Discussion Paper No. 6

Colloquium on Rural Finance
September 1-3, 1981
Economic Development Institute
World Bank
Washington, D.C. 20433 USA

SAVINGS MOBILIZATION: THE FORGOTTEN HALF OF RURAL FINANCE

By

Robert C. Vogel
Professor of Economics
Syracuse University

Sponsored By

The Economic Development Institute of
The World Bank
The Agency for International Development
and
The Ohio State University

Savings Mobilization: The Forgotten Half of Rural Finance

Robert C. Vogel*

This paper presents four arguments that savings mobilization should be an essential part of rural finance projects in developing countries: (1) income distribution, (2) resource allocation, (3) viability of financial institutions; and (4) appropriate incentives for projects. The paper then describes the recent AID-BANCOOP project in Peru which demonstrates that savings can in fact be mobilized in rural areas of developing countries and which also indicates some of the crucial factors in successful savings mobilization: adequately high interest rates on deposits, good service for depositors, incentives for employees, confidence in the institution, and effective savings mobilization campaigns. Finally, the experience of credit unions in Peru is used to show what happens to financial institutions that do not pay adequate attention to savings mobilization and what problems, especially with respect to incentives, can be anticipated in implementing savings mobilization projects.

Introduction

Providing loans at low rates of interest is widely believed to be the basic function of rural financial institutions in developing countries, and furthermore that these subsidized loans can promote agricultural output and redistribute income toward the rural poor. The evidence increasingly indicates, however, that policies based on subsidized low interest rate loans for agriculture are failing to achieve these two objectives. Because credit is fungible, it is difficult and costly, if not impossible, to tie subsidized credit to specific agricultural activities (Von Pischke and Adams, 1980). The main beneficiaries of subsidized agricultural credit are not the rural poor,

---

* Professor of Economics, Syracuse University, and Visiting Professor of Agricultural Economics, Ohio State University. Without financial support and encouragement from AID in Washington and in Peru, this paper could not have been written. The collaboration on the AID-BANCOOP project of George Wohanka, Jeffrey Poyo, John Gadway, Paul Burkett, and various BANCOOP officials has also been essential. The author is also indebted to many people for insights into finance in developing countries, but especially to Dale Adams, F. J. A. Bouman, Claudio Gonzalez-Vega, Edward Shaw and numerous participants in the Ohio State University rural finance program. However, none of these individuals or institutions is responsible for the opinions expressed or the errors remaining in this paper.

as such credit tends to become highly concentrated in large loans to relatively wealthy farmers (Vogel, 1977). Moreover, financial institutions whose basic function is low interest rate lending cannot be viable in the long run (Von Pischke, 1981). They must continually depend on subsidized resources from some external donor, typically their own government or some international agency, in a world where most donors prefer new projects over the continuing support of something that was supposed to become continuing support of something that was supposed to become viable.

Almost ten years ago the Spring Review of Small Farmer Credit pointed out many of these problems with the subsidized lending approach to rural finance, and at least one paper was entirely devoted to explaining the essential role of saving mobilization (Adams, 1973; see also Donald, 1976 and Adams, 1973). Nonetheless, rural finance projects in developing countries have continued to stress low interest rate loans for agriculture and to neglect the role of savings mobilization in rural areas. This same bias is reflected in the literature on rural finance, as the papers on agricultural credit written during the past decade outnumber the papers on rural savings by about five to one (AID and Ohio State University bibliographies). Moreover, most papers on rural savings deal not with savings mobilization by financial intermediaries but rather with a different issue, the determinants of the portion of income which is saved rather than consumed. The neglect of savings mobilization in the role assigned to formal financial institutions serving the rural areas of developing countries stands in sharp contrast to the experience of informal finance in the same areas of the same countries (Bouman, 1977). Why has formal finance failed to incorporate the message of indigenous savings and credit societies, that savings and credit are inseparably linked in providing the financial services which the rural population demands?

The neglect of savings mobilization can perhaps be explained in part by the often-heard arguments that savings cannot or should not be mobilized in the rural areas of developing countries. It is said that most of the rural population has no margin for saving over consumption needs and, in any case, does not respond rationally to incentives such as higher interest rates. Urban-based financial institutions are said to be uninterested in the small sums that might be mobilized in rural areas, while rural institutions are thought to lack the administrative and technical skills necessary for the successful mobilization of savings. It is further argued that if financial institutions were encouraged to mobilize savings aggressively, savings would simply be diverted from one institutions to another, and the higher interest payments to depositors would drive the institutions toward bankruptcy or force them to lend outside of rural areas where higher returns can be obtained. A more basic explanation for the neglect of savings mobilization may be that it is inconsistent with policies of low interest rate lending. Savings mobilized by financial institutions at relatively high cost cannot realistically be on-lent at low rates of interest. In addition, officials of financial institutions are likely to find it more pleasant to bargain with their own governments or international donors over the conditions for obtaining subsidized resources than to face the task of mobilizing savings from the rural population.

The present paper is divided into two main sections. The first outlines four reasons why savings mobilization should be an essential part of rural finance policies in developing countries. The second describes in some detail the successful AID-BANCOOP savings mobilization project which was carried on in Peru during the past two years. This project shows that savings can be mobilized in poor rural areas of developing countries when the proper incentives are present, even if the project design and the implementing institution are less than perfect. The theoretical arguments in favor of savings mobilization together with the success of the AID-BANCOOP project strongly contradict the arguments presented above that savings should not, or cannot, be mobilized in the rural areas of developing countries. Furthermore, the problems encountered in the implementation of the AID-BANCOOP project suggest that the desire to maintain subsidized low interest rate lending policies, and not the arguments against savings mobilization, is the main reason for the neglect of savings mobilization. Such issues are explored briefly in the conclusion of this paper.

