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THE STRUCTURE AND GROWTH OF THE CREDIT UNION INDUSTRY IN THE UNITED STATES: MEETING CHALLENGES OF THE MARKET

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I. Introduction

The deregulation of the financial services industry in the United States is a process that is now more than fifteen years old. This is a fairly long period of time in which depository, investment, insurance, brokerage, and credit type financial intermediaries have evolved into what is called the financial services industry. A complex interplay of forces of innovation, technology, deregulation, and competition have made various types of financial intermediaries similar in function while maintaining their traditional separate and distinct legal and regulatory structure. This is also true of the industry that is the focus of this paper, i.e., the credit union industry.[1] [2]

In the period up to the commencement of the deregulation movement in the 1970s there were fairly clear lines of distinction between depository institutions operating in the U.S. marketplace. The largest players were the commercial banks, whose primary characteristics were to offer checkable deposits and make commercial loans. Mutual savings banks and savings and loan associations offered fixed rate passbook savings accounts and made residential mortgage loans. Credit unions offered share accounts on which they paid dividends and made consumer installment loans.

In the last decade and a half the unique functional characteristics and distinctions of most institutions have nearly disappeared. As each type of financial institution or group has significantly expanded its menu of offerings to both lenders (saver-financial investors) and borrowers (spender-user-real investors), new opportunities for providing financial services have been created. This increasingly competitive environment has become the new standard in the financial marketplace.

As a member of institutional organizations accepting deposits, the credit union industry was the fastest growing financial intermediary up to the emergence of money market mutual funds (MMF) and negotiable order of withdrawal (NOW) accounts in the early 1970s. No longer the fastest growing, since 1978 when the innovation of a 6-month money market certificate of deposit (CD) linked to the 6-month Treasury bill rate was approved by regulators, credit unions are still among the highest growth financial intermediaries operating in the United States.[3]

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[1] Cox, W.N., and P.V. Whigham, "What Distinguishes Larger and More..."

[2] Pearce, Douglas K., "Recent Developments..."

[3] Pearce, Douglas K., "Recent Developments..."

A central goal of this paper is to analyse the response of credit unions to the process of different and specialized financial intermediaries turning into similar but niche-market oriented industries while essentially maintaining separate regulatory structures. An analysis of response to changes in the marketplace is important for not only further deregulation but for a broad financial services industry reform by the Congress. This paper examines or puts credit unions "under the microscope."

The purpose of this paper is to (i) assess and analyze the status of the credit union industry during the past approximately fifteen years; (ii) identify hypotheses and strengths which have allowed credit unions to expand their market share among savings and depository institutions; and (iii) offer scenarios of their size and structure at the turn of the century.

II. Structure of the Credit Unions Industry Since 1980

At the core of the credit union movement, since its inception in the early twentieth century in Massachusetts, is the concept of the common bond among its members or shareholders. This common bond perception is perhaps the most unique feature of the credit union movement. Members come from the same association, or community, or are employed by the same firm, government agency, or non-profit institution.

Since the early 1980s the common bond requirement has been relaxed significantly by both the National Credit Union Administration (NCUA) and state regulatory authorities. The result has been an expanded potential membership, to probably over one-half the population of the U.S. today, even though actual membership is only about one-quarter of all Americans.[4]

Relaxation of common bond requirements has also made a contribution to the consolidation trend of the industry which started from the 1969 peak of 23,876 credit unions operating in the U.S.[5] By year end 1990 the number was reduced to 14,549 and it has continued its decline through 1992 to 13,379.

This decline does not imply that credit unions are "going out of business" at the rate of almost 500 per year. Rather what has occurred is a pattern of consolidation through mergers between credit unions. The accessibility of credit unions to the general public, as measured by number of offices and branches, is actually rising with the growth in membership. Similarly, the reduced numbers of operating credit unions will not reduce member access to credit unions or to the number and type of member services provided by them. Where a closing does occur it is most often a result of reexamination of economic viability of a physical facility's location

[4] Pearce, Douglas K., "Recent Developments..."

[5] Burger, Albert E., and Tina Dacin, "Field of Membership..."

and the resulting decision that a more efficient location and means of meeting member needs is possible from another site.

The overall financial strength of the industry continues to grow along with its competitiveness. The average capital/asset ratio, another measure of strength for the industry, at year end 1992, was 8.1 percent, comfortably ahead of the ratio required of banks under new capital standards which began in 1993.[6]

There has been another benefit of the merger/consolidation trend in recent years. A one-sponsor credit union is vulnerable to the financial health, safety, and competitiveness of the sponsoring institution. If the sponsor's situation deteriorates, or the local area is adversely affected by social, economic, or political forces (for example, the defense base closings of the 1990s and the reduction in defense activities), these credit unions could experience severe financial pressures that could possibly result in their insolvency. Therefore, from a strategic management prospective, diversification of the field of membership (geographically, economically, etc.) is a prudent course of action for any credit union.

Benefits of the common bond concept have been reduced risk as well as lower operating costs for the credit union industry compared with other financial intermediaries. Subsidies provided by the sponsor, in areas such as personnel and physical facilities, have resulted in comparatively lower operating expenses. The benefits are lower loan rates and/or higher deposit rates on savings.

Types of Credit Unions in Operation

There are three basic categories of credit unions in operation in the United States: Federal Charter/Federal Insurance; State Charter/Federal Insurance; and State Charter/Private Insurance. There were 21,465 credit unions in 1980: 12,440 federally chartered and 9,025 state chartered. The state chartered credit unions are further divided into those that are federally insured and those that are privately insured, as presented in Figure 1. As previously stated, the number of credit unions has declined to 13,379 in 1992, approximately a 40 percent decline over a period of twelve years. Privately insured state chartered institutions have declined by over 80 percent (from 4,115 to 970), followed by federally chartered and insured which decreased by about 40 percent (from 12,440 to 7,961). State chartered and federally insured CUs also declined in number but by only 18 percent (from 4,910 to 4,449) during the 1980 to 1992 period.

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[6] CUNA, "Operating Ratios and Spreads..."

While the federally chartered/federally insured group has remained remarkably stable at about 58 percent of the total (Figure 1), significant shifts have and are expected to continue to occur between the remaining two categories of state chartered institutions.

The 1980s witnessed a generally declining trend in the state chartered/privately insured category, primarily due to what could be called "event risk-related" activities. These "events" have been shocks to the perceived solvency of the private insurers, with the latest example being the Rhode Island debacle of 1990-1991. Even though difficulties were precipitated by a non-credit union institution in Rhode Island, the insurance company in question filed for bankruptcy and credit unions and their members in the state were adversely affected. Many of the credit unions directly affected applied for and received federal insurance, while keeping their state chartered status. In addition, other states, where private insurance was prevalent, changed their insurance requirements and many credit unions switched to federal coverage.

The industry has been in a period of consolidation over the past two decades. This contraction is likely to continue for the remainder of the 1990s, with just over 10,200 credit unions projected to be operating by the year 2000 (Table 1).

