Workers' Banks).
- Avoid foreign exchange exposures unless they are fully hedged.

## LIQUIDITY

- Identify and quantify the pattern of liquidity requirements to guide liquidity management.

- Avoid depositing excess funds with commercial banks.
- Design and implement a program to increase the volume of depositors with Fedecredito, with special emphasis on deposits from the Rural Credit Funds and Workers' Banks.
- Convert the securities portfolio into cash that can be used to increase the lending activities of Fedecredito.

## **9.6.2 Individual Rural Credit Funds**

### **CAPITAL**

- Define a program to recapitalize the individual Rural Credit Funds.
- Investigate options to organize the system so that it is able to compensate for losses in some Credit Funds with profits from others.

### **ASSETS**

#### **Loans**

- Eliminate the program of supervised credit and concentrate available manpower at the Credit Funds for the evaluation and approval of loans and for collections.
- Establish a policy to not approving loans to borrowers in arrears.
- Increase interest rates to a level that provides incentives to borrowers to pay promptly and that generate income for the Credit Funds.
- Establish a policy of rebates on interest charges for borrowers who pay promptly.

#### **Fixed Assets**

- Reduce the investment in fixed assets to the minimum necessary for efficient operation of the Credit Fund.
- Sell any unnecessary fixed assets in the books of the individual Rural Credit Funds.

#### **Other Assets**

- Evaluate the balances in these categories and establish the necessary reserves for those items that are uncollectible.

- Liquidate any balances in Other Assets that are nonexistent or noncollectible.

#### MANAGEMENT

- Evaluate the capacity of present management and organize a training program to improve it.
- Describe to the management of the Rural Credit Funds the system that will be used to evaluate their performance and the approval for additional financing.
- Train management to control loan delinquency and costs.

#### EARNINGS

- Train the management of the Rural Credit Funds to control their earning generation capacity.

#### LIQUIDITY

- Train the management of the Rural Credit Funds to identify and project their liquidity needs in order to receive better support from Fedecredito.

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## **PART IV: CONSTRAINTS TO EFFECTIVE CREDIT DELIVERY**

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### **10. CONSTRAINTS TO EFFECTIVE CREDIT DELIVERY**

#### **10.1 Issues in Rural Credit Access, Delivery, and Recovery**

Credit is a necessary productive input but not a sufficient one. Ready credit availability does not assure project success and generalized economic welfare enhancement and growth in a region or a country. Credit must be complemented with adequate quantities and quality of technical assistance, marketing acumen, and managerial ability to achieve these stated ends. The developing world is littered with supply-driven credit programs that have often resulted in unintended results: weakened intermediaries, rationing, diversions to nonagricultural uses, and unimproved or worsened income distribution. Because of the relative ease of designing and implementing credit projects, the temptation is great to view credit as a panacea for rural ills and convert it into a "political commodity." In the future, credit should be viewed as one element of many that, when combined in a timely manner, creates an auspicious environment for economic growth and alleviation of poverty.

Effective credit disbursement, use by a substantial number of the low-income target population, and high recovery require a systematic attack on a series of impediments which can be divided into three categories: access problems, delivery and recovery problems, and external factors that can affect either in a positive or negative manner project selection and outcome. Remedies to the aforementioned constraints are two-pronged: those that improve lender viability and those that improve borrower creditworthiness. Corrective actions should be simultaneous and well coordinated. Otherwise, intermediary institutions concerned about profitability may restrict access to a very high-risk target population. Conversely, a groomed set of creditworthy clients may have to endure poor-quality service and sporadic access from debilitated formal intermediaries.

#### **10.2 Access Problems**

Small-scale, low-income agricultural producers may experience access problems for a variety of reasons, some internal, some external. They are enumerated below.

##### **10.2.1 Risk Aversion**

Agricultural producers may not care to indebt themselves and risk losing scarce assets or tarnishing their reputation. They may not feel confident adopting the new production techniques or using the modern inputs that are explicit or implicit conditions in the loan contract. To cover the financial charges associated with a loan, low-income farmers almost always have to increase production volume, yield, and amounts marketed. Factors that shape risk aversion

are cultural norms, income level, agroclimatic zones, the availability of improved technology and technical assistance, and the state of the infrastructure.

In El Salvador, most small farmers already use improved seed and fertilizer and peasant spokespersons clamor for better access to credit. In addition, a study of the distribution of risk preferences in northern El Salvador, conducted by Thomas Walker in 1980, found that 30 percent of respondents chose more risky alternatives in an experimental game design. Compared with similar research studies conducted in India, the Philippines, and Thailand, Salvadoran peasants seemed to be proportionally more risk-neutral or risk-preferring. When the payoffs and losses were normalized to a uniform standard, the Asian peasants fell within a narrow range of moderate to slight risk aversion while Salvadoran peasants were risk accepting (Binswanger and Siller, 1983).

Thus, if Walker's findings are accepted despite the study's small size and small geographic area of coverage, coupled with the general impression of an existing high notational demand for credit, then risk aversion is not a serious impediment.

### **10.2.2 Scale and Quality of Controlled Productive Resources**

Given the agrarian structure of El Salvador, the majority of small producers own or control parcels inadequate to economically support the average family of 5-6 persons. Outside income is necessary to complement on-farm receipts. Whereas 5-7 manzanas has been deemed the minimum necessary for self-sufficiency, the most common farm size is 3 manzanas, and the most widely grown crop is corn. Moreover, the best-quality lands are dedicated to extensive cattle grazing and traditional export crops, which leaves only marginal, sloping terrain for the cultivation of basic grains.

Because of the small farm sizes, high family consumption needs, and observed yield levels, little grain production remains to be marketed, making the assumption of a loan for grain production a risky proposition. Fifty-seven percent of producers operate farms of 1-4 manzanas, 37 percent farms smaller than 1 manzana (MIPLAN survey). Between 60 and 70 percent of the grain is retained for consumption. In addition, the quality of soils and the steep slopes of many of the farms in these classes contribute to lower yields and increased soil erosion over time.

Without projects aimed at augmenting productivity, improving soil conservation, removing marketing bottlenecks, and introducing more profitable crops, small farm size will by itself continue to be a formidable barrier to credit, especially for grain producers.

### **10.2.3 Lack of Guarantees**

To be poor is by definition, to lack substantial amounts of pledgeable collateral. Therefore, in the absence of sufficient, properly titled, real assets, three alternatives exist: one is to use higher interest rates to cover the expected higher default losses; another is to use group

credit, which relies on induced screening and peer monitoring to assure high repayment, and last, there is the possibility of relying heavily on crop and animal liens. Each of these options has drawbacks and weaknesses that the banker must seek to either overcome or to minimize.

The use of higher interest rates is possible if the clients have a wide range of profitable activities that can support the higher financial charges; if they do not, then adverse selection will occur. Only the clients with the most high-risk projects will solicit credit, resulting in lower bank profits in the long run (Stiglitz 1990; Stiglitz and Weiss 1982).

Group credit in the context of peasant agriculture is a more feasible alternative but success depends on the cost of group formation and maintenance, group leadership, and the degree of social cohesion and homogeneity (Wenner 1989). Moreover, group credit is most profitable for the lender when the principal end-use activity is commercial (working capital). Agriculture, with its long gestational periods, does not permit rapid turnover of loan capital.

The use of liens on moveable assets is feasible as long as the legal process of foreclosure is agile and the attendant economic and social costs are manageable. Many times the crops have been sold or the animals pledged have died or the economic state of the client is so weak by the time the bank contemplates foreclosure, that the economic and social costs are very significant.

In the 1980s the two agricultural lenders that were studied relied heavily on group credit and crop liens as guarantees for small farmers. Neither has served as an effective guarantee. In the case of Fedecredito, group credit has not worked well anywhere in the country; in the case of the Agricultural Development Bank, group credit has worked well in the Western Departments but not in the Eastern and Northern Departments.

The explanation given by bank managers for the poor repayment rates for group credit is program politicization in the 1980s and the negative effects of war-induced emigration. In the early 1980s cheap and readily available credit for small farmers was used as a weapon of political pacification. Recipients came to view credit not as a financial obligation but as political patronage for either, their acquiescence with the status quo or payment for votes. In the Eastern and Northern Departments, many members of credit groups left their communities due to the conflict, leaving the remaining members with their debt. Often the remaining members, although solvent, refused to pay the collective debt. In a rapid assessment survey of seven rural branch offices, the most afflicted intermediary was San Sebastian Rural Credit Fund, which reported 150 of 170 credit groups delinquent. In the case of the Agricultural Development Bank, group credit had been used much earlier than 1980, and while it experienced similar problems in the East, repayment rates remained high in the West due to greater stability and the desire to maintain access to a credit source. In the Santa Ana branch office of the Agricultural Development Bank, only 6 of 167 credit groups are delinquent.

The use of third-party loan guarantee programs has increased, but this type of intervention has neither succeeded in increasing the total number of clients served nor in decreasing transaction costs. The use of third-party guarantees is important in strengthening a weak banking system, but the programs need to be well-designed and administered. They should not be viewed as the prime means of collateralization nor as a substitute for good borrower selection and screening. Third-party guarantee funds should be viewed as last-resort, emergency backstops, best used for helping borrowers affected by external catastrophes.

Three such programs aimed at the rural populace and funded by international donors are now in existence: (1) Agricultural Guarantee Fund (FOGARA), (2) Guarantee Fund for Micro and Small Businesses (FOGAMIPE), and (3) Guarantee Fund for the Reactivation Program of the Agricultural Sector (PRODERE). They were all designed to give greater access to borrowers with insufficient collateral. However, the first two funds have proven to be quite expensive, and the last program has a very small area of influence, covering only the six BFA agencies most affected by the civil conflict.

FOGARA, the program most relevant to this study, has initial capitalization of C100 million and provides up to 70-percent backing for small producers and land reform beneficiaries. In 1991, the first year of operation, it provided 1,587 guarantees for a sum of C59 million. Unfortunately, the largest inscriber of guarantees, the Agricultural Development Bank, experienced a 21-percent delinquency rate and a series of administrative problems that casts the credibility of the entire program in doubt. First, the average cost per guarantee inscribed has been C603.29. This figure is additional to the already high loan administration cost. Second, the Banco Cuscatlán, the fund administrator, has been slow to honor the bad debts presented, desiring to be convinced that all reasonable collection efforts have been made. Banco Cuscatlán has requested detailed information of the number of supervisory visits made and reports on the progress of collection activities. Third, borrowers must pay a 2-percent commission fee for each year of the loan term, which further increases the high level of borrower transaction costs.

Repayment data on FOGARA is not available for 1992 because the due dates for most loans is March 31, 1993. The hope is that with a year marked with good weather and bumper grain crops, the delinquency percentage will be considerably less than the previous year. The number of guarantee fund inscriptions has increased by almost a factor of five in the last two years, climbing from 1,415 in 1991 to 6,578 in 1992. At the same time, the number of BFA clients has fallen from 9,253 in 1991 to 9,024 in 1992. Thus, access has not been improved.

In the case of Fedecredito, agricultural lending and especially agricultural group credit has diminished. Increasingly, more and more agricultural loans are being secured with mortgages, a trend that reduces credit accessibility for the poor.

In summary, if greater outreach to the poor is a goal, on lending to agribusinesses who in turn lend to farmer-suppliers, group credit, liens, and repayment incentives will have to be

used. Nonetheless, sponsors of the existing guarantee programs should consider changes that would lower both lender and borrower costs.

#### **10.2.4 Borrower Transaction Cost**

High transaction costs in applying for and procuring loans act as a barrier for potential clients. The smaller the loan size, the more onerous the burden. The loan application process for both of the studied organizations are presented below.

##### Agricultural Development Bank:

- 1. Receipt of Application.** Staff usually fills out the form for the client. Personal data, an investment plan, a balance sheet, and a formal request for identity card verification are the principal items.
- 2. Credit History and Guarantees Verified.** Either a phone call is made or a letter of request is sent to other banks for information on the credit status of the individual. The records of the bank are reviewed as well.

The assets pledged as collateral, especially fixed ones, are verified as being unencumbered in the Registry of Property. The registry is not computerized and checks have to be made manually. Offices are located in the departmental capitals, which may coincide with the location of the BFA bank branch. If not, additional delay may occur due to travel and search time.

- 3. Field Evaluation.** If the loan request is sizeable, an extension agent is sent out to review the property and items offered as guarantee. If the credit is small and the client is known this step is often eliminated.
- 4. Financial Analysis.** An analyst assesses the technical and economic feasibility of the project and classifies the loan according to the criteria set by the Superintendency. A recommendation is made to the loan committee.
- 5. Loan Committee.** If the credit is less than C50,000, a committee of three in the agency (the branch chief, analyst, and one other person) give final approval or rejection. If the loan is approved, the next step is legal contracting.

If the credit is greater than C50,000 the entire application is sent to the Central Office Loan Department where a superficial review is made to assure that all papers are in order. It is then passed to a committee consisting of the Chief of the Loan Department, Chief of the Legal Department, a credit reviewer, and an agronomist, all of whom review and make a recommendation. If the recommendation is affirmative, the credit application passes to the Board of

Directors, who make the final approval. The board of directors meets weekly. If approved, the BFA agency is notified.

6. **Legal Contracting.** Legal documents are prepared in the agency and the client is notified either by letter or word of mouth when the loan is ready. The client comes to the agency, picks a notary public from a list of recommended ones and formalizes the contract. Usually two people have to sign, the applicant and another family member. In an effort to speed up the process, the agency hires notaries who sit in the bank on certain days and the bank is beginning to use a mechanized, loan contract form.
7. **Disbursement.** The bank has a policy of not disbursing too early and of disbursing in installments, fearing that the funds may be diverted. Thus, the first installment of agricultural production loans are usually disbursed at the start of the rainy season or the start of the dry season. Thus, if the loan was approved before May, the client will have to return again to receive the first disbursement.

Repeat customers must go through the same procedure each time. Bank officials estimate that the shortest length of time needed to approve a loan is three weeks to a month. Clients estimate that the average length of time needed is one and one half to two months. Moreover, a minimum of four to five visits are needed to transact a loan: one to inquire about the new loan limits and interest rates, another to fill out the loan application, another to inquire about the status of the loan, another to contract the loan, and finally another to receive the first loan installment. If supporting documents are missing or incorrect additional trips are necessary.

#### Fedecredito/Rural Credit Fund:

1. **Receipt of Credit.** The client fills out an application with the assistance of a loan officer. The loan officer immediately gives an informal assessment of the viability of the project. If the assessment is positive or if the client insists on going forward, the application is passed to an agronomist or microenterprise specialist.
2. **Credit History Review and Receipt of Guarantee Documents.** The client, given tentative clearance, presents supporting documents for a mortgage, lien, or a co-signer. Credit history and guarantees are checked. The legal officer decides upon the quality of the guarantees and the amount needed to cover the loan.
3. **Financial Analysis.** An analyst studies the feasibility of the project and classifies the loan according to the criteria established by the Superintendency. A recommendation is then made to the loan committee.

4. **Loan Committee Review.** If the loan is less than C25,000, the board of directors of the credit fund, which consists of the local president, treasurer, and secretary, review the loan and make a final decision. This group meets weekly.

If the loan is greater than C25,000, the complete application is sent to the Central Office, where an analyst reviews all the documents, assesses feasibility, and makes a recommendation. Each analyst normally oversees ten Rural Credit Funds.

At the central office there are four credit review committees:

- Board of Directors for review of loans more than C200,000
  - Committee A, which consists of three general managers, for review of loans of C100,000–200,000.
  - Committee B, which consists of one general manager and two department chiefs, for review of loans of C50,000–100,000.
  - Committee C, which consists of one department head and two section chiefs, for review of loans of C25,000–50,000.
5. **Legal Contracting.** After approval, either at the Central Office or the rural credit fund, the client is notified and a loan contract is signed in the presence of a notary. Besides the notary fee, which is 1 percent of the loan, miscellaneous fees are collected for property checks, mandatory shares in the cooperative, and for loan processing.
  6. **Disbursement.** The loan is disbursed using either funds from the rural credit fund itself (less than C25,000) or with central funds. If the local fund is depleted, IOU's are signed for packets or groups of loans with the Central Office.

Ideally, loans of less than C25,000 should take about two weeks to process, larger loans three weeks. Most often, however, delays do occur, due to mistaken or willful presentation of encumbered assets as guarantees, backlogs in the Registry of Properties, and insufficient data to complete the project feasibility analysis.

Case studies show why such a large percentage of respondents do not apply for credit. As can be seen in Table 10.1, a small subsistence farmer like Miguel Angel Dominguez incurred a much higher level of interest costs than a progressive, medium-sized farmer like Adolfo Marin. Whereas the latter paid 1.6 percent more in effective interest terms compared to nominal interest terms, the former paid 7.6 percent more in effective interest terms. When the probability of the inopportune disbursement of credit is factored in, the effective interest rate would be even higher.

Table 10.1: Borrower Transaction Costs

Client:	Loan Source	Loan Amount (Colones)	Nominal Interest Rate (Percent)	Area Cultivated	Number o Visits	Opportunity Cost of Labor	Food (Colone	Transpo Cost (Colone
Miguel Angel Domingu	Agric. Dev. Bank	3500	17	2-mz Corn	7	72	70	30
Adolfo Marin Colora	Agric. Dev. Bank	111700	17	9 mz-Melon	4	80	160	60
Coop. Santa Lucia	Salvadoreno	667690	17	243 mz Rice & C	4	352	180	50
Coop. Los Achotales	Salvadoreno	694580	17	266 mz Mixed	10	2200	200	100

CONTINUED:

Client:	Notary Fee (Colones)	Guarantee Commission Fee-ISTA	Miscellaneous Fees (Colones)	TOTAL COST (Colones)	Cost as Percent of Loan	EFFECTIVE ANNUAL INTEREST RATE
Miguel Angel Dominqu	38	0	55	265	7.57	24.57
Adolfo Marin Colora	1130	0	420	1850	1.66	18.66
Coop. Santa Lucia	2204	13354	1669	17809	2.67	19.67
Coop. Los Achotales	2292	13892	1736	20420	2.94	19.94

Source: Personal interviews conducted by author between February 2-4, 1993

In the case of cooperatives, three officers are needed to transact loans, thus, the costs are proportionally higher in terms of work days lost and per diem expenses. However, the extremely large sizes of the loans make transaction costs as a percent of loan volume comparable to those for the individual medium-sized farmer. What elevates loan transaction costs for land reform cooperatives is the use of a guarantee fund (FOGARA) that has a 2-percent commission cost. Because the a cooperative's land is still encumbered, financial institutions require liens on equipment, crops, and a third-party guarantee.