Four Arguments in Favor of Savings Mobilization

Income distribution is an important objective of rural finance policies, and policies that improve savings opportunities will do more to redistribute income toward the rural poor than any program of subsidized low interest rate loans. As indicated above, subsidized credit inevitably becomes concentrated in large loans to relatively wealthy farmers. Faced with an excess demand for credit resulting from low interest rates, financial institutions are forced to ration credit, and the most logical way to ration credit is away from small borrowers without good collateral who are perceived to be more risky and more costly to serve (Vogel, 1979, and Gonzalez-Vega, 1981). Rationing takes the form not only of loan refusals and limitations on loan size but also of increased transactions costs which can easily become more important for small borrowers than interest costs and thereby drive them away (Adams and Nehman, 1979). Leaving aside the perverse concentration of credit resulting from subsidized low interest rate loans, an essential feature of financial intermediaries is the pooling of resources, that is, bringing together relatively small amounts from many savers so that relatively large projects involving economies of scale can be undertaken. Hence, by their nature, financial intermediaries serve more savers than borrowers and have individual deposits that are smaller on the average than loans. Policies which focus on improving services for savers, not for borrowers, are thus the indicated route for redistributing income toward the rural poor.

There is a myth, mentioned above, that most of the rural population has no savings. If this were true, the rural poor would have become extinct long ago with the onset of the first emergency, and especially the small farmers who are not only subject to well-known risks but also must wait for their returns from planting until harvest (Von Pischke, 1978). The rural poor, more than anyone else, must have a liquid reserve to meet emergencies. Credit, most probably from informal sources, can supplement this liquid reserve, but credit is available only to those who have actual or potential savings. Even the moneylender will not lend to someone with no potential surplus to extract, and friends and relatives, as well as savings and credit societies, require the ability to reciprocate (Bouman, 1979).

The most important service which financial institutions can provide for rural savers is liquid deposits with interest rates that are at least positive in real terms. Without this, the rural poor will be forced to hold a variety of inflation hedges, many of which earn negative rates of return, and to pay a heavy inflation tax on the cash and deposits which they must hold for immediate needs. The rural non-poor, on the other hand, are often able to avoid these unpleasant alternatives by investing in urban areas or indulging in capital flight. There is another myth, also mentioned above, that most of the rural population does not respond to interest rate incentives. This view is often based on so-called interest rate reforms in which interest rates are raised marginally but continue to be substantially negative in real terms. Sometimes interest rates on deposits are raised significantly, but financial institutions are expected to continue to lend at the old low rates of interest. These institutions respond quite logically by discouraging deposits. Instead of convenient locations and hours of operation, rapid service, and a minimum of paperwork, they provide the opposite. Transactions costs can be as important for savers as for borrowers, and the prophesy that the rural poor do not save and do not respond again becomes self-fulfilling.

The second argument in favor of savings mobilization is that it improves resource allocation and thereby allows developing countries to grow more rapidly. Effective savings mobilization by financial intermediaries draws resources away from unproductive investments, especially inflation hedges, as the opportunity is provided to make deposits which earn positive real rates of interest (Vogel and Buser, 1976). These resources can be on-lent by financial intermediaries for those activities that promise the highest rates of return (Shaw, 1973 and McKinnon, 1973). Three arguments against savings mobilization which have been mentioned above actually help to clarify this deceptively simple argument that effective savings mobilization will improve resource allocation. It is said that aggressive savings mobilization will only result in the transfer of deposits from one institution to another with no gain to society. However, this neglects the gain to savers who would not have moved their deposits without being better off and the fact that financial institutions which earn the highest returns on the funds entrusted to them will be able to compete most effectively for savings.

It is further said that no new savings will be generated as the rural population will not increase their saving out of income in response to higher interest rates and other improvements in services to depositors. This argument confuses the flow of saving with its allocation to a portfolio of assets and also raises the semantic question of whether savings that are invested in inflation hedges such as consumer durables are really saved. Regardless of whether more is saved out of income, and this is an open question both empirically and theoretically, effective savings mobilization can deploy the stock of assets of the rural population in more productive ways. It is also said that higher interest rates for depositors will force financial institutions to look outside of rural areas and away from priority sectors in order to lend where higher returns can be obtained. Because of the fungibility of credit, these resources are already flowing in part toward those higher returns, albeit at a higher cost to society from the necessity of circumventing regulations (Kane, 1981). Regulations that attempt to direct the allocation of credit not only impose unnecessary costs on society but also rob policymakers of important information. The flows of credit and hence resources out of rural areas and away from priority sector are masked, so that policymakers do not see the importance of removing the distortions which are lowering returns in rural areas and priority sectors (Larson and Vogel, 1980).

The third argument in favor of savings mobilization is that financial institutions which neglect savings mobilization are incomplete institutions. It is obvious that such institutions are not providing adequate service to clients and potential clients who are savers and who are therefore driven to seek other means to dispose of savings. As indicated above, financial institutions by their nature should serve more depositors than borrowers, and it is the rural poor in particular who must depend more on savings services than credit services to provide the liquid reserves to meet emergencies.

Being an incomplete financial institution also has important implications for the high rates of delinquency and default that typically plague agricultural development banks (Vogel, 1981). When financial institutions deal with clients only as borrowers they forego useful information about the savings behavior of these clients which could help to select borrowers with higher probabilities of prompt repayment. Furthermore, borrowers are more likely to repay promptly when they know that the resources come from neighbors rather than some distant government agency or international donor. Borrowers may also realize that financial institutions which mobilize savings effectively will have resources to lend, while those that do not are at the mercy of the whims of government officials and international donors, and a good credit rating with a financial institution without resources is not worth very much. In addition, financial institutions which depend on government agencies or international donors for subsidized resources are as unlikely to be interested in the difficult task of loan recovery as in the task of rural savings mobilization.

The fourth argument in favor of savings mobilization is that it provides appropriate incentives and discipline so that rural financial markets and institutions can be used to their best advantage by government officials and international donors. As just mentioned, financial institutions will have little interest in savings mobilization or loan recovery if significant amounts of lower cost resources are available in the form of government loans, central bank rediscounts or loans from international donors. The evidence is clear, moreover, that the volume of resources which can be obtained through subsidized loans and grants can never approach the volume which can be obtained through effective programs of savings mobilization and loan recovery. Emphasis on savings mobilization also has important implications for policies of subsidized low interest rate lending, policies which have been shown to be ineffective for resource allocation and perverse for income distribution. Financial institutions cannot realistically mobilize savings and on-lend them at interest rates which cover neither the interest payments to depositors nor the administrative costs of mobilizing and lending.

