Enterprise and Cooperative
Development Department

Poverty-oriented
Banking

Working paper
No. 12

Using credit unions as conduits for micro-enterprise lending: Latin-American insights

Dale W. Adams

International Labour Office Geneva

POVERTY-ORIENTED BANKING

WORKING PAPER N° 12

Using credit unions as conduits for micro-enterprise lending: Latin-American insights

Dale W. Adams
(Ohio State University)

Enterprise and Cooperative Development Department
International Labour Office   Geneva

Enterprise and Cooperative Development Department
Poverty-oriented Banking

Working papers

N° 1	1994	D. Gentil & al.	Banquiers ambulants et opération 71 au Togo et au Bénin
N° 2	1994	B. Balkenhol and E.H. Gueye	Tontines and the banking system - Is there a case for building linkages?
N° 3	1995	Douato A. Soedjede	Mécanismes de collecte de l'épargne et de financement de l'entrepreneuriat informel et formel par les banquiers ambulants au Togo
N° 4	1994	M.A. Adechoubou and S.N. Tomety	Les banquiers ambulants au Bénin
N° 5	1994	B. Hane and M.L. Gaye	Les pratiques du marché parallèle du crédit au Sénégal - Leçons pour le système bancaire
N° 6	1994	I. Ba	PME et institutions financières islamiques
N° 7	1994	B. Balkenhol and Ch. Lecointre	Pratiques bancaires dans les opérations de crédit avec les petites et moyennes entreprises en Afrique de l'Ouest
N° 8	1994	I.F. Camara	Structures mutualistes d'épargne et de crédit dans l'Union Monétaire Ouest-Africaine (UMOA)
N° 9	1995	B. Wesselink	Monitoring guidelines for semi-formal financial institutions active in small enterprise finance
N° 10	1995	J. Poyo	Expansion of rural financial services: The development of a community-based rural credit union network in the Dominican Republic (1984-1993)

N° 11	1995	J.P. Krahnen and R.H. Schmidt	On the theory of credit cooperatives: Equity and onlending in a multi-tier system — A concept paper
N° 12	1995	D.W. Adams	Using credit unions as conduits for micro-enterprise lending: Latin-American insights

Table of contents

I. Introduction[1]

Microenterprises are an important source of income for many poor people in low-income countries. Recognizing this, governments and donors have sought to promote these small firms, usually through credit programs.[2] These efforts increasingly use semi-formal institutions such as non-governmental organizations, specialized institutions that concentrate on small businesses, and cooperatives — particularly credit unions.[3] Much experience has been accumulated the past several decades on how to form these semi-formal organizations, but relatively little analysis has been done on what happens when they perform increasingly complex functions such as handling targeted loans and mobilizing deposits.

Credit unions are the focus of the discussion that follows, the main objective being to analyze their strengths and weaknesses in handling loans to microenterprises. The discussion begins with an historical background on credit unions and microenterprises, followed by an analysis of major issues that might be considered before channelling funds through credit unions to small businesses. The subsequent section of the paper summarizes the results of programs aimed at developing credit unions in the Dominican Republic and several other Latin American countries to illustrate these issues. The concluding section provides guidelines for policy makers who wish to channel funds through credit unions for microenterprises.

II. Historical background

Until recently, credit unions and microenterprises were mostly the concern of individuals and groups interested in promoting these activities. Only in the past few years have researchers delved into these topics, mostly because of policy makers' heightened concerns with poverty.

1. Credit unions

Credit unions are grassroots organizations that emerged in Germany during the mid-1800s from two strains of cooperative development activities, both of which were aimed at easing poverty (Banerjee and others 1993). The financial cooperatives founded by Hermann Schulze-Delitzsch were concentrated in urban areas, stressed paying dividends to members, and applied the limited liability principle. Friedrich Raiffeisen later focused his efforts on organizing credit cooperatives in rural areas. His cooperatives often paid no dividends, operated under joint liability, and championed the cooperative spirit. By the early part of the 1900s these two cooperative strains merged and spread throughout Germany with nearly one-third of the rural households being members (Banerjee and others 1993).

The credit cooperative notion soon migrated both east and west. In the late 1800s the Japanese adapted the Raiffeisen model, formed credit cooperatives that later matured into powerful farmers' associations, and then exported these cooperatives to both Taiwan and Korea (Izumida 1992). Later, in the early 1900s, credit cooperatives took root in Canada and in the United States, and flourished during the 1930s and 1940s in the form of credit unions (Magill 1991). Mutual finance institutions with European roots also appeared during the early 1900s in Latin America, mostly among European immigrants. In most cases these were urban based organizations, but at least in Uruguay credit cooperatives using Raiffeisen principles also flourished in rural areas (Poyo 1993). After World War II donors in North America, several religious groups, and later the U.S. Peace Corps began promoting credit unions in low-income countries. This included forming individual credit unions, founding national associations of credit unions, and also establishing regional organizations comprised of national associations. In Africa, credit union growth in Togo and the Cameroon was particularly impressive during the 1970s and 1980s (Cuevas 1992). Similar growth in credit unions occurred in Latin America, initially through sponsorship of the Catholic Church.

By the end of the 1980s there were in 67 low-income countries about 17,000 credit unions with nearly 9 million members that were affiliated to an international apex organization, the World Council of Credit Unions (WOCCU). These credit unions handled the equivalent of nearly US$ 2 billion in deposits and share capital. Informed guesses are that 10 to 20 percent of the loans by these credit unions were extended to small businesses (Marion 1991, p.8). If the volume of microenterprise lending is about 20 percent, this would mean that some 1.7 millions small businesses were receiving about the equivalent of US$ 300 million in loans from credit unions.

2. Credit unions as conduits

As part of earlier efforts to provide loans to operators of small farms in low-income countries, a few donors channelled funds through credit unions for this purpose during the 1960s, 1970s and early 1980s. One of the earliest efforts was in Ecuador where in 1965 the U.S. Agency for International Development (A.I.D.) sponsored a directed agricultural production credit program that provided funds to farmers through 17 rural credit unions (Keeler and others 1973). The loans involved concessionary interest rates and were accompanied by technical assistance, but the overall results of this program were disappointing. Loans were extended to relatively few borrowers, had a weak impact on production and income, and stimulated little enthusiasm among credit union managers. After experimenting with this project for a few years A.I.D. ceased funding it in the mid-1970s.