A recently completed master's thesis confirms this pattern. In a sample of 281 small farmers and cooperatives, most found the quality of loan service to be poor. Sixty-five percent found the formal loan application too complicated. The average time between loan application and loan approval was three months. An average number of fifteen visits was needed to receive a loan (Aviles and Carrillo 1992).

Clearly, there are significant barriers in El Salvador, and a concerted effort must be made to lower borrower costs.

#### **10.2.5 Project Viability**

Many times small farmers do not apply for credit because they know they do not have the capacity to repay. Since 1989, agricultural pricing and marketing policies have been liberalized, and thus real prices paid to producers have increased. Nonetheless, systems of production, not just prices, affect farm profitability. The scale, crop mix, observed yields, and customary levels of production all have to be analyzed when determining the general creditworthiness of a farm loan.

To determine what proportion of small farmers are potentially viable candidates for loans, an archetypical financial model was developed based on research done by Vilma de Calderon and Clemente San Sebastian (1991). Four scenarios were developed using 1992 prices. The purpose is to estimate the number and type of farms which are potentially creditworthy subjects.

First, the net profitability per manzana and per family day worked was calculated. The various types of crop mixes and cost of production data were derived from survey data (Calderon et al, 1991). The prototypes and subvariants represent the Salvadoran grain/livestock subsector. Coffee plantations were not included because they are profitable and enjoy ready access to capital. Next, loans for varying amounts and with different interest rates were assumed to be procured by the prototypical farms. Economic profitability including imputed family labor and financial profitability excluding family labor and accounting only for receipts from marketed products were calculated. If the farm type had positive economic and financial profitability it was deemed creditworthy. Potential loan demand represents the hypothetical situation of all viable farm types multiplied by the number of estimated producers in that farm type (See Appendix F for full details).

**Base Scenario.** The economic essentials of five farming systems found to be common in a 1988–89 study are presented with the following general characteristics (Appendix F, Table F.1):

- Type I subsistence farms (less than 1 manzana) are highly dependent on off-farm receipts from casual employment. Accordingly, operators do not invest much time on their own plots, which reduces productivity per area but increases returns per day worked.
- Type II farms are small family farms (1-5 manzanas) and are very heterogeneous in terms of crop mix and available family labor. These farms tend to be quite efficient and record high returns per area cultivated.
- Type III farms are medium sized (5–20 manzanas) but are not very efficient.
- Type IV farms are large (over 20 manzanas) and are very diversified.
- Type V farms are land reform cooperatives engaged in collective production. These farms tend to be overstaffed and inefficient (Table F.1).

**Scenario B.1.** The aforementioned farm types are assumed to receive loans equivalent to 60 percent of the 1992–93 crop year limits per manzana established by the Central Reserve Bank at a 18.92-percent rate of interest. Most family farms historically assume loans between 55 and 70 percent of the established per manzana limits. Capitalized farms and cooperatives receive the full allowable limit (100%). Farms dependent on contract labor are also granted loans equivalent to the maximum (Table F.2). In conversations with loan officers and farmers, this prorationing seems to be commonplace. The motivating intentions are not to overburden the client or to avoid diversions.

**Scenario B.2.** Farms are granted 60- and 100-percent loans, according to family labor availability, but at an interest rate of 24 percent (Table F.3).

**Scenario B.3.** Farms are granted 80- and 100-percent loans, according to family labor availability, but at a 21-percent rate of interest (Table F.4).

The results for scenario B.1 and B.2 are similar (Table 10.2). The differences are matters of degree, not kind. They indicate that Type I.A farms lack repayment capacity because it is more remunerative for them to work off-farm than full time for themselves, even with credit and a new technology package. Since they lack sufficient land to be economically viable grain producers. Economic losses (imputing for family labor) are recorded for all subclasses and, because of negligible amounts of produce marketed, there are no financial profits (excluding

**Table 10.2: Summary of Credit Viability for Archetypical Farming Systems (Colones)**

Archetypes	Description	BASE SCENARIO		B.1		B.2		B.3	
		Exp. Return /Mz	Exp. Return /Day	P	R	P	R	P	R
Type I.A Pure Subsistence	Semi-Proletariat	898.6	15.0	65.9	NA	-284	NA	-254	NA
	Labor Rich but Land Poor	-2698.6	-12.6	-2347	NA	-2509	NA	-3698	NA
	Labor & Capital Poor	-1491.2	-9.3	-1860	NA	-1942	NA	-2971	NA
Type I.B Subsistence w/ Off-Farms Sales	Land & Labor Poor	440.2	7.0	74.8	416	-2	340	-566	-224
	Capital Poor but Labor Rich	1275.4	38.4	2766	2262	2362	1857	-611	-1115
	Land Poor but Labor Rich	557.3	4.2	548	1443	368	1262	-955	-60
Type II.A Intensive Producers-Grains	Grain Producers	2668.0	18.7	2587	3519	2353	3284	-955	-61
	Grain & Vegetable Producers	1395.5	13.4	59445	62261	58787	61603	628	1560
Type II.B Intensive Producers-Cash Crops	Grain Producers	9765.5	149.5	3710	2573	5873496	2359	54860	57676
Type II.C Intensive Producers-Grain/Cattle	Grain and Cattle Fattening	7896.4	263.2	862	521	668	326	477	136
Type III.A Medium-Size Farmers	Labor Self-Sufficient	2397.0	101.8	10802	-4543	9784	-5562	2914	-12428
Type III.B Medium-Size Farmers	Hired Labor Dependent	4948.3	NA	11013	-2946	-327771	-341730	-318886	-330695
Type IV.A	Extensive Cattle with Own Labor	4272.9	568.5	45368	11200	44830	10662	14734	5711
	Extensive Cattle but Hired Labor	33458.3	NA	469610	460059	467989	458438	468946	4593595
	Intensive Cattle with Hired Labor	26596.9	NA	132484	194237	132484	194237	132966	194718
Type V. Land Reform Cooperatives	Collective Production Mode	8451.7	NA	-1.3 mill.	-1.3 mill.	-1.6 mill.	-1.6 mill.	-1.4 m	-1.4m

Notes: Exp. = Expected; P = Economic Profit (imputing family labor); R = Financial Return on Marketed Surplus (not imputing family labor).

family labor cost). Type I.B farms all show positive economic profits but very slim financial profits, which make clients in this class a very high risk.

Small family farms all exhibit viability and enjoy much wider margins of financial profitability, except for cattle-fattening operations. In contrast, medium-sized farms are not creditworthy largely due to low grain prices and insufficient animal output. If some farm activities were self-financed, more credit solvency would be obtained.

Large mixed farms are very viable but cooperatives are not. Although both types are well diversified, cooperatives have much higher labor costs, which reduces profitability.

The results for scenario B.3 emphasize the debt sensitivity of Salvadoran farming systems (Table 10.2). With a hike in interest rates and more ample credit, only some of the intensive producers and ranchers (Type II.A, II.B, II.C, IV) remain viable.

What can be concluded from this exercise is that considerably more farms in the 1-5 manzana class can be financed. According to the 1991-92 MIPLAN survey, only 35 percent of producers in this class applied for credit. While they are a higher-risk class, it has been shown that slightly higher interest rates can be charged to offset some of the default exposure. The turning point where adverse selection would set in was not calculated but it is clearly higher than the range explored. Larger farms, as well, are eligible for credit. According to the same survey, only 61 percent solicited credit, therefore there is room for more intensive production in this farm class.

### **10.3 Credit Delivery and Recuperation Problems**

Effective credit use can also be impeded by poor-quality banking services, which result in higher than normal delinquency and client flight. Specific points are enumerated below.

#### **10.3.1 Program Politicization**

Confusing social and equity considerations with financial considerations often results in high delinquency rates, weakened intermediaries, and nonattainment of the stated equity goals. Because of its fungibility, credit is not an ideal social policy instrument. Recipients can easily divert it to end-uses perceived to be more pressing, negating the good intentions of distant policymakers.

Although the current distribution of credit is lamentable from a social point of view, it has a rational theoretical and empirical basis. The Agricultural Development Bank and Fedecredito, as the two remaining government-owned and -supported financial intermediaries, must be insulated from political pressure to use credit disbursement as an instrument of social compensation. Loan approval should be based strictly on capacity and willingness to repay, not on end-use or group affiliation. If these institutions, which historically have been charged with

confused and conflicting missions, are to be rehabilitated as solvent, commercially-oriented entities, loan recovery and savings mobilization are just as important as credit disbursement. When credit recipients perceive a loan as political largesse, recovery is much more difficult. Furthermore, operational subsidies to the formal intermediaries for engaging in socially valuable but nonetheless, high risk lending should be explicit.

Policymakers concerned with political and social stability should resort to more direct forms of intervention funded by the central government or by international sources. This is not to say that credit cannot play a role in reactivating the economy and incorporating disadvantaged groups, but the credit offered must be presented as a serious financial obligation, as an opportunity, not as a gift where lack of repayment will be either forgiven or refinanced.

One way to better insulate the two institutions from political pressure is to change the composition of the board of directors, naming more representatives with business and financial backgrounds from the private and cooperative sector. Another step would be to name the respective presidents to terms longer than the electoral cycle. Last, promoting continuity in top leadership is important for the development of a long-range strategy and the implementation of policy actions. Frequent changes in the presidency creates instability and uncertainty in the organizations, and both institutions have had two presidents each in the last four years.

### **10.3.2 Inopportune Disbursement of Credit**

The late arrival of a loan can impose high costs on a farm enterprise that is governed by rigid agronomic requirements. If a loan does not arrive at a certain time, then needed inputs must be obtained on credit from suppliers, payrolls may not be paid, or expensive informal loans may have to be obtained in order to meet production deadlines. These additional costs and inconveniences reduce project profitability and sour lender-client relationships.

In conversations with cooperative leaders, the late arrival of loan funds was mentioned as a common problem. For example, Cooperative San Arturo, applied for a loan on January 29 and the loan was approved on March 5, but it was not disbursed until May 18. Soil preparation began in mid-April both for collective fields and for 305 individual parcels. El Eden, another cooperative, reported receiving its first loan disbursement on July 3, well into the planting season. The delays did not cause serious planting problems because purchase orders (*ordenes de suministro*) were provided by the bank, which were then presented to agricultural suppliers who provided the needed seed and chemical inputs. Inconveniences, however, occurred in financing payrolls and in buying diesel fuel for tractors. The solution has often been to forgo the payroll for a month and obtain the fuel on credit.

In the case of individual farmers, peasant spokespersons cited untimely disbursement as one of the reasons why more farmers do not apply for credit. Banks can provide a purchase order for approved loans if requested, but most individual farmers seem to rely on personal

credit with agricultural stores to obtain the needed inputs at planting time. Most of these stores do not collect interest charges on these accounts.

Bankers complain that part of the problem is that farmers inundate the offices in April and May to file applications, expecting disbursements around May 15. The overload on staff leads to inevitable backlogs. Solutions to the problem lie in streamlining the application process, reducing the volume of paperwork, and computerizing as much as possible. Another important step would be to use the slack summer months to mount publicity campaigns asking farmers to initiate the loan application process earlier. Extension agents can facilitate the initiation of the loan process by collecting data and receiving applications in the countryside.

In the case of Fedecredito, one of the main reasons for slow disbursement is the presence of a dysfunctional fund transfer system. The local affiliates do not capture savings (prohibited by law) and most are not very profitable, so they depend on external funds from the Central Office. At the local level, a number of approved individual loans will usually be combined into a "packet" and sent to the Central Office as a single IOU. The Central Office will then review the individual loans in the packet on technical grounds. If the packet is approved, the funds will be transferred for disbursement to the affiliated Rural Credit Fund.

Problems, however, may arise because loan packets do not contain information on the payment plan or the exact due date for each individual loan. As a result, the Central Office never knows the rate of delinquency with precision. From the perspective of the local credit fund, problems with this system arise when perhaps only a few loans are delinquent in a packet, and there are more packets that need to be approved urgently by the Central Office. From the perspective of the Central Office, problems arise because making the repayment of old loan "packets" a condition for the approval and disbursement of new loan funds is the chief instrument of control. The result is often long delays in disbursement and acrimonious relations between some of the credit funds and the Central Office.

### **10.3.3 Inadequate Amounts of Credit**

While the late arrival of a loan may be a nuisance, an insufficient amount of credit could doom a project from the start. All farmers and cooperatives contacted who rely heavily on hired labor mentioned that the maximum loan levels for corn, peanuts, and melons were inadequate to cover actual production expenses after accounting for in-kind or equity contribution. For example, Cooperative Los Achiotales reported on a per manzana basis C2,700 was being incurred in costs for corn while the maximum loan allowed by the Central Bank was C2,520 (7 percent less). Similarly, the amount allowed for a manzana of peanuts was 8 percent short. Another cooperative, Cara Sucia, mentioned that the changes in credit limits were not in accordance with changes in input costs. For melons, the maximum amount was increased C40 for the 1993-94 crop year, while input costs soared C700. In the case of subsistence farmers, off-farm earnings and nonremunerated labor are substituted as much as possible for

shortfalls in the ability to purchase chemicals. In the case of commercial agriculture, supplier credit and transfers from other accounts are used extensively.

The worst case encountered, however, is that of Cooperative Santa Lucia where the officers requested C967,717 from a private commercial bank to plant 306 manzanas of rice on individual parcels. The maximum amount permitted by Central Bank guidelines would have been C1.4 million (C4,580 per manzana). Instead the amount approved was C306,000 (C1,000 per manzana). Many members planted corn and sesame instead of rice because they are lower cost-crops. Of the 140 individual producers, 28 are now delinquent. In a case like this, the lending institution, if it doubted the capacity of the cooperative members, should have refused the loan outright or agreed to fully finance an alternative lower-cost crop. Granting considerably less than the needed amounts sows seeds of distrust and encourages diversion, which in the long run worsens the nonperforming portfolio of the bank and lowers bank profitability.

In the case of the Agricultural Development Bank, the percentage difference between what is applied for and what is approved is usually between 3 percent and 11 percent, except in the case of the Santa Ana branch where the gap averages 35 percent.

The notion of establishing credit limits according to the type of activity should be abolished. It is a remnant of the supervised credit in the 1960s and 1970s when small farmers were not trusted or seen as responsible individuals. A more modern and liberal notion of credit allocation would be based on the idea of debt capacity, not preexisting notions of what is appropriate technology. The current system of limits prevents technological innovation and soil conservation activities.

#### **10.3.4 Social Distance between Lender and Borrower**

While individual farmers did not complain of their treatment by bank personnel, many cooperative officers expressed a sense of discomfort in dealing with commercial banks. They feel that bank officials hold most cooperatives in contempt and disdain and deal with them only out of a sense of social obligation and due to pressure from the government. They feel that the loans for well-known large farmers are always processed before theirs regardless of the date of submission.

As in any successful business operating in a competitive environment, the client must be appreciated and respected and feel satisfied with the quality of the service or product.

#### **10.3.5 Ineffective Monitoring and Collection Efforts**

According to Agricultural Development Bank officials, every client is visited at least once during the course of the loan to check whether the proposed investment has been made and to monitor the health of the project. All farmers and cooperatives contacted expressed a need for more visits in order to establish a closer relationship, to win the confidence of the banker,

and to receive technical assistance. Many cooperatives with C600,000 or more in loans reported receiving two to three visits in the year.

The lack of regular farm visits and the building of a close personal relationship with clients can result in more delinquency and client flight. In the Agricultural Development Bank, administrative costs are very high (averaging 8–9 percent of total costs) and there is a clear incentive to reduce the number of field visits, which are high-cost activities.

More critical than the lack of close monitoring are weak collection efforts. Until three years ago, aggressive collection did not exist. Now the Agricultural Development Bank uses a commission system, paying, in addition to a base salary, 2.5 percent of the recovered amount up to C40,000, 3.5 percent up to C50,000, and 4 percent over C60,000. The system is an improvement over the fixed-salary system still used by Fedecredito. However, Agricultural Development Bank managers have suggested considerably raising the commission rate for the lower limit because most of the amounts recovered are usually below C40,000. Strengthening the judicial office is another need in the opinion of many managers. Many of the legal documents are found to be ill prepared at the time of foreclosure. Poorly prepared documents delay recovery actions and increase administrative costs for the bank. No significant gaps in property rights or the legal system inhibits foreclosure. The biggest obstacles are costs. In the case of very small loans, the legal costs of judicial action can approximate the delinquent amount. Fedecredito's biggest problem with agricultural loan recovery is the lack of transport for collectors and their low pay.

### **10.3.6 Insufficient Services**

An overwhelming majority of bank clients expressed, in rank order, the need for more flexibility in rolling over loans; either extending loan maturity dates or providing new loans for grain storage in order to permit the producer to exploit price seasonality to their best advantage; more agile check balance verification and clearing procedures; and more aggressive savings mobilization campaigns.

Virtually all clients complained of the pernicious effect of the rigid requirement to cancel an outstanding loan, often before the due date, in order to receive a second pre-approved loan for a second crop. Often, the winter grain crop is not profitable due to low prices or weather shocks, which prevents early cancellation, but the delay in disbursing monies for the high-value, summer export crop can be detrimental to yield. To overcome this obstacle, producers either sell livestock or indebt themselves with informal sources. The end results are much higher transaction costs and increased production risk due to the inopportune application of inputs. This policy is shortsighted, especially when the client has a good record and the circumstances warrant flexibility.

All borrowers contacted also expressed an urgent need for marketing assistance. The requirement that all production loans be canceled on March 30 coincides with the price trough

for corn. Either financing for on-farm storage or financing for regional collection centers is needed in order to increase farmers' incomes.

Many of the more commercially-oriented farmers expressed dissatisfaction with the long delays (5 minutes to 4 hours) incurred in verifying check balances. This slowness increases transaction costs for progressive clients and encourages them to switch to private commercial banks if there are any in the vicinity. The Agricultural Development Bank risks losing its preferred clients if its information and communication systems are not modernized.

The vast majority of those contacted did not have savings accounts and did not have sizeable disposable incomes, but the few who did have large cash flows expressed an interest in learning more about savings plans. One possible strategy for the Agricultural Development Bank would be to target urban merchants and salaried workers as potential savers. The vitality of the informal sector was evident in many of the towns visited. An increase in savings would help to reduce dependency on Central Bank funds and improve the quality of rural financial services.

