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Financial Market Niche: Member Behavior Profile Credit Unions in Guatemala, 1987-1992

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EXECUTIVE SUMMARY

This is the second of several reports aimed at deepening our understanding of the role of credit unions in Guatemalan financial markets. The first report provided an institutional profile of credit unions in Guatemala.

This report examines the demographic and economic characteristics of credit union members, the types of credit union member product activity and the impact of the stabilization and restructuring efforts undertaken in the cooperative strengthening program (CSP).

Because most of the information on credit union members is only available on loan applications files, the sample was drawn entirely from active borrowers. Average deposit savings for the members sampled were well below the average for the entire credit union membership. This suggests that credit unions have one group of members who are primarily interested in loan services, and another group of members who are savers but not borrowers.

Major Findings. One of the principle findings of this study is the classical life cycle pattern of Guatemala credit union members' savings behavior. Members who are young or new enter the credit union with low levels of assets and income. They are very often those individuals who have difficulty acquiring credit from banks because of their low assets base.
At the credit union, these members are able to access credit by investing in shares, the minimum required to acquire a loan being a multiple of those shares. Newer members begin with small consumer and personal loans with which they establish their credit history. Over time their shares increase as they take out bigger and bigger loans for their housing and production needs.

Members initially put very little into deposit savings. Yet, over time as their assets and income increase, they save more and borrow less. As they borrow less, members stop investing in shares. Members' shares level off and deposit savings rise very rapidly. Among older (middle-aged) and longer standing members, deposit savings show both higher levels and greater annual increases. During old age members consume these savings in order to support themselves so the savings levels fall rapidly among the elderly.

Therefore, credit unions in Guatemala serve as a financial intermediary between the older savers and the younger or newer borrowers in rural and small scale communities in Guatemala which are often not served by the formal financial intermediaries.

In terms of occupation, salaried workers and agriculturists, not merchants, exhibit the highest deposit levels. Gender differences in deposit savings are small. Women are less likely to be credit

union borrowers, and on average, women borrow less. The two most active loan areas for women are commerce and housing.

Most members obtain loans in only one economic sector. Nonetheless, salaried employees are an important source of loan demand in both agriculture and commerce. Agriculturalists have the lowest average loan size.

Average loan size rises rapidly with income in all four loan sectors (agriculture, commerce, housing, and personal loans). Newer members who have joined the credit union after 1987 were less likely to have productive loans, especially in agricultural and commerce. They also tend to have a smaller average loan size.

Deposit savings have grown dramatically during the period of the cooperative strengthening program (CSP). However, while more people are joining credit unions and placing their savings into deposit amounts, many are younger members who are still in the early part of their life cycle savings pattern.

The most dynamic deposit accounts are found in group members who have joined the credit union between 1984 and 1987. They not only had higher deposit balances, but were also the more dynamic savers during the last five years.

Deposit growth among members who have joined a credit union since 1987 is likely to accelerate. The move away from share-based lending approaches appears to be leading to a rapid expansion of deposit accounts as credit unions attract new members who are primarily interested in savings services. The most dynamic change in deposit growth has occurred among salaried employees and agriculturalists.

Lending practices are shifting from an approach based on share multiples to a capacity-to-pay approach. The loan-to-share ratio for new entrance into the credit unions has increased. There is a strong correlation between average loan size and income level in all four loan sectors, and the proportion of loans backed by collateral has increased.

Many borrowers, especially salaried employees, are using credit to establish enterprises as secondary activities for themselves and as primarily economic activity for their spouses and other family members. Women are particularly dynamic in the commerce sector and are utilizing both loans they obtain directly and loans secured by their spouses.

A number of policy issues are raised by the findings of this study. They include:

- What will be the future direction of deposit mobilization efforts and how will credit unions handle the associated liquidity risks?

- How will credit unions approach the design of loan evaluation for large, medium, and small scale borrowers? How will capacity-to-pay evaluations be conducted?

- How will women members be affected by an increasing focus on capacity-to-pay indicators and collateral requirements?

- What is the future of non-withdrawable, low interest, multiple lending based share accounts? Will they receive higher interest rates or will they be transferred to deposit accounts?

- How will credit union lending policies be designed in the future? How can these policies be designed to include dynamic lending sectors?

INTRODUCTION

Purpose of the Report. This is the second of several reports aimed at deepening our understanding of the role of credit unions in Guatemalan financial markets, and especially in areas of the economy which are not served by other financial institutions. The first report provided an institutional profile of selected credit unions in Guatemala (see: "Credit Unions in Guatemala, 1987-1991: Financial Market Niche Profile: An Institutional Profile," *WOCCU Research Monograph Series, No. 2.*

The first purpose of this report is to describe credit union membership demographics and economic characteristics.