It has been alleged that government officials often prefer subsidized low interest rate lending because it can be a means to distribute patronage (Ladman and Tinnermeier, 1981). If this is so, it provides another reason why the discipline of savings mobilization should be imposed. International donors who feel obliged to transfer large amounts of resources to developing countries and who find rural finance projects a convenient way to do so, should also feel obliged to find mechanisms to do this which encourage rather than retard savings mobilization in the rural areas of developing countries. There is, in addition, an important connection among savings moiblization, interest rates and inflation. It is generally recognized that successful savings mobilization can help to reduce inflation, but it is also sometimes argued that the higher interest rates necessary to accomplish this will increase inflation through some kind of cost push mechanism. Not only is this argument incorrect (Shaw, 1973), but it also overlooks the powerful political pressures for inflationary credit expansion which arise when the promised low interest rate loans cannot be funded through savings mobilization.

Success of the AID-BANCOOP Savings Mobilization Project

In mid-1979 the Agency for International Development (AID) initiated a small two-year project in Peru supported by a half-million dollar grant to the

Banco Nacional para las Cooperativas (BANCOOP), half for a credit fund and half for technical assistance. The technical assistance component included support for opening new BANCOOP offices in the two target areas of Huancayo and Tingo Maria, the creation of a project appraisal and technical assistance division to provide assistance within BANCOOP and to the cooperatives in the target areas, and a long-term advisor to work with BANCOOP during the two years of the project. Technical assistance with savings mobilization was to be directed not only to BANCOOP itself but also through BANCOOP to the credit unions in the two target areas. The credit fund and some of the technical assistance were designed to support BANCOOP's rural lending activities, but the following discussion focuses primarily on the experience with savings mobilization.

In spite of its name, BANCOOP is not in fact a bank under Peruvian law, but it does carry out most functions of a bank such as receiving deposits and making loans. BANCOOP is rather a second level cooperative, that is, a cooperative of cooperatives with its directors elected by the cooperatives which have become members by making capital contributions to BANCOOP. Nevertheless, BANCOOP deals not only with its member cooperatives, but also with nonmember cooperatives, individual members of cooperatives and the general public. BANCOOP was selected by AID to be the primary institution in the project for two main reasons: (1) BANCOOP was already following a policy of relatively high interest rates on loans and deposits within the limits of Peruvian regulations; and (2) BANCOOP had been reasonably successful as an urban-based operation and was interested in expanding its operations to serve a rural clientele. In order to understand better the environment in which BANCOOP initiated new savings mobilization activities, it is useful to discuss first the recent experience of credit unions in the two target areas of rural Peru.

After years of strong growth, Peruvian credit unions began to falter in the mid-1970s, due largely to a dramatic upsurge of inflation and the failure of credit unions to adjust their traditional low interest rate policies in the face of this inflation. From the early 1950s through 1973 the rate of inflation in Peru averaged less than 10 percent per year, but accelerated to over 30 percent per year in 1976 and 1977 and over 50 percent per year since then. Until mid-1976 interest rates were rigidly controlled by the Peruvian Central Bank at 5 percent on savings deposits, 7 percent on time deposits, and 12 percent on short-term loans. These interest rate ceilings were raised initially in mid-1976 and substantially during 1978. During 1979 and 1980, the period of main concern for this paper, the ceiling rate on savings deposits was 30.5 percent, while time deposits earned up to 35.5 percent for deposits of one year duration. The stated ceiling rate on loans was 32.5 percent, but effective rates of 60 percent or higher could easily be charged through the use of commissions, compensating balances and other devices. Early in 1981 interest rate ceilings were again raised significantly to 50.5 percent on savings deposits and 54.0 percent on time deposits of one year duration, with a stated ceiling rate of 49.5 percent on loans.

When the AID-BANCOOP project was initiated in 1979, none of the five major credit unions in the two target areas had taken advantage of the opportunity to raise interest rates. Rather, they continued to follow the tradition of charging 1 percent per month on loans. With such low rates on loans, they were unable to pay high enough rates on time and savings deposits to compete with other financial institutions, especially the commercial banks, which quickly took advantage of the increases in interest rate ceilings.

Consequently, the credit unions were forced to rely for their resources almost entirely on the capital contributions of their members, on which dividends are limited to 6 percent per year by Central Bank regulations.

Such interest rate policies have created perverse incentives and serious problems for the credit unions. On one hand, members have a strong incentive to borrow as much as possible because interest rates on loans far below the rate of inflation mean that borrowers have to pay back in real terms much less than the amount borrowed. On the other hand, members have little or no incentive to make time and savings deposits with their credit unions because the purchasing power of these deposits is rapidly eroded by inflation when adequate interest rates are not paid. Members who make capital contributions to their credit unions do so primarily for the purpose of securing access to loans, and such loans can be as much as three times the amount of a member's capital contribution under the regulations of most Peruvian credit unions.

The results of these interest rate policies can readily be seen in the serious problems experienced by credit unions in the two target areas of the AID-BANCOOP project. There were increasing complaints of severe shortages of loanable funds, as members' demands for low interest rate loans far exceeded their capital contributions and meager time and savings deposits. Disgruntled members who were told that their approved loans could not be disbursed because of a lack of funds, or that there was no point in even applying for a loan, often ceased making capital contributions and became inactive. For some credit unions the loss of active members spread to serious repayment problems as members saw no point in repaying old loans when the prospects for obtaining new loans were bleak. In addition, many credit unions have experienced substantial operating deficits as stagnant interest income has failed to keep pace with operating costs which increase with inflation, and even those that have managed to grow in nominal terms have seen the purchasing power of their capital dramatically reduced since the mid-1970s.