#### **10.4 External Factors**

In addition, to individual creditworthiness and credit service delivery, externalities play a significant role in the effective use and recovery of credit. The principal external factors that affect Salvadoran agricultural borrowers are lack of technical assistance and slow technology transfer, weather and soil erosion, marketing and contract enforcement, and rural/urban terms of trade.

##### **10.4.1 Uneven Extension Services**

The Ministry of Agriculture (MAG) has little presence in the countryside. All those interviewed—bank branch managers, cooperative leaders, representatives of nongovernmental organizations, and individual farmers—complained that MAG was not providing adequate technical assistance to medium- and small-scale producers.

Large farms can contract private assistance and the land reform cooperatives receive attention from some governmental and international agencies. For example, many of the land reform cooperatives visited were receiving technical assistance in veterinary medicine from MAG and in nontraditionals from the Cooperative League of the USA (CLUSA). Others were receiving assistance in sugar production from private sugar mills as part of marketing contracts. All received visits from the Agrarian Reform Institute (ISTA) for administrative support and in some cases for field crop extension.

The diversification program operated by FUSADES, called DIVARGO, is small in coverage and benefits mainly large farmers. The work of CENTA is admirable and has resulted in wide dissemination and use of improved hybrid seed varieties. However, there is a desperate

need for soil conservation and for the introduction of new cultivation techniques and new pest control systems that would increase yields and possibly reduce chemical use.

#### **10.4.2 Weather and Soil Erosion**

Over the last twenty years, rainfall patterns have become more irregular. The frequency of droughts has remained the same (occurring every 3 to 4 years), but the intraseasonal distribution of rainfall seems to have changed. According to older farmers, rains ten to fifteen years ago would start in the first week of May; now they start toward the end of the month and sometimes not until the first week of June. Also, the dry spell in August is lasting longer. The result is more stress on the plants, which reduces yield. Little can be done to counter these changes in weather patterns except to develop seed varieties that can cope better with the new rainfall pattern and to promote the adoption of irrigation technology in the driest areas.

In low-lying areas near rivers, floods have become more common. This increases significantly the default risk for rainy season grain producers in vulnerable areas. Possible solutions include watershed reforestation and soil conservation projects upstream and the erection of dikes and diversion canals on the most flood-prone rivers.

The most serious problem, however, is the heavy loss of topsoil due to wind and water erosion. In the coastal plains, more wind damage is reported to be occurring than in the past. Overall the lost fertility increases the demand for chemical fertilizer in the short run and over time will seriously degrade the economic value of the most fragile, sloping lands. Restorative actions such as live fences, wind breaks, terraces, stone walls, mulching, contour planting, low till practices, and agroforestry are needed, but all imply higher production costs and labor time. Without an aggressive outreach program, profitable alternative production schemes, and available credit, little will be achieved for the current pattern of exploitation which is economically rational for a low-income farmer with limited information about alternatives.

All of the remedial actions explored above would require significant public expenditures in project identification, planning, and implementation as well as the availability of credit to finance the individual adoption of on-farm interventions. At present, there is a marked absence of policy dialogue and action coordination among the significant actors in the agricultural sector: farmers, cooperatives, the Ministry of Agriculture, the Ministry of Planning, Ministry of Public Works, municipal leaders, financial institutions, and the host of nongovernmental organizations concerned with the rural poor, the environment, and crop diversification.

#### **10.4.3 Marketing and Contract Enforcement**

At the moment, only the traditional export crops, coffee, cotton, and sugar, have an orderly, well-integrated marketing system. Grain and fish marketing are dominated by

middlemen. In vegetable and fruit marketing, farmers with their own vehicles engage in direct marketing while those without rely on middlemen. Nontraditional commodities such as sesame, balsam, marigold, melons, ornamentals, and shrimp are dominated by a few processors and exporters. The only exception is sisal hemp, which is widely demanded and processed by artisans.

Two glaring problems exist in the marketing chain for commodities other than coffee, cotton, and sugar. First, there is a marked seasonality in price movements that is not well exploited due to a combination of factors: lack of storage and processing facilities, lack of financing, and lack of market information. In the case of basic grains, little on farm storage is available and loan contract due dates force liquidation before prices peak. Also there is a lack of grain collection and drying facilities and forward contracting that could serve to manage risk, reduce post-harvest losses, and increase income. For example, if individual producers could receive immediate cash at harvest to attend to consumption needs from a grain dryer/storer, then a later supplemental payment when the dryer/storer sells the stored grain at the most opportune time in the cycle, the economic welfare of the producer would be improved. Privatization of the silos of the Agricultural Development Bank, may ameliorate this situation in the near term. However, a wider network of smaller drying and storing centers may be needed. In the near term small farms without their own vehicles will still be disadvantaged vis-à-vis middlemen. In the case of fruits and vegetables, the lack of market information, processing capacity, quality control, and the effective marketing of transformed products seem to be the limiting factors.

Second, processors and exporters of nontraditional exports enjoy monopsonistic power and exploit their positions to pass on risk to their suppliers. When prices are low in international markets, they may refuse to buy more product from, or delay payments to, suppliers. In the case of marigold exports, three interviewed subjects reported incidents of contract noncompliance: the product was delivered, but payment was not made. In all these cases, legal recourse was not sought due to a variety of factors: (1) the high legal expense and the belief that the courts will side with the exporter who has made minimal but not full payment, (2) ignorance, or (3) unavailability of legal counsel in the immediate area. Two of the three clients have experienced difficulties in servicing their loans and are now seeking refinancing. Lack of clear contract enforcement penalizes borrowers and makes banks hesitant to finance nontraditional exports.

Solutions to these problems run the gamut from additional financing for marketing loans and the start-up of agricultural processors and exporters to a series of government initiatives to improve information dissemination, to establish standards and grades, and to provide technical assistance and fiscal incentives to processors and exporters.

#### **10.4.4 Rural/Urban Terms of Trade**

Historically, the terms of trade have been to the disadvantage of rural residents. All the farmers interviewed mentioned that the rate of increase in chemical inputs is outstripping the

gain in output prices. As can be seen in Table 10.3, the relative price disadvantage of the rural sector has worsened since 1980.

In a liberalized market economy, little effective government action can be taken in the short run. In the long run, appropriate actions would include measures that increase the level of productivity and value-added in the sector, formation of producer associations and marketing cooperatives in order to gain market power, as well as basic improvements to the road network and communication services. As a consequence income levels should rise.

**Table 10.3: Sectoral Deflators and Terms of Trade**

	Agric. GDP Deflator /1	Non-Agric. GDP Deflator /1	Proxy Rural/Urban Terms of Trade
1980	2.949	2.629	112
1981	2.674	2.934	91
1982	2.765	3.286	84
1983	2.973	3.728	80
1984	3.136	4.258	74
1985	3.515	5.207	68
1986	5.515	6.849	81
1987	4.353	8.454	51
1988	5.134	9.78	52
1989	4.985	11.633	43
1990	5.516	11.372	49
1991	5.828	12.372	47
1992	6.140	13.372	46

Notes: /1 1990 to 1992 figures are projected.

Implicit sectoral deflators have 1978=1.0 base.

Source: Roger Norton, "An Assessment of the Recent Agricultural Policy Reforms in El Salvador", APAP II Report, July, 1990.

## 11. CONCLUSIONS AND RECOMMENDATIONS

### 11.1 Action Priorities

Rural credit in developing countries has been problematic due to the inherent riskiness of agriculture and organizational weaknesses. Credit, nonetheless, facilitates rural economic growth and development. Its effective delivery, use, and recovery can best be guaranteed only in the context of a well-designed, coordinated, and executed program of integrated rural development.

Programs in rural credit that increase loan supplies without improving the creditworthiness of the small farmer target population are bound to fail, as has been shown repeatedly in the literature. Such programs contribute to the diversion of funds to nonagricultural end-uses, tend to be exploited to a greater extent by better-off farmers, which worsens income distribution, and tend to contribute to high delinquency rates, which weakens the lending institutions and creates the need for periodic bailouts. Promotion of new cultivation techniques and high-valued crops will only be successful if the necessary ingredients of adequate technical assistance, secure marketing, and timely credit are present. Thus, a two-pronged approach is needed. Lending institutions need to be strengthened by the adoption of sound policies, recapitalization, and investments in personnel and infrastructure. Borrowers, especially low-income, small farmers, need to be made creditworthy through management training, technical and marketing extension programs, and public investments in agricultural research and infrastructure.

In El Salvador, several barriers to credit delivery and recovery were identified<sup>23</sup>. The most important are:

- High borrower transaction cost,
- Inadequate loan amounts for corn, peanuts, and melon crops on a per manzana basis,
- Lack of understanding and loan roll-over flexibility, which contributes to high production costs and lower yields because second crops are not planted on time,
- Lack of marketing loans, and
- Disdain for the cooperative sector due to poor management performance in the past.

The following actions are recommended to banking officials and central government authorities, principally the Minister of Agriculture<sup>24</sup>:

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<sup>23</sup> Lack of collateral is an obvious barrier in general lending but in the context of developing country small farmer credit programs, it is a given.

<sup>24</sup> Another possible barrier to efficient credit functioning is the land market. In another study on land tenure by Seligson, Childress, and Thiesenhusen under the same APAP II buy-in this issue will be addressed more fully. From conversations and casual observations, it seems that the Government should consider policies that improve the functioning of land markets, in particular greater capitalization of the Land Bank, higher taxes on underutilized land and land inappropriately used in order to promote its sale; and amendments to the agrarian reform acts that would allow *finateros* and cooperatives to sell their land. These measures would permit progressive farmers to enlarge their scale of operations and become more creditworthy.

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- Depend more on group credit and personal references to attend marginal farmers. Through a promotion campaign, careful member selection, and close monitoring, the program has the potential to perform well as it has in certain parts of the country. Collateral-based lending is not a viable alternative for these types of farmers.
- Lower the borrower transaction costs significantly through a streamlined and computerized loan application process; disburse monies on time; and offer greater repayment and disbursement flexibility in the case of multiple loans when the situation warrants.
- Implement mobile banking to facilitate document processing. Agents of the Agricultural Development Bank should visit designated outlying towns on their market days to receive applications and check character references, especially in the slack summer months. When security improves in the countryside, armed trucks capable of disbursing and receiving funds could be considered.
- Process loans for repeat clients in a matter of days with a fully computerized databank. Investment plans, income updates, and verification of guarantees should be the only items that need to be updated. Clients with good records should be granted automatic lines of credit that grant them the flexibility to make withdrawals as they desire, as long as their payments are made on time.
- When the client's business grows, a new detailed analysis will be made and a larger line of credit could be granted. This service would be ideal for a Type A client involved in a micro-enterprise, agroindustry, cattle, poultry raising, or intensive vegetable production where capital turnover is high and cash flows are substantial and relatively constant from month to month. The current tedious loan procedures chase good clients away. The state banks need to attract and retain as many type A clients as possible.
- Avoid politicization of lending programs at all costs. Credit disbursement activities should be based on financial and risk management principles. Insulate bank leadership through changes in the composition of the board of directors and staggered tenures for presidents (do not coincide with electoral cycle).
- On-lend to food and agricultural processors/exporters/traders who in turn can lend to contracted farmers. This type of lending reduces repayment risk since loan payments

can be deducted when the farmer delivers his/her product to the processor/exporter.<sup>25</sup> This on-lending may succeed to improve credit flows to the targeted small farmer population only in certain circumstances, however.

- Improve the quality of general banking services by offering a marketing line of credit and/or financing a small set of regional grain storage and drying facilities.
- Further modernize banking communication and recordkeeping systems.
- The Ministry of Agriculture and the Center for Agricultural Technology, in conjunction with nongovernmental organizations, need to create positive externalities for effective credit use in the following areas: farm administration and field crop extension, reforestation of watersheds, promotion and dissemination of soil conservation techniques, promotion and dissemination of post-harvest loss reduction and storage techniques, and development of a market information clearinghouse and dissemination system for grains, fruits, vegetables, and nontraditional exports.
- Use repayment incentives such as interest rebates for early repayment, loan amount ratcheting based on the amount of savings deposits, and guaranteed access to credit in graduated amounts as long as repayment is prompt.
- The Central Bank should stop fixing limits on crop loans on a per manzana basis. Allocation decisions should be based on the debt capacity of the individual, his or her character, his or her management ability, and the proposed investment plan.

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<sup>25</sup> Directing more bank credit to "trader-lenders" who can more ably enforce loan contracts with small borrowers through tied marketing arrangements and social pressure than formal credit institutions can have ambiguous, theoretical welfare effects. Karla Hoff and Joseph Stiglitz in a recent paper offer a theoretical model where informal interest rates can remain stable, increase, or decrease when large expansions in formal credit occurs to trader-lenders with secure collateral. Their recommendation is that governments should design contractual mechanisms that capture or mimic the informational and enforcement capabilities of informal lenders and make investments in infrastructure that will reduce information and enforcement costs. The most perverse scenario is where an increase in formal credit can lead to a small volume of informal lending and higher informal lending rates, constituting a rejection of the underlying "trickle-down hypothesis". This is shown to be possible if one or more of the following conditions holds: (1) monitoring costs are increasing in the size of the loan; (2) it is increasingly costly for borrowers to search for informal lenders; (3) the storage and transportation costs of being a trader are large; (4) the increase in institutional credit does not greatly affect the shadow value of capital for the informal trader; and (5) if induced entry into moneylending large but at the same time the elasticity of borrower demand for credit is large.

## **11.2 Possible Roles for the Private Sector in Rural Credit Delivery to Small Farmers**

Private commercial banks and nonprofit, nongovernmental organizations including churches play a significant role in disbursement of rural credit. The prospect of enticing private banks to better attend the small-scale producer at the present time, however, is not very encouraging. The private commercial banks attend large farms and well-administered cooperatives involved in traditional exports. Two private bank officials interviewed expressed little interest in directly attending small-scale, high-risk producers. The majority of their clients are loan class risk types A and B, and the banks naturally seek to increase profit rates and further lower their delinquency rates. These sentiments are believed to be representative of the sector.

However, possibilities for greater involvement in the financing of the small-farm sector and cooperation with development organizations do exist in the medium term (five years hence). Banco Cuscatlán expressed a willingness to participate in a two-stage loan graduation/guarantee program. Either nongovernmental organizations or the Agricultural Development Bank would identify, train, and groom a set of small-scale farmers over a period of time. Those with good repayment records and feasible project proposals would then be acceptable to Banco Cuscatlán along with a loan guarantee by an international donor for the portion of the loan not covered by collateral owned by the borrower.

A private credit bureau would facilitate the timely evaluation of potential clients but in the short run would only benefit urban, salaried workers, formal businesses, and large-scale farmers. The limited extent of computer recordkeeping, fragile telecommunications integration in the country, and the unwillingness of individual businesses to share or sell information, inhibits the establishment of a broad-based, high-quality credit bureau at this time. It would be prohibitively expensive to track down small farmers and gather the data on personal characteristics, income, assets, liabilities, and spending patterns that would permit the development of credit scoring indices. At present, a database at the Superintendency on outstanding bank debts is widely used by all commercial banks to verify an individual's credit history. The problem is that even if a small farmer has an impeccable credit history, he is still considered too risky for private commercial banks largely because of a lack of liquid reserves if the financed project fails. The lack of sufficient complementary inputs such as strong managerial experience, technical assistance, and reliable marketing outlets are additional concerns. Thus, the advisable short-run action would be to develop extensive computer databases on the clients of the Agricultural Development Bank, Fedecredito, and the various nongovernmental organizations. This information could then be sold or transferred to a private entity. In the meantime, some coordination between all the active credit lenders that target the small farmer and micro-enterprises is needed to first win approval of the idea, and second to assure a minimum of compatibility in data definitions and exchangeability, as well as to protect privacy rights.

Nongovernmental organizations (NGOs) blossomed in the 1980s and filled the void in food assistance, health care, women's development, and credit disbursement created by the poor functioning of the public sector and the dislocations caused by the war. Many of the NGOs are grouped under the umbrella of Catholic Relief Services (CRS); however, there are many European-sponsored NGOs that do not fall under the CRS umbrella. At present, CRS and its affiliates plan to disburse C34 million colones in 1993. Some 41 NGOs are known to be actively disbursing credit. The principal credit delivery modalities they are using are group credit (village banking) and revolving credit funds. These two modalities reduce borrower transaction cost significantly, but may or may not reduce lender transaction cost.

There is tremendous interest in expanding operations and CRS believes it can easily absorb a portfolio of US\$10 million. However, in conversations with five NGO representatives, all expressed extreme reluctance to collaborate either with the Agricultural Development Bank or the Ministry of Agriculture because they consider these institutions to be bloated, nonfunctional bureaucracies. They all recounted negative experiences with MAG and preferred to use their own extension agents to provide administrative and technical support to beneficiaries.

Moreover, they expressed serious concern about margins of intermediation and the final end-user interest rate if the funds originating from USAID would have to pass first through Central Bank and then through either the Agricultural Development Bank or Catholic Relief Services. A second concern was timeliness of loan processing and disbursement; more points of intermediation and more points of loan approval imply slower turnaround times. Each of the primary-level NGOs preferred a direct relationship with USAID; their second choice would be Catholic Relief Services. None wanted to work with the Agricultural Development Bank.

All the groups seemed to possess extremely motivated, competent personnel and very lean organizational structures. Most offered an integrated package of services (management training, field crop and marketing assistance), however, any expansion of activities would entail significant investments in vehicles, equipment, and operational support for training and outreach activities. Four of the five interviewed were all operating with a suboptimal ratio of extension agents to vehicles and, under the CRS umbrella, only 5 of the 41 affiliates were computerized.

While institutional expenses are largely unavoidable in any concerted outreach to the rural poor, the problem is one of institutional sustainability. If USAID were to fund a host of these NGOs, the NGOs would become dependent on international concessional funds for many years to come. If some failed to procure funding in the future, the social investment that USAID would have made, would be lost.

Other weaknesses of the NGOs include "paternalism" and negative real rates of interest. Most of the groups are motivated by social, religious, and political goals and use credit as an organizing tool for other purposes. Credit must be presented as a financial obligation that gives economic leverage, but that must be used wisely and repaid. The CRS representative mentioned this as one of the most critical lessons learned. Low-income producers must be informed as to

what credit is, the rules of contract, and their debt capacity must be built up slowly. In addition, the rate of interest for the CRS group is currently 15.5 percent, which is below the inflation rate and contributes to fund decapitalization. NGOs should be bound by donor conditionality and/or encouraged to protect the real value of their revolving loan funds by charging slightly positive real interest rates. Interest rates should also be variable over the term of the loan in order to protect the lender and the fund.