In 1974 A.I.D. funded a parallel project in Africa that focused on strengthening a regional credit union organization, promoting credit union development in Lesotho and the Cameroon, and also funding pilot programs that provided directed agricultural credit through credit unions in these two countries (Bierman and others 1977). Over the next few years the Agency funded other targeted credit programs for operators of small farms that channelled funds through additional credit unions and other organizations.

Overall, the results of these efforts in Latin America and Africa were disappointing. In many cases loan recovery rates were low, the costs of administering programs were high, and inflation often eroded the purchasing power of the funds in these programs. Several A.I.D. sponsored evaluations of the directed credit efforts in Africa reported that most of them had failed (Deschamps 1989; Mindock 1983; Pollard and others 1992). These projects failed to encourage deposit mobilization, to collect loans due, to enhance the financial viability of the credit unions, to protect the purchasing power of the funds lent, and finally they failed to provide sustained access to formal finance.

In the mid-1970s the Inter-American Development Bank (IDB) began funding a series of projects that channelled money through the regional credit union organization in Latin America (COLAC) for on-lending to national credit union associations, member credit unions, and finally to credit union members.[4] Through a series of projects the Bank gave or lent about US$ 100 million to COLAC for on-lending over a ten year period. These projects included expanded lending by credit unions to farmers, operators of small non-farm businesses and to women. Most of the loans were made at concessionary rates, inflation was a problem in most of the countries where credit unions lent IDB funds, many of the programs experienced loan recovery problems, and some of the country associations and individual credit unions that used these funds became insolvent.

No comprehensive evaluation has been done of IDB's credit programs with COLAC. Several partial evaluations, however, illustrate some of the problems that emerged in these efforts. An evaluation in 1990, for example, reported that the purchasing power of COLAC's loan portfolio was seriously eroded by low interest rates, inflation and loan defaults (McGuire and others 1990). Authors of several other studies criticized the IDB/COLAC program because it discouraged deposit mobilization and reinforced inflexible interest rate policies (Christen and Vogel 1984; Vogel 1988b).

Traditionally, most credit unions have been borrower-dominated. Credit union philosophy stresses the provision of loans to people of modest means at "reasonable rates of interest" (Dublin and Dublin 1983). Reasonable is usually defined to mean low and fixed rates for borrowers, resulting in even lower rates being paid on members' shares or deposits. For many years it was common for credit unions in Latin America to charge a simple interest rate of 1 percent per month (12 percent per year) on loans. Because many countries in the region endured rates of inflation during the 1970s and 1980s that were usually in double digits, sometimes in triple digits, and occasionally in quadruple digits, real rates of interest on IDB/COLAC loans and on credit union deposits were often highly negative. Credit unions were particularly slow in adjusting interest rates to onslaughts of inflation. Because of this the purchasing power of loan portfolios rapidly melted in countries such as Belize, Bolivia, Costa Rica, the Dominican Republic, and Peru.

By the late 1980s the IDB ceased funding COLAC. This cessation was part of a new IDB approach that stressed positive real rates of interest and also emphasized the sustainability of organizations that handled IDB funds.

The results of the IDB/COLAC activities and credit union development efforts in Africa would have been more positive if macroeconomic conditions had been favorable. Rampant inflation in many countries made it extremely difficult to develop any type of financial institution during the 1970s and 1980s. Political instability, slow or negative rates of economic growth, and abuse of financial institutions in general by governments and donors created a hostile environment for financial institutions in many countries. Nascent credit unions in countries such as Uganda and Bolivia had no chance of growing given the economic turmoil that bedeviled their societies. Dogmatic credit union philosophy and policies, especially regarding interest rates, however, enhanced the vulnerability of credit unions to economic shocks.

3. Microenterprise credit

The literature on microenterprises and associated credit programs expanded rapidly during the 1980s (Boomgard 1989; Levitsky and Prasad 1987; Meyer and Nagarajan 1989; Webster 1989). This growth mirrored the sharp expansion in a wide variety of credit efforts aimed at small businesses in low-income countries. Activities included loan guarantee programs and discount facilities in central banks that attempted to induce banks to lend more to small businesses, the formation of new banks that lent mostly to microenterprises, lending by private non-governmental organizations (NGOs), and linking formal and informal finance to provide financial services to small businesses. As was the case in earlier efforts to provide credit to operators of small farms, most recent efforts have gone into designing new organizations that can provide financial services to small firms. Increasingly, NGOs have come to play a major role in this. It is not unusual to find dozens or even hundreds of NGOs in a low-income country that provide loans and other assistance to microenterprises.

There has also been experimentation in using various combinations of technical assistance, training and loans to assist microenterprises. These activities can be arranged along a continuum. On one end of the continuum loans are used as a reward for successfully completing a program aimed at training microentrepreneurs — the CARVAJAL program in

Colombia being one of the earliest examples of this. At the other end of the continuum operators of microenterprises are given little else than a loan, a strategy labelled the minimalist approach. ACCION International in Latin America is an example of this. Between these two extremes are a large variety of other programs that involve various combinations of training, technical assistance, credit and other development activities. The Grameen Bank and the Bangladesh Rural Advancement Committee (BRAC) in Bangladesh, the Bandan Kredit Kecamatan (BKK) in Indonesia, the Small Business Guarantee and Finance Corporation in the Philippines, and the Sistema Multiplicadora de la Microempresa (SIMME) in Guatemala are examples of these mixed arrangements.

With the increased interest in developing small businesses there has also been an expansion in research on microenterprises and the informal sector in general (Chickering and Salahdine 1991). Scholars at Michigan State University were innovators in this analysis through their research in countries such as Sierra Leone, Egypt, Bangladesh, and Thailand that clarified the importance of microenterprises (Liedholm and Mead 1987). Hernando de Soto's work in Peru further showed the importance of these small businesses, how they succeeded despite government opposition, and how important they are in helping poor people. This early work spawned large numbers of microenterprise development projects that were subsequently funded by the World Bank, other regional development banks, bilateral development agencies, and national governments. Many of these projects channelled funds through credit cooperatives and credit unions.