BANCOOP initiated its savings mobilization activities in the two target areas in late 1979 in this adverse economic setting. In addition to rapid inflation and the weakened condition of credit unions, the Peruvian economy had shown no real growth in several years, and BANCOOP also faced potentially formidable competition from established financial institutions including several commercial banks. Nevertheless, as shown in Table 1, BANCOOP had already mobilized by the end of 1980 vastly more than the goal of $150,000 (U.S.) to be met by the end of the project in mid-1981. The outstanding balances in time and savings deposits for the target areas of Huancayo and Tingo Maria totaled more than 300 million soles at the end of 1980, or more than $900,000 at the then prevailing exchange rate of 340 soles per dollar.1/ Moreover, the success of savings mobilization in Huancayo and Tingo Maria has significantly changed the entire financial structure of BANCOOP. While demand deposits continued to grow at BANCOOP during 1980, time and savings deposits each grew much more rapidly and together came to far surpass demand deposit balances. Furthermore, as shown in Table 2, the Huancayo and Tingo Maria offices account for a major portion of BANCOOP's time and savings deposits.

The change in BANCOOP's financial structure has not always been entirely welcomed by BANCOOP officials. At various times, particularly in the early stages of the project, BANCOOP officials have wanted to mobilize resources through demand deposits and capital contributions of member cooperatives, rather than through time and savings deposits, because the latter require

1/ This is a very conservative measure of the amount of savings mobilized for two reasons. First, it entirely omits savings deposited but withdrawn before the end of the year. Second, it converts to dollars at the year-end exchange rate, rather than when the savings were mobilized, and the exchange rate was as low as 250 soles per dollar at the beginning of 1980.

Table 1. BANCOOP's Month-End Deposits Balances
(Millions of Soles)

	Total BANCOOP			Huancayo Office			Tingo Maria Office		
	Demand Deposits	Savings Deposits	Time Deposits	Demand Deposits	Savings Deposits	Time Deposits	Demand Deposits	Savings Deposits	Time Deposits
1979									
November	153.6	63.5	57.4	14.7	1.9	1.3	14.3	6.5	6.3
December	231.7	76.4	82.3	19.2	4.6	2.2	22.9	23.8	11.7
1980									
January	252.9	82.2	91.4	16.9	5.4	5.7	43.9	27.4	16.2
February	228.6	104.8	93.9	19.0	13.5	9.0	25.6	34.5	13.9
March	299.1	123.4	125.2	19.8	19.3	38.6	22.2	37.7	20.6
April	317.4	133.2	145.3	40.8	21.6	49.5	19.3	34.1	19.0
May	327.4	148.3	172.8	28.3	22.6	71.9	20.7	37.6	22.3
June	340.6	188.5	210.6	36.9	25.6	72.6	32.3	54.4	27.2
July	461.0	231.1	243.3	63.9	31.9	84.3	39.4	62.8	29.4
August	448.0	270.1	299.0	69.7	42.5	88.1	38.9	72.8	33.8
September	481.3	307.0	318.4	86.1	44.9	98.4	33.7	76.6	25.8
October	536.3	329.7	331.8	90.6	48.0	98.2	25.4	75.4	32.9
November	559.2	339.3	349.2	62.4	48.2	98.0	41.9	78.8	32.6
December	595.6	414.8	379.8	46.4	55.9	97.6	41.7	117.9	36.0

Source: BANCOOP, Month-End Statements.

Table 2. Share of Huancayo and Tingo Maria Offices in BANCOOP Deposits
(Percents)

	Huancayo Office			Tingo Maria Office		
	Demand Deposits	Savings Deposits	Time Deposits	Demand Deposits	Savings Deposits	Time Deposits
1979						
November	9.6	3.0	3.5	9.3	10.3	10.1
December	8.3	6.0	2.6	9.9	31.1	14.2
1980						
January	6.7	6.6	6.3	17.4	33.4	17.7
February	8.3	12.9	9.6	11.2	33.0	20.1
March	6.6	15.6	30.9	7.4	30.6	16.5
April	12.9	16.2	34.1	6.1	25.6	13.1
May	8.6	15.2	41.6	6.3	25.3	13.2
June	10.8	13.6	34.5	9.5	28.8	12.9
July	13.9	13.8	34.9	8.5	27.2	12.1
August	15.6	15.7	29.5	8.7	27.0	11.3
September	17.9	14.6	30.9	7.0	25.0	8.1
October	16.9	14.6	29.6	4.8	22.9	9.9
November	11.2	14.2	28.1	7.5	23.2	9.3
December	7.8	13.5	25.7	7.0	28.4	9.5

Source: Table 1.

substantial interest payments in contrast to the former. However, the hope of mobilizing low-cost resources through capital contributions and demand deposits has proved to be illusory. As in the case of credit unions, members make capital contributions in order to request loans, so BANCOOP has found that capital contributions increase loan demand from member cooperatives more than they increase the supply of resources available for lending. The inflows and outflows of demand deposits have proved to be quite large relative to balances, so that demand deposits have not provided a stable source of funds for lending, nor have they been low cost because of the clerical expenses involved in maintaining these accounts. In spite of the initial reluctance, time and savings deposits have come to be the main source of funds for BANCOOP, and the cost of mobilizing these deposits has been far surpassed by the interest earned on the resulting loans.