### **11.3 Possible Role for Informal Intermediaries in Rural Credit Delivery**

The most likely informal suppliers of credit willing to cooperate with a public sector initiative to increase credit supply are food processors, wholesalers, and exporters of nontraditional products. These entities should be interested because it allows them to attract suppliers and to better guarantee that they can meet projected demand. Moreover, default exposure is reduced through the use of irrevocable marketing contracts wherein debts are subtracted from final payment. This is a perfectly incentive-compatible scheme: producers get needed credit and have a guaranteed market outlet; buyers can attract and retain the best producers with ample financing and can more effectively compete in international markets on a volume basis; and banks reduce administrative costs and default exposure.

Agricultural input suppliers are not deemed to be credible suppliers of credit because they would have no special leverage over the individual creditor. Channeling more bank credit to them for disbursement to selected clients for purchase of products is fraught with dangers of malfeasance and unmanageability. They, however, can be excellent sources of character information on clients and should be used more heavily in the future by formal institutions.

### **11.4 Recommendations Concerning Private Sector Lenders**

Enlisting the support of private commercial banks to better attend the small farm sector is not feasible in the short term. Rather efforts should focus on developing the creditworthiness of a sizeable segment of the small-producer sector through a segmented market approach to rural finance. Formal banks will be allowed to attend the segment of the market that their cost structure permits. Nongovernmental institutions with operational subsidies will attend the poorest, highest risk segment and over time eventually graduate a sizeable proportion of their beneficiaries to state and private financial institutions. The Government and donors should instill improvements in operational efficiency for both banks and NGOs and subsidy weaning for the banks over time.

First, allow private commercial banks to continue serving larger-scale producers and urban workers.

Second, the Agricultural Development Bank should focus on small family farms (3-5 manzanas) and medium-size farms (5-20 manzanas), and through mobile banking, more efficient loan processing, and repayment flexibility, attend a larger number of the target population. In

addition, the bank should extend sizeable loans to food processors, vegetable/fruit wholesalers, grain buyers, and nontraditional exporters who in turn can redistribute subloans to suppliers who are bound by marketing contracts.

Third, Fedecredito should focus exclusively on urban microenterprises. It should eliminate agricultural lending and redirect scarce extension resources to attend the urban informal sector. It should also collect overdue loans. The Federation should continue to build on its successful Popular Credit program and concede agricultural lending to the Agricultural Development Bank. The Popular Credit program has had the best recovery record and given the weak financial situation of Fedecredito, it must reduce its default exposure rapidly and generate profits (See Section 6.3.7).

Fourth, NGOs, preferably politically neutral, socially nondiscriminating, commercially oriented ones, could be divided into two subprograms. One group would focus on providing self-help microloans (less than C3,000) to subsistence producers (1-2 manzana) and microentrepreneurs who rely heavily on group credit and revolving funds.

Loans would be graduated in scale with repayment making the borrower immediately eligible for a slightly large loan. Guarantees would include liens and joint liability agreements. The emphasis would be on educating the client about financial responsibilities, promoting collective action, and sharing information at the canton level. Whenever possible diversification away from basic grains and into poultry, hog raising, and microenterprise activities would be strongly encouraged<sup>26</sup>. After a period of time (3-5 years), beneficiaries in the program should be creditworthy either at the Agricultural Development Bank or Fedecredito.

General guidelines for group credit operation should include the following:

- Autonomous group formation so that local knowledge on character traits and skill levels can be fully exploited.
- Permit mixed and all female groups so that women can have the opportunity to develop financial independence and leadership skills. Depending on the social setting, women may not be able to play dominant roles in mixed groups.
- Restrictions on the number of family members in one group in order to avoid portfolio concentration and minimize collective default.

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<sup>26</sup> Poultry operations suggested are not modern, large-scale operations, heavily dependent but rather semi-rustic, hen-laying operations targeted at local markets with culls being sold as meat. Large scale operations are high cost and require strong veterinary inputs and may be susceptible to foreign competition.

- An upper limit of 20-30.
- The group needs members with complementary skills and income differences; all should not be illiterate nor desperately poor.

Credit groups work best when they are autonomous, when membership is small, when they have strong competent leaders, and when they enjoy a high degree of social homogeneity but some income heterogeneity (Wenner 1989).

The second group of NGOs would focus on promising small and medium farmers as well as cooperatives that are willing to diversify into more profitable crops. The purpose would be to commercialize and strengthen a segment of the farm population. The program would provide an integrated package of inputs: farm management (recordkeeping) and field extension services in vegetables, fruits, nontraditional exports, soil conservation, pest management, and marketing assistance. Credit could be sole liability, depending on preferences of borrowers, and be supplied by the Agricultural Development Bank or through the NGO. The Agricultural Development Bank could handle the credit through a trust fund arrangement, while the NGOs would be in charge of client identification, training, and provision of extension services. There would be an understanding that farmers identified by the NGO would be prequalified for access to the bank. The alternative would be to have the NGO responsible for both credit disbursement and training extension.

Beneficiaries of this subprogram (after 3-5 years) should be graduated to either the Agricultural Development Bank or the private commercial banks with the possible backing of a guarantee fund.

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## PART V: SUMMARY AND RECOMMENDATIONS

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### 12. GENERAL CONCLUSIONS

Agricultural development in El Salvador is at a crossroads. The decade of the 1980s was lost due to political violence in the country that bred uncertainty, created economic and social dislocations, dampened long-term investments, and ultimately prevented modernization. Agricultural credit in the period was narrowly distributed and lending institutions languished, largely because of ill-conceived, state-imposed policies.

The change in government in 1989 brought sweeping economic reforms and an end to the civil conflict. Through the passage of financial reform laws and the use of government funds, large portions of the nonperforming loan portfolios were converted to bonds, permitting recapitalization. Moreover, financial policies were liberalized and all but two financial institutions were privatized.

At the moment the thrust of macroeconomic, monetary, and exchange rate policies are favorable to financial intermediaries and some agricultural producers. The Central Bank is committed to containing inflation, which encourages investment in financial instruments and productive activities, contributes to financial deepening and prevents unintended income transfers. The increasing reliance on open market operations instead of on obligatory placement of bonds gives bank managers greater autonomy in portfolio allocation and should increase profitability. The increased vigilance and tightening of prudential regulations by the Superintendency strengthens the overall banking system. Although high-risk borrowers are increasingly being excluded, it is not sound practice to weaken financial institutions in order to satisfy popular demand. It is more important to have sustained access than episodic access.

Twin challenges lie ahead in improving organizational efficiency and small-farmer outreach. First, decisive actions must be taken to restore financial viability of the two principal lenders to the small-farm and rural microenterprise sectors, the Agricultural Development Bank and Fedecredito. Second, strong actions need to be taken to improve the inherent creditworthiness of small farmers and microentrepreneurs. Coordinated efforts must be made to provide profitable investment opportunities, training, technical assistance, and marketing support to this clientele. Otherwise, access to credit will continue to be skewed to larger enterprises and potential economic dynamism will be lost.

#### 12.1 General Findings

The principal findings of this study can be categorized as follows.

### **General Distribution and Use of Rural Credit:**

- Small portion of economically active rural population enjoys access.
- Women have appreciable access only to Fedecredito.
- Favored uses are traditional export crops.
- Favored regions are the west and central regions of the country.
- Agricultural economic growth is weakly linked statistically to credit availability.
- Loan guarantee requirements are becoming stiffer, thus reducing loan access to farmers without clear land title.

### **Institutional:**

- Fedecredito is financially very weak.
- Both BFA and Fedecredito lack of clear strategic visions.
- Both BFA and Fedecredito have high dependency on external funds.
- Both BFA and Fedecredito have high administrative costs as a percent of their loan portfolios.
- Both BFA and Fedecredito have overly bureaucratic and centralized structures.
- Both BFA and Fedecredito have overstaffed central offices.
- Both BFA and Fedecredito suffer from high rates of personnel turnover.
- Both BFA and Fedecredito provide poor loan services.
- Both BFA and Fedecredito have limited savings generation and other banking services.
- Fedecredito lacks financial disciplinary control over affiliated cooperatives.
- Many of Fedecredito's affiliated cooperatives need to be recapitalized.

### **Borrower:**

- Borrower transaction costs are estimated to be high.
- Small family archetypical farms have financial viability.
- Basic grains are not highly remunerative and effective crop diversification programs and integrated development projects are largely absent.

## **12.2 Summary Recommendations**

The two rural financial institutions studied, BFA and Fedecredito, need to be restructured and reorganized in order to confront the challenges of the 1990s and to prepare for the next century. The two institutions embody development thinking that is now outmoded and are shackled with the wrong kind of personnel and bureaucratic mentalities.

Changes need to be pursued in five broad areas: (1) governing laws and rules, (2) management orientation, (3) human resources, (4) physical infrastructure and equipment, and (5) operational subsidies. Specific recommendations and rationales are presented in Part 3.

**Governing Laws.** First, the composition and functions of the Assembly of Governors and Board of Directors for both institutions must change. As they are now, they promote politicization and hinder efficient management. The majority of directors should be representatives from the commercial, cooperative, and farm sectors who have experience and ability in finance and management, not government officials. Moreover, these top-level bodies should not review loan documents; they should set strategy, monitor developments, and solve problems.

Second, the current loan limit maximums that can be approved at the agency or affiliated rural credit fund level (C50,000 for BFA and C25,000 for Fedecredito) are unrealistically low and should be raised to C100,000.

Third, central government authorities must be convinced that BFA is not and cannot be the principal instrument of social policy in the rural sector. It is first and foremost a bank and should operate like one. The financial integrity of the bank must be protected and preserved. In order to attend the poor in appreciable numbers, operational subsidies will be needed and they should be explicitly budgeted. However, such subsidies should be conditioned on improvements in operational efficiency in order to avoid an overdependence on external concessional funds.

Fourth, social and economic development programs should ideally be spearheaded by the Ministry of Agriculture, the Ministry of Labor, the Ministry of Public Works, the Ministry of Education, and the Ministry of Health, not the Agricultural Development Bank.

**Management Orientation.** Top management in both institutions needs to transform the vision of the institutions from one of social assistance for the poor to one of a cost-efficient, commercially oriented credit service that coincidentally happens to be working with a low-income clientele. They need to effect change in the following ways:

- Develop a strategic plan that defines the mission of the institution, sets goals, identifies market niches, determines the role of each subunit, and decides the kind of corporate culture it wants to foster. Current planning consists of making credit demand and supply projections and writing general behavioral guidelines. It is fine to exhort staff to provide "quality service" but periodic review of the entire disbursement mechanism is needed in order to identify areas for possible improvements so that "quality service" can be rendered.
- Authority needs to be decentralized. Each branch chief or cooperative affiliate manager needs greater discretionary spending power, staff selection power, and more loan approval authority.
- Management by numbers needs to be adopted. Constant cost and efficiency monitoring is needed to detect weaknesses throughout the system and correct them. By the same token if a particular credit program is not working, an attempt to identify a remedy

should be made; and if it still does not work, the program should be eliminated. Line staff need to be fully involved in the process; their suggestions should be sought on how they think a particular procedure or system could be improved. Top-down, hierarchical systems are slower to innovate and slower to minimize costs than are participatory management schemes. Top officers should consider receiving training in Total Quality Management. Improving organizational efficiency through changed behavioral conventions, structures, and effective human relations that maintain high staff morale and cohesion is the gravest challenge facing both institutions.

- The credit delivery systems in both institutions are too cumbersome and should be streamlined and computerized. The person receiving the information should be able to immediately enter the information in a computer terminal and a financial analysis program should be developed to quickly perform capacity-to-pay analyses. The number of forms used in the system needs to be drastically reduced. The time needed to treat a repeat customer in good standing should be minimal because all the basic information would be already stored. Computerization, however, will be a slow and expensive process. In the meantime, every effort should be made to simplify the process. Replicating some of the banking procedures of BKK and BUD in Indonesia may be appropriate.<sup>27</sup>
- Marketing acumen needs to be developed. Media campaigns must be launched in rural areas to promote new and improved services. For instance, a feasibility study on savings mobilization is needed, and if it is deemed cost effective, the necessary preparations to handle deposits should be made and an outreach campaign launched. Innovative products such as mobile banking, graduated and revolving lines of credit for good clients, and interest rebates for early payment, on-lending to processors/exporters who in turn lend to individual contract farmers are possibilities that should be advertised. The institutions also need to be more forward-looking and survey and explore the marketplace for a certain kind of client that is not being served and see if it would be profitable to meet that client's needs. The institutions need to see themselves as dynamic, evolving entities, not tradition-bound, static bureaucracies.

**Human Resources.** The central offices of both institutions are overstaffed and efforts should be made to redefine roles. Secondly, both institutions need to train and recruit staff in the needed areas of finance, project analysis, accounting, marketing, personnel development, and computer programming.

Prior to a reshuffling of personnel, however, the principal cause of the high rate of turnover in the central offices of both institutions needs to be identified. Low pay seems ar

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<sup>27</sup> See book by Patten and Rosengard and World Bank discussion paper by Yaron.

obvious reason, but if poor supervisors are partly at fault, increasing the pay will not solve the problem.

Personnel need to be measured against quantifiable goals and duly rewarded. Appreciable bonuses based on job performance (productivity) need to be adopted.

**Physical Infrastructure and Equipment.** There is a clear need for more computers, telecommunication equipment, miscellaneous office equipment, and vehicles. Complete computer integration of all branch offices with the central office's management information system needs to be speeded up. The need for a better information management system integration is more urgent for Fedecredito than for BFA.

More vehicles are needed to better monitor credit investments and develop stronger client relationships. However, before this commitment is made, management should complete a strategic plan and define the scope of extension services and, accordingly, the number and type of vehicles that will be needed.

**Operational Subsidies.** Given the high cost and risky nature of lending to the poor, operational subsidies will be needed by the two institutions. Currently the subsidies are implicit in discount lines from the Central Bank. It would be advisable to make the subsidies explicit transfers from the central government and conditioned on improvements in operational efficiency. A set of performance targets and a program of periodic reviews and audits are important in order to force the institutions to operate more efficiently. Otherwise an "expectation of bail-outs" syndrome can be created. Sustained movement toward the lowest cost of operation possible should be a chief goal along with outreach to the poor. The Subsidy Dependence Index (Appendix C) can be used as one such indicator.

In conclusion, the two institutions need to adopt the five characteristics of successful rural financial institutions who attend the poor. These characteristics are: (1) rapid loan processing, (2) flexible repayment patterns, (3) use of mobile banking, (4) staff incentive programs, and (5) strong reliance on character references, joint liability, and on-lending to agricultural processors/exporters who in turn on-lend to individual suppliers instead of real guarantees.

## REFERENCES

- Acevedo J., J. McGuire, J. C. Protasi, O. Torres, and R. Vogel. 1989. *El Salvador Financial Sector Study*. Arlington, VA. Interamerican Management Consulting Corporation (IMCC).
- Adams, D.W. and G.I. Nehman, "Borrowing Costs and the Demand for Rural Credit", *Journal of Development Studies*, 15, no. 2, (January 1979), 165-176.
- Arias, R. A. "Tecnicas Modernas para Mejorar La Calidad y Eficiencia en La Supervision de Los Intermediarios Financieros." presented at a seminar sponsored by La Camara de Comercio e Industria de El Salvador, 24 y 25 de Octubre de 1991.
- Auernheimer, L., J. C. Protasi, R. Vogel. 1991. *Interest Rate Policy in El Salvador*. Interamerican Management Consulting Corporation (IMCC).
- Aviles Velasquez, C.S. and Saul Antonio Carrillo M. "Propuesta de Medidas de Política para el Desarrollo Agropecuario por Medio del Crédito a Pequeños Productores y Cooperativas." Tesis Facultad de Ingenieria, Universidad Centroamericana José Simeon Cañas, Septiembre 1992.
- Banco Agricola Comercial. 1991. *Ley de Bancos e Instituciones Financieras*. San Salvador.
- Banco Central de Reserva de El Salvador. 1992. *Informe Economico 1991*. San Salvador.
- \_\_\_\_\_. *Memoria de Labores*. 1990. San Salvador, 1991.
- \_\_\_\_\_. *Revista Trimestral*. ediciones por junio y setiembre 1992.
- Banco de Fomento Agropecuario. various annual reports.
- \_\_\_\_\_. Various financial statements and internal reports.
- \_\_\_\_\_. 1973. "Ley del Banco de Fomento Agropecuario," Diario Oficial No. 75, 239, San Salvador.
- Baughn, W., T. Storris, and C. Walker, eds. 1988. *The Banker's Handbook*. Dow Jones-Irwin, Homewood, IL.
- Binswanger, H. and Donald Siller. "Risk Aversion and Credit Constraints in Farmers' Decision-Making: A Reinterpretation." *Journal of Development Studies*, 20, no.1 (October 1983): 5-21.

- Blejer, M. and Silvia Sagari. 1990. "The Structure of the Banking Sector and the Sequence of Financial Liberalization" in *Economic Reform and Stabilization in Latin America*. Michael Connolly and Claudio González-Vega, New York: Praeger, eds..
- Calderon, V. and Clemente San Sebastian. 1991. "Caracterización de los Productores de Granos Básicos en El Salvador." *Temas de Seguridad Alimentaria*. CADESCA.
- Carrandi, A. 1991. *Banco de Fomento Agropecuario: Diagnostico Institucional y Financiero*. USAID/El Salvador Informe Tecnico.
- CENTEC. "Los Roblemas Financieros Actuales: La Responsabilidad Gubernamental." *La Prensa Grafica*, San Salvador, Noviembre 19, 1992, p. 11.
- Cuevas, C. 1990. *Costs of Financial Intermediation in the Banking System of El Salvador*. Center for Latin American Studies, Arizona State University.
- \_\_\_\_\_ et, al., 1991. *The Informal Financial Sector in El Salvador*. USAID/El Salvador and The Ohio State University Technical Report.
- "Bancos Suspenden Embargos Contra sector Productivo", *El Diario de Hoy*, San Salvador, Noviembre 13, 1992, pg. 107.
- "The Economist Intelligence Unit Country Report: Guatemala, El Salvador, Honduras." *The Economist*, London, No. 3, 1992.
- Eswaran, M. and Ashok Kotwal. "Access to Capital and Agrarian Production Organization." *The Economic Journal*, 96 (June 1986): 482-498.
- Fedecrédito, various financial statements and internal reports.
- \_\_\_\_\_. Various annual reports.
- \_\_\_\_\_. "Ley de las Cajas de Credito y de los Bancos de los Trabajadores," San Salvador, Junio 1991.
- FUSADES, "Evaluacion del Sistema Financiero de El Salvador, y Bases Para su Innovacion y Modernizacion." no publicado, Septiembre 1988.
- \_\_\_\_\_. "La 'Pesadilla' Fiscal" in *La Prensa Grafica*, San Salvador, Martes, Noviembre 17, 1992, p. 10.
- International Monetary Fund. 1991. *International Financial Statistics 1991 Yearbook*. Washington, D.C..