This study secondly focuses on characteristics of credit union members' savings and lending behavior. Savings and lending are tied together. In credit unions in Guatemala, the amount a member can borrow is often tied to the amount of shares a member owns. Historically, a member could only borrow a "multiple" of shares—usually 3 to 5 times the amount he or she held in shares.

In terms of savings decisions, this loan policy means that members seeking to expand their access to loans need to build up their share account balances. Two of the major policy changes advocated by the Cooperative Strengthening Project (CSP), begun in 1987, have been to:

1. Promote deposit mobilization by offering passbook accounts with competitive interest rates.
2. Begin "de-linking" lending decisions from shares and base them instead on capacity-to-pay measures.

Evidence provided in this study suggests that these policy goals are being accomplished.

Design and Methodology. The study focused on individual loan applications for approved loans in 1991 taken from the member record files in six credit unions. Loan applications are the only credit union records that contain economic and demographic information on individual members. The credit unions studied are:

- Union Popular (UP)
- Guayacán
- Unión Progresista Amatitlaneca (UPA)
- Parroquial Guadalupana
- Santa Maria Asunción
- Teculutan

The random sample was stratified to ensure that a sufficient number of "productive" agricultural and commercial loans were selected in each credit union and to avoid possible seasonality biases. Approximately 50 members sampled who had joined before 1987 and 50 members who had joined after 1987 were sampled per credit union. For each member, savings and loan histories were reconstructed by recovering their previous loan applications, loan repayment cards, and their share and deposit savings records during the 1987-1991 period.

Some credit unions had more complete records than others. But the overlap was sufficient to allow for broad comparisons to achieve the objectives of this study.

Comparable information on gender, occupations, civil status, number of dependents, spouse's occupation, member and spouse income, loan destination, share account balance at time of loan application, loan approval amount and date, and various capacity-to-pay indicators were contained in loan applications in all of the sample credit unions. Share and deposit data were completely standardized. Data from fixed-term deposits were not obtained, though in the credit unions where we checked the accounts, none of our sample had a fixed-term deposit at the time.

How did the sample compare to other members in the credit unions? A primary concern of any research is whether the sample drawn accurately reflects the overall population.

Figure 1 compares average savings levels in share and deposit accounts for our sample with those of the entire membership of all six credit unions. In all of the credit unions, the average share per member level is much higher in our sample than other members reflecting the fact that the sample is made up of active borrowers. The average deposit balance per member in the sample is considerably lower than for the population average in all of the credit unions.