III. Strengths and weaknesses of credit unions

Credit unions have their strengths and weaknesses when it comes to development efforts. Special care must be taken to avoid turning strengths into weakness through external intrusions into these fragile institutions. Compared to other NGOs, credit unions differ in their reliance on cooperative principles, their emphasis on self-help, their use of volunteer labor, and they draw most of their members — at least initially — from people who know each other or who work together.

1. Strengths

The most attractive feature of credit unions is their ability to handle small transactions cheaply. In many cases most members of a credit union live in the same village or neighborhood, or work for the same organization. As long as the cooperative is relatively small and is also managed by members of the group, the additional costs of screening creditworthy borrowers is nil for both the credit union and its members. Normally, cooperatives have an informational advantage that allows them to screen borrowers more cheaply than banks or some other types of NGOs can (Guinnane 1993). Many of their loans are based on character. The reputation of borrowers and their share capital in the cooperative substitute for other forms of collateral that are more costly for borrowers to provide and for lenders to evaluate. Credit unions likewise have cost advantages when it comes to loan collection. Instead of using costly legal procedures to recover loans or to capture collateral, small credit unions can employ various types of social sanctions — including shunning — and even extra-legal procedures.

In some cases the overhead costs of credit unions are low because promoters or managers donate all or part of their time, donors subsidize the formation and operation of the credit unions, or other organizations donate facilities for credit unions. A church, for example, may donate time and facilities to credit union activities as part of its missionary efforts, while a company may provide free facilities to enhance employee morale and to also lessen the time workers spend in doing financial transactions.

From a donor or government's perspective, another advantage of credit unions is that they often provide financial services to people of modest means. In countries that are stressing privatization the fact that credit unions are NGOs further enhances their desirability. These characteristics have increasingly attracted outside funds that are aimed at helping designated beneficiaries: operators of small farms, owners of microenterprises and women, for example.

An additional strength of credit unions is the close tie between saving and borrowing. Under normal conditions members of a credit union know they can usually receive a loan for some multiple of their share capital or deposits — a form of insurance. Members earn the right to borrow through saving. In part, savings performance is used as a low-cost screening device by credit unions. Individuals who lack the ability or discipline to save are automatically excluded from loans and individuals who save only small amounts have access to only small loans. Most members enhance their capacity to borrow by expanding their ownerships of shares or through increasing their deposits. Since the discipline needed to save is the same quality of character that is required to exercise the discipline to repay obligations, savings performance is an inexpensive way for credit unions to screen loan applicants for financial discipline.

2. The agency problem[5]

At first glance, credit unions appear to be simple organizations with uncomplicated procedures. In terms of economic relationships among participants, however, they are complex. Recently, relationships in financial institutions have been analyzed using the notions of contracts, principals, and agents. Jensen and Meckling define the agency relationship as...."explicit or implicit contracts in which one or more persons (the principal(s)) engage another person (the agent) to take actions on behalf of the principal(s). The contract involves the delegation of some decision-making authority to the agent." The main agent problem is to form contracts in such a way that the interests of the principal are protected. This entails costs in the form of monitoring expenditures, transactions costs, moral hazard costs, legal enforcement expenses, and other costs of collecting and processing information.

Agent problems are common and also complex in financial transactions because of the fungibility of financial instruments, the variety of contracts that are often involved, and because of the time dimension in many of these transactions: receive-or-pay now and pay-or-receive later. These problems are least complicated in credit unions that rely entirely on share capital for loanable funds.

Rudimentary credit unions are often organized because of altruistic concerns and typically require members to purchase shares. These funds are then lent to a few members based on some multiple of the value of shares owned by the borrower. Additional share capital may be collected from borrowers by withholding small portions of their loans. In the simplest credit unions the principals are the members who contribute share capital while borrowers are agents. The agency problem in these simple credit unions is dealt with in several ways. First, membership in the group is generally restricted to individuals who are trustworthy and loans are only made to people who are judged to be creditworthy. Both membership and lending decisions are based on information about individual members accumulated over time by members of the group. Thus, the agency costs of collecting and analyzing information are minimal. Second, the groups are able to employ a wide variety of inexpensive informal sanctions to enforce contracts. Third, some members are also able to "withdraw" their equity in the organization by taking a loan equal to the amount of their shares and then defaulting, thereby voiding their agent status.[6]

Agency problems become more complex as credit unions grow by adding retained earnings to their capital bases instead of returning profits to members as dividends (Poyo, Aguilera and Gonzalez, 1992). The ownership of these retained earnings is ambiguous in that they are owned collectively, not individually by the members. They are much like the economic commons in which society is the principal that exercises little control over agents wishing to exploit the resource. Instead of relying solely on voluntary leadership, these larger credit unions typically employ managers who essentially become agents for the owners of share capital and the retained earnings. Managers may have objectives that conflict with those of their principals, including high salaries, obtaining cheap loans themselves, having nice places to work and going to national and international meetings.

Even more complex agent problems arise in credit unions that augment the volume of loanable funds by mobilizing voluntary deposits. Depositors then are the principals and borrowers the agents. Some of their concerns may conflict as depositors wish to be paid a high interest rate (or dividend) on their savings, while borrowers benefit from low interest rates. A conflict of interest may arise when leaders of the credit union are also substantial borrowers and likewise responsible for determining interest rate policies.

Agency problems are compounded when credit unions receive funds from governments or donors for on-lending to members. In these cases credit unions become agents for the provider of funds. If the funds are passed through regional and national credit union organizations additional layers of agency problems accompany the insertion of funds. This funding may alter the relationship of regional and national organizations with their member cooperatives. Instead of providing technical assistance, supervision, and prudential regulation for their member organizations, the second or third tier institution may orient their activities largely toward sustaining themselves via margins earned on funds passing downward through the system. The relationship may be further clouded by outside funding that is misconstrued as being a grant because it involves beneficiaries, political decisions, and donors — all notions more closely associated with grants than with loans.