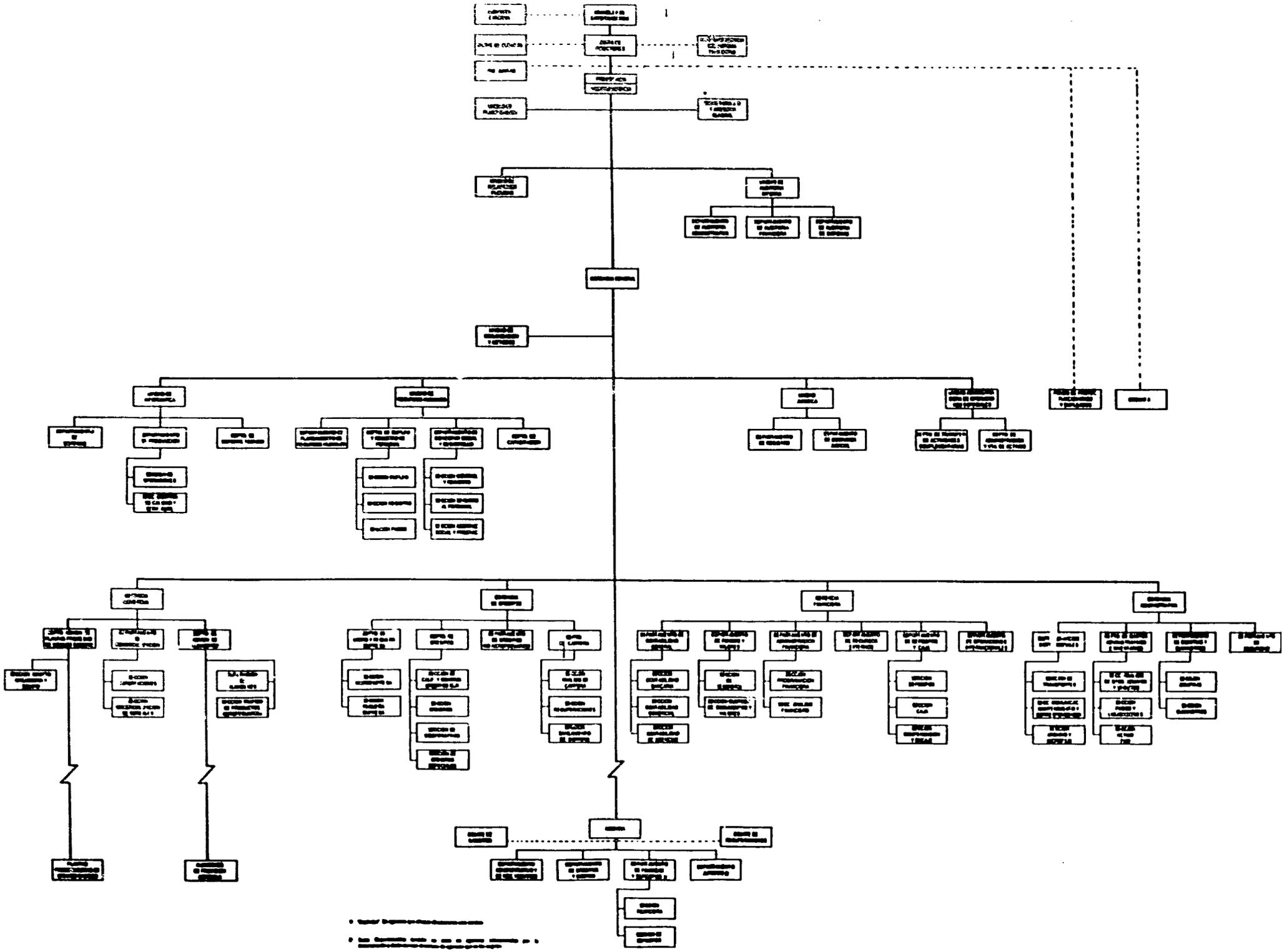
- \_\_\_\_\_. "Recent Economic Developments." 1990-92. unpublished reports, Washington, D.C.
- \_\_\_\_\_. *Statistical Annexes*, Washington, D.C., various issues.
- International Science and Technology Institute Inc. 1989. *Manual for Off Analysis of Financial Institutions in Developing Countries*. Washington D.C..
- Ladman, J 1990. "Depositor Transactions Costs in the El Salvadoran Banking System." preliminary USAID report.
- Ladman, J., J.I. Torrico, T.D. Bunca. 1986. *Rural Savings Mobilization/Agricultural Credit Project*. Contracting Corporation of America.
- Letona, R.C., 1991. *Realidad y Perspectivas de la Banco de Fomento Agropecuario en El Salvador*. Centro de Investigaciones Tecnológicas y Científicas (CENITEC).
- \_\_\_\_\_. 1991. *La Política de Granos Básicos en El Salvador: Análisis y Recomendaciones*. Centro de Investigaciones Tecnológicas y Científicas.
- \_\_\_\_\_. W. Pleitez, and H. Rosa. "Política Económica y Pobreza Rural en El Salvador." *Política Económica*. 1, no. 5 (Febrero-Marzo 1991).
- Library of Congress. 1990. *El Salvador*. Area Handbook Series, Washington, D.C..
- MIPLAN. 1991. "Multi-Purpose Household Survey". San Salvador, El Salvador.
- Miller, C. and Jerry Ladman. "Factors Impeding Credit Use in Small-Farm Households in Bolivia." *Journal of Development Studies*. 19, no. 4 (July 1983): 522-538.
- Morris, F. with M. Dorfman, J. P. Ortíz, M. C. Franco. 1990. *Latin America's Banking Systems in the 1980's: A Cross-Country Comparison*. World Bank Discussion Paper 81, Washington D.C..
- Norton, R. 1990. *An Assessment of the Recent Agricultural Policy Reforms in El Salvador*. USAID/El Salvador Technical Report.
- Orellana, M. G. 1992. "El Salvador: Desarrollo Financiero y Regulación." Documento de Trabajo, FUSADES.
- Patten, R. and Jay Rosengard. 1991. *Progress with Profits: The Development of Rural Banking in Indonesia*. San Francisco, International Center for Economic Growth and the Harvard Institute for International Development.

- Ritter, L. and William Silber. 1974. *Principles of Money, Banking, and Financial Markets*. New York: Basic Books.
- Stiglitz, J. "Peer Monitoring and Credit Markets." *The World Bank Economic Review*. 4, no. 3 (September 1990).
- \_\_\_\_\_ and A. Weiss. "Credit Rationing in Markets with Imperfect Information", *American Economic Review*. 71, no. 3 (June 1981): 393-410.
- Umaña, R. A. 1991. *Efectos Economicos de la Mora y el Saneamiento de la Cartera de los Bancos y Asociaciones de Ahorro y Prestamo en El Salvador*. Centro de Investigaciones Tecnologicas y Cientificas (CENITEC).
- \_\_\_\_\_. "Evaluacion Economica de la Legislacion Aplicable a Bancos y Financieras en El Salvador," no publicado, Julio 1991.
- Wenner, M. 1989. "Signaling of Creditworthiness in Rural Credit Markets: An Analysis of Group Lending in Costa Rica" unpublished Ph.D dissertation, University of Wisconsin-Madison.
- World Bank. 1989. *El Salvador: Country Economic Memorandum*, Washington, D.C..
- Yaron, J. 1992. *Successful Rural Finance Institutions*. World Bank Discussion Paper 150, Washington, D.C..

## **APPENDIX A**

**Attached are organizational charts of the two financial institutions studied.**

# ESTRUCTURA ORGANIZATIVA DEL BANCO DE FOMENTO AGROPECUARIO

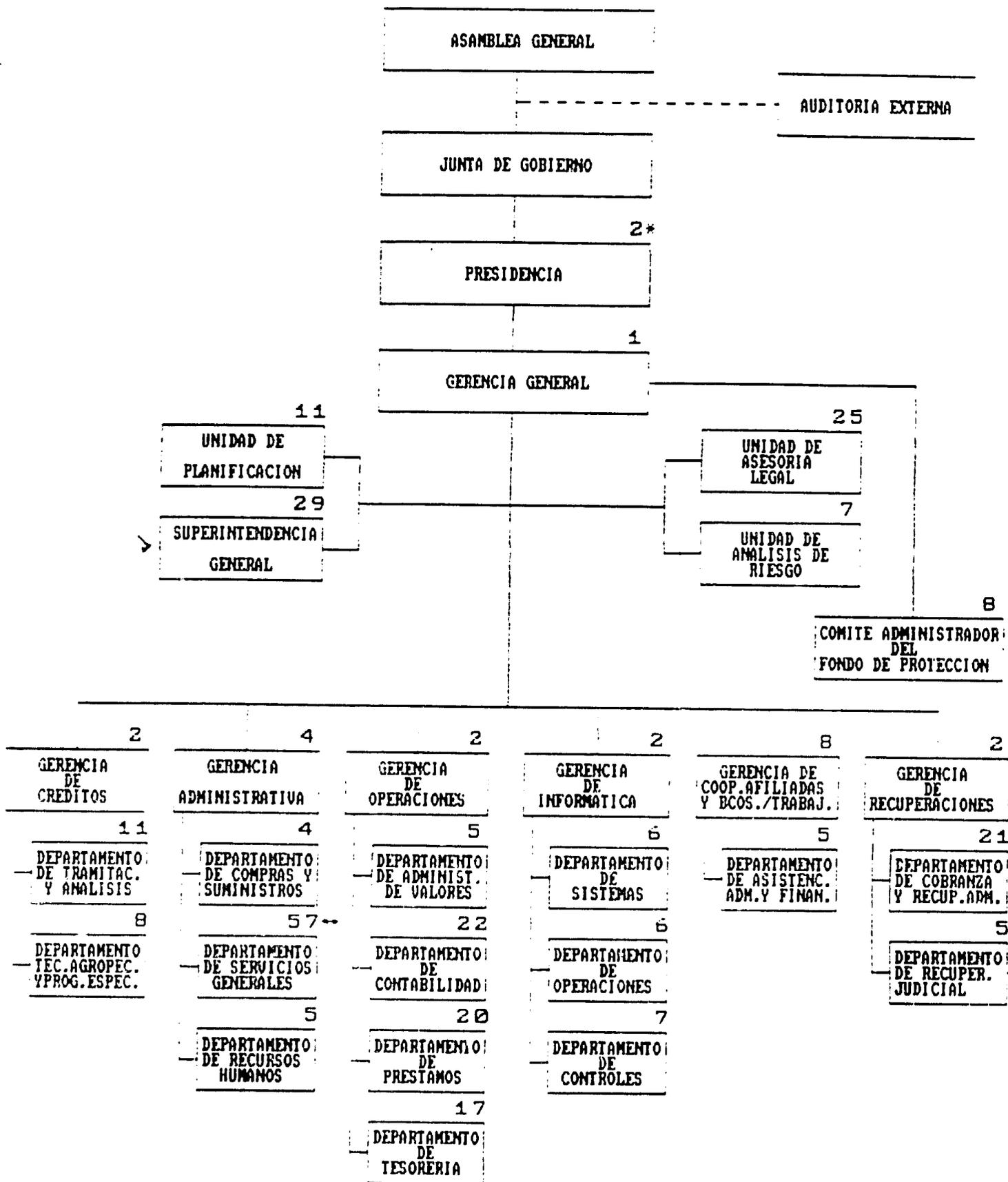


A-2

\* SERVICIO DE ASERORIA TECNICA  
 \* SERVICIO DE ASERORIA ECONOMICA

# F E D E C R E D I T O de C.U.

## ESTRUCTURA ORGANIZATIVA



← Numero de empleados por Unidad Organizativa (Total 394)

↔ Incluye: Dpto. de Seguridad, Secc. de Archivo y Microfilm y Secc. de Correspondencia.

## APPENDIX B

Below is financial data on individual Rural Credit Funds for CAMEL analysis.

### B.1 Capital Adequacy of Individual Rural Credit Funds

TABLE B.1  
EQUITY OF INDIVIDUAL RURAL CREDIT FUNDS  
THOUSAND COLONES NOVEMBER 1992

Rural Credit Funds with negative equity:		Equity	E/A*
09	Santiago de María	(810.0)	N/A
12	Tenancingo	(31.1)	N/A
18	La Unión	(139.4)	N/A
35	Metapán	(679.8)	N/A
47	Jocoro	(166.1)	N/A
48	San Alejo	(69.3)	N/A
50	Cara Sucia	(597.3)	N/A
53	Candelaria de la Frontera	(602.3)	N/A
54	Tacuba	(59.7)	N/A
55	San Juan Opico	(175.2)	N/A
58	Armenia	(95.3)	N/A
62	Caja Metropolitana	(494.3)	N/A
Rural Credit Funds with Equity to Assets Ratio under the minimum required by the Banking Law (8%):		Equity	E/A*
08	Concepción Batres	95.5	1.0%
13	San Miguel	351.6	3.7%
20	Tonacatepeque	208.0	5.4%
44	La Libertad	60.4	2.7%

52	Aguilares	6.2	0.2%
56	Olocuilta	39.3	1.9%
60	San Ildefonso	32.3	2.1%
Rural Credit Funds with Equity to Assets Ratio over the minimum required by the Banking Law (8%):		Equity	E/A*
02	Quezaltepeque	600.3	9.4%
04	Berlín	775.6	9.1%
05	Juayúa	287.1	20.5%
06	San Pedro Nonualco	149.0	9.2%
07	Usulután	1861.9	10.8%
10	Santiago Nonualco	1005.7	10.4%
11	San Sebastián	425.7	11.6%
14	Cojutepeque	2700.2	39.7%
15	Chalchuapa	1528.1	28.9%
16	Zacatecoluca	5380.7	27.6%
17	El Cmilamatal	1188.7	20.1%
19	Sensuntepeque	505.4	17.4%
21	Colón	572.3	10.9%
22	Sonsonate	1900.1	24.0%
23	Ilobasco	1476.4	41.3%
24	San Francisco Gotera	1123.0	21.8%
25	San Ignacio	439.1	12.9%
26	San Agustín	1463.4	20.7%
27	Ahuachapán	1120.4	13.1%
28	Santa Ana	1389.7	26.2%
29	Suchitoto	818.4	10.7%
30	San Martín	1370.7	19.0%

31	Jucuapa	919.1	29.4%
32	San Vicente	2404.7	17.7%
33	Chalatenango	845.3	30.5%
34	Santa Rosa de Lima	1023.7	10.3%
36	Ciudad Barrios	422.8	10.8%
37	Atiquizaya	637.6	14.2%
39	Izalco	1619.2	25.5%
40	Acajutla	189.9	10.2%
42	Soyapango	962.2	12.7%
46	Nueva Concepción	1036.6	26.6%

\*Equity to Assets ratio calculated on the gross assets, not as required by the Banking Law, the weighted average assets.

## B.2 Asset Quality of Individual Rural Credit Funds

The statistical values for all the Rural Credit Funds in the three groups are the following:

### Cash and Banks

Ratio of Average Cash and Banks to Total Assets 5.28%

Maximum Ratio 32.03% #40 Acajutla

Minimum Ratio 0.44% #04 Berlín

Variance 24.46 Standard Deviation 4.95

For this analysis the average of Cash and Banks for all the Credit Funds, 5.28 percent, will be considered the benchmark. The ideal will be that Fedecredito management will determine a reasonable ratio of Cash and Banks to Total Assets, and will supervise the individual Credit Funds so that the Credit Funds have only the balance of cash needed for day-to-day operations (i.e. not exceeding the ratio established by the Federation) and will eliminate deposits by the Credit Funds in commercial banks, which provide interest earnings to the Credit Funds but compete with them in their principal activity, lending to farmers.

In the group of Rural Credit Funds with negative equity, four report balances of Cash and Banks in excess of the average for the group, Cara Sucia (11.04%), Armenia (8.06%), San Juan Opico (5.72%), and Tacuba (5.41%).

**Table B.2**  
Cash and Banks to Total Assets ratio for Rural Credit Funds with negative equity:

# Credit Fund	%	# Credit Fund	%
09 Santiago de María	2.78	50 Cara Sucia	11.04
12 Tenancingo	2.26	53 Candelaria Frontera	3.90
18 La Unión	3.62	54 Tacuba	5.41
35 Metapán	4.44	55 San Juan Opico	5.72
47 Jocoro	3.24	58 Armenia	8.06
48 San Alejo	2.16	62 Credit Fund Metropolitana	2.54

In the group of Rural Credit Funds with equity below the minimum established by the banking law, only two have a ratio below the average; the remaining five have excess Cash and Banks balances.

**Table B.3**  
Cash and Banks to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio under the minimum required by the Banking Law (8%):

# Credit Fund	%	# Credit Fund	%
08 Concepción Batres	8.17	52 Aguilares	6.85
13 San Miguel	13.28	56 Olocuilta	5.27
20 Tonacatepeque	4.01	60 San Ildefonso	2.86
44 La Libertad	7.75		

In the group of Rural Credit Funds with equity above the minimum established by the banking law, fourteen have a ratio above the average; some, such as Acajutla (32.03%) and Santa Ana (19.49%), have excessively large percentages. In the group of Credit Funds with Cash and Banks balances below the average, some have percentages below 2 percent (e.g., San Ignacio, Berlín, Chalchuapa, and Santa Rosa de Lima).