What explains the success of BANCOOP in mobilizing time and savings deposits, especially in the target areas of Huancayo and Tingo Maria? Because BANCOOP is a real-world institution with its own set of preferences and capabilities and because the project was of relatively short duration, savings mobilization could not be conducted as a scientific experiment with one variable changing at a time and the others held constant. Nonetheless, the analysis of the BANCOOP experience indicates certain factors that appear to be crucial for successful savings mobilization.2/ First is the payment of high rates of interest on time and savings deposits, the maximum permitted under Peruvian regulations, in order to compete with other financial institutions and to draw resources away from inflation hedges and cash hoards to meet emergencies. However, because of these regulations, interest rates on deposits continued to be negative in real terms throughout 1979 and 1980 and

2/ The importance of these factors is confirmed by almost two hundred interviews with BANCOOP depositors and a control group (Poyo, 1981).

were thus not as effective as they might have been. The substantial increase in interest rate ceilings at the beginning of 1981 holds more promise for the future, but only if inflation and inflationary expectations can be reduced or further interest rate increases are permitted.3/

Confidence of depositors in a financial institution and good service for these depositors are other factors that are crucial for successful savings mobilization. Good service consists not only in convenient hours of operation but also in rapid service with a minimum of paperwork and other formalities. In the quality of service for depositors, BANCOOP has generally compared quite favorably to other financial institutions, especially commercial banks. However, as pointed out below, this has not always been the case. Good service and, to some extent, depositor confidence depend on employee performance which, in turn, depends on employee morale and appropriate incentives. Without specific incentives, more deposits and more clients simply mean more work for employees. BANCOOP's savings campaigns, to be described below, have normally involved specific incentives for employees tied to the amount of time and savings deposits mobilized.

As the following example shows, the failure to take employee morale and incentives into account can undermine good service and depositor confidence and thereby underline the importance of these factors in successful savings mobilization. BANCOOP's office in Huancayo serves a much more heavily populated area and had opened several months earlier than the office in Tingo Maria. Nevertheless, as shown in Table 1, the office in Tingo Maria mobilized substantial amounts of time and savings deposits in late 1979 and early 1980, especially during the first savings campaign, while the office in Huancayo

3/ Although the data for early 1981 have not yet been thoroughly analyzed, increased savings mobilization by BANCOOP may be due in part to the new higher interest rates.

mobilized almost nothing until March, 1980. It was found that attempts by the member of BANCOOP's board of directors from Huancayo to intervene in the day-to-day operations of that office had led to a high rate of turnover in managers and other key personnel during much of 1979. This, in turn, had harmed employee morale and had reduced public confidence in the ability of the Huancayo office to survive and prosper. In addition, the system of employee incentives used in Huancayo during the first savings campaign had led to serious doubts as to whether any rewards would actually be received.

Effective savings mobilization campaigns are the final factor to be discussed that are crucial to BANCOOP's success. In addition to the incentives for employees already mentioned, the three campaigns run during 1980 have two other important features: effective publicity and attractive prizes (Chanamé, 1980). The first campaign, which began in December of 1979 and ran through mid-January, involved free instant photographs for those who deposited small amounts, a raffle of cameras, and free cameras for those who made large time deposits. The second, which ran from early February until April, involved a raffle of school supplies and bicycles, free school supplies for small deposits, and free bicycles for large time deposits. The third, which began in July and ran until September, featured raffles of color television sets and other electrical appliances and immediate prizes of these articles for those who made large time deposits.

The effectiveness of BANCOOP's savings mobilization campaigns is clearly shown by the figures in Table 1, as the increases in time and savings deposit balances at the Huancayo and Tingo Maria offices were unusually large during most of the campaign periods. An interesting feature of the savings mobilization campaigns is revealed in Table 2, as the percentage of BANCOOP's time and savings deposits accounted for by the offices in the target areas tended to decline in the second half of 1980. This is not due to shortcomings in the Huancayo and Tingo Maria offices, but rather to the adoption of these successful savings mobilization techniques by BANCOOP offices outside the target areas, especially along the northern coast of Peru. An interesting question is why this took so long. One reason may have been the underpricing of funds in interoffice transfers, which was later partially corrected, but the main reason seems to have been the initial belief by most BANCOOP officials that savings mobilization campaigns were just too costly unless paid for with AID funds. However, this belief proved to be incorrect as the costs of the savings campaigns (about equally divided among publicity, prizes and incentive payments to employees) averaged only about 2 percent of the amounts mobilized, far less than the interest payments on these deposits.

Extensive, but still preliminary, analysis has been made of the more than three thousand individual savings accounts which were opened at the BANCOOP offices in the two target areas through August 31, 1981 (Burkett, 1981).4/ Table 3 summarizes some of this information which indicates more fully the importance of the savings mobilization campaigns. In all three offices the number of accounts opened during campaign periods and the balances in these accounts completely dominate the noncampaign periods.5/ In addition, some interesting differences emerge among the three campaigns. The first campaign tended to be the least successful, perhaps due to the importance of learning by doing. The second campaign, which focused on school supplies, brought more new accounts than the third campaign, which focused on color televisions and other electrical appliances. Not surprisingly, however, the third campaign

4/ Time deposits are not yet included in the analysis because data from the Huancayo office were incomplete.

5/ The Aucayaco office is a branch of the Tingo Maria office and is included within the Tingo Maria office figures in Tables 1 and 2.

Table 3. BANCOOP Savings Accounts from Opening of Target-Area Offices Through August 31, 1980

	Days		Accounts Opened		Initial Deposits		August Balances	
	Number	Percent	Number	Percent	Millions of Soles	Percent	Millions of Soles	Percent
Huancayo								
Total	597	100.0	1092	100.0	40.2	100.0	42.4	100.0
First Campaign	46	7.7	97	8.9	3.2	8.0	2.7	6.5
Second Campaign	59	9.9	413	37.8	13.9	34.7	13.9	32.7
Third Campaign	62	10.4	239	21.9	14.0	34.8	15.2	35.8
All Campaign	167	28.0	749	68.6	31.1	77.5	31.8	75.0
Non-Campaign	430	72.0	343	31.4	9.1	22.5	10.6	25.0
Tingo Maria								
Total	371	100.0	1626	100.0	75.8	100.0	69.7	100.0
First Campaign	46	12.4	256	15.8	20.7	27.3	9.2	13.2
Second Campaign	59	15.9	441	27.1	3.6	11.4	11.4	16.4
Third Campaign	62	16.7	329	20.2	20.8	27.4	22.1	[illegible]
All Campaign	167	45.0	1026	63.1	50.1	66.1	42.7	61.3
Non-Campaign	204	55.0	600	36.9	25.7	33.9	27.0	38.7
Aucayaco								
Total	259	100.0	462	100.0	10.2	100.0	8.1	100.0
First Campaign	31	12.0	69	14.9	0.8	7.5	0.4	5.4
Second Campaign	59	22.8	192	41.6	3.5	34.1	4.0	49.7
Third Campaign	62	23.9	121	26.2	4.3	42.3	2.6	32.6
All Campaign	152	58.7	382	82.7	8.6	83.9	7.1	87.7
Non-Campaign	107	41.3	80	17.3	1.6	16.1	1.0	12.3

Source: BANCOOP, Savings Account Records.

tended to bring larger deposit balances. A fear frequently expressed early in the project was that deposits made during campaign periods to obtain prizes would be quickly withdrawn. However, extensive analysis of ratios of month-end balances to initial deposits reveals clearly that this has not been the case.