3. Transaction cost problems

Transaction costs are closely associated with agency problems and are also a major drag on the performance of financial markets, especially in reaching poor people in rural areas.[7] For credit unions these costs include the expenses of mobilizing and maintaining deposits along with the expenses associated with extending and recovering loans. Most of these costs are incurred in assembling, storing, and processing information. Credit union members likewise incur transaction costs in using the services provided by the credit union, both loans and deposits. Most of these are in the form of opportunity costs involved in time lost in transacting business with the credit unions. Depending on the financial technology used by the credit union, transaction costs may be shifted from cooperative to members, or the reverse. Banks often employ procedures that shift additional borrowing costs to non-preferred borrowers as a rationing device, but this appears to be less common in credit unions (Baydas and Cuevas 1990).

The importance of these transaction costs, both for the credit union and for members, increases as credit unions grow. When the cooperative is small and draws most of its membership from a single village or from the employees of a single business the transaction costs for both members and the cooperative are modest. It is inexpensive to screen individuals for both loans and integrity based on the accumulated knowledge other members have about the individual. The need to collect additional information about a potential borrower is usually minimal. Likewise the costs of members doing transactions is modest when the cooperative is located close to where members work or live. Informality and the willingness of members to work as managers of the credit union for little-or-no explicit compensation further limits transaction costs.

As credit unions grow in number of members as well as in range of financial services offered, transactions costs are likely to increase. Open-membership credit unions may include individuals who are from another village or company and this forces management to assemble costly information to screen members and borrowers. Distance also imposes additional transaction costs on members who live far from the credit union's office. The increasing size of the organization also requires hiring more professional staff which further increases costs, including using more formal and costly record-keeping systems. Depending on the financial technologies used by the evolving credit unions, scope and scale economies may offset some of these increased transaction costs.

The transaction costs of a credit union will also likely increase when they begin to mobilize deposits. Still further increases in transaction costs can be expected when the cooperative lends funds obtained from outside the credit union. If these are government or donor funds they are likely targeted and require reports for the provider of the funds. External examinations and evaluations of the impact of credit use also subject credit unions to still further transaction costs.

4. Prudential regulation

A similar evolution occurs in the need for prudential regulation (Chaves 1993; Cuevas 1992; Poyo 1992a). A key feature of credit unions is their legal ambiguity and who, if anyone, is responsible for their supervision. In many countries credit unions are chartered by a Ministry or Registrar of Cooperatives, often also responsible for the promotion of cooperatives, creating possible conflicts of interest. Seldom do these offices have the technical expertise to do financial audits.

When credit unions are small and lend only share capital and a few retained earnings, they may function effectively through self policing (Branch 1992). A national organization may assist in this by enhancing the quality of management, through some supervision, and by providing liquidity in times of emergency. The strongest incentive for people to continue to support a credit union — thereby regulating its performance — is the confidence that it will persist. Problems of prudential regulation increase as the amount of retained earnings used in lending increases, as credit unions begin to mobilize deposits, and when they receive outside funds for lending.[8]

In most low-income countries the national association of credit unions — if there be such — has nominal responsibility for prudential regulation of its member credit unions.[9] The effectiveness of this regulation is often hampered, however, by the limited technical capability of its staff, the conflict of interest in any organization responsible for promoting as well as regulating and agency problems in these associations. In most cases national associations depend on subsidies. This often leads the employees of these associations to use most of their creative energy seeking subsidies and funds rather than in regulating prudentially their member organizations.

In some countries such as Colombia and Peru the responsibility for prudential regulation of credit unions has been given to a government agency responsible for supervising banks. In other counties such as Gambia, there have been discussions about the Central Bank assuming these duties. Unfortunately, many of these bank-supervising agencies in low-income countries struggle to examine commercial banks. It is unclear if many of these agencies have the capacity and appropriate examination technology to supervise properly credit unions. Furthermore, requiring credit unions and other semi-formal financial institutions to provide bank-like information for examinations, maintain reserves and to meet other standard banking requirements may destroy many of these fragile institutions. The conflict between prudential regulation and the costs of operating these organizations is exacerbated when substantial amounts of deposits are involved.

Normally, regulators encourage a financial intermediary to diversify its loan portfolio to spread loan recovery risks across various activities. Because of their nature credit unions have difficulty diversifying. When they are small they often concentrate their loan portfolios in a restricted area and in only a few economic activities. As a result, bad weather or other factors may adversely affect the ability of a large percentage of the borrowers from the cooperative to repay their loans, thus threatening the viability of the organization. The capital structure of the cooperative is likewise fragile when members can essential withdraw their share capital by not repaying their loans. There is little that prudential regulation can do to help credit unions — especially those that are small — to avoid these risks. Many of these problems emerged in the experience with credit unions in Latin America.

IV. Credit unions in Latin America

Promoters were optimistic in the 1960s about the prospects for developing a large credit union system in Latin America. A number of countries such as Bolivia, Costa Rica, The Dominican Republic, Honduras and Peru were experiencing rapid growth in credit unions. This optimism led to the formation of COLAC and outside funding to further fuel the growth of these cooperatives. As suggested earlier, few of these hopes during the 1960s materialized during the next two decades. Inflation, economic stagnation and decline, and too little flexibility in policies in the credit union system resulted in major deterioration in the strength of many credit unions in the region. The large infusion of outside funds may have added to these problems by increasing agency problems and transaction costs and by intensifying prudential regulation difficulties. Research done in The Dominican Republic and in several other countries in Latin America illustrate these problems.

1. The Dominican Republic[10]

The history of credit unions in the Dominican Republic parallels that of credit unions in other Latin American countries; they have enjoyed several periods of growth and suffered several serious declines. Credit unions were started almost 50 years ago when the Catholic Church began promoting them to assist poor people (Poyo 1992a). By the late 1940s there were enough credit unions to justify establishing a national federation (FEDOCOOP). From then until 1957 both membership and number of credit unions grew rapidly. Conflicts between the Church and the government and associated civil unrest, however, had an adverse impact on credit unions between the late 1950s and early 1960s. After 1963 several donors, including the Agency for International Development, injected funds into FEDOCOOP and by the late 1970s the total number of credit unions in the country had expanded to more than a hundred with 37,000 members.