Figure 1: Average Savings Per Member

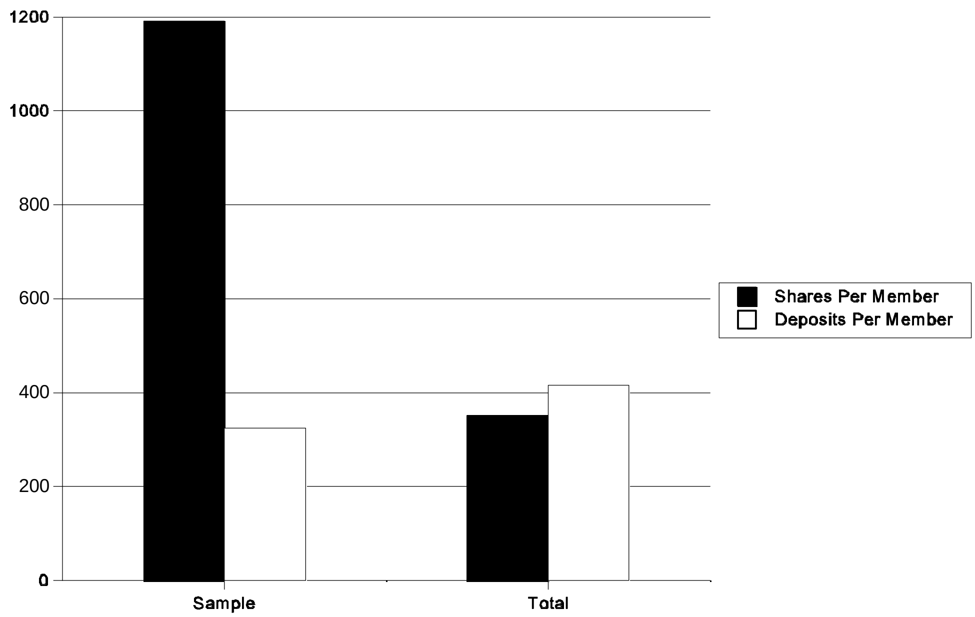


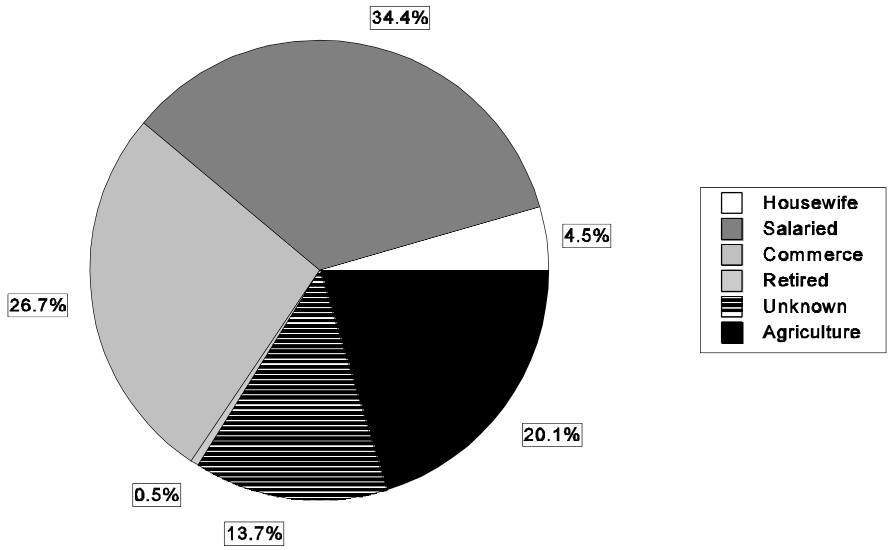
Figure 1 illustrates one of the major descriptive findings of this study. Credit unions are made up of savers and borrowers. There appears to be a significant group of members who are either inactive or primarily use savings rather than loan services. This study reflects characteristics of those who borrow. The sample appears to be fairly representative of all credit union borrowers.

CREDIT UNION MEMBER CHARACTERISTICS

Prior to this study very little concrete information existed regarding the economic activities, employment, monthly income, and gender of Guatemalan credit union members.

Economic Sectors and Employment. Salaried employees, and those involved in commerce and agriculture made up 81% of this sample. The highest average earning jobs were in agriculture and commerce. The range of economic activity and member income varied considerably depending upon the community studied. Figure 2 shows the overall average of employment characteristics.

Figure 2: Job Categories



Average Monthly Income. Credit unions serve a wide variety of households in Guatemala with average incomes ranging from Q700 (Quetzales) in Santa Maria Asunción to Q2,000 (about US$400) in Teculutan. This large differential suggests that credit unions have the potential to serve a wide range of Guatemalan households, from low-income, mostly indigenous communities, to middle-income Mestizo communities like Amatitlan (UPA) and Teculutan.

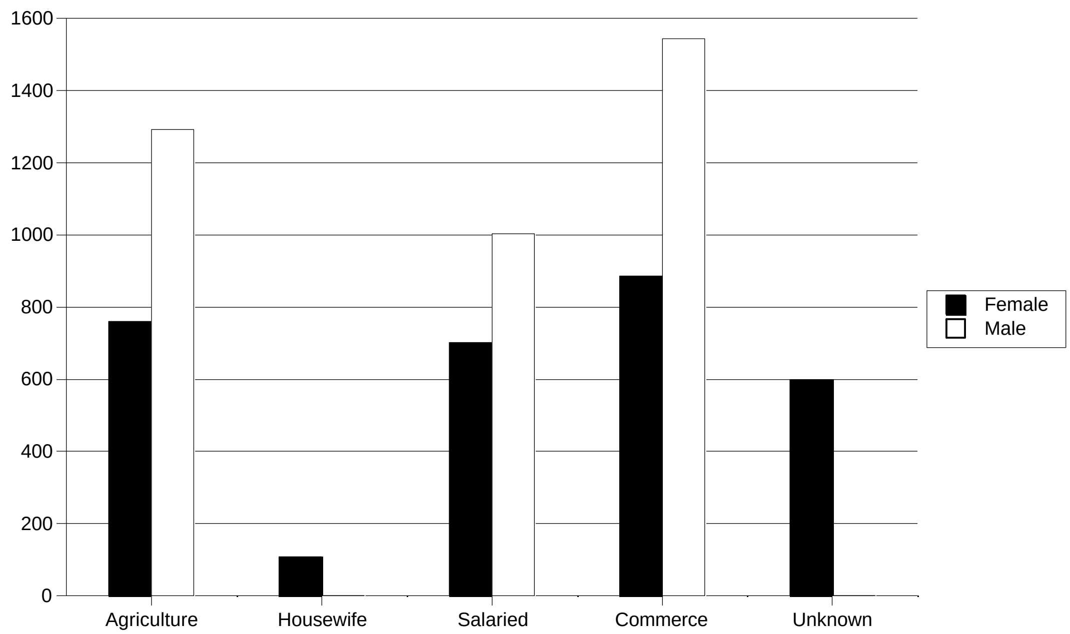
Salaried workers have three categories: High, middle, and low. Administrators, health professionals, a business consultant, and an engineer, comprise the top 8% of salaried workers with an average monthly income of Q1,954. The middle category (27%) consists of salesmen, taxi drivers, accountant, mechanics, and technicians. The average monthly income of the middle category is Q1,139, or about 60% of the high category. The low category's average income is Q609, with teachers and secretaries comprising about one third of this group.