Preliminary analysis has also been made of the characteristics of BANCOOP savings deposit holders with respect to marital status, sex, distance from the relevant BANCOOP office and occupation (Burkett, 1981).6/ Depositors are predominantly male, ranging from 61 percent at the Huancayo office to 67.5 percent at the Aucayaco office, but the balances in male accounts are not significantly larger than those in female accounts except at the Tingo Maria office. Depositors are predominantly single, ranging from about half at the Huancayo office to 62 percent at the Aucayaco office, and this predominance tends to be greatest for accounts opened during campaign periods. Single depositors also have significantly smaller balances. These facts can be explained largely by the savings campaign which focused on school supplies and thereby attracted a large number of students. About 85 percent of depositors at the Huancayo and Aucayaco offices live within an estimated ten minutes travel time of their BANCOOP office, while the figure for the Tingo Maria office is about 70 percent. There is, however, no significant correlation between account balance and travel time.

Perhaps the most interesting characteristic of BANCOOP savings deposit holders is their occupation. According to the 1972 Peruvian census, the population of the provinces served by the Huancayo office is about 35 percent

6/ From the perspective of a scientific experiment it would have been useful to have asked BANCOOP savings deposit holders for more information about themselves, but this was kept to a minimum because it could have reduced the effectiveness of savings mobilization by imposing additional transactions costs on individuals who were opening new accounts.

Table 4. Principal Occupations of BANCOOP Savings Deposit Holders

	Number Reporting	Percent of Number Reporting	Percent of Economically Active	Average Initial Deposit	Average Balance 12/31/80
				(Thousands	of Soles)
Huancayo					
Agricultural	29	2.8	4.8	109.1	56.3
Commerce	108	10.5	17.8	33.8	41.2
Education	100	9.7	16.5	39.4	37.3
White-Collar	134	13.0	22.1	23.8	21.2
Other	246	23.8	38.3	36.8	32.7
Housewives	86	8.3	—	34.0	36.3
Students	329	31.9	—	13.3	8.6
Tingo Maria					
Agricultural	346	21.8	43.7	53.9	80.7
Commerce	111	7.0	14.0	126.5	28.3
White-Collar	104	6.6	13.1	21.9	22.4
Other	234	14.7	29.2	46.6	57.0
Housewives	261	16.5	—	32.9	54.0
Students	529	33.4	—	12.8	22.8
Aucayaco					
Agricultural	78	17.0	31.6	14.0	13.3
Commerce	41	8.9	16.6	25.3	22.3
Education	31	6.8	12.6	3.2	3.3
White-Collar	27	5.9	9.7	13.0	9.1
Other	73	15.9	29.5	21.9	20.2
Housewives	62	13.5	—	43.0	57.5
Students	147	32.0	—	5.1	9.0

Source: BANCOOP, Savings Account Records.

rural, and about 42 percent of those economically active are engaged in agriculture. For the province served by the Tingo Maria and Aucayaco offices, the figures are 67 percent rural and 66 percent engaged in agriculture. The figures presented in Table 4 reflect these differences in the underlying population as the Huancayo office serves a broad range of occupations, but relattively few farmers, while the Tingo Maria and Aucayaco offices predominantly serve farmers. It is also important to note in Table 4 that the deposit balances in the savings accounts of farmers tend to be larger than other occupational groups. BANCOOP thus seems to be at least partially successful in reaching the rural population that the project was designed to serve.

In addition to the analysis just summarized, interviews have been carried out with a random sample of 85 BANCOOP savings deposit holders at the Huancayo office and a control group of 85 individuals who were not BANCOOP depositors (Poyo, 1981).7/ Two points should initially be made about sampling. First, the nonresponse rate was quite low and was not due to refusals to answer, but rather to the inability to locate depositor holders (of these, almost all had small inactive accounts). Second, the sample of BANCOOP depositors corresponds quite closely to the universe of BANCOOP depositors in the characteristics discussed above, and the control group turned out to be quite similar to the BANCOOP sample in economic status and other characteristics. The most important results from the preliminary analysis of these interviews are presented below.

The main reason given for saving by BANCOOP depositors and by those in the control group who stated that they had savings was for possible emergencies. Other reasons were much less important but included future investments,

7/ Interviews could not safely be carried out with BANCOOP savings deposit holders at the Tingo Maria and Aucayaco offices because of the importance of illegal coca production in these areas.

to obtain a loan more easily, future consumption, and to earn interest, in that order of importance. When those interviewed were asked why they chose a particular financial institution, the main differences were not between BANCOOP depositors and nondepositors, but rather between individuals who were members of credit unions and those who were not. For credit union members, the possibility of obtaining a loan was clearly predominant, followed by confidence in the institution, with almost no weight given to any other factor. This clearly parallels the experience of credit union members described above. Those who were not credit union members placed as much or more weight on factors such as good service, location, hours, and interest payments. Promotional campaigns were not indicated to be important, but elsewhere BANCOOP depositors stated that radio, television and newspapers were the primary means through which they came to know of BANCOOP, and such publicity is a key component of savings campaigns. In addition, a substantial majority of BANCOOP depositors and the control group look favorably on raffles by financial institutions.