This growth parallelled similar developments in a number of other Latin American countries during the 1950s and 1960s with much of it being fueled by the provision of outside funds through the regional confederation of Latin American credit unions (COLAC). A major reason for forming COLAC was to provide access for credit unions to donor funds. Largely through funding by the Inter-American Development Bank, the COLAC system of credit unions grew rapidly during the 1970s and early 1980s. The 17 national federations that were COLAC shareholders had about 4 million credit union members and had loan portfolios that amounted to about a half billion U.S. dollars by 1988. Although FEDOCOOP was a small federation, it played a disproportionate role in COLAC. The head of FEDOCOOP was also the president of COLAC from 1976 to 1981, a period of rapid growth in COLAC's activities. Not surprisingly, FEDOCOOP received substantial funding and technical assistance from COLAC during this period, possibly too much.

Credit unions in Latin America in general, and in the Dominican Republic in particular, proved to be fragile and suffered major reverses during the late 1970s and throughout the 1980s. Inflation, combined with inflexible interest rates, eroded the purchasing power of the funds managed by COLAC, by its member federations, and by individual credit unions. This was accompanied by serious loan recovery problems throughout the system and rumors of corruption. FEDOCOOP was one of the first country associations to implode. By 1980 many of its member credit unions — especially those with open-ended memberships in rural areas — became moribund. Subsequently, strong federations in Bolivia, Honduras, and Peru were also debilitated.

It appears that the fundamental design of these credit union efforts was flawed. It stressed the well-being of the borrower with little concern being given to the interests of depositors and share holders. The provision of concessionary funds from outside weakened the resolve of the credit unions to mobilize deposits and share capital. This restricted the loanable funds mostly to money provided by outside sources and weakened loan recovery discipline. In some cases the rapid expansion in loans facilitated by the infusion of outside funds lessened the ability of credit unions to make creditworthy loans based on accumulated information about members. Credit unions were faced with the challenge of assembling costly information about new members and hiring full-time managers, or making loans based on insufficient information.

Combined with fixed nominal interest rates and accelerating inflation the credit unions and their association were increasingly turned into dispensers of "economic rents" instead of being financial intermediaries. Loan recovery performance quickly deteriorated as insiders and other rent seekers obtained loans and later failed to repay.[11] Share holders, seeing the deterioration in the cooperative, then scrambled to salvage some of their share capital by demanding loans at least equal to the value of their share contribution and then later defaulting on their loans. The credit unions were unable to collect loans and were thus unable to repay their debts with the national association. In turn, the national association was unable to repay loans from COLAC and donors became discouraged by the defaults and stopped funding COLAC.

In 1983 the Agency for International Development (A.I.D.) funded a pilot project in the Dominican Republic that focused, in part, on rehabilitating a few credit unions. The main focus of the project was to assist the government-owned agricultural development bank (Bagricola) to provide deposit services for the first time. From offering no deposit services in 1983 the project assisted Bagricola to open 150 thousand deposit accounts and to mobilize the equivalent of about US$ 28 million by the end of 1992. This included helping four credit unions — three of which were essentially moribund — to mobilize deposits and to strengthen management.[12] A follow-on A.I.D. funded project expanded the activities to include a total of 15 credit unions located mostly in rural areas. The main purpose of the project was to convert these credit unions from paternalistic organizations that were borrower dominated and often used as conduits for outside funds, to financial institutions that were responsive to market prices and to the interests of depositors.

Instead of providing funds for on-lending, the project strengthened credit unions through technical assistance and training. This included helping them develop more attractive deposit instruments, employing interest rates that were competitive on both loans and deposits and encouraging the hiring of full-time professional managers. Also, a new association was established to provide on-going technical assistance to these restructured credit unions, including the provision of a central liquidity fund.

Despite a serious financial crisis in 1988 that undermined confidence in financial intermediaries, inflation that accelerated from about 8 percent in 1983 to more than 100 percent in 1990, overall economic stress, and the legacy of the credit union's tattered history, the project achieved remarkable results. By the end of 1992 these 15 credit unions had mobilized the equivalent of almost US$ 7 million in deposits, whereas before participating in the project only one of the credit unions attracted many deposits. Approximately 20,000 new members joined these credit unions during the life of the project. The growth in deposits mobilized was especially impressive in 1991 and 1992, partly showing the maturation of the project and partly reflecting the results of economic stabilization that reduced inflation rates to less than 5 percent both years. Approximately 50 percent of the loans made were to operators of small firms, including some farmers.

A major focus of the project was to deal with the principal-agent problem. In large part, this was done by switching the credit unions from being borrower-based to organizations that were largely dominated by depositors. This stress on deposit mobilization imposed discipline on credit unions and their members. Members were only willing to place their savings with the credit unions if the savings instruments offered were competitive and if the organization was well managed. While it had earlier been socially acceptable to abscond with credit union funds when outside money was involved, it became socially unacceptable to steal through loan defaults funds that were comprised of savings of local people. The full-time managers of the credit unions were also encouraged to behave in ways consistent with the interests of the members, particularly the depositors, through performance-based-compensation. Credit union profits and loan recovery were major components in this performance. In order to force a new national federation to focus on the well being of its member unions, the constitution of the new federation prohibited it from handling outside funds for on-lending to credit unions.

The transaction cost problem was partly solved through deposit mobilization since savings performance provided valuable information to managers of credit unions on the creditworthiness of potential borrowers. Modern management techniques, improved data processing, and scale and scope economies also helped moderate the increased transaction costs incurred in mobilizing deposits and in dealing with a larger and less well-known membership.

The prudential regulation problem was more difficult to resolve. As long as the credit unions handled few if any deposits, or if they were moribund, there was little need for prudential supervision. This issue became increasingly important as the amounts of deposits mobilized increased. In large part the individuals providing the technical assistance, who were housed in the Central Bank, essentially provided this supervision during the life of the project. In late 1993 policy makers in the Dominican Republic were still struggling to establish an alternative regulatory mechanism.