Gender. Men constituted 60% of the total sample, and women 40%. Women are important users of credit union services. However, fewer women than men are members. While women members typically earn on average about 60% of what men members earn, unlike many institutions in developing countries, there is no obvious gender bias in credit union *participation*.

More women than men are involved in commercial activities; yet, they still earn much less than men. Women account for 63% of the sample that reports commerce as its primary activity. Far fewer women than men are engaged in agriculture; however, women's earnings are disproportionately higher than men's in this economic sector.

Figure 3 displays the average monthly income of the sample, broken down by occupation and gender.

Figure 3. Average Monthly Income by Occupation and Gender (in Quetzales)



Average Monthly Incomes by Cohort in 1991. On average, there is little difference in average monthly income across the four cohorts of pre-1980, 1981-1986, 1987-1990, and post-1990. On the aggregate level there is no widespread trend that credit unions are attracting higher-income members due to the efforts of the CSP.

Income Distributions Within Credit Unions. Income of borrower members within the sample credit unions is highly concentrated in the Q301-2,000 per month range. It appears that credit union membership is concentrated in the low-to-middle-income classes in Guatemala. Only the credit unions in Union Popular and Teculutan had greater than 10% of their members with more than Q2,000 per month in income.

SAVINGS BEHAVIOR OF CREDIT UNION MEMBERSHIP

During the study period (1987-1992), credit union deposit savings have expanded rapidly and become a major source of loanable funds for the entire sample. As a percentage of assets for all CSP participant credit unions, deposits have nearly doubled between 1987 and 1992, rising from 24% to 46%. Over the same period, shares have fallen from 47% of assets to 35%.

As credit unions have loosened the relation of shares leverage, members have had to invest less in shares to gain access to credit. In the sample credit unions, real growth in savings deposits through 1991 has been 132%, or 23% on an annual basis since 1987.

There is a wide range of savings behavior across the sample credit unions. Yet, there are common trends in savings by life cycle, occupation, income, and gender.

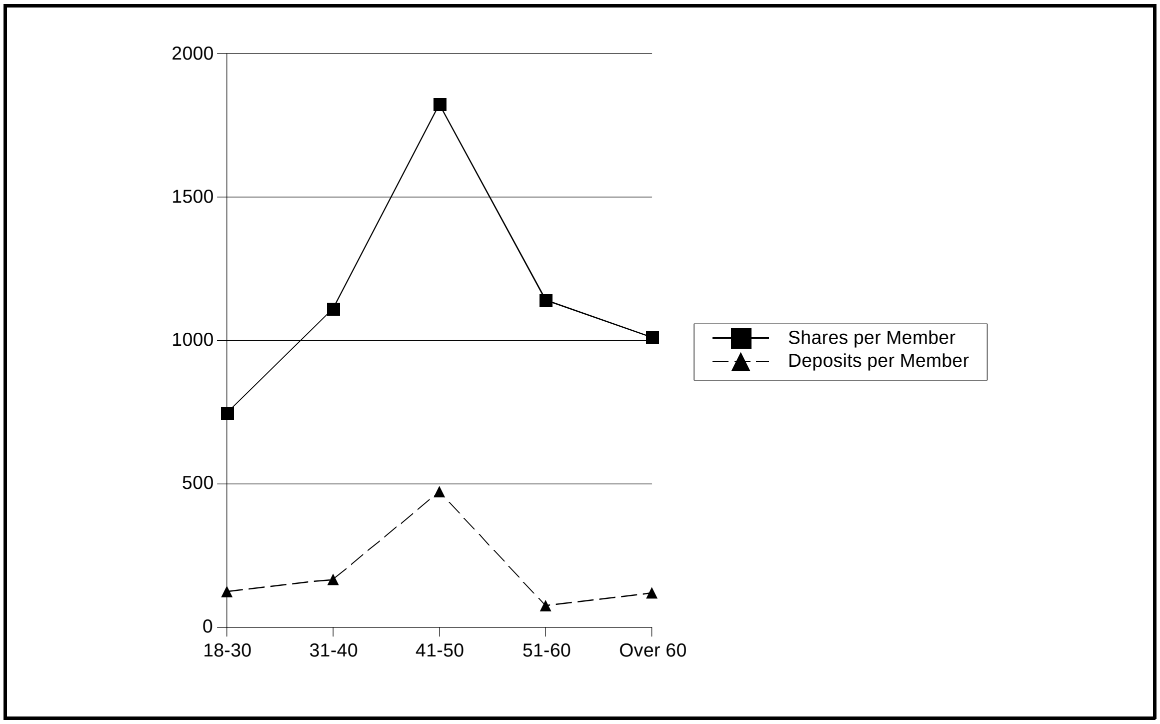
General Observations. Overall, about 90% of all savings accounts have less than Q500. Many of these accounts are either inactive members, or members engaged primarily in investment in shares and borrowing. The largest block of funds comes from accounts between Q1,000 and Q10,000. About 40% of funds comes from about 6% of the number of accounts. A slightly larger range of accounts up to Q40,000 provides from 16 - 28% of deposit funds—depending upon the credit union.