The rate of decline is expected to be roughly 3.8 percent per year for the next eight years. In absolute terms, between 300 and 400 operating credit unions will cease operations each year, primarily through mergers initiated by credit unions themselves and/or mergers and consolidations supported by the NCUA.

Share (deposit) insurance seems to be a critical factor in the changing market structure of the credit union industry. Of the 21,465 credit unions in operation in 1980, 80 percent were insured by the National Credit Union Share Insurance Fund (NCUSIF). As the number of credit unions decreased, the percentage of credit unions insured by NCUSIF increased to 93 percent. This percentage may rise by another point or so in the next few years.

The significance of federal insurance as an important survival factor is also borne out by a strong surge in the percentage of state chartered but federally insured institutions.[7] They increased from 23 percent in 1980 to 33 percent in 1992 while the share of federally chartered and insured credit unions remained stable at 58 percent throughout the period after peaking at almost 60 percent in 1992 (Table 1).

[7] Black, Harold, and Robert H. Dugger, "Credit Union Structure, Growth..."

Membership in Credit Unions

As the number of credit unions contracted over the past twelve years, the number of members increased substantially: There were almost 65 million credit union members at the end of 1992, i.e., one-fourth of the U.S. population. By 1992, the credit union industry had almost 21 million more members than in 1980, when there were 44 million members. This is an increase of nearly 48 percent in twelve years, or a 3.28 percent compound annual growth rate. Figure 2 presents data on total credit union membership, based on the three major types of credit unions.

Federally chartered and federally insured credit unions attracted about 13.6 million new members, an increase of 47.8 percent from 1980 to 1992. The state chartered/federally insured group grew by 57.6 percent (from 12.3 million to 21.8 million) over the same period. However, the state chartered/privately insured category experienced a decline of about 2.2 million members by 1992 compared to 1980.

Obviously, in terms of overall success and growth in membership, credit unions continue to be among the financial institution of choice for a growing segment of the population. The data presented in Figure 2 suggest a criteria of major importance to CU members is federal insurance on an individual's savings and investment funds. Within this industry those institutions that cannot offer this element of safety have found themselves in a steadily deteriorating competitive position. In contrast, those credit unions offering the safety and security of National Credit Union Share Insurance Fund (NCUSIF) coverage on accounts up to $100,000 have prospered in the turbulent financial times of the 1980s. Unless stability returns to the marketplace at levels not seen in decades, these trends can be expected to continue through the 1990s.

Credit Union Growth Projections

As a percentage of the population, credit union membership has risen consistently from 19.4 percent in 1980 to 25.2 percent in 1992. The projections in Figure 3 are based on the assumption of the United States population continuing to expand at 1 percent per year and credit union membership increasing at 3.28 percent per year. Under these conditions, credit union membership would reach 83.8 million in the year 2000, or 30.5 percent of the 276 million population expected in that year.

Another membership target is that established by NCUA in its recently announced campaign known as "Operation Moonshot, 100 million in the year 2000." This implies a growth rate of 5.5 percent per year.

Given the forces acting upon the industry and the economy, the most probable growth rate for the remainder of the decade is taken to be 4.2 percent per year, which will bring membership to 89.9 million in the year 2000, an increase of almost 25 million in the next eight years.

Another interesting series of projections may now be made concerning the average size of credit unions by number of members. Although the range of membership around the average is quite wide, nevertheless, trends in these averages should prove enlightening as forecasts are made of the credit union industry and its structure.

Federally chartered/federally insured membership has grown at 7.8 percent per year from 1980 through 1992, and is expected to continue at this rate through the year 2000 to an average of 8900. State chartered, federally insured credit unions have also experienced an increase in average membership since 1980. However, due to the slower decline of credit union numbers in this category (Figure 1), average membership has grown at only 5.4 percent per year. A pick-up is expected in this average rate to 6.5 percent as the operating flexibility of state chartered credit unions outweighs the shifts expected from the privately insured groups in the 1990s.

In the state chartered, privately insured category, the historical growth rate of 9.4 percent in average membership is unlikely to be sustained in the 1990s. The possibilities of future "shocks" to the private insurance system, even if unrelated to any credit union operation, nonetheless creates a cloud of uncertainty over this segment of the industry. Consumers in general, and members in particular, will be asking questions of these credit unions and until they are comfortable with the answers, they could hesitate in placing savings dollars in them or even signing up as members. With this inherent "drag" on the group, membership is expected to remain relatively unchanged in the years ahead. Thus, average membership will grow primarily because the number of credit unions will be declining for the reasons identified above. The net effect will be an average annual growth rate in average membership of about 7 percent.

III. Asset Size Analysis

Another dimension of the credit union industry consolidation trend and its impact on credit union asset size is presented in Figure 4. Data show that the number of credit unions under $5 million in assets has been declining quite steadily from 1982 through 1992. In contrast, in all asset categories above the $5 million level, there has been consistent growth in absolute size and in relative terms. Also, the larger the asset category, the larger the percentage increase over this period. The greatest relative growth was in the $100 million plus category. From 0.3 percent of all credit unions in 1980, they have grown to 4.0 percent of the total in 1992, an expansion of more than twelve times.

For the entire industry, the contraction amounted to 32.8 percent through 1992. Credit unions with assets below $2 million have declined significantly, from over 65 percent in 1980 to 38 percent in 1992 as shown in Table 2. The total number of credit unions will probably decline to 10,239 by the year 2000, with institutions with less than $5 million experiencing all of this decrease.

The patterns of growth of credit union size exhibited in Figure 4 and Table 2 have now been observed for more than a decade. Even the three recessions of 1980, 1981-82, and 1990-91 have not altered the fundamental forces that are at work in the industry. Therefore, a continuation of consolidation and shift of assets to larger sized credit unions most likely will continue. By 1995, 25 percent of credit unions will have assets under $2 million and will constitute only 20 percent of the industry in the year 2000. All other asset sizes are expected to grow in relative importance, with the $100 million plus category increasing to 6 percent by the end of the decade.

Given the growth in average credit union membership in the U.S., it is also valuable to examine these patterns by credit union asset size. Table 3 presents data covering the period since 1980 for members per credit union. A very interesting pattern emerges from these data. For every asset category the average number of members per credit union has declined in almost every year and those averages are significantly smaller in 1992 than they were in 1980. The largest absolute declines are found in the $100 million plus asset group, while the largest percentage declines are observed in the mid-range categories (assets between $5 and $50 million). These patterns are expected to continue through the 1990s and by the year 2000 we project average membership of almost 8,900, an increase of more than 90 percent from the 1992 level.

The smallest declines in relative terms are found at the two extremes of asset size: 24.4 percent for the $100 million plus group and 27.2 percent for the under $500,000 group. Although these patterns show an element of stability between asset size categories, the overall average membership per credit union has more than doubled in the period. This reflects strong growth in the larger credit unions' ability to attract new members, as all credit unions expand their position in the financial services industry. In addition, there has been an absolute increase in the number of credit unions with assets over $5 million in this period.