**Table B.3**  
**Cash and Banks to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio over the minimum required by the Banking Law (8%):**

# Credit Fund	%	# Credit Fund	%
02 Quezaltepeque	3.73	25 San Ignacio	0.57
04 Berlín	0.44	26 San Agustín	4.33
05 Juayúa	7.85	27 Ahuachapán	3.10
06 San Pedro Nonualco	5.92	28 Santa Ana	19.49
07 Usulután	4.56	29 Suchitoto	4.28
10 Santiago Nonualco	6.40	30 San Martín	4.72
11 San Sebastián	3.24	31 Jucuapa	8.58
14 Cojutepeque	5.68	32 San Vicente	8.42
15 Chalchuapa	1.61	33 Chalatenango	7.38
16 Zacatecoluca	5.80	34 Santa Rosa de Lima	1.81
17 El Chitumatal	6.33	36 Ciudad Barrios	2.29
19 Sensuntepeque	4.57	37 Atiquizaya	2.33
21 Colón	9.26	39 Izalco	3.06
22 Sonsonate	5.90	40 Acajutla	32.03
23 Ilobasco	5.26	42 Soyapango	2.46
24 San Francisco Gotera	3.57	46 Nueva Concepción	2.85

Average Loans to Total Assets Ratio 51.62%  
Maximum Ratio 91.30% #62 Metropolitana  
Minimum Ratio 4.27% #25 San Ignacio  
Variance 393.64 Standard Deviation 19.84

The group average for the ratio of Loans to Total Assets is 51.62 percent. Those Credit Funds with a lower percent are not using their resources to extend credit to their customers. The higher the ratio, the larger the volume of lending included in the total assets.

**Table B.4**  
Loans to Total Assets ratio for Rural Credit Funds with negative equity:

# Credit Fund	%	# Credit Fund	%
09 Santiago de María	35.98	50 Cara Sucia	60.38
12 Tenancingo	36.24	53 Candelaria Frontera	74.09
18 La Unión	56.28	54 Tacuba	78.47
35 Metapán	23.29	55 San Juan Opico	49.41
47 Jocoro	66.43	58 Armenia	62.77
48 San Alejo	80.13	62 Credit Fund Metropolitana	91.30

**Table B.5**  
Loans to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio under the minimum required by the Banking Law (8%):

# Credit Fund	%	# Credit Fund	%
08 Concepción Batres	66.66	52 Aguilares	59.58
13 San Miguel	69.51	56 Olocuilta	82.50
20 Tonacatepeque	43.10	60 San Ildefonso	69.00
44 La Libertad	69.82		

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**Table B.6**  
**Loans to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio**  
**over the minimum required by the Banking Law (8%):**

# Credit Fund	%	# Credit Fund	%
02 Quezaltepeque	35.83	25 San Ignacio	4.27
04 Berlín	45.04	26 San Agustín	53.91
05 Juayúa	74.58	27 Ahuachapán	28.12
06 San Pedro Nonualco	68.79	28 Santa Ana	65.85
07 Usulután	48.45	29 Suchitoto	21.51
10 Santiago Nonualco	87.96	30 San Martín	33.19
11 San Sebastián	64.65	31 Jucuapa	31.34
14 Cojutepeque	43.12	32 San Vicente	57.01
15 Chalchuapa	45.79	33 Chalatenango	25.67
16 Zacatecoluca	43.08	34 Santa Rosa de Lima	56.84
17 El Chilamatal	32.55	36 Ciudad Barrios	63.63
19 Sensuntepeque	35.08	37 Atiquizaya	40.71
21 Colón	47.21	39 Izalco	54.27
22 Sonsonate	72.02	40 Acajutla	27.77
23 Ilobasco	46.34	42 Soyapango	54.36
24 San Francisco Gotera	27.32	46 Nueva Concepción	9.25

**Fixed Assets**

Average Fixed Assets to Total Assets Ratio 8.28%  
 Maximum Ratio 38.31% #14 Cojutepeque  
 Minimum Ratio 0.43% #12 Tenancingo  
 Variance 73.10 Standard Deviation 8.55

Fixed Assets do not represent an important category in the Total Assets of the Rural Credit Funds. For the type of operations that they carry out, most facilities are rented, and the principal investment is in office equipment such as computers. The average of all Credit Funds is 8.28 percent, but there is some dispersion in the actual figures of the individual Credit Funds, indicated by the standard deviation of 8.55. The Credit Fund with the largest investment in

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fixed assets is #14, Cojutepeque, with 38.31 percent; the Credit Fund with the lowest investment is #12, Tenancingo, with 0.43 percent.

**Table B.7**  
Fixed Assets to Total Assets ratio for Rural Credit Funds with negative equity:

# Credit Fund	%	# Credit Fund	%
09 Santiago de María	8.83	50 Cara Sucia	1.45
12 Tenancingo	0.43	53 Candelaria Frontera	1.77
18 La Unión	0.85	54 Tacuba	1.14
35 Metapán	7.76	55 San Juan Opico	2.68
47 Jocoro	14.62	58 Armenia	1.73
48 San Alejo	1.21	62 Credit Fund Metropolitana	0.78

**Table B.8**  
Fixed Assets to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio under the minimum required by the Banking Law (8%):

# Credit Fund	%	# Credit Fund	%
08 Concepción Batres	2.39	52 Aguilares	0.85
13 San Miguel	7.26	56 Olocuilta	1.38
20 Tonacatepeque	4.89	60 San Ildefonso	3.95
44 La Libertad	2.00		

**Table B.9**  
**Fixed Assets to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio**  
**over the minimum required by the Banking Law (8%):**

# Credit Fund	%	# Credit Fund	%
02 Quezaltepeque	8.87	25 San Ignacio	12.79
04 Berlín	4.42	26 San Agustín	0.80
05 Juayúa	6.49	27 Ahuachapán	21.35
06 San Pedro Nonualco	3.25	28 Santa Ana	3.50
07 Usulután	1.81	29 Suchitoto	2.50
10 Santiago Nonualco	2.77	30 San Martín	24.02
11 San Sebastián	7.69	31 Jucuapa	8.49
14 Cojutepeque	38.31	32 San Vicente	6.19
15 Chalchuapa	30.50	33 Chalatenango	20.88
16 Zacatecoluca	5.86	34 Santa Rosa de Lima	9.49
17 El Chilamatal	16.10	36 Ciudad Barrios	0.81
19 Sensuntepeque	19.31	37 Atiquizaya	4.92
21 Colón	7.08	39 Izalco	6.22
22 Sonsonate	11.72	40 Acajutla	8.63
23 Ilobasco	29.34	42 Soyapango	6.99
24 San Francisco Gotera	20.30	46 Nueva Concepción	6.45

Average Other Assets to Total Assets Ratio 34.77%  
Maximum Ratio 82.36% #25 San Ignacio  
Minimum Ratio 2.86% #10 Santiago Nonualco  
Variance 348.57 Standard Deviation 18.67

In most cases, large balances in the Other Assets account indicate problems, either obsolete inventories, noncollectible interest, or nonexistent items. The mean for all Credit Funds is excessive, 34.77 percent. The Credit Fund with the largest ratio is #25, San Ignacio (82.36%); the lowest is Credit Fund #10, Santiago Nonualco (2.86%). The variance indicates that many Credit Funds are operating within ratios under the mean. This is an area where an adequate evaluation is urgent; the problems must be identified and solutions implemented.

**Table B.10**  
Other Assets to Total Assets ratio for Rural Credit Funds with negative equity:

# Credit Fund	%	# Credit Fund	%
09 Santiago de María	52.40	50 Cara Sucia	27.12
12 Tenancingo	61.07	53 Candelaria Frontera	20.23
18 La Unión	39.24	54 Tacuba	14.98
35 Metapán	64.50	55 San Juan Opico	42.19
47 Jocoro	15.70	58 Armenia	27.43
48 San Alejo	16.49	62 Credit Fund Metropolitana	5.37

**Table B.11**  
Loans to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio  
under the minimum required by the Banking Law (8%):

# Credit Fund	%	# Credit	%
08 Concepción Batres	22.77	52 Aguilares	32.72
13 San Miguel	9.95	56 Olocuilta	10.84
20 Tonacatepeque	48.00	60 San Ildefonso	24.18
44 La Libertad	20.43		

**Table B.11**  
**Loans to Total Assets ratio for Rural Credit Funds with Equity to Assets Ratio**  
**over the minimum required by the Banking Law (8%):**

# Credit Fund	%	# Credit Fund	%
02 Quezaltepeque	51.66	25 San Ignacio	82.36
04 Berlín	50.11	26 San Agustín	40.96
05 Juayúa	11.07	27 Ahuachapán	47.43
06 San Pedro Nonualco	22.04	28 Santa Ana	11.15
07 Usulután	45.18	29 Suchitoto	71.71
10 Santiago Nonualco	2.86	30 San Martín	38.07
11 San Sebastián	24.41	31 Jucuapa	51.59
14 Cojutepeque	12.90	32 San Vicente	28.38
15 Chalchuapapa	22.10	33 Chalatenango	46.06
16 Zacatecoluca	44.86	34 Santa Rosa de Lima	31.86
17 El Chilamatal	45.01	36 Ciudad Barrios	33.26
19 Sensuntepeque	41.03	37 Atiquizaya	52.03
21 Colón	36.45	39 Izalco	36.45
22 Sonsonate	10.36	40 Acajutla	31.57
23 Ilobasco	19.06	42 Soyapango	36.19
24 San Francisco Gotera	48.24	46 Nueva Concepción	81.44

**Dependency on Resources from the Federation**

Average Credit from the Federation to Loans Ratio 122.27%

Maximum Ratio 1852.61% #25 San Ignacio

Minimum Ratio 32.22% #05 Juayúa

Individual Credit Funds have three sources of funds: their Equity, analyzed in chapter I; deposits from their customers; and loans from the Federation. The average for all the Credit Funds shows a high rate of dependency on funds from the Federation, 122.27 percent, which means that the Credit Funds do not have an adequate capital base (as indicated in chapter I), that they are not capturing deposits from their customers' base, and that they have received resources

from the Federation in excess of what they have loaned to their customers. The most dependent Credit Fund is #25, San Ignacio with 1,852.67 percent, which received 2.7 million colones from and has outstanding loans of 146 thousand colones, indicating that resources were invested in other types of assets. The last dependent Credit Fund is #05, Juayúa with 32.22 percent.

**Table B.12**  
Loans to Credit from the Federation ratio for Rural Credit Funds with negative equity:

# Credit Fund	%	# Credit Fund	%
09 Santiago de María	177.96	50 Cara Sucia	200.94
12 Tenancingo	197.50	53 Candelaria Frontera	192.05
18 La Unión	143.02	54 Tacuba	111.14
35 Metapán	398.81	55 San Juan Opico	178.28
47 Jocoro	136.32	58 Armenia	108.65
48 San Alejo	112.56	62 Credit Fund Metropolitana	82.21

**Table B.13**  
Loans to Credit from the Federation ratio for Rural Credit Funds with Equity to Assets Ratio under the minimum required by the Banking Law (8%):

# Credit Fund	%	# Credit Fund	%
08 Concepción Batres	107.53	52 Aguilares	122.63
13 San Miguel	93.97	56 Olocuilta	102.88
20 Tonacatepeque	132.59	60 San Ildefonso	105.04
44 La Libertad	92.38		

Table B.14

Loans to Credit from the Federation ratio for Rural Credit Funds with Equity to Assets Ratio over the minimum required by the Banking Law (8%):

# Credit Fund	%	# Credit Fund	%
02 Quezaltepeque	178.29	25 San Ignacio	1852.67
04 Berlín	154.26	26 San Agustín	116.16
05 Juayúa	32.22	27 Ahuachapán	223.44
06 San Pedro Nonualco	102.75	28 Santa Ana	65.40
07 Usulután	133.08	29 Suchitoto	391.01
10 Santiago Nonualco	77.32	30 San Martín	174.28
11 San Sebastián	114.76	31 Jucuapa	133.25
14 Cojutepeque	81.84	32 San Vicente	103.33
15 Chalchuapa	123.95	33 Chalatenango	153.20
16 Zacatecoluca	127.42	34 Santa Rosa de Lima	106.22
17 El Chilamatal	158.07	36 Ciudad Barrios	122.28
19 Sensuntepeque	174.06	37 Atiquizaya	168.94
21 Colón	116.24	39 Izalco	94.41
22 Sonsonate	57.19	40 Acajutla	231.70
23 Ilobasco	84.49	42 Soyapango	109.69
24 San Francisco Gotera	174.98	46 Nueva Concepción	655.63

The above ratios indicate that the Federation is sustaining a very large risk of insolvency because the individual Credit Funds have received credits in excess of what they have loaned to their customers, invested the balance in other types of activities, or lost the funds due to the insolvency of their clientele. As mentioned in the Cash and Banks analysis of this section, some Credit Funds have large balances of cash, most of which is owed to the Federation. Others have large balances in the Other Assets category, which probably are noncollectible items.

If the analysis for the individual Credit Funds were included in the evaluation of the Federation under the CAMEL system, given the previous explanations, the rating would be lowered from 3, Fair, to 5, Unsatisfactory.

### B.3 Earnings of Individual Rural Credit Funds

All Credit Funds in the negative equity category showed losses during 1992.

TABLE B.15  
1992 Profit and (Loss) for Rural Credit Funds with negative equity, in thousand Colones:

# Credit Fund		# Credit Fund	
09 Santiago de María	(1049)	50 Cara Sucia	(651)
12 Tenancingo	(317)	53 Candelaria Frontera	(667)
18 La Unión	(539)	54 Tacuba	(109)
35 Metapán	(1023)	55 San Juan Opico	(232)
47 Jocoro	(99)	58 Armenia	(281)
48 San Alejo	(115)	62 Credit Fund Metropolitana	(608)

In the group of Credit Funds with equity less than the minimum established by the Banking law, only one Rural Credit Fund showed a profit for 1992.

TABLE B.16  
1992 Profit and (Loss) for Rural Credit Funds with Equity to Assets Ratio under the minimum required by the Banking Law (8%):

# Credit Fund		# Credit Fund	
08 Concepción Batres	(488)	52 Aguilares	(57)
13 San Miguel	282	56 Olocuilta	(41)
20 Tonacatepeque	(71)	60 San Ildefonso	(33)
44 La Libertad	(56)		

In the group of Rural Credit Funds with equity above the minimum established by the Banking Law, 21 Credit Funds report profits as of November 1992 (some in excess of one million colones) and eleven Credit Funds report losses (#27 Ahuachapán and # 29 Suchitoto, report losses in excess of one million colones).

TABLE B.17

1992 Profit and (Loss) for Rural Credit Funds with Equity-to-Assets Ratio over the minimum required by the Banking Law (8%):

# Credit Fund		# Credit Fund	
02 Quetzaltepeque	( 280)	25 San Ignacio	52
04 Berlín	221	26 San Agustín	1112
05 Juayúa	88	27 Ahuachapán	(1021)
06 San Pedro Nonualco	( 27)	28 Santa Ana	293
07 Usulután	107	29 Suchitoto	(1440)
10 Santiago Nonualco	304	30 San Martín	( 61)
11 San Sebastián	( 97)	31 Jucuapa	290
14 Cojutepeque	203	32 San Vicente	1205
15 Chalchuapa	( 60)	33 Chalatenango	440
16 Zacatecoluca	3882	34 Santa Rosa de Lima	272
17 El Chilamate	211	36 Ciudad Barrios	218
19 Sensuntepeque	( 277)	37 Atiquizaya	127
21 Colón	( 371)	39 Izalco	693
22 Sonsonate	( 231)	40 Acajutla	( 13)
23 Ilobasco	165	42 Soyapango	262
24 San Francisco Gotera	63	46 Nueva Concepción	289

## APPENDIX C

### C.1 Calculation of Subsidy Dependence Index: Agricultural Development Bank

		1992	1991	1990
A	Concessionary borrowed funds Annual average million colones	353.2	471.4	1343.0
E	Equity, Annual average million colones	405.6	281.5	216.1
P	Average yearly profits Million colones	20.6 <sup>1</sup>	39.0	69.1
LP	Average annual loan portfolio Million colones	479.9	526.8	554.9
n	Average on-lending annual interest rate as a %	18.5	19.5	22.6
D	Average annual deposits million colones	154.7	123.1	96.7
r	Reserve requirements on Deposits as a % <sup>2</sup>	15.0	15.0	15.0
t	Interest paid by the Central Bank on reserve deposits as a %	0	0	0
O	Ratio of operating expenses to average loan balances (%)	16.0	14.5	13.0

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<sup>1</sup> Annualized based on profits reported for the first semester of 1992.

<sup>2</sup> Reserve requirements estimated at 15%. The actual average varies in depending on the participation of checking, passbook and time deposits in the total deposits received by the bank, and the reserve requirements established by the Central Bank for each kind of deposit.

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EF	"Normal" expected ratio of operating expenses to loan balances	6.0	6.0	6.0
	Items\Years	1992	1991	1990
IF	Inefficiency level % ( O-EF )	10.0	8.5	7.0
i	Interest rate paid on deposits % to customers	9.7	13.9	14.2
ad	Administration costs of deposits as a %	4.5	4.5	4.5
m	Total cost of deposits (i + ad)	14.2	18.4	18.7
c	Average cost of borrowed funds %	5.2	3.6	2.1
	m - c	9.0	14.8	16.6
Subsidy Dependence Index				
1	A(m-c) million colones	31.8	69.8	222.9
2	E * m	57.6	51.8	40.4
3	P	20.6	39.0	69.1
4	$[(A+E+D/1-r)-(A+E+D)](m-t)$	22.9	28.4	54.6
S	Annual subsidy line 1+2-3+4	91.7	111.0	248.8
SDI	Index of subsidy dependence (%) $S/(LP*n)$	103.3	108.0	198.4
5	Increased interest rate on loans to eliminate subsidy dependence (%) $([m*SDI]/100)+m$	37.6	38.3	67.4
6	Less IF	10.0	8.5	7.0

7	Revised increased interest rates under improved ratio of operating expenses to loans (%) (line 5 - 6)	27.6	29.8	60.5
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### C.1 Calculation of Subsidy Dependence Index: Fedecredito

Items\Years	1992	1991	1990	
A	Concessionary borrowed funds Annual average million colones	275.8	267.4	276.2
E	Equity, Annual average million colones	46.7	40.1	31.9
P	Average yearly profits Million colones	( 7.3)	(50.0)	(18.0)
LP	Average annual loan portfolio Million colones	196.0	203.0	224.0
n	Average on-lending annual interest rate as a %	20.7	17.5	18.5
D	Average annual deposits million colones	58.7	60.2	47.2
r	Reserve requirements on Deposits as a % <sup>3</sup>	15.0	15.0	15.0
t	Interest paid by the Central Bank on reserve deposits as a %	0	0	0
O	Ratio of operating expenses to average loan balances (%)	13.0	12.3	8.8

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<sup>3</sup> Reserve requirements estimated at 15%. The actual average varies in depending on the participation of checking, passbook and time deposits in the total deposits received by the bank, and the reserve requirements established by the Central Bank for each kind of deposit.