This sample reflects the pattern of many small savings accounts with low balances, a middle tier of moderate size accounts which provide approximately half of deposit funds, and a third level of very few accounts which provide approximately one-fifth to one-fourth of deposit funds.

Savings and Members' Life Cycles. Savings behavior, in all occupational categories, seems to be largely explained by life-cycle variables, such as a member's age and share accumulation.

Members' strategies are to first build shares in order to acquire access to loans and then to mobilize deposits. Members reach their peak share and deposits levels in their prime working ages, 41-50 years old, and after at least five years in the credit union. Figure 4 illustrates the life cycle effect in shares and deposits per member.

Figure 4: Share and Deposit Pattern by Age

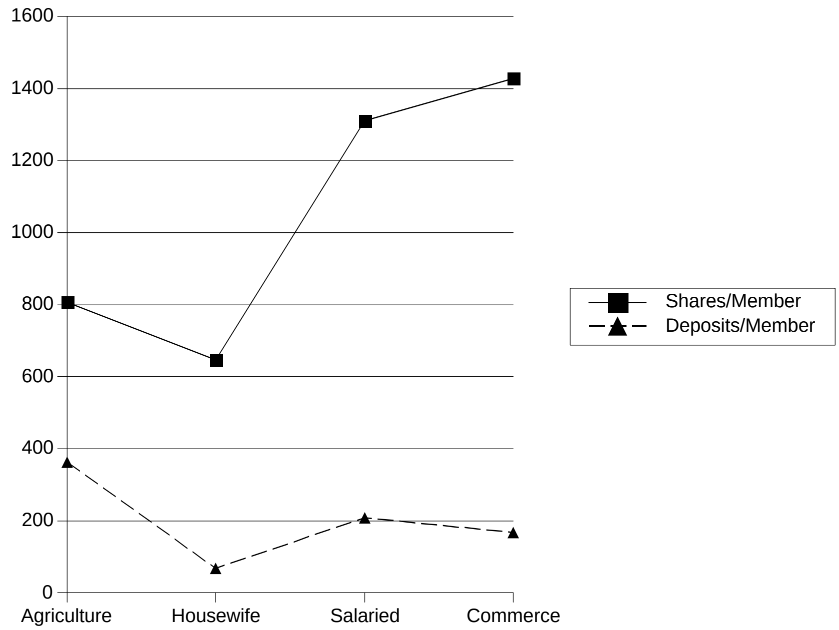


Older members, by age or by period of membership in the credit union, exhibit both higher savings levels and faster savings growth until the end of the prime working years. Younger and newer members exhibit more active borrowing behavior. Thus credit unions intermediate savings from older to newer members.

Furthermore, members who joined their credit union in the four years previous to the stabilization program showed strongest deposit growth during 1991. These members are in their prime earning years (average age 39) so they are expected to continue active loan behavior for productive investment or completion of house construction. Their deposit growth also suggests that they are actively building a savings store which they will be able to draw upon as they either retire or reduce their productive activities.