Data in Figure 5 distributes the membership on a percentage basis over the various asset categories and highlights the patterns being exhibited by the industry. Relative membership is down in every asset category up to $20 million. The $20-50 million group has just about held its position, moving between 18 and 19.5 percent of membership each year, with no discernable trend. From $50 million upward, relative and absolute growth in membership has been explosive, with the relative position of $100 million plus asset credit unions growing by over 300 percent during the twelve years covered in this study.

The final data series in the asset size category (Table 4) shows the ratio of members to potential members. This measure of market penetration may be interpreted as a rough estimate of the effectiveness of credit union management teams in converting their potential membership into actual members.

These data are subject to substantial variation because not all credit union managers define a "potential member" in the same way. For example, some consider a potential member to be the primary member, i.e., the employee at a sponsoring organization, while others consider the employee and their spouse as part of the "potential" category. Given this weakness in the data in any given year, comparisons between asset categories could be misleading. However, longer term patterns could provide insight into the industry's success in penetrating its market. In the early 1980s the ratio was between 46 and 47 percent for all credit unions, significantly higher than the current level. By 1985 it had declined to 32 percent and bottomed out at 29 percent in 1986. From that year onward, the trend has been up and the latest figure for 1992 was 33.2 percent. The industry has experienced steady progress since the mid-1980s and it is likely to continue. Even without any expansion in the field of membership, the market potential for significant growth is within the realm of possibility.[8]

Deregulation and the Credit Union Balance Sheets

Some of the most dramatic changes in the financial services industry in the U.S. may be found in the credit union industry. Since it started out as one of the most restricted areas of all financial institutions, one could conclude that this was to be expected; CUs had the farthest to go in order to stay competitive in a rapidly changing financial environment. However, there have been no guarantees that the tradition-bound management teams found in a majority of credit unions could make the transition to the new market environment in a satisfactory fashion, for the benefit of the credit union and its membership. Credit unions have proven quite successful in this competitive environment and they are likely to gain market share during the 1990s.[9] [10]

Along with the consolidation in the number of credit unions and increases in membership, there has also been a continuation of a long-term trend of increase in the balance sheet of the industry during the 1980-1992 period. This has resulted in a growing average asset size of credit unions. These larger credit unions almost always provide a wider variety of competitive services such as loans, savings vehicles, and miscellaneous product and service offerings to the

[8] Burger, Albert E., and Tina Dacin, "Field of Membership..."

[9] Heaton, Gary G., and Constance R. Dunham, "The Growing Competitiveness of..."

[10] Bundt, Thomas, and Barry Keating, "Depository Institution Competition in ..."

membership. Therefore, most members now have a broader menu of products and services from which to choose, which makes them more competitive with other financial intermediaries.

As far as asset management is concerned, the two prime categories are loans and investments. The lending powers of credit unions have expanded considerably during the deregulation era. Interest rate ceilings are no longer a concern for two reasons: the NCUA can temporarily raise ceilings on deposit rates if they deem economic conditions warrant it and the long-term decline of interest rates in general has almost made this concern moot.

Credit unions have been offering self-replenishing (revolving) lines of credit for more than a decade and they have proven quite popular with the membership. This phenomenon has also lowered the barriers to credit union participation in the offering of credit cards to members, thus expanding the scope and lending capacity of the industry.

In addition, real estate lending is one of the largest segments of the consumer marketplace and credit unions are now well positioned to meet first mortgage needs of members. Credit unions may choose to originate and keep them on their books or sell them in the secondary market. Home equity loans, at both fixed and variable rates, have been another segment of credit union loan offerings to members.

With respect to the investment portion of a credit union's assets, there has been a slow and carefully crafted expansion of instruments allowable under NCUA guidelines. This liberalization trend has been especially helpful during the late 1980s and early 1990s, as the industry has been relatively more successful at attracting member savings compared with its ability to attract and expand loan offerings and volume. There has been a long-term decline in the loan/asset ratio to recent levels below 60 percent. Projections for the 1990s suggest that the industry might do well if it could hold at these levels. Therefore, more emphasis must be placed on the earnings abilities of the investment portfolio. Additional instruments also would contribute to the generation of credit union earnings in the future.

On the liability and capital side of the balance sheet, the above data suggest that deregulation has contributed in a major way to credit union success in the marketplace. The industry has been attracting deposits and other member savings accounts in record numbers and quantities. Share accounts now include fixed rate and fixed term certificates of deposit, as well as money market deposit accounts whose rates change monthly. These accounts compare favorably to money market mutual fund shares, in terms of liquidity and accessibility, and have the added benefit of NCUSIF insurance up to $100,000 per account. A potential drawback to these accounts may be the rate they are able to pay to the member, since credit union investment portfolios do not have the flexibility of some mutual fund offerings. This situation could be exacerbated in the 1990s, if traditionally more profitable loan volume does not increase at past rates and credit unions have to rely more and more on their investment portfolios to generate competitive income flows.

Also contributing to credit union competitiveness in the deregulation era has been the industry's expanded access to a variety of Federal Reserve System services, starting with the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) of 1980.[11] Wire transfers, for example, may be accessed directly by credit unions, rather than having to proceed indirectly through correspondent relationships with commercial banks. These reduced costs and the resulting enhanced efficiency create competitive benefits for CUs.

IV. Common Bond: The Glue That Binds the Membership

The third dimension of the credit union industry examined in this paper is the aspect of common bond. For most of the years covered in this study there have been only three broad categories within the common bond distribution: associational, occupational, and residential. Since 1989 CUNA has added a new category called multiple groups, a composite of all three other categories, to reflect the growing diversity of common bond composition in the industry. However, since this multiple group category is still small, we have used the other three categories as the basis for analysis in this section.[12]

Figure 6 presents these data since 1980. The industry consolidation trend may now be observed from still another dimension, common bond. Declining numbers of credit unions in the associational and occupational categories have been responsible for almost all of the reduction in industry totals. The associational category has also experienced an absolute and relative decline in numbers over this period (Table 5), especially since creation of the multiple group category in 1989. Since the occupational category is responsible for almost three-fourths of all the credit unions nationwide, numbers in this category weigh heavily on the industry totals. Stability in the occupational category was also observed, in relative terms, until 1989, when a sharp decline from almost 78 percent to 73 percent took place. This is almost the exact size of the new multiple group category for that year. It seems as if the occupational category has been the driving force behind diversification of the common bond and we expect this pattern to continue through the remainder of the decade.[13]

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[11] Federal Reserve Bank of Chicago, "Leveling the Playing..."

[12] *Credit Union Magazine*, "Credit Unions Look at..."

[13] Edwards, Raoul D., "Navy Federal Uses..."