EF	"Normal" expected ratio of operating expenses to loan balances	6.0	6.0	6.0
IF	Inefficiency level % ( O-EF )	7.0	6.3	2.8
i	Interest rate paid on deposits % to customers	16.0	14.5	15.7
	Items\Years	1992	1991	1990
ad	Administration costs of deposits as a %	4.5	4.5	4.5
m	Total cost of deposits (i + ad)	20.5	19.0	20.2
c	Average cost of borrowed funds %	13.0	8.9	6.7
	m - c	7.5	10.1	13.5
	Subsidy Dependence Index			
1	A(m-c) million colones	20.7	27.0	37.3
2	E * m	9.6	7.6	6.4
3	P	(7.3)	(50.0)	(18.0)
4	[(A+E+D/1-r)-(A+E+D)](m-t)	13.8	12.3	12.7
S	Annual subsidy line 1+2-3+4	51.4	96.9	74.4
SDI	Index of subsidy dependence (%) S/(LP*n)	126.6	273.0	179.5
5	Increased interest rate on loans to eliminate subsidy dependence (%) ([m*SDI]/100)+m	46.5	70.9	56.5
6	Less IF	7.0	6.3	2.8

7	Revised increased interest rates under improved ratio of operating expenses to loans (%) (line 5 - 6)	39.5	64.6	53.7
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## **APPENDIX D**

**Attached are letters from the management of the two institutions studied outlining their priority assistance needs.**



Federación de Cajas de Crédito  
Bancos de los Trabajadores.

GERENCIA GENERAL

San Salvador, 12 de Febrero de 1993

GG- 310-93

Señor  
MARCOS WENNER  
Especialista AID  
Presente

Adjunto encontrará el desglose de los Gastos Administrativos correspondiente a los años 1989-1990-1991 y las necesidades de asistencia técnica y capacitación de Fedecredito, Cajas y Bancos. En lo concerniente a la asistencia técnica deseo exteriorizarle que se requiere de equipo de computación a fin de mecanizar los registros e implementar un sistema de redes en línea entre Cajas, Bancos y Fedecredito.

En espera de que estas necesidades sean tomadas en cuenta dentro del Plan de Operaciones del Organismo que usted representa, puedan aprobarse a la menor brevedad posible y en espera de buenas noticias, me suscribo de usted,

Cordialmente,

Lic. Edgar Antonio Mejía Flores  
Gerente General.



GERENCIA

1993



# BANCO DE FOMENTO AGROPECUARIO

KILOMETRO 10 1/2 CARRETERA A LA LIBERTAD, EL SALVADOR, C.A.

PR- 56/93

OFICINA DEL PRESIDENTE

Nueva San Salvador, 15 de febrero de 1993

Licenciado  
Rafael Umaña  
Proyecto APAH  
3a. Avenida, Casa No. 901A  
Colonia Alameda, Tegucigalpa  
Honduras.

Estimado Licenciado Umaña:

En adición a nuestra nota PR-09/93 de fecha 14 de enero del corriente año, y a efecto de completar información requerida en su nota de fecha 22 de diciembre de 1992, en relación a las necesidades del BFA en las Areas de Asistencia Técnica, Capacitación al Personal y de Equipo de Oficina, por este medio trasladamos a usted en anexos del 1 al 4, información detallada sobre el particular, presentando a continuación a nivel de resumen un extracto de la misma:

## EN ASISTENCIA TECNICA

Esta actividad está referida a disponer del asesoramiento necesario para el logro de los objetivos siguientes:

- "a) Introducción a cambios en la Ley de Creación del BFA, del año de 1973, para que funcione dentro de las esferas del sistema financiera del país; perfeccionar la administración superior mediante un directorio de tiempo de dedicación como altos funcionarios de la entidad; e introducir cambios en sus reglamentos, que faciliten la contratación de préstamos a pequeños productores; y revisar los procedimientos de cobro por la vía judicial;
- b) ordenar la estructura de organización en base a una centralización de la política crediticia y descentralización de la administración de préstamos en las agencias y mejorar el sistema de información financiera;
- c) Enmarcar la actividad crediticia dentro de planes y programas específicos que conduzcan a un aumento de la productividad de la agricultura;

CABLE BFA TELEX No. 20089 BFA SAL TELEFONOS: 28-0098-280060

- d) perfeccionar el sistema de administración de cartera y agilizar la concesión de préstamos por medio del empleo de asociaciones y patronatos de crédito rural;
- e) establecer la forma de financiamiento de préstamos de subsistencia y a los beneficiarios de la Reforma Agraria;
- f) determinar la conveniencia y modalidades, en su caso, de continuar la actividad de captación de depósitos del público; y
- g) mejorar el sistema de administración de recursos humanos, dando mayor actividad a la capacitación."

#### EN CAPACITACION AL PERSONAL

El Plan de Capacitación elaborado para el presente año persigue como objetivos principales los siguientes:

- " i) Obtener un mejor aprovechamiento del recurso humano a través de la capacitación, que responda a las necesidades reales de los puestos de trabajo, en función de sus objetivos y metas.
- ii) Contribuir al mejoramiento de la productividad a nivel institucional.
- iii) Mantener un clima organizacional que favorezca la realización personal, las relaciones interpersonales y su positiva motivación hacia todas las actividades de la Institución.
- iv) Mejorar los sistemas de trabajo del Banco que ofrezcan un mejor servicio a los clientes.
- v) Satisfacer necesidades de capacitación solicitadas por las diferentes jefaturas."

#### EN EQUIPO DE OFICINA

- En el Area de Transporte:

Reemplazo de 150 unidades, de las cuales 95 son equipos Marca Land Cruiser con 19 años de servicio.



700

- En el Area de Comunicaci6n:

Reemplazo de un equipo de radio, el cual cuenta con 12 afios de servicio.

- En el Area de C6mputo:

(Equipo a adquirir)

"1 Procesador Central (m6nimo) de 16 meqa bytes de memoria RAM capacidad en disco (m6nimo) 6 giga bytes.

7 Micro:omputadoras y sus tarjetas adaptadoras para instalarse como servidores de las redes locales de procesamiento en las Agencias mas grandes del BFA.

30 Microcomputadoras y sus tarjetas adaptadoras para instalarse como servidores de las redes locales de procesamiento en las Agencias del BFA.

Actualizaciones de todos los productos en uso, tales como: sistemas operativos, desarrolladores de aplicaciones y base de datos."

Cordialmente,



  
Carlos Borja Letona  
Presidente

c.c.: Vicepresidente  
Gerente General

mc.

## **APPENDIX E**

### **Interviews Conducted and Potential Contacts for Further Research**

Michael Wise	USAID/El Salvador
Ana Luz de Mena	USAID/El Salvador
Pedro Negrón Ramos	USAID/financial consultant
Alnunfo Carrandi	USAID/credit consultant
Mauricio Antonio Gallardo	First Vice President, Central Bank
José Edilberto Martínez	Credit Manager, Central Bank
José Antonio Leiva	Chief, Private Sector Credit, Central Bank
Jorge Alberto Escobar Polanco	Manager, Economic Policy, Central Bank
Herman Navas Turcios	Manager, Financial Instituciones, Central Bank
Oscar Aramando Portillo	Chief, Monetary Operations, Central Bank
Arnoldo Jimenez	FUSADES
Mauricio González Orllena	FUSADES
Carlos Borja Letona	President, BFA
Carlos Escalón Alvarez	Vice President, BFA
Benjamín García	General Manager, BFA
Rogelio Erasmo Orellana	Finance Manager, BFA
Juan Martínez Menéndez	Credit Manager, BFA
Ricardo Cruz	Administration Manager, BFA
Aminta de Ochoa	Acting Human Resources Manager, BFA
Jorge Horcates	Information Systems Manager, BFA
José Armando Cruz	Branch Chief, San Francisco de Goterra, BFA
Adolfo Ramos Reyes	Branch Chief, Sensuntepeque, BFA
Juan Alberto Cortes	Branch Chief, Santa Ana, BFA
Rolando Escobar Cordoba	Branch Chief, Usulután, BFA
Onis Larrenienaga de Espinoza	Dept. of Credit, BFA
Guadalupe de Ruiz	Dept. of Credit, BFA
Edgar Mejía Flores	President, Fedecredito
Alma Luz Chavarría	Operations Manager, Fedecredito
Francisco Martínez	Administration Manager, Fedecredito
Rodolfo Segovia	Credit Manager, Fedecredito
Jose Angel Arias Panameno	Cooperatives Manager, Fedecredito
Margot Salazar	Loan Risk Manager, Fedecredito
Tulio Ivasel Aguilar	Manager, Fedecredito, Caja Rural San Sebastian
José G. Hernández Aguilar	Manager, Fedecredito, Caja Rural Sonsonate
José Esteban Romero	President, Fedecredito, Caja Rural Quezaltepeque
Antonia Pinela de Parada	Manager, Fedecredito, Caja Rural Quezaltepeque
Francisco Antonio Colocho	Agricultural Credit Manager, Banco Cuscatlán

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Ricardo Bennett	Submanager, Agricultural Credit, Banco Agricola Commercial
Ernesto Mojica	Finance and Operations Manager, Mortgage Bank
Orlando Rodriquez	Agricultural Credit Manager, Mortgage Bank
Claudio M. de Rosa	Special Adviser, Ministry of Planning
Juan Carlos Valdés	Data Processing Manager, Ministry of Planning
Mercedes Llort	Adviser, MAG
Edwin Arragon	Agricultural Policy Analysis Unit, MAG
Stanley Kuehn	Director, CLUSA
Carlos Alberto Domínguez	Agribusiness Adviser, CLUSA
Francisco Castro	Manager, Cooperativa Cara Sucia
Adolfo Marin	Farmer, Mendez, Ahuachapan
Valentin Caballero	President, Cooperativa El Eden, Sonsonate
Alvaro Arevalo	Accountant, Cooperativa El Eden, Sonsonate
Heriberto Mendoza	President, Cooperativa San Arturo, La Libertad
Pablo Ponce	Treasurer, Cooperativa San Arturo, La Libertad
Gabriel Portillo	Director, Cooperativa San Arturo, La Libertad
Amilicar Perez	Accountant, Cooperativa San Arturo, La Libertad
José Antonio Rolin	Paymaster, Cooperativa Santa Lucia, La Libertad
Roque Mendez Lovos	Accountant, Cooperativa Santa Lucia, La Libertad
Julio Chevez	President, Cooperativa Los Achiotales, La Paz
Ricardo Arce	Treasurer, Cooperativa Los Achiotales, La Paz
José Gonzales	Secretary, Cooperativa Los Achiotales, La Paz
Miguel Angel Domínguez	Farmer, La Paz
John Hatch	President, FINCA El Salvador
Ricardo Flores	Catholic Relief Services
Adonis Moriera	Fundación 16 de Enero
Magdalerio Antonio Guzmán	President, ACOPAI
Herberto Luis Villalta	Manager, ACOPAI
Edgardo López Rojas	Financial Analyst, ACOPAI
Fidencio A. Espinal Arias	Chief, Cooperative Development, FEDECACES
Emilio Recinos	Chief, Finance, FEDECACES

## **APPENDIX F**

Attached are the detailed tables of simulated archetypical farm credit viability.

Table F.1: Project Viability Based on Archtypical Farms--Base Scenario

Type I: Subsistence Farms (<1 mz)

Type I.A Pure Subsistence

Description	Subclasses	Crops	Planted Area (mz)	Yield qq/area	Yield qq/mz	Price	Market Value	Purchased Inputs	Family Labor (Days)	Avg. Da Wage	Expected Net Revenue	Expected Return/mz	Expected Return/Day
Semi-Proletariat	Subclass 1	Com	0.5	20.0	40.0	68.2	1364.4	345.1	30.0	19.0	449.3	898.6	15.0
Labor Rich/Land Poor	Subclass 2	Com	1.0	20.0	20.0	68.2	1364.4	991.3	215.0	19.0	-2696.6	-2696.6	-12.6
		Bean		6.6	6.6	153.5	1013.3						
Capital Poor/Labor Poor	Subclass 3	Com	1.0	25.0	25.0	68.2	1705.5	404.6	160.0	19.0	-1491.2	-1491.2	-9.3
		Sorghum		5.0	5.0	49.8	248.0						

Type I.B Subsistence with Off-farm Sales

Land Poor/Labor Poor	Subclass 1	Com	1.0	30.0	30.0	68.2	2046.6	409.4	63.0	19.0	440.2	440.2	7.0
Capital Poor/Labor Rich	Subclass 2	Com	2.5	60.0	24.0	68.2	4093.2	551.0	36.0	19.0	2656.2	1143.3	79.4
Capital Poor/Labor Rich	Subclass 3	Com	2.5	55.0	22.0	68.2	3752.1	1039.3	63.0	19.0	3166.5	1275.4	38.4
		Bean		13.4	5.3	153.5	2052.7						
Land Poor/Labor Rich	Subclass 4	Com	1.0	26.0	26.0	68.2	1910.2	490.9	133.0	19.0	557.3	557.3	4.2
		Bean		6.0	6.0	153.5	921.2						
		Sorghum		15.0	15.0	49.8	743.9						

Type II: Small Family Farms (1-5 mz)

Type II.A Intensive production of Basic Grains and/or with Vegetables

Description	Subclasses	Crops	Planted Area (mz)	Yield qq/area	Yield qq/mz	Price	Market Value	Purchased Inputs	Family Labor (Days)	Avg. Da Wage	Expected Net Revenue	Expected Return/mz	Expected Return/Day
Capital Poor/Labor Rich	Subclass 1	Com	1.0	54.0	54.0	68.2	3683.9	1596.2	143.0	19.0	2666.0	2666.0	16.7
		Sorghum	1.0	15.0	15.0	49.8	743.9						
		Rice	1.0	30.0	30.0	85.2	2555.4						
Capital Poor/Labor Rich	Subclass 2	Com	2.8	70.0	26.9	68.2	4775.4	2017.1	270.0	19.0	3626.3	1365.5	13.4
		Tomato	1.5	100 boxes	67 boxes	60.0	6000.0						

Type II.B Intensive production of basic grains with coffee, sugar cane, and/or fruits

Capital Poor/Labor Poor	Subclass 1	Com	0.8	40.0	50.0	68.2	2728.8	1201.9	49.0	19.0	7324.1	9765.5	149.5
		Bean	0.8	8.0	10.7	153.5	1228.2						
		Coffee	2.0	20.0	10.0	275.0	5500.0						

Type II.C Basic grain and cattle fattening production systems

Land Poor/Labor Poor	Subclass 1	Com	0.5	12.0	24.0	68.2	816.6	735.4	15.0	19.0	3646.2	7666.4	263.2
		Cattle	1.0	2.0	1 he · i	4.15 lb	4150.0						

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Table F 1 Base Scenario Cont.

## Type III. Medium Size Mixed Farm Operations (5-20 mz)

## Type III.A Medium Sized Family Farms

Description	Subclasses	Crops	Planted Area (mz)	Yield qq/area	Yield qq/mz	Price	Market Value	Purchased Inputs	Family Labor (Days)	Avg. Da Wage	Expected Net Revenue	Expected Return/mz	Expected Return/Day
Labor Self-Sufficient	Subclass 1	Corn	8.0	352.5	39.2	68.2	24047.6	4773.1	212.0	19.0	21572.7	2397.0	101.8
		Sorghum	1.5	30.0	20.0	49.8	1487.7						
		Bean	1.5	18.0	12.0	153.5	2783.5						
		Pasture (	0.5	1 calf	2.0	4.15 lb	2075.0						

## Type III.B Medium Sized Contract Labor Dependent Family Farms

Hired Labor Dependent	Subclass 1	Corn	4.5	135.0	30.0	68.2	9209.7	3582.8	0.0	19.0	22287.3	4948.3	
		Sorghum	3.0	60.0	20.0	49.8	2975.4						
		Rice	1.0	50.0	50.0	85.2	4259.0						
		Pasture (	4.0	2737.5 bñs	68.1 bñs	1.9	5259.0						
				2 calfs	0.5	4.15 lb	4150.0						

## Type IV. Large Size Mixed Farm Operations (&gt; 20 mz)

## Type IV.A Large Family Farms

Description	Subclasses	Crops	Planted Area (mz)	Yield qq/area	Yield qq/mz	Price	Market Value	Purchased Inputs	Family Labor (Days)	Avg. Da Wage	Expected Net Revenue	Expected Return/mz	Expected Return/Day
Ext. Cattle/Own Labor	Subclass 1	Corn	7.0	234.0	33.4	68.2	15983.5	5613.2	60.0	12.0	34110.3	4872.9	
		Pasture (	60.0	12 calfs	0.2	4.15 lb	24900.0						
		Pasture (l	3.0										

## Type IV.B Large Capitalist Farms

Ext. Cattle/Hired labor	Subclass 1	Corn	3.0	140.0	46.7	68.2	9550.8	49204.0	0.0	19.0	100374.8	33458.3	
		Sugar Ca	12.0	660 tons	56.7	122.5	83300.0						
		Pasture (	47.0	8 calfs	0.2	4.15 lb	16600.0						
		Pasture (l	1.0	20900 bñs	4354.2	1.9	40128.0						
Int. Cattle/Hired Labor	Subclass 2	Sorghum	8.0	240.0	40.0	49.8	11901.8	60894.0	0.0	19.0	159581.8	28598.8	
		Pasture (l	30.0	8 calfs	0.1	4.15 lb	12450.0						
		Pasture (	20.0	102200 bñl	2044.0	1.9	196224.0						

## Type V. Land Reform Cooperatives

Description	Subclasses	Crops	Planted Area (mz)	Yield qq/area	Yield qq/mz	Price	Market Value	Purchased Inputs	Coop Labor	Avg. Da Wage	Expected Net Revenue	Expected Return/mz	Expected Return/Day
Collective Production	Subclass 1	Sugar Ca	200.0	102.8	102.8	122.5	12593.0	3999548.4	1219049.9	19.0	1690348.8	8451.7	
		Cotton	307.0	11420.4	37.2	160.0	1827264.0						
		Rice	355.0	27482.8	77.4	85.2	2339281.3						
		Corn	223.0	14272.0	64.0	68.2	973635.8						
		Pasture (	1015.0		523.8	4.15 lb	1521639.0						
		Pasture (l	87.0										
		Sesame	80.0	442.2	7.4	230.0	101706.0						
		Peanuts	20.0	539.8	27.0	185.0	99826.0						
		Watermel	50.0	4560.0	97.2	1.40 eac	0.0						
Meion	11.0	2743.4	249.4	.5 each	0.0								

Note 1: Prices obtained from MAG publication. Averages for period of January to June, 1992.