2. Other Latin American countries

In 1979-81 the Agency for International Development funded a program to help a cooperative bank and a handful of credit unions in Peru to mobilize deposits (Vogel 1982; Vogel 1984). Before and during the project inflation in the country was a serious problem and the economy was also severely stressed. Credit unions were slow in changing traditional interest rates of 12 percent per year on loans, even when inflation accelerated to more than 50 percent per year. This resulted in negative real rates of interest being charged on loans and even higher negative real rates being paid on deposits. A rapid decapitalization of the credit unions, loss of membership, and delinquent loans soon throttled most credit unions.

Even though the credit unions were imploding, managers were slow to change interest rate policies, despite prodding by external advisors (Gadway 1982). Vogel (1982) provides four explanations for this: confusion caused by cooperative rhetoric that had traditionally stressed low interest rates on loans, insider borrowing by managers and people on the boards of directors, frequent turnover in management, and the expectation that a donor would rescue the credit unions by providing cheap funds — funding such as that provided by COLAC/IDB. The managers of the cooperative bank were more pragmatic about adjusting interest rates and soon were able to mobilize relatively large amounts of money from individuals, many of whom were not cooperative members. Several years after the project terminated, however, the bank was essentially destroyed through malfeasance.

Several lessons can be drawn from the Peruvian experience: The first is that inflation and sticky interest rate policies can quickly turn credit union managers into rent seekers who look after their own well-being rather than that of the credit union, shareholders, or depositors and that negative real rates of interest destroy proper principal-agent relationships. The second lesson is that large amounts of deposits should not be mobilized without adequate prudential regulation.

Additional research was also done on credit unions in Honduras during the late 1970s. Inflation there was less severe than in Peru but a number of the 88 credit unions in the country had loan recovery problems and many of these cooperatives faced financial crises. At the time of the research about 15 percent of the total value of lending done by these credit unions came from outside sources, mainly the previously mentioned COLAC/IDB funds (Christen and Vogel 1984). Based on their research Burkett, Christen, and Vogel concluded that the opportunity to obtain a future loan was an important incentive for some people to save (Christen 1984; Vogel and Burkett 1986). Savers quickly abandoned a cooperative by defaulting on their loans when it was no longer a dependable source of loans. Additional research by Poyo (1986) showed the importance of deposit mobilization in helping to strengthen credit unions. He also argued that the provision of outside funding, especially at concessionary rates, weakened the resolve of credit unions to mobilize deposits and that this made the cooperative a less dependable source of loans, thus fostering loan delinquency.

More recent research in Costa Rica has clarified the importance of prudential regulation for credit unions (Chaves and Poyo 1989). Prior to 1987 credit unions in Costa Rica grew rapidly. They were successful in mobilizing relatively large amounts of deposits and also used substantial amounts of outside funds for on-lending to members. This success in attracting funds led the credit unions to construct new buildings, invest in non-financial businesses such as supermarkets, and to also lend to non-members outside their normal operating area.

A general financial crisis that began in 1987, however, stunted this growth. The crisis involved the failure of several major financial institutions which caused a run on credit unions, followed by a sharp increase in inflation and interest rates. This caused a liquidity crisis in credit unions because of withdrawals, their illiquid asset base and growing delinquency. In part the delinquency was due to the poor quality of their loan portfolio, something that might have been partially avoided if these cooperatives had been properly supervised by prudential regulators instead of being lightly supervised by an organization that was part of the credit unions system. These problems led the Costa Ricans in the early 1990s to transfer prudential regulation of credit unions to the Central Bank.

V. Conclusions

Most credit unions in low-income countries are fragile. They typically have thin capital bases, often lack access to funds to meet liquidity shortfalls, have difficulties diversifying their risks, are easily crippled by inflation, and are quickly damaged when their members have economic reverses. Credit unions also face dilemmas as they grow: they lose their informational advantages, they are forced to rely on paid rather than voluntary managers, and they must increasingly count on formal sanctions to enforce contracts. Growth compels credit unions to act increasingly like formal financial intermediaries. With growth, the altruistic motives that may have led to the formation of the credit union must be replaced by hard-headed business decisions if the organization is to persist. This involves altering the ambiance in the cooperative from one that is borrower dominated to one that balances the concerns of depositors, shareholders, borrowers and management.

Principal-agent problems, transaction costs, and prudential regulation also become increasingly important as credit unions grow. Share capital, retained earnings, deposits and external funds all present serious and somewhat different principal-agent problems. Complex incentives must be designed to address these problems. Likewise, when credit unions expand they must increasingly strive to moderate the growth in transaction costs — both for the cooperative and for members — through financial innovations and by achieving scope and scale economies.

For a variety of reasons, credit unions should depend on deposit mobilization for growth. Deposits are important to credit unions because many people wish to save, because deposits come with no political strings attached, because deposit mobilization leads to scope economies, because saving is a natural step in becoming creditworthy, and because the combination of deposits and lending enhances loan recovery. It is unwise, nevertheless, for large numbers of people to place their deposits in organizations that are not prudentially regulated.[13] Even under the best of circumstances, prudential regulation will increase transaction costs and diminish some of the informational and self-regulatory advantages that rudimentary credit unions enjoy.

Credit unions are alluring channels for government and donor funding. They belong to the private sector, deal with people of modest means and ostensively operate on democratic principles. Given this, it is easy for policy makers to conclude that additional funding would allow credit unions to lend more to the types of individuals who are targets of donor or government affection — operators of microenterprises, for example. Earlier experience, however, suggests that donors should be mindful of how their intrusion affect the internal equilibrium of these self-help groups. The long-run goal of enhancing the sustainability and efficiency of the credit union should accompany the short-run goal of providing more loans to microentrepreneurs.

Under the worst of circumstances, outside funding could discourage deposit mobilization, transform members into beneficiaries, convert managers and boards of directors into rent seekers, and reorient managers of second and third tier organizations away from members to outside funding sources. Under the best of circumstances outside funding should impose only modest additional transaction costs on the credit union and its members, avoid promoting dependency on outside funding, and employ incentives that induce the management and members to act in ways that foster the well-being of the credit union. The following guidelines may help foster these desirable circumstances:

! Outside funding should be done in ways that encourage credit unions to mobilize additional deposits and share capital.

! Credit unions should be encouraged to charge interest rates on their loans that cover the cost of funds, loan losses, transactions costs, and the erosion of purchasing power due to inflation. To do this nominal interest rates must be flexible and adjust to changing conditions.