Average credit union membership has been growing in each common bond category throughout the 1980s and early 1990s. The associational category has the smallest average membership, at 2164 in 1992, up 65 percent since 1980 (an average annual growth rate of 4.27 percent). The occupational category averaged 4825 recently, and has experienced an increase of 112.4 percent since 1980 (an average annual growth rate of 6.48 percent). In the residential group growth has been even greater, 180 percent over the last twelve years, to 6100 at year-end 1992 (an average annual growth rate of 8.96 percent). Finally, over the four years for which data have been collected for the multiple group category, growth has only been 10.5 percent (an average annual growth rate of 3.38 percent), the slowest of all four categories. However, in terms of the level of average membership, this new group is the largest in average membership. At 10,578, multiple group is well above the next largest category, associational, at 6100.[14]

For the past four years in which the multiple group category data have been available, the associational credit unions have continued to lose ground on a relative basis. After a significant drop for the occupational category in 1989, it seems to have leveled off and actually experienced some increases since 1990. The residential category continues its relative growth in industry position, even though the new multiple group is now on the scene. These credit unions have remained fairly stable in the 12 percent range for the last four years and it will be some time before any discernable trend is likely to be visible for these credit unions.

Finally, Table 6 explores the pattern of market penetration by common bond. The trends have been down for most of the period since 1980 for the three historical group categories. Occupational credit unions have generally been more successful at converting potential members into actual members over the years and this is true for the early 1990s as well.

With the creation of the multiple group category, we can observe a cohort of credit unions that have been doing better at conversion than the other groups. When first identified they trailed the occupational category, but quickly jumped ahead in 1990 (Table 6). Since that time they have maintained their lead and it is likely that this pattern will continue. Multiple group credit unions have pursued the strategy of diversification for a number of sound business and financial reasons. In so doing they are more likely to advertise and promote membership in their expanding sponsor organizations. The results are an enhanced awareness of the credit union and its available services, with the consequent success in signing up members. There may be important lessons learned from the strategy and tactics of these credit unions that could be valuable to all other groups. This is the case even if the others do not plan to embark on a strategy of diversification themselves but simply desire to reach potential members and convert them to the credit union philosophy and eventual membership.

[14] CUNA, "Operating Ratios and..."

V. Conclusions

The future of the credit union industry in America has never been as bright as it appears to be in the early 1990s. Some of the trends which drove the industry in the 1980s will still be with us, while other forces and changing patterns will manifest themselves in the remainder of the decade.

The traditions of the credit union industry will make a valuable contribution to its ability to meet the challenge of competition for consumer and member business. The consolidation movement will be a positive force for sustaining credit unions and allowing them to expand their loan, savings, and service offerings to a growing membership base. Even though the industry's goal of 100 million members may be far too optimistic a target of Operation Moonshot, projections in this paper of 89.9 million members by the year 2000 would represent over 32 percent of the population, truly a significant achievement. And, there is no sign of a slowdown in this growth in market penetration which has been taking place for well over one half a century!

The internal structure of the industry has been changing and will continue to adapt efficiently to changing market forces. Loan rates will stay competitive, as will the rates and savings instruments offered to members. Miscellaneous services will continue to expand as the average size of credit unions grows and they expand their managerial capabilities.

Federal insurance will continue to be an important component of credit union industry competitiveness. From our analysis, although most credit unions and most members will be in the Federal Charter/Federally Insured category, the greatest relative growth will be found in the State Charter/Federally Insured group. Operating flexibility plus federal insurance is a combination that will be hard to beat for credit unions seeking to switch their status and also for new credit unions being started in the future.

As competition in the financial services continues to increase from both banks and non-bank institutions, credit unions will have to be alert to rapidly changing market conditions.

How will credit unions survive and prosper in this marketplace as all institutions become more and more alike? How will they be successful at achieving the status of primary financial institution (PFI)[15] for the membership? One of the most important elements is the proven ability of credit unions to "service" their members. Time and again they have ranked as the number one financial institution in terms of "member satisfaction." Achieving this status, and building upon it, will be a major factor in attracting and holding members in the credit union. All of the "intangibles" that contribute to member satisfaction are imbedded in credit union

[15] CUNA, Environmental Scan..."

philosophy. It is this not-so-secret weapon that has proven so successful to credit unions in the past and will be even more critical in the future to allow them to successfully compete in the financial marketplace of the 1990s!

References

Black, Harold, and Robert H. Dugger. "Credit Union Structure, Growth and Regulatory Problems," *The Journal of Finance* 36 (May 1981), 529-38.

Brockschmidt, Peggy. "Credit Union Growth in Perspective," *Monthly Review.* Kansas City, MD: Federal Reserve Bank of Kansas City (February 1977): 3-13.

Bundt, Thomas, and Barry Keating. "Depository Institution Competition in the Deregulated Environment: The Case of the Large Credit Union," *Applied Economics* (1988): 1333-42.

Burger, Albert E., and Tina Dacin. *Field of Membership: An Evolving Concept.* Madison, WI: Filene Research Institute, 1991.

Credit Unions: Reforms for Ensuring Future Soundness. Washington, DC: Government Accounting Office, 1991.

Courter, Eileen. "Canadian CUs Create Innovative Programs." *Credit Union Management* (September 1991): 12.

Cox, W.N., and P.V. Whigham. "What Distinguishes Larger and More Efficient Credit Unions?" *Economic Review,* Atlanta, GA: Federal Reserve Bank of Atlanta (October 1984): 34-41.

Flannery, M.J. *An Economic Evaluation of Credit Unions in the United States.* Boston: Federal Reserve Bank of Boston, 1974.

Kim, Y.H. "Economies of Scale and Economies of Scope in Multiproduct Financial Institutions: Further Evidence from Credit Unions." *Journal of Money, Credit and Banking* 18 (1986): 220-26.

Credit Union Magazine, "Credit Unions Look at Common Bond." (December 1988).

Credit Union National Association, *Environmental Scan 1992-93, Profiles.*

Credit Union National Association, *Operating Ratios and Spreads, 1980-1992.*

Edwards, Raoul D. "Navy Federal Uses 'Common Bond' Link to Forge World's Largest Credit Union." *United States Banker* (July 1980).

Federal Reserve Bank of Chicago, "Leveling the Playing Field - A Review of the DIDMCA of

1980 and the Garn-St Germain Act of 1982." Chicago, IL.: Federal Reserve Bank of Chicago (December 1983).

Flannery, Mark J. *An Economic Evaluation of Credit Unions in the United States*. Boston, MA.: Federal Reserve Bank of Boston, 1974.

Heaton, Gary G., and Constance R. Dunham, "The Growing Competitiveness of Credit Unions." *New England Economic Review* (May/June 1985): 19-34.

Hoel, Robert F., "Diversification Improves Stability," *Credit Union Magazine* (April 1990).

Jones, Larry A., "FOM Expansion Is Good for Us," *Credit Union Magazine* (July 1989).

Lee, Pamela A, *Introduction to Credit Unions,* 4th ed. Dubuque, IA: Kendall/Hunt Publishing Co., 1990.