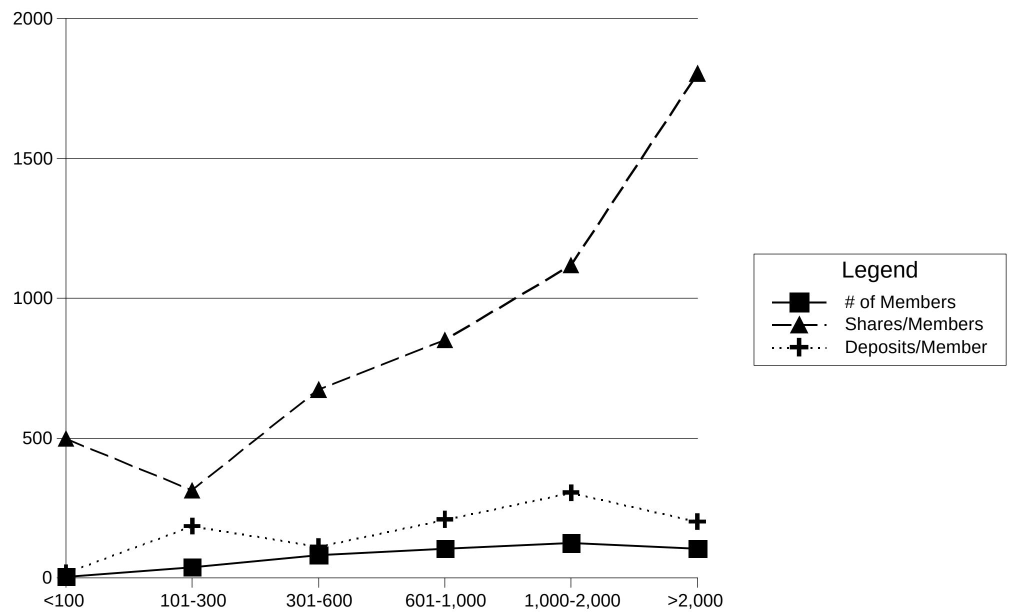
Savings and Occupational Category. Average share levels are highest for salaried workers and members engaged in commerce and lower for agriculturists. In contrast, average deposit levels are highest for agriculturalists. Agriculturalists are important savers as are housewives. Growth in savings is higher among salaried workers. Figure 5 shows the relative levels of share and savings deposits by occupational category.

Figure 5: Share and Deposit Levels



Savings and Income. Average share levels are strongly and positively correlated with income. While share levels rise for each successive income group, the same is not true for deposits. Deposit levels are highest in the income groups earning between Q600-2,000 per month, but fall for the very highest income group. Figure 6 demonstrates the strong correlation between income levels, shares, and deposits.

Figure 6 Average Savings by Income Groups 1991



Savings and Gender. Gender differences in savings behavior are small. In some credit unions, women actually hold more deposits than men. Yet, on average, deposit and share balances are lower for women than for men. Otherwise, women participate just as actively as men in building up their shares in order to leverage loans. As credit unions move away from a share-based "multiples approach" for credit administration, women's access to credit my be negatively affected. This will be especially true for those women who have lower income levels, less access to collateral, or a lower likelihood of obtaining guarantees than men.

Changes In Deposits Over Time: 1987 Vs. 1991. In comparing member savings levels in 1987 and in 1991 two observations stand out:

- The real growth in savings deposits has come from older members (in terms of age, and those who were active in the credit union prior to 1987). Newer members (who joined since 1987 and who are a younger age) are not primarily responsible for the dynamic savings patterns of recent years. Newer members are likely be more concerned about raising shares than deposits.

- Women have been less dynamic savers than men in the last five years.

BORROWING BEHAVIOR OF CREDIT UNION MEMBERSHIP

Comparisons between 1987 and 1991. There have been some significant changes in loan behavior between the older cohorts of members, pre-1980, 1981-1987, and the newest cohort of members who joined between 1988 and 1991. These include:

- Average loan size for older members (pre-1988) is greater in commerce while for younger members (post-1988), it is greater in housing.
- The older cohort is more likely to have loans backed by collateral than younger members.
- There has been increased specialization in productive activity by farmers and merchants.
- Agriculture loans are increasingly oriented toward commercial crops and cattle.

The real loan size in our sample declined between 1987 and 1991. This decline can be explained in part by the addition of a larger number of members who entered the credit union after 1987. Since these members were newer, they took out smaller loans, and since there were more of these members, the overall real loan size declined.