Another important aspect of the interviews is information about the sources of savings which have been deposited at BANCOOP or other financial institutions. From the arguments against savings mobilization and the view that deposits in different financial institutions are close substitutes, it might be expected that transfers from another institution would be the main source. However, only two BANCOOP depositors and none of the control group gave that answer. In addition, when asked what they would have done with funds if they had not been deposited at BANCOOP (or some other institution), both consumption and investment ranked well ahead of deposits at another financial institution. Answers to some other questions also bear on this issue. A major reason that those in the control group gave for not being clients of BANCOOP was that they already had an account at another financial institution. In addition, the control group often holds savings in the form of cash, store inventories or consumer durables, while BANCOOP depositors almost never do.

Before turning to the conclusion, another aspect of BANCOOP's performance, its lending behavior, should be mentioned briefly (Wohanka, 1980).[8/] Under the impact of inflation BANCOOP had drastically shortened the maturity of its loan portfolio and had shifted away from cooperatives and toward non-members, both businesses and individuals. Successful savings mobilization has allowed BANCOOP to expand its lending to cooperatives and to the agricultural sector in real terms since the beginning of the project. However, uncertainties surrounding the continuing rapid inflation in Peru has kept the maturity structure quite short. In addition, given such inflation, nominal interest rates of 60 to 70 percent per year on BANCOOP loans may still be too low, and this is reflected in the continuing excess demand. With well-known and conveniently-located clients demanding all the resources that BANCOOP is mobilizing, there is no incentive for BANCOOP to develop new lending techniques or to search for good clients in more remote rural areas. As indicated above, financial institutions by their nature serve more depositors than borrowers, but BANCOOP's ratio in the target areas of about ten depositors for each borrower may partially reflect excess demand for credit resulting from interest rates which are too low. BANCOOP has also experienced particular difficulties in lending to some cooperatives because of the view that BANCOOP, as a bank for cooperatives, should provide special low interest rate funds. These shortcomings led the official evaluation of the project to rate

8/ Wohanka also evaluates the impact of succeseful savings mobilization on BANCOOP's financial viability and finds it to be favorable, although inadequate accounting procedures for delinquent loans make BANCOOP's stated profits somewhat dubious.

BANCOOP's lending performance as mediocre, in contrast to an outstanding grade for savings mobilization (Adams and Larson, 1981).

Conclusion

The careful reader may be wondering what happened to the Peruvian credit unions which were left in weakened condition several pages ago and which were supposed to benefit significantly under the AID-BANCOOP project from technical assistance with savings mobilization. To end the suspense before giving the details, the official evaluation report also gave the results of BANCOOP's technical assistance to credit unions in the target areas a mediocre rating (Adams and Larson, 1981). To focus in the conclusion on the shortcomings of savings mobilization by credit unions is particularly useful because it highlights some of the problems that can be anticipated in future projects which emphasize savings mobilization. Some of these problems are due to the peculiarities of credit unions, but others are due to expectations which have been built up from past experiences with rural finance projects and to the failure to pay proper attention to incentives.

In spite of the availability of technical assistance from BANCOOP to help credit unions in the target areas with savings mobilization, these credit unions have been slow to accept the higher interest rate policies that are a prerequisite to successful savings mobilization. By the end of 1979, only two of the five major credit unions in the target areas had raised their interest rates. One of these changed its interest rate policies only after it had reached the verge of collapse and had received an inordinate proportion of the project's technical assistance in the form of detailed analysis and persistent explanation of the consequences of its low interest rate policies (Gadway, 1979). The other, however, quickly raised its interest rates to the maximum permitted under Central Bank regulations. Both of these credit unions subsequently received some technical assistance with savings mobilization from BANCOOP and have mobilized approximately the amount of savings which was anticipated under the project for all credit unions in the two target areas.

Each of the other three credit unions finally raised its interest rates during 1980, but in each case it was too little and too late to be effective for savings mobilization under the project. One credit union became convinced of the need to raise interest rates on loans because of operating losses, but the need to raise interest rates sufficiently to compete with other financial institutions in mobilizing savings was not recognized. A second raised interest rates to the maximun permitted on time and savings deposits, but gave so little publicity to these changes that several employees of the credit union were unaware of the new interest rates. Both of these credit unions experienced considerable turmoil in early 1981 which resulted in major changes in management personnel. The last credit union did not make any changes in interest rates until almost the end of 1980, and the increases finally made were trivial (Gadway, 1980).

Based on the Peruvian experience, at least four reasons can be suggested why credit unions might be so reluctant to change their interest rate policies, even when such changes are so clearly necessary. First, credit unions may simply be confused by the rhetoric of cooperativism, as members genuinely believe that raising interest rates on loans would be usurious and that problems can best be dealt with by appeals to altruism against the economic rationality of individual members. Second, members who are on boards of directors or key policymaking committees may have better access to credit union loans than most other members and may use the rhetoric of cooperativism to keep interest rates low on loans for their personal benefit. Third, credit union board members and management turn over frequently and often have little professional knowledge of economics or finance, so that they view as very risky and of little potential benefit for them any departure from traditional policies. Fourth, credit unions continually hope for some low cost source of funds through which they can avoid the unpleasantness of raising interest rates to compete for savings, and past experiences with government agencies or international donors often suggest that such funds may be forthcoming if they are sufficiently patient.

This fourth reason for the reluctance of credit unions to raise interest rates also caused some problems for BANCOOP's relationship with credit unions under the project. As indicated above, some cooperatives expect low interest rate funds from BANCOOP because it is the bank for cooperatives. Moreover, the fact that BANCOOP itself had received a grant from AID had been widely publicized throughout the Peruvian cooperative movement. Thus, when BANCOOP officials came to visit credit unions in the target areas, often in the company of AID consultants to the project, the credit unions were expecting offers of low interest rate funds from BANCOOP and were keenly disappointed when all they received were offers of technical assistance with something for which they had no great enthusiasm. In addition, BANCOOP had no specific incentives to provide technical assistance with savings mobilization to the credit unions. It does not appear that BANCOOP feared competition over savings from the credit unions, but rather that the scarce technical assistance resources which BANCOOP might devote to the credit unions would thereby be lost to BANCOOP itself.