Lopez, Raymond H., and William Turner, "Credit Union Developments and Performance in the 1980s," *Working Papers*, Center for Applied Research, Pace University, June 1989.

Moody, J. Carroll, and Gilbert C. Fite. *The Credit Union Movement Origins and Development, 1850-1980.* 2 ed. Dubuque, IA: Kendall/Hunt Publishing Co., 1984.

National Credit Union Administration, *Annual Report of the National Credit Union Administration,* (1970-1989). Washington, D.C.: National Credit Union Administration.

Nelson, Jane F., "Credit Unions in Transition." *United States Banker* (May 1984): 55-60.

O'Connor, S. "The Evolution of the Co-operative Credit System in Canada." *Bank of Canada Review* (December 1989): 3-17.

Pearce, Douglas K., "Recent Developments in the Credit Union Industry." *Economic Review.* Kansas City, MO: Federal Reserve Bank of Kansas City (June 1984): 3-19.

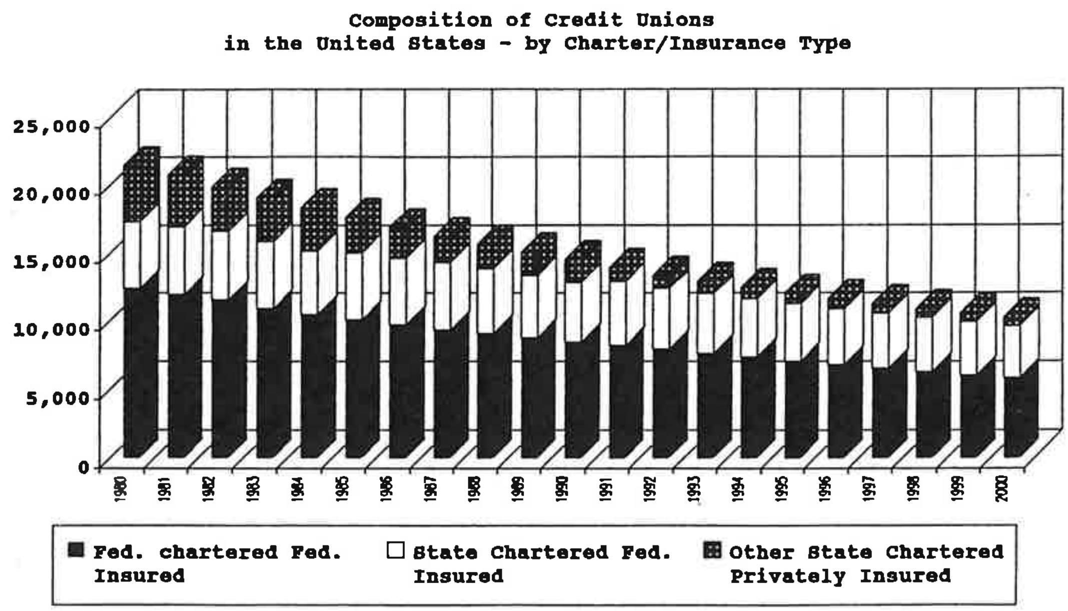
Secura Group, *The Credit Union Industry: Trends, Structure, and Competitiveness*. Washington, D.C., (November 1989).

Smith, Donald J., "Credit Union Rate and Earnings Retention Decisions Under Uncertainty and Taxation" *Journal of Money, Credit, and Banking* 1 (1988): 119-31.

The Credit Union Industry: Trends, Structure, and Competitiveness. Washington, D.C.: The American Bankers Association, 1989.