Note 2: Average calf weight is 500 lbs live.

Note 3: 1989 Cadeaca costs figures were adjusted upward by 10% to reflect impact of inflation in 1992.

Note 4: Minimum salary including food and prestaciones was 19.64 in 1992 but the effective salary was an average of 15.35 for 7 crops.

Note 5: QQ or quintal equals 100 lbs or 45 kg.

Note 6: Mz or manzana equals .7 hectare.

Note 7: Average weight of a tomato box is 60 lbs.

Table F.2: Project Viability Based on Archtypical Farms--Scenario B.1 Credit at 60% of BCR Limit

Type I: Subsistence Farms (<1 mz)

Type I.A Pure Subsistence

Description	Subclasses	Crops	Credit Amt. (60% Limit)	Expected Yield	Expected Revenue	Principal & Interest		Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential
						(18.92%)	After Credit Econ. Profit				Loan Demand (Colonos)
Semi-Proletariat	Subclass 1	Corn	756	22.5	1534.95	899.04	65.91	0	na	18005	0
Labor Rich/Labor Poor	Subclass 2	Corn	1512	45	5526.36	3788.79	-2347.41	0	na	24234	0
		Bean	1674	16							
Capital Poor/Labor Poor	Subclass 3	Corn	1605	38	3088.28	1908.67	-1860.41	0	na	26253	0
		Sorghum		10							

Type I.B Subsistence with Off-farm Sales

Land Poor/Labor Poor	Subclass 1	Corn	1512	45	3069.9	1798.07	74.83	41.8	416.35	17425	26346600
	Subclass 2	Corn	3780	112.5	7674.75	4495.18	2495.57	41.8	1468.62	26138	98801640
Capital Poor/Labor Rich	Subclass 3	Corn	3780	112.5	13815.95	9471.98	2766.97	41.8	2262.42	26133	208189170
		Bean	4185	40				25			
Land Poor/Labor Rich	Subclass 4	Corn	1872	36	7292.72	4216.90	548.82	41.8	1443.07	17425	61789050
		Bean	1674	16				25			
		Sorghum		48				81.2			

Type II: Small Family Farms (1-5 mz)

Type II.A Intensive production of Basic Grains and/or with Vegetables

Description	Subclasses	Crops	Credit Amt. (60% Limit)	Expected Yield	Expected Revenue	Principal & Interest		Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential
						(18.92%)	After Credit Econ. Profit				Loan Demand (Colonos)
Capital Poor/Labor Rich	Subclass 1	Corn	1872	29	10798.84	5494.10	2587.74	48.46	3519.53	15950	29858400
		Sorghum		48							
		Rice	2748	70							
Capital Poor/Labor Rich	Subclass 2	Corn	3931.2	117	79981.74	15406.32	59445.42	48.46	62261.26	5315	68856868
		Tomate	9024	1200				100			

Type II.B Intensive production of basic grains with coffee, sugar cane, and/or fruits

Capital Poor/Labor Poor	Subclass 1	Corn	1134	33.75	9644.785	5003.56	3710.23	48.46	2571.31	12262	51592365
		Bean	1255.5	12				60.7			
		Coffee	1818	20				100			

Type II.C Basic grain and cattle fattening production systems

Land Poor/Labor Poor	Subclass 1	Corn	756	22.5	5684.95	4537.99	861.96	78.5	520.70	12340	47089440
		Calfs	3060	2				100			

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Type III. Medium Size Mixed Farm Operations (5-20 m2)

Description	Type III.A Medium Sized Family Farms		Credit Amt. (80% Limit)	Expected Yield	Expected Revenue	Principle & Interest (18.92%)	After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential Loan Demand (Colones)
	Subclasses	Crops									
Labor Self-Sufficient	Subclass 1	Corn	13608	405	38881.92	23851.19	10802.73	78.5	-4543.40	18148	0
		Sorghum	2407.5	90				30.8			
		Bean	2511	24				18.8			
		Pasture (n)	1530	1							

Type III.B Medium Sized Contract Labor Dependent Family Farms

Description	Type III.B Medium Sized Contract Labor Dependent Family Farms		Credit Amt. (100% Limit)	Expected Yield	Expected Revenue	Principle & Interest (18.92%)	After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential Loan Demand (Colones)
	Subclass 1	Crops									
Hired Labor Dependent	Subclass 1	Corn	11340	202.5	36488.87	28475.39	11013.48	100	-2945.92	12100	0
		Sorghum	8025	180				0			
		Rice	4560	70				100			
		Pasture (n)						100			

Type IV. Large Size Mixed Farm Operations (> 20 m2)

Description	Type IV.A Large Family Farms		Credit Amt. (80% Limit)	Expected Yield	Expected Revenue	Principle & Interest (18.92%)	After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential Loan Demand (Colones)
	Subclasses	Crops									
Ext. Cattle/Own Labor	Subclass 1	Corn	10584	45	50094.9	12588.49	45368.41	57.4	11200.37	11858	125483604
		Pasture (n)		12				100			
		Pasture (f)									
Ext. Cattle/Hired labor	Type IV.B Large Capitalist Farms	Corn	7560	45	507569.9	37959.28	469610.64	100	480059.84	9488	302793120
		Sugar Cane	24360	660				100			
		Pasture (n)		206000				100			
		Pasture (f)		8				100			
Int. Cattle/Hired Labor	Subclass 2	Sorghum	18050	60	152380.9	19902.00	132484.92	0	194237.40	2372	38070800
		Pasture (f)		8				100			
		Pasture (n)		102200				100			

Type V. Land Reform Cooperatives

Description	Type V. Land Reform Cooperatives		Credit Amt. (100% Limit)	Expected Yield	Expected Revenue	Principle & Interest (18.92%)	After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential Loan Demand (Colones)
	Subclasses	Crops									
Collective Production	Subclass 1	Sugar Cane	406000	10000	5393231	5542698.07	-1365717.30	100	-1365836.30	322	0
		Cotton	2089600	4912				100			
		Rice	1625900	24850				100			
		Corn	56196	10035				100			
		Pasture (n)		313800				100			
		Pasture (f)									
		Sesame	171000	900				100			
		Peanuts	60600	400				100			
		Watermelon	204250	175000				100			
		Melon	47025	110000				100			

The interest rate is 18.92% for 1 year.

Assumptions: Credit is for 80% of Maximum Amounts Established by BFA Bank and covered the cost of purchased inputs but does not impute values for family labor and draft animals. Credit is used for purchase of improved seed, fertilizer, and other agrochemicals.

Calculation of financial profit assumes that Type I.B farms market 50% of grain output, Type II markets 70%, Type III markets 80%, & Types IV & V markets 100%.

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Table F.3: Project Viability-Scenario B.2 Credit at 60% BCR Limit and 24% rate of Interest

Type I: Subsistence Farms (< 1 mz)

Description	Type I.A Pure Subsistence		Credit Amt. (60% Limit)	Expected Yield	Expected Revenue	Principle & Interest		After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential Loan Demand
	Subclasses	Crops				(24%)	(24%)					
Semi-Proletariat	Subclass 1	Corn	1000	22.5	1534.95	1249.92	-284.97	0	na	18005	0	
Labor Rich/Land Poor	Subclass 2	Corn	1512	45	5528.38	3950.64	-2509.28	0	na	24234	0	
		Bean	1874	16								
Land Poor/Labor Poor	Subclass 3	Corn	1605	38	3088.20	1990.20	-1841.94	0	na	28253	0	
		Sorghum		10								
Type I.B Subsistence with Off-farm Sales												
Land Poor/Labor Poor	Subclass 1	Corn	1512	45	3069.9	1874.88	-1.98	41.8	339.54	17425	28346900	
Capital Poor/Labor Rich	Subclass 2	Corn	3780	112.5	7874.75	4687.20	2303.55	41.8	1278.58	28138	98801840	
Capital Poor/Labor Rich	Subclass 3	Corn	3780	112.5	13815.95	8878.60	2362.35	41.8	1857.80	28138	208189170	
		Bean	4185	40				25				
Land Poor/Labor Rich	Subclass 4	Corn	1872	38	7292.72	4397.04	368.88	41.8	1262.93	17425	61789250	
		Bean	1874	16				25				
		Sorghum		48				81.2				

Type II: Small Family Farms (1-5 mz)

Description	Type II.A Intensive production of Basic Grains and/or with Vegetables		Credit Amt. (60% Limit)	Expected Yield	Expected Revenue	Principle & Interest		After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential Loan Demand (Colones)
	Subclasses	Crops				(24%)	(24%)					
Labor Rich	Subclass 1	Corn	1872	38	10798.84	5728.80	2353.04	48.48	3284.83	15850		
		Sorghum		48								
		Rice	2745	70								
Labor Rich	Subclass 2	Corn	3631.2	117	79981.74	18064.45	59787.29	48.48	81603.13	5315	68856888	
		Tomato	8024	1200				100				
Type II.B Intensive production of basic grains with coffee, sugar cane, and/or fruits												
Labor Poor	Subclass 1	Corn	1134	33.75	9844.70	5217.30	3488.48	48.48	2359.57	12282	51582385	
		Bean	1255.5	12				80.7				
		Coffee	1818	20				100				
Type II.C Basic grain and cattle fattening production systems												
Labor Poor	Subclass 1	Corn	758	22.5	5884.95	4731.84	868.11	78.5	328.85	12340	47089440	
		Cattle	3080	2				100				

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2018

Type III. Medium Size Mixed Farm Operations (5-20 mz)

Type III.A Medium Sized Family Farms		Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential	
Description	Subclasses	(80% Limit)	Yield	Revenue	Interest	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand	
Labor Self-Sufficient	Subclass 1	Corn	13808	405	36681.92	24870.08	9733.26	78.5	-5582.27	18148	0
		Sorghum	2407.5	90				30.8			
		Bean	2511	24				18.8			
		Pasture (n)	1530	1							

Type III.B Medium Sized Contract Labor Dependent Family Farms		Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential	
Description	Subclasses	(100% Limit)	Yield	Revenue	Interest	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand	
Hired Labor Dependent	Subclass 1	Corn	11340	202.5	39468.87	367260.72	-327771.85	100	-341730.95	12100	0
		Sorghum	280258	180				0			
		Rice	4580	70				100			
		Pasture (n)						100			

Type IV. Large Size Mixed Farm Operations (> 20 mz)

Type IV.A Large Family Farms		Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential	
Description	Subclasses	(80% Limit)	Yield	Revenue	Interest	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand	
Ext. Cattle/Own Labor	Subclass 1	Corn	10584	45	59094.9	13124.18	44830.74	57.4	10982.70	11853	125483904
		Pasture (n)		12				100			
		Pasture (l)									
Ext. Cattle/Hired labor	Type IV.B Large Capitalist Farm Subclass 1	Corn	7560	45	507569.9	36580.80	487989.10	100	456436.30	9486	302783120
		Sugar Cane	24390	680				100			
		Pasture (n)		209000				100			
		Pasture (l)		8				100			
Int. Cattle/Hired Labor	Subclass 2	Sorghum	18050	80	152386.8	19902.00	132484.82	0	194237.40	2372	36070800
		Pasture (l)		8				100			
		Pasture (n)		102200				100			

Type V. Land Reform Cooperatives		Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential	
Description	Subclasses	(100% Limit)	Yield	Revenue	Interest	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand	
Collective Production	Subclass 1	Sugar Cane	408000	10000	5393231	5776078.44	-1802497.87	100	-1802818.87	322	0
		Cotton	2089880	4912				100			
		Rice	1825900	24850				100			
		Corn	58198	10035				100			
		Pasture (n)		313600				100			
		Pasture (l)									
		Sesame	171000	900				100			
		Peanuts	80800	400				100			
		Watermelon	204250	175000				100			
		Melon	47025	110000				100			

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Table F.4: Project Viability-Scenario B.3 Credit at 80% of BCR Limit and at 21% rate of interest

Type I: Subsistence Farms (< 1 mz)

Description	Subclasses	Crops	Credit Amt. (80% Limit)	Expected Yield	Expected Revenue	Principle & Interest (21%)	After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers (Colonos)	Potential
											Loan Demand (Colonos)
Type I.A Pure Subsistence											
Semi-Proletariat	Subclass 1	Corn	1008	22.5	1534.95	1219.88	-254.73	0	na	18005	0
Labor Rich/Land Poor	Subclass 2	Corn	2018	45	5528.38	5140.08	-388.70	0	na	24234	0
		Beet	2232	18							
Capital Poor/Labor Poor	Subclass 3	Corn	2498	38	3088.28	3020.18	-2971.90	0	na	28253	0
		Sorghum		10							
Type I.B Subsistence with Off-farm Sales											
	Subclass 1	Corn	2018	45	3088.9	2439.38	-588.48	41.8	-224.84	17425	0
	Subclass 2	Corn	5040	112.5	7874.75	8098.40	882.35	41.8	-134.81	28138	0
	Subclass 3	Corn	5040	112.5	13815.95	12850.20	-811.25	41.8	-1115.80	28138	0
		Bean	5580	40				25			
	Subclass 4	Corn	2498	38	7292.72	5720.88	-855.18	41.8	-80.81	17425	0
		Bean	2232	18				25			
		Sorghum			48			81.2			

Type II: Small Family Farms (1-5 mz)

Description	Subclasses	Crops	Credit Amt. (80% Limit)	Expected Yield	Expected Revenue	Repayment (21%)	After Credit Econ. Profit	Percent Sold	Marketed Surplus Finan. Profit	Total Number Producers	Potential
											Loan Demand (Colonos)
Type II.A Intensive production of Basic Grains and/or with Vegetables											
Capital Poor/Labor Rich	Subclass 1	Corn	2498	38	10798.84	7453.80	828.24	48.48	1580.03	15950	39811200
		Sorghum		48							
Capital Poor/Labor Rich	Subclass 2	Rice	3884	70							
		Corn	5241.8	117	7981.74	19991.14	54880.80	48.48	57878.65	5315	87812304
		Tomato	11280	1200				100			
Type II.B Intensive production of basic grains with coffee, sugar cane, and/or fruits											
Capital Poor/Labor Poor	Subclass 1	Corn	1512	33.75	9844.785	9721.14	-1007.35	48.48	-2144.27	12282	0
		Bean	1874	12				80.7			
		Coffee	4848	20				100			
Type II.C Basic grain and cattle fattening production systems											
Land Poor/Labor Poor	Subclass 1	Corn	1008	22.5	5084.95	4922.28	477.87	76.5	138.41	12340	50189120
		Cattle	3080	2				100			

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Type III. Medium Size Mixed Farm Operations (5-20 mz)

Type III.A Medium Sized Family Farms			Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential
Description	Subclasses	Crops	(80% Limit)	Yield	Revenue	Interest (21%)	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand
Labor Self-Sufficient	Subclass 1	Corn	18144	405	35881.92	31735.88	2918.04	78.5	-12428.09	18148	0
		Sorghum	3210	80			31.8				
		Bean	3344	24			18.8				
		Pasture (n)	1530	1							

Type III.B Medium Sized Contract Labor Dependent Family Farms

Type III.B Medium Sized Contract Labor Dependent Family Farms			Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential
			(100% Limit)	Yield	Revenue	Interest (21%)	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand
Hired Labor Dependent	Subclass 1	Corn	11340	202.5	39488.87	358375.38	-318888.51	100	-330995.21	12100	0
		Sorghum	280258	180			0				
		Rice	4580	70			100				
		Pasture (n)		2738			100				

Type IV. Large Size Mixed Farm Operations (> 20 mz)

Type IV.A Large Family Farms			Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential
Description	Subclasses	Crops	(80% Limit)	Yield	Revenue	Interest (21%)	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand
Ext. Cattle/Own Labor	Subclass 1	Corn	14112	45	32849.9	17075.52	14734.38	57.4	6711.34	11858	187311872
		Pasture (n)		12			100				
		Pasture (l)									

Type IV.B Large Capitalist Farms			Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential
			(100% Limit)	Yield	Revenue	Interest (21%)	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand (Colonos)
Ext. Cattle/Hired labor	Subclass 1	Corn	7560	45	507589.9	38823.20	488948.70	100	456395.90	9486	302783120
		Sugar Cane	24380	680			100				
		Pasture (n)		208000			100				
Int. Cattle/Hired Labor	Subclass 2	Pasture (l)		8			100				
		Sorghum	18050	80	152386.8	18420.50	132988.42	0	184718.90	2372	38070800
		Pasture (l)		8			100				
		Pasture (n)		102200			100				

Type V. Land Reform Cooperatives

Type V. Land Reform Cooperatives			Credit Amt.	Expected	Expected	Principle &	After Credit	Percent	Marketed Surplus	Total Number	Potential
Description	Subclasses	Crops	(100% Limit)	Yield	Revenue	Interest (21%)	Econ. Profit	Sold	Finan. Profit	Producers	Loan Demand
Collective Production	Subclass 1	Sugar Cane	408000	10000	5383231	5638647.51	-1462888.74	100	-1462785.74	322	0
		Cotton	2089660	4912			100				
		Rice	1825900	24850			100				
		Corn	58186	10035			100				
		Pasture (n)		313800			100				
		Pasture (l)									
		Sesame	171000	900			100				
		Peanuts	80800	400			100				
		Watermelon	204250	175000			100				

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# **AGRICULTURAL POLICY ANALYSIS PROJECT, PHASE II**

Under contract to the Agency for International Development, Bureau for Research and Development, Office of Agriculture  
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August 18, 1993

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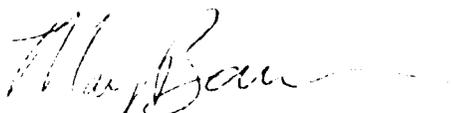
Enclosed please find two each (1 bound, 1 unbound) of the following documents:

APAP II Technical Report No. 130:                      *Agricultural Credit Market  
Assessment in El Salvador*

APAP II Collaborative Research Report 350 :      *Europe's Single Market : Implications for  
Agricultural Exporters from North Africa and  
the Near East*

Report No. 130 is for contract number LAG-4084-C-2043-00 and DAN-4084-Z-00-8034-00 and Report No. 350 if for number LAG-4084-C-00-2041 as part of the Agriculture Policy Analysis Project, Phase II. Abt Associates is the prime contractor. With these documents your office should be current with all the documents published. If there are any problems with this submission, please call me at (301) 913-0500.

Sincerely,



Mary E. Barnum  
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