In spite of the problems encountered with credit unions under the AID-BANCOOP project, or more generally in Peru and other developing countries, these institutions have potential to serve the rural poor. They appear to be a natural outgrowth of indigenous savings and credit societies and to possess some important advantages in information about their members as both savers and borrowers. Unfortunately, little attention has been paid to understanding the incentives which govern the behavior of the leadership of such nonprofit institutions or to the incorporation into projects of incentives which will encourage effective savings mobilization and not just the disbursement of low cost funds. The four arguments presented earlier and the experience of BANCOOP show that savings can and should be mobilized in the rural areas of developing countries. The experience of the credit unions indicates not only some of the difficulties that have to be faced in implementing successful savings mobilization projects but also what happens to financial institutions that fail to mobilize savings. The challenge for government agencies and international donors is to supplement the resources available in rural areas of developing countries in ways that take incentives into account and thereby encourage rather than retard effective savings mobilization.

References

Adams, Dale W, "The Case for Voluntary Savings Mobilization: Why Rural Capital Markets Flounder," in Small Farmer Credit: Analytical Papers, AID Spring Review of Small Farmer Credit, Vol. XIX, Washington, D.C.: Agency for International Development, 1973.

Adams, Dale W, "Mobilizing Household Savings Through Rural Financial Markets," Economic Development and Cultural Change, 26 (1978): 547-560.

Adams, D. W and G. I. Nehman, "Borrowing Costs and the Demand for Rural Credit," Journal of Development Studies, 15 (1979): 165-176.

Adams, Dale W and Donald W. Larson, "Evaluation of the BANCOOP Project," unpublished paper, USAID Lima, May, 1981.

Agency for International Development and Ohio State University, Annotated Bibliography on Agricultural Credit and Rural Savings, Vol. I-VI, Washington, D.C., and Columbus, Ohio: 1973-1980.

Bouman, F. J. A., "Indigenous Savings and Credit Societies in the Third World: A Message," Savings and Development, 1 (1977): 181-218.

Bouman, F. J. A., "The ROSCA: Financial Technology of an Informal Savings and Credit Institution in Development Economies," Savings and Development, 3 (1979): 253-276.

Burkett, Paul, "Savings Mobilization in the Third World: A Case Study of Peru," unpublished paper, Syracuse University, August, 1981.

Chanamé, Augusto, "Pautas a Considerar en la Planificacion de una Campana de Promocion," Seminario sobre El Proceso Inflacionario y su Incidencia en las Cooperativas de Ahorro y Credito, San Jose, Costa Rica, September, 1980.

Donald, Gordon, Credit for Small Farmers in Developing Countries, Boulder, Colorado: Westview Press, 1976.

Gadway, John, "La Situacion Actual de la Cooperativa de Ahorro y Credito Protectora Ltda. 261," unpublished paper, USAID Lima, October, 1979.

Gadway, John, "La Inflacion y la Politica de Prestamos a Bajo Interes: Informe para la Cooperativa de Ahorro y Credito Tingo Maria Ltd. 412," unpublished paper, USAID Lima, January, 1980.

Gonzalez-Vega, Claudio, "Interest Rate Policies, Agricultural Credit and Income Distribution in Latin America," Conference paper from Colloquium on Rural Finance, September 1-3, 1981, sponsored by The Economic Development Institute of The World Bank, The Agency for International Development and The Ohio State University.

Kane, Edward J., "Political Economy of Subsidizing Agricultural Credit in Developing Countries," Conference paper from Colloquium on Rural Finance, September 1-3, 1981, sponsored by The Economic Development Institute of The World Bank, The Agency for International Development and The Ohio State University.

Ladman, Jerry R. and Ronald L. Tinnermeier, "The Political Economy of Agricultural Credit: The Case of Bolivia," American Journal of Agricultural Economics, 63 (1981): 66-72.

Larson, Donald W. and Robert C. Vogel, "Interaction of Price and Credit Policies in Costa Rican Agriculture," Caribbean Agricultural Credit Committee, Senior Management Workshop, Georgetown, Guyana, November, 1980.

McKinnon, Ronald I., Money and Capital in Economic Development, Washington, D.C.: Brookings Institution, 1973.

Poyo, Jeffrey, "Las Bases de Una Exitosa Mobilizacion de Ahorros," unpublished paper, Syracuse University, August, 1981.

Shaw, Edward S., Financial Deepening in Economic Development, New York: Oxford University Press, 1973.

Vogel, Robert C., "The Effect of Subsidized Credit on the Distribution of Income in Costa Rica," Rocky Mountain Council for Latin American Studies, Tucson, April, 1977.

Vogel, Robert C., "Subsidized Interest Rates and the Rationing of Agricultural Credit in Developing Countries," in Problems and Issues of Agricultural Credit and Rural Finance, Dacca: Bangladesh Bank, 1979.

Vogel, Robert C., "Rural Financial Market Performance: Implications of Low Delinquency Rates," American Journal of Agricultural Economics, 63 (1981): 58-65.

Vogel, Robert C. and Stephen A. Buser, "Inflation, Financial Repression and Capital Formation in Latin America," in Ronald I. McKinnon, ed., Money and Finance in Economic Growth and Development, New York: Marcel Dekker, 1976.

Von Pischke, J. D., "Towards an Operational Approach to Savings for Rural Developers," Savings and Development, 2 (1978): 43-55.

Von Pischke, J. D. and Dale W Adams, "Fungibility and the Design and Evaluation of Agricultural Credit Projects," American Journal of Agricultural Economics, 62 (1980): 719-726.

Von Pischke, J. D., The Political Economy of Specialized Farm Credit Institutions in Low-Income Countries, Washington, D. C.: World Bank, 1981.

Wohanka, George, "The Impact of Successful Saving Mobilization on BANCOOP's Financial Viability and Lending Behavior," unpublished paper, USAID Lima, December, 1980.