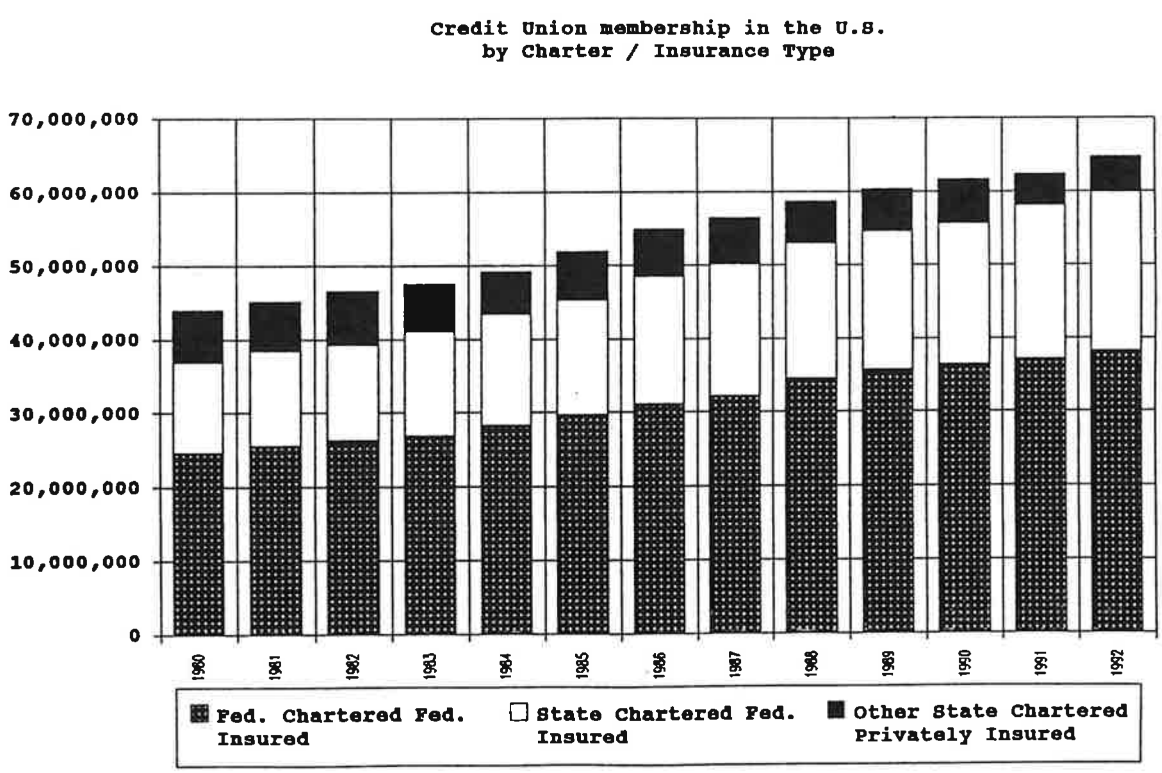
APPENDICES

Figure 1



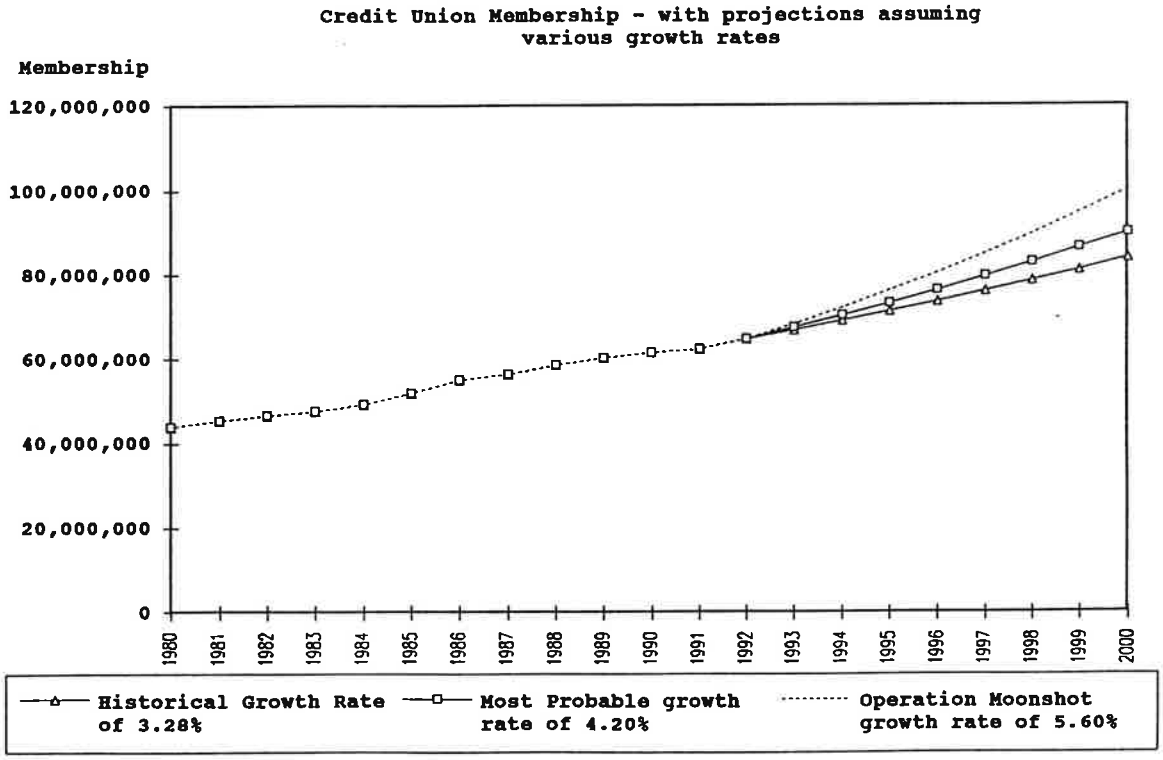
Source: Annual Report, National Credit Union Association, 1980- 1991
Credit Union Report, CUNA, 1980-1991

Figure 2



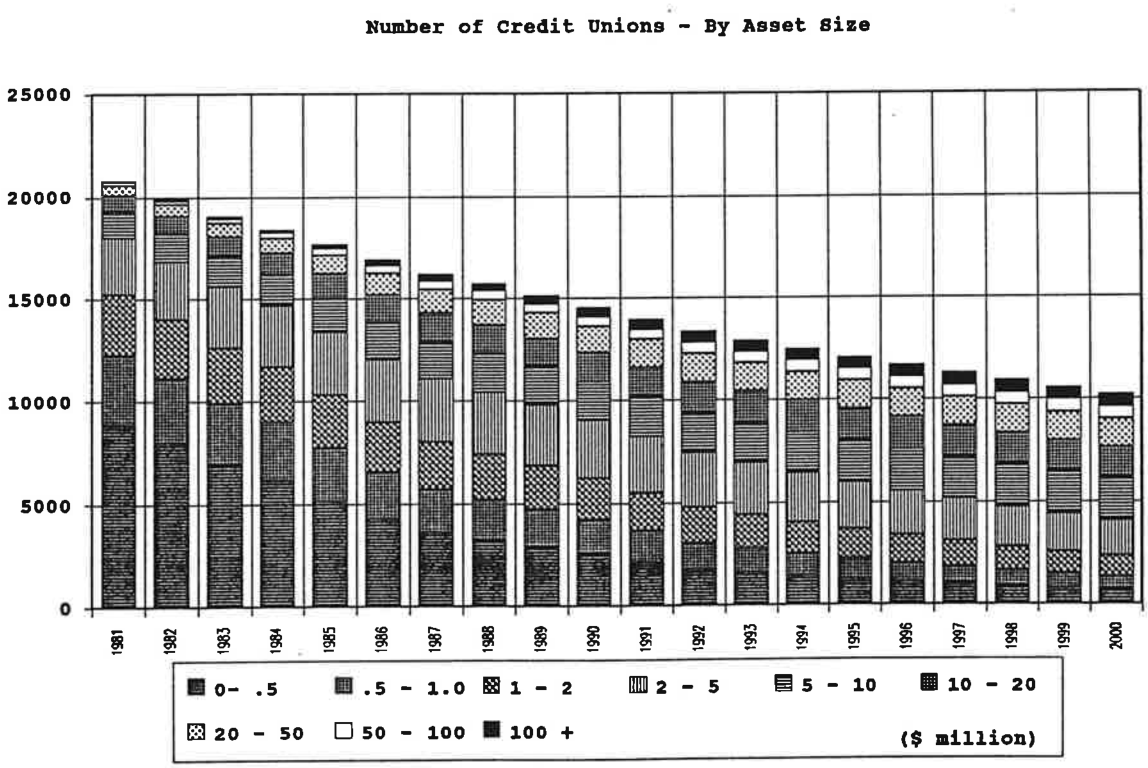
Source: Annual Report, National Credit Union Administration, 1980 - 1991,
Credit Union Report, CUNA, 1980 - 1991