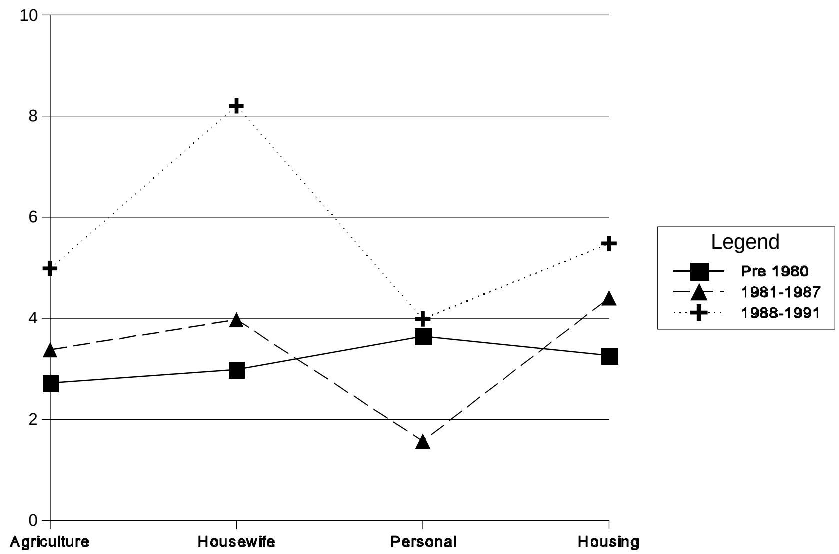
Capacity-to-Pay Indicators. There has been a shift from a "multiples"-based lending approach to a capacity-to-pay approach. There are three major indicators which show how capacity-to-pay indicators are playing an increasing role in loan decisions:

1. Rising Loan-to-Share Ratios: Figure 7 shows how average loan-to-share ratios have risen over the years. The higher loan-to-share ratio of the more recent entrant members (post-1988) suggests a shift away from the use of shares as a rationing device for credit. Most credit union managers indicated that the loan-to-share ratio for automatic loans had been increased in recent years. In 1991, newer members do not need to build shares as much as their older counterparts did in order to leverage a similar sized loan.

2. Average loan size increases with income in all four loan sectors.

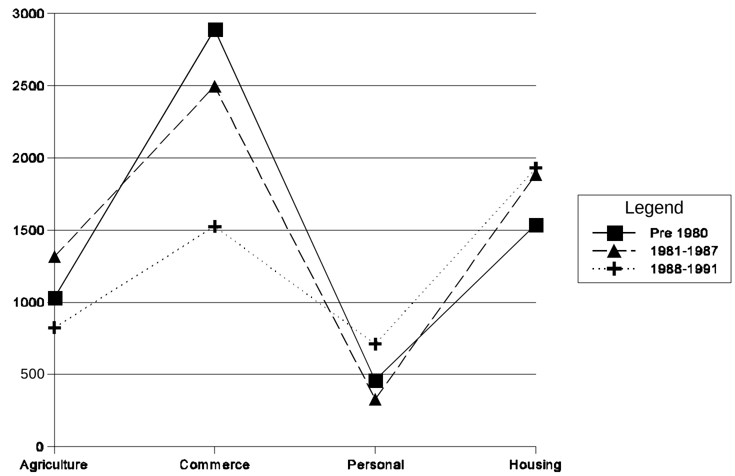
3. Rising proportion of loans backed by collateral: Almost one-fifth of productive loans and one-quarter of housing loans were backed with collateral in 1991.

Figure 7: Average Loan/Share Ratio by Year of Entrance



Loan Share by Year of Entrance. Members who joined their credit union before 1988 hold most productive loans. As Figure 8 shows, these members also have much higher loan volumes. Newer members (post-1988) predominate in non-productive loans. The productive loans which newer members receive are smaller. Newer members participate more actively in housing and personal loans than do older members based on percentage of loans received and average loan size.

Figure 8 Average Real Loan Size by Cohort



Loan Share by Income Group, 1991. If income is an important determinant of capacity to pay, we would anticipate that average loan values would rise with income. In fact, average loan size increases with income in all four loan sectors, and is most pronounced for commerce and housing loans.

In addition, there is a clear difference between the borrowing activities of wealthier and poorer farmers. Lower-income farmers seek loans to pay rent and purchase basic supplies for milpa farming. Upper-income farmers are financing a wider variety of commercial activities. They are diversified into production of fruits and other crops such as okra, tobacco, and sesame. Upper-income farmers also receive over 95% of the volume of cattle loans.

Loan Share and Behavior by Occupational Category. Agriculturists have the lowest average loan size for all four loan categories. Salaried workers have the highest average commercial loan size and receive 26% of commerce loans. This suggests that salaried employees are actively pursuing multiple activities. Housing loans are also fairly concentrated. Salaried workers received 71% of the volume of housing loans, followed by 21% by merchants, and only 8% by agriculturists.