! Loans should be based on creditworthiness rather than on need.

! As they expand, credit unions should be encouraged to strengthen management, improve data processing and seek financial innovations that reduce transaction costs.

! Especially when credit unions are mobilizing significant amounts of deposits and handling other public funds, they should also be prudentially regulated by an agency that is capable of doing so and that itself is not involved in the promotion of credit unions.

VI. Bibliography

Banerjee, Abhijit, Timothy Besley and Timothy W. Guinnane. 1993. "Thy Neighbor's Keeper: The Design of a Credit Cooperative with Theory and a Test." Unpublished paper, Department of Economics, Harvard University, Cambridge, Massachusetts, April 19.

Baydas, Mayada M. and Carlos E. Cuevas. 1990. "The Demand for Funds from Rural Credit Unions in Togo." *Savings and Development 14*:371-380.

Bierman, Russell W., Karen M. Poe, and Ronald E. Bobel. 1977. "Evaluation Project 689-0391 Regional Organizations Development: African Co-operative Savings and Credit Association/Directed Agricultural Production Credit." Unpublished report prepared by the Agency for International Development in Washington, D.C., June.

Boomgard, James. 1989. "A.I.D. Microenterprise Stock-Taking: Synthesis Report." Report prepared for the Agency for International Development by Development Alternatives, Washington, D.C, March.

Branch, Brian. 1992. "Prudential Management: Protection of Savings at The Credit Union Level." Unpublished report prepared by the World Council of Credit Unions and The Ohio State University, Columbus, Ohio, February 8.

Chaves, Rodrigo A. 1993. "Diseno Institucional de Organizaciones: El Caso de Los Bancomunales." Unpublished paper Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio.

Chaves, Rodrigo A. 1994. "The Behavior of Cooperatives and Other Client-Owned Financial Intermediaries: A Contribution to The Theory of Organizations." Unpublished Ph.D dissertation, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio.

Chaves, Rodrigo A. and Jeffrey Poyo. 1989. "Financial Reforms in The Credit Union System of Costa Rica." Economics and Sociology Occasional Paper No. 1616, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio, September.

Chickering, A. Lawrence and Mohamed Salahdine (eds.). 1991. *The Silent Revolution: The Informal Sector in Five Asian and Near Eastern Countries*. San Francisco, California: ICS Press.

Christen, Robert P. 1984. "The Causes of Default and Delinquency in Open Honduran Credit Unions." Unpublished M.S. thesis, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio.

Christen, Robert P. and Robert C. Vogel. 1984. "The Importance of Domestic Resource Mobilization in Averting Financial Crises: The Case of Credit Unions in Honduras." Unpublished paper, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio.

Cuevas, Carlos E. 1992. "Rural Finance Experiences in Sub-Saharan Africa and Latin America: A Comparative Assessment." Unpublished report prepared for the World Bank, Department of Agricultural Economic and Rural Sociology, The Ohio State University, Columbus, Ohio, August.

Deschamps, Jean-Jacques. 1989. "Credit for The Rural Poor: The Experience in Six African Countries." Unpublished report prepared for the Agency for International Development by Development Alternatives, Washington, D.C. February.

De Soto, Hernando. 1989. *The Other Path: The Invisible Revolution in the Third World*. New York: Harper and Row.

Dublin, Jack and Selma Dublin. 1983. *Credit Unions in a Changing World: The Tanzania-Kenya Experience*. Detroit: Wayne State University Press.

Eggertsson, Thrainn. 1990. *Economic Behavior and Institutions*. New York: Cambridge University Press.

Gadway, John F. 1982. "El Proceso Inflacionario y Su Incidencia en La Cooperative de Ahorro y Credito "Proctectora LTDA. 261" Huancayo, Peru." Unpublished report prepared for the Federacion Nacional de Cooperativas de Ahorro y Credito de Bolivia by the Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio, February.

Graham, Douglas. 1987. "Banks Versus Cooperatives: Research in Niger Favors Credit Unions." *World Reporter*, May, pp.33-35.

Guinnane, Timothy W. 1993. "Cooperatives as Information Machines: The Lending Practices of German Agricultural Credit Cooperatives, 1883-1914." Discussion Paper No. 699, Economic Growth Center, Yale University, New Haven, Connecticut, August.

Izumida, Yoichi. 1992. "The Kou in Japan: A Precursor of Modern Finance." In *Informal Finance in Low-income Countries*, edited by Dale W Adams and Delbert A. Fitchett. Boulder, Colorado: Westview Press, pp.165-180.

Jensen M. and W. Meckling. 1976. "Theory of The Firm: Managerial Behavior, Agency Costs and Ownership Structure." *Journal of Financial Economics* 3:303-360.

Keeler, Hayes and others. 1973. "Evaluation of The Directed Agricultural Production Credit Program in Ecuador." In *Small Farmer Credit in Ecuador*, Volume 4, A.I.D. Spring Review of Small Farmer Credit, Agency for International Development, Washington, D.C, February.

Kilby, Peter, Carl E. Liedholm and Richard L. Meyer. 1984. "Working Capital and Nonfarm Rural Enterprises." In *Undermining Rural Development with Cheap Credit*, edited by Dale W Adams and others. Boulder, Colorado: Westview Press, pp. 266-283.

Liedholm, Carl and Donald Mead. 1987. "Small-scale Industries in Developing Countries: Empirical Evidence and Policy Implications." MSU International Development Paper No. 9. East Lansing, Michigan": Michigan State University.

Levitsky, J. and R.N. Prasad. 1987. "Credit Schemes for Small and Medium Enterprises." World Bank Technical Paper No. 58, World Bank, Washington, D.C.

Marion, J. Peter. 1987. "Building Successful Financial Systems: The Role of Credit Unions in Financial Sector Development." Unpublished paper prepared by the World Council of Credit Unions, Madison, Wisconsin, September.

Magill, John H. 1991. "Credit Unions: A Formal Sector Alternative for Financing Microenterprise

Development." GEMINI Working Paper No. 22, Development Alternatives Inc, Washington, D.C., September.