Figure 3



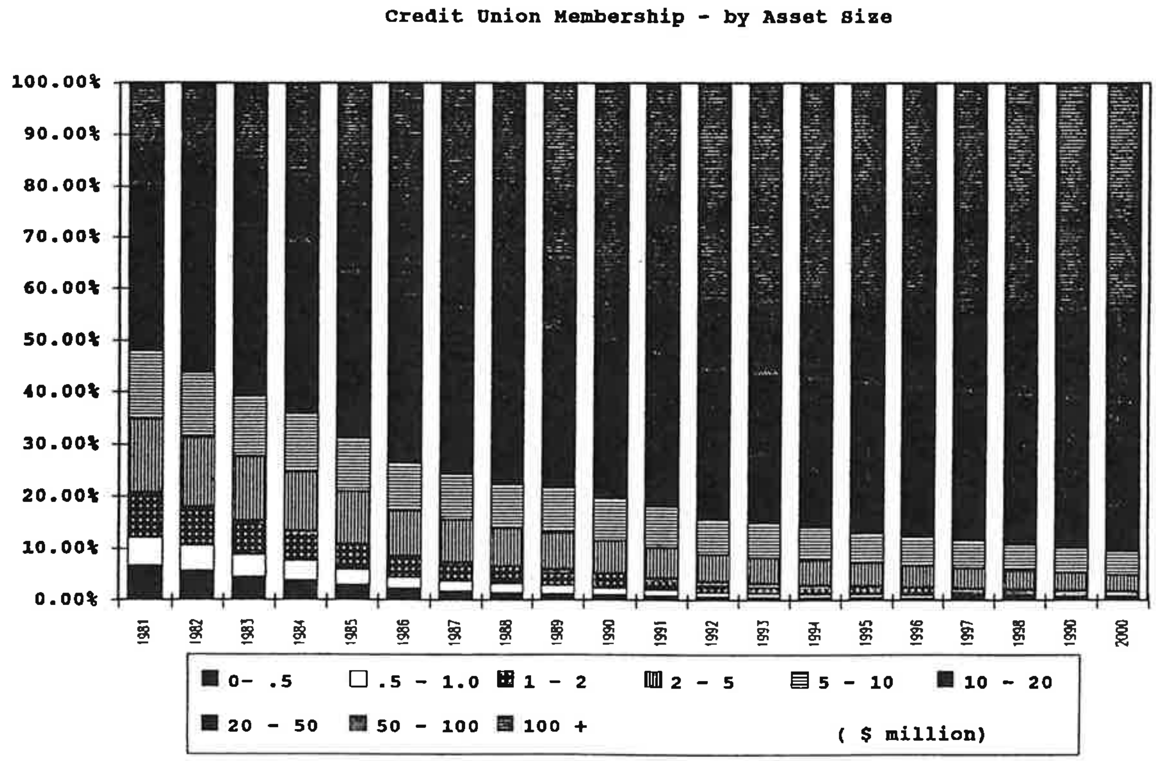
Source: Projection based on data obtained from Annual Report, National Credit Union Association, 1980 - 1991
Operating Ratios and Spreads 1980-1991, CUNA, Year-End Edition

Figure 4



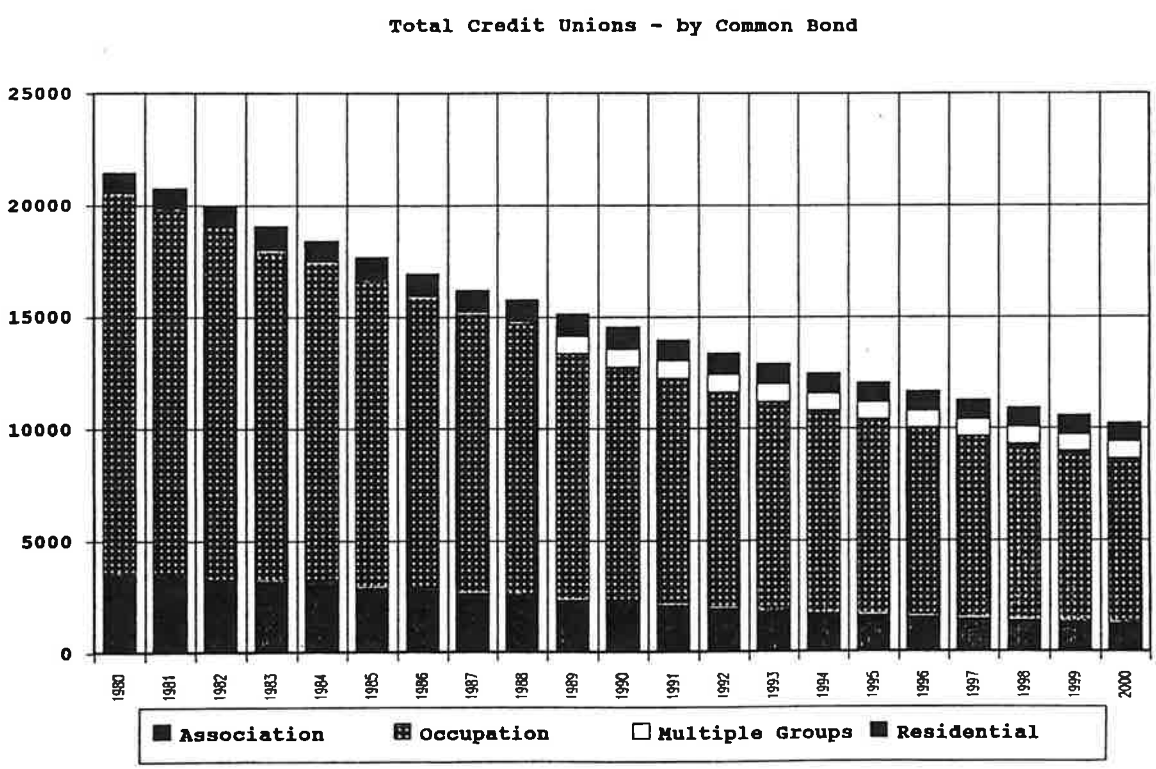
Source: Operating Ratios and Spreads 1980 - 1991, CUNA, Year End Edition

Figure 5



Source: Operating Ratios and Spreads, 1980 - 1991, CUNA, Year end Edition

Figure 6



Source: Operating Ratios and Spreads 1980 - 1991, CUNA, Year end Edition

Table 1

Composition of the Credit Union Industry in the United States

With Projections to the year 2000

(In Percent)

Year	Federally Chartered Federally Insured CU's	State Chartered, Federally Insured CU's	Other State Chartered CU's(Privately Insured)	Total U.S. Credit Unions
2000	57.26%	36.96%	5.77%	100.00%
1999	57.56%	36.49%	5.94%	100.00%
1998	57.86%	36.02%	6.12%	100.00%
1997	58.15%	35.56%	6.29%	100.00%
1996	58.43%	35.09%	6.48%	100.00%
1995	58.71%	34.63%	6.66%	100.00%
1994	58.98%	34.17%	6.85%	100.00%
1993	59.24%	33.71%	7.05%	100.00%
1992 E	59.50%	33.25%	7.25%	100.00%
1991	58.85%	33.82%	7.33%	100.00%
1990	58.50%	29.89%	11.61%	100.00%
1989	58.34%	30.10%	11.56%	100.00%
1988	58.04%	30.30%	11.66%	100.00%
1987	57.77%	30.32%	11.91%	100.00%
1986	57.64%	29.15%	13.20%	100.00%
1985	57.35%	27.87%	14.78%	100.00%
1984	57.40%	25.28%	17.32%	100.00%
1983	57.48%	25.74%	16.78%	100.00%
1982	58.46%	25.25%	16.30%	100.00%
1981	57.59%	24.03%	18.38%	100.00%
1980	57.95%	22.87%	19.17%	100.00%

Note: Above data represent active credit unions.
E=Estimated

Source: Annual Report, National Credit Union Administration, 1980 - 1991
Credit Union Report, Credit Union National Association, 1980 - 1991

Table 2

Actual and Projected Credit Unions numbers by Asset size (in percent)

(Sample Information)