Loan Share and Behavior by Gender. Women are under-represented in loan participation when compared with their proportion in the sample. In commerce and housing, women have equal participation to men in terms of numbers of loans. The average loan size is larger for men in commerce, housing, and personal loans. Women's share in the volume of loans is lower than that of men, except in housing where men receive 40% of loan volume. In agriculture, women receive far fewer loans, and far less volume of loan proceeds.

CONCLUSION

Classic Financial Intermediation. Credit unions are fulfilling their role as classic financial intermediaries: channeling financial resources from net savers to borrowers. In general credit unions need to:

- Develop marketing efforts to expand membership, bring in new savers, target similar individuals, and promote increased savings by smaller savers.
- Develop liquidity management policies to address the risk that the credit union will experience liquidity difficulties if large depositors withdraw their deposit savings.

Where Does the Savings Increase Come from? During the stabilization program, deposit savings grew 598% (in nominal terms) from Q6.9 million to Q48.6 million by September 1992. Members that joined the credit union prior to 1987 registered the strongest increases in deposit levels. New members exhibited lower deposit levels and growth. Members savings mobilization has been effective among members who belonged to credit unions before the structural reform began and who were in their prime working years.

Some other observations about savings deposit increase are:

- Average deposit levels are highest for agriculturalists.
- Salaried workers should experience the most dynamic savings growth in 1991.
- Merchants and small business members "comerciantes," have lower average deposit levels. Comerciantes also registered smaller additions to deposits than both agriculturalists and salaried workers.
- Gender differences in savings level are small.
- The highest income group has lower average deposit amounts than the larger membership group which is middle-income. Members in the highest income category show virtually no net additions to deposits during 1991.

These findings, along with the fact that higher-income members have low average deposit balances, indicate that credit unions need to evaluate both their ability to attract higher-income members and the competitiveness of the credit union interest return with community investments.

Life Cycle Story. Member savings and borrowing patterns are best explained by life cycle effects, as well as sector of occupation. Members' strategies are to first build shares in order to acquire access to loans and then to mobilize deposits.

This will change dramatically in future years. As the share linkage to loans is loosened, members savings patterns will change in order to avoid the current negative real return to members on shares and high effective interest cost on loans. The life cycle pattern of savings will continue but members will place their savings in deposits, not shares. Younger members, interested in obtaining credit, will not need to build up shares and will expand their deposit accounts if rates remain competitive. Members will tend to deposit small amounts in their deposit accounts early in their life, borrow from the credit union in the early years, and then switch from borrowing to increased deposit savings during the prime working years.

If members no longer need to invest their savings in shares to acquire loans, it will become even more important for credit union returns on their members' savings to be competitive. The real return on deposit accounts will have to remain competitive with other investment vehicles in order to attract liquidity which previously would have been placed into shares.

Member Borrowing Behavior. Credit unions are shifting from a multiple-based lending approach to a capacity-to-pay lending evaluation. A rising loan-to-share ratio, a connection between income levels and average loan sizes, and an increase in proportion of loans backed by collateral, are all seen as evidence of a general trend away from multiple-based lending, to a capacity-to-pay lending basis. Women's participation in the credit loan portfolio is strongest in the commerce and housing loans. Agricultural loans have shifted increasingly from subsistence crops toward commercial activities.

Loan portfolios vary greatly in their overall characteristics from one credit union to another. There is a need to consider the unique characteristics of each credit union's activities and local market in the evaluation of policies, reform impact, and member services. It also suggests broad opportunity for experience in technology-sharing across the credit unions.

Transition in Credit Policy. Policy changes have moved credit unions toward market-driven financial management disciplines. Frequently, credit unions offer higher interest rates on deposits than those of competing commercial banks. These policy changes have resulted in high growth deposit savings and negative real growth rates for shares.

Members lost value on their shares because of the high rate of inflation in Guatemala. Yet, members are required to hold shares in order to receive access to credit. Loan administration policy reforms are de-emphasizing the role of shares and moving toward repayment capacity criteria as the basis for credit administration. Definitive policies and procedures in repayment capacity analysis are critical needs of credit unions in Guatemala.

The cost of complete and correctly administered repayment analysis raised the cost of lending operations in the credit unions. A range of procedures of increasing information requirements and procedural costs needs to be suggested for repayment capacity analysis based upon loan size, purpose, and collateral. Procedures also need to be suggested for evaluation of the return on investment for those members who face investment opportunity, but lack historical income information to evaluate repayment capacity.

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