McGuire, John J. and others. 1990. "An Evaluation of COLAC: The Confederation of Latin American Credit Unions." Unpublished report prepared for the Inter-American Development Bank by the Inter-American Management Consulting Corporation, Washington, D.C. October.

Meyer, Richard L. and Geetha Nagarajan. 1989. "Annotated Bibliography on Agricultural Credit and Rural Savings: XII (A Special Issue on Microenterprise Financing." Unpublished manuscript, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio, June.

Mindock, Kevin L. 1983. "An Evaluation of the Credit Union Development Project." Unpublished report prepared for the Agency for International Development in Lesotho, September 16.

North, Douglas C. "Institutions, Transaction Costs and Economic Growth." *Economic Enquiry* 25:419-428.

Pollard, Stephen K. and others. 1992. "Midterm Evaluation of Strengthening Local Financial Sector Through a Pan-African Credit Union System Approach (ACCOSCA)." Unpublished report prepared for the World Council of Credit Unions, Madison, Wisconsin, April.

Poyo Jeffrey. 1986. "Development Without Dependence: Financial Repression and Deposit Mobilization among The Rural Credit Unions in Honduras." Unpublished Ph.D. dissertation, Department of Economics, Syracuse University, Syracuse, New York.

Poyo, Jeffrey. 1993. "Expansion of Rural Financial Services: The Development of Community Based Rural Credit Union Network." Unpublished paper prepared by the Inter-American Development Bank, Washington, D.C.,

Poyo, Jeffrey. 1992a. "Regulation y Supervision Prudential de Las Cooperativas de Ahorro y Credito en La Republica Dominicana." In *Republica Dominicana: Mercados Financieros Rurales y Movilizacion de Depositos*, edited by Claudio Gonzalez-Vega. Columbus, Ohio: The Ohio State University, pp. 255-280.

Poyo, Jeffrey. 1992b. "Relaciones de Agencia, El Banco Agricola y Las Cooperatives Rurales de Ahorro y Credito." In *Republica Dominicana: Mercados Financieros Rurales y Movilizacion de Depositos*, edited by Claudio Gonzalez-Vega. Columbus, Ohio: The Ohio State University, pp. 93-121.

Poyo, Jeffrey, Nelson Aguillera Alfred, and Claudio Gonzalez-Vega. 1992. "Informacion, Costos de Transacciones y La Ventaja Comparativa de Las Cooperativas Rurales de Ahorro y Credito." In *Republica Dominicana: Mercados Financieros Rurales y Movilizacion de Depositos*, edited by Claudio Gonzalez-Vega. Columbus, Ohio: The Ohio State University, pp. 221-254.

Vogel, Robert C. 1982. "Final Report on The Peru Savings Mobilization Campaign Project, July 1979 through December 1981." Unpublished report prepared for the Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus, Ohio, February.

Vogel, Robert C. 1984. "Savings Mobilization: The Forgotten Half of Rural Finance." In *Undermining Rural Development with Cheap Credit*, edited by Dale W Adams and others, Boulder, Colorado: Westview Press, pp. 248-265.

Vogel, Robert C. 1988b. "The Role of Groups, Credit Unions and Other Cooperatives in Rural Lending." Unpublished paper prepared for the Agricultural and Rural Development Department of the World Bank, Washington, D.C, August.

Vogel, Robert C. and Paul Burkett. 1986. "Deposit Mobilization in Developing Countries: The Importance of Reciprocity in Lending." *Journal of Developing Areas* 20: 425-438.

Webster, Leila. 1989. "World Bank Lending for Small and Medium Enterprises: Fifteen Years of Experience." Industry and Energy Department Working Paper, Industry Series Paper No. 20. Washington, D.C: World Bank.

Williamson, Oliver E. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.

Notes

1. I have drawn heavily on the work of others in this paper, especially Robert Christen, Carlos E. Cuevas, John Gadway, Claudio Gonzalez-Vega, Douglas H. Graham, Jeffrey Poyo, and Robert C. Vogel

2. Policy makers often use supposed "credit needs" to justify these programs. Various studies have shown that operators of small firms often rank credit near the top of their wish list. It is unclear, nevertheless, how many of these credit wishes are based on legitimate economic opportunities, and how may are the result of rent seeking or poor managerial skills (Kilby, Liedholm and Meyer, 1984).

3. The term semi-formal is here used to indicate an organization or institution that provides loans or deposit services without the supervision of any central monetary authority, but often under some government-issued charter or license.

4. The Agency for International Development, the Interamerican Foundation, and several other donors likewise provided funds for on lending by COLAC. In most cases these funds were highly subsidized because of low and inflexible nominal interest rates accompanied by inflation.

5. This section relies heavily on Poyo 1992b; and Poyo, Aguilera, and Gonzales 1992.

6. The ability to "withdraw" share capital by defaulting on loans results in the capital base in a credit union being more unstable than is the case in a privately owned bank.

7. For more general discussions of transaction costs see Eggertsson 1990, North 1987, and Williamson 1985.

8. A famous bank robber in the United States by the name of Willie Sutton was once asked why he robbed banks. He replied ..."that was where the money was." When credit unions begin to mobilize deposits they take on more of the characteristics of a bank and are more susceptible to theft, thus the need for more prudential regulation to assure that the contracts between the credit union and its depositors are fulfilled.

9. In some cases these regulatory functions also may be provided by some outside organization that is providing short-term technical assistance aimed at building or strengthening credit unions.

10. In this section I draw heavily on work done by Jeffrey Poyo, Claudio Gonzalez-Vega and their colleagues. Parallel work by Graham and others in Niger to develop viable credit unions is also insightful (Graham 1987).

11. There is little difference between justifying the subsidy involved in a low interest rate loan and rationalizing the even larger subsidy involved in loan default. It is easy to conclude that a poor person who receives a cheap loan based on "need," and then demonstrates that poverty by failing to repay has the further "need" for loan forgiveness.

12. One of the four credit unions subsequently dropped out of the program. The strongest credit union — possibly the best in the country — was located in San Jose de las Matas. It had never received loans from the national Federation and was also one of the few credit unions in the country to experiment with deposit mobilization (Poyo 1993).

13. A similar justification might be presented for prudential regulation of credit unions that handle government or donor funds.