Asset Size (in $ millions)	0- .5	.5 - 1.0	1 - 2	2 - 5	5 - 10	10 - 20	20 - 50	50 - 100	100+	50+	Total
2000	7.00%	6.00%	10.00%	17.00%	20.00%	14.50%	13.50%	5.90%	6.10%	12.00%	100.00%
1999	7.64%	6.41%	10.39%	17.42%	19.32%	14.18%	13.14%	5.67%	5.83%	11.50%	100.00%
1998	8.33%	6.84%	10.78%	17.83%	18.63%	13.84%	12.76%	5.45%	5.55%	11.00%	100.00%
1997	9.06%	7.28%	11.16%	18.22%	17.93%	13.48%	12.37%	5.22%	5.28%	10.50%	100.00%
1996	9.83%	7.74%	11.53%	18.58%	17.23%	13.11%	11.97%	4.99%	5.01%	10.01%	100.00%
1995	10.65%	8.21%	11.89%	18.91%	16.52%	12.73%	11.56%	4.77%	4.75%	9.52%	100.00%
1994	11.52%	8.69%	12.24%	19.21%	15.82%	12.33%	11.15%	4.54%	4.50%	9.04%	100.00%
1993	12.44%	9.19%	12.58%	19.47%	15.11%	11.92%	10.73%	4.32%	4.24%	8.57%	100.00%
1992	13.40%	9.70%	12.90%	19.70%	14.40%	11.50%	10.30%	4.10%	4.00%	8.10%	100.00%
1991	15.60%	10.70%	13.30%	19.40%	13.90%	10.30%	9.70%	3.60%	3.50%	7.10%	100.00%
1990	17.68%	11.48%	13.68%	19.19%	13.19%	9.69%	8.89%	3.20%	3.00%	6.20%	100.00%
1989	19.30%	12.10%	14.20%	19.30%	12.40%	9.10%	8.10%	2.90%	2.60%	5.50%	100.00%
1988	20.60%	12.30%	14.20%	19.30%	11.90%	8.90%	7.70%	2.80%	2.30%	5.10%	100.00%
1987	22.42%	12.92%	14.22%	19.01%	11.31%	8.51%	7.11%	2.50%	2.00%	4.50%	100.00%
1986	25.42%	13.12%	14.52%	18.21%	10.51%	8.11%	6.00%	2.40%	1.70%	4.10%	100.00%
1985	29.50%	14.30%	14.60%	17.30%	9.40%	6.90%	4.90%	1.90%	1.30%	3.20%	100.00%
1984	33.80%	15.20%	14.70%	16.10%	8.40%	5.70%	3.80%	1.50% E	0.80% E	2.30%	100.00%
1983	36.40%	15.50%	14.50%	15.50%	7.70%	5.10%	3.40%	1.30% E	0.50% E	1.80%	100.00%
1982	40.20%	15.80%	14.50%	14.10%	6.90%	4.30%	2.80%	1.00%	0.40%	1.40%	100.00%
1981	42.72%	16.12%	14.52%	13.22%	6.41%	3.61%	2.40%	0.70%	0.30%	1.00%	100.00%

Note: E= Estimate

Source: CUNA, Operating Ratios & Spreads, 1980-1991 year end Edition

Table 3
Average Members Per Credit Union
(Sample Information)
with projections based on compounded growth rate

Asset Size (in $ millions)	0- .5	.5 - 1.0	1 - 2	2 - 5	5 - 10	10 - 20	20 - 50	50 - 100	100 +	Average
2000	**194**	**310**	**473**	**858**	**1428**	**2566**	**4966**	**10903**	**40518**	**8782**
1999	**200**	**325**	**500**	**906**	**1521**	**2733**	**5298**	**11537**	**41549**	**8152**
1998	**206**	**342**	**528**	**956**	**1620**	**2911**	**5652**	**12207**	**42605**	**7567**
1997	**212**	**359**	**558**	**1009**	**1725**	**3100**	**6030**	**12916**	**43689**	**7024**
1996	**219**	**377**	**589**	**1065**	**1837**	**3301**	**6434**	**13666**	**44800**	**6519**
1995	**226**	**396**	**622**	**1124**	**1956**	**3515**	**6864**	**14460**	**45939**	**6051**
1994	**233**	**416**	**656**	**1187**	**2084**	**3744**	**7323**	**15300**	**47108**	**5616**
1993	**240**	**437**	**693**	**1252**	**2219**	**3987**	**7813**	**16189**	**48306**	**5212**
1992	248	459	732	1322	2363	4246	8336	17129	49534	4841
1991	254	482	772	1402	2550	4468	8778	18099	49372	4515
1990	263	513	822	1492	2691	4733	9433	19452	51114	4303
1989	270	525	852	1539	2810	4869	9747	20469	51927	4071
1988	274	552	846	1530	2772	4910	9582	21136	50819	3811
1987	277	549	871	1563	2810	4970	9719	20352	51876	3536
1986	282	563	912	1594	2899	5095	10263	20277	52009	3264
1985	294	615	992	1762	3230	5742	11143	22153	54587	2974
1984	307	680	1075	1948	3784	6705	13234	26239 E	59800 E	2757
1983	316	708	1130	2030	3823	6861	13796	27987 E	64500 E	2527
1982	331	755	1233	2236	4308	7775	15278	30547	75062	2382
1981	349	789	1332	2397	4723	8485	16985	31875	65290	2255
Historical Compounded Growth Rate										
	-3.05%	-4.80%	-5.30%	-5.27%	-6.10%	-6.10%	-6.27%	-5.49%	-2.48%	7.19%
Projected Compounded Growth Rate										
	-3.05%	-4.80%	-5.30%	-5.26%	-6.10%	-6.10%	-6.27%	-5.49%	-2.48%	7.73%

Note: E = Estimated
Source: Operating Ratios & Spreads, CUNA, 1980-1991, Yr. End Edition

Table 4
Members/Potential Members
Sample Information

Asset Size (in millions)	0- .5	.5 - 1.0	1 - 2	2 - 5	5 - 10	10 - 20	20 - 50	50 - 100	100 +	Average
2000	**37.00%**	**39.00%**	**41.00%**	**40.00%**	**41.00%**	**36.00%**	**37.00%**	**38.00%**	**44.00%**	**39.00%**
1999	**36.28%**	**38.18%**	**40.40%**	**39.53%**	**40.34%**	**35.14%**	**36.13%**	**37.14%**	**43.20%**	**38.28%**
1998	**35.57%**	**37.38%**	**39.81%**	**39.05%**	**39.68%**	**34.31%**	**35.29%**	**36.29%**	**42.42%**	**37.58%**
1997	**34.88%**	**36.59%**	**39.22%**	**38.59%**	**39.04%**	**33.49%**	**34.46%**	**35.47%**	**41.64%**	**36.89%**
1996	**34.20%**	**35.82%**	**38.65%**	**38.13%**	**38.41%**	**32.70%**	**33.66%**	**34.66%**	**40.86%**	**36.21%**
1995	**33.54%**	**35.06%**	**38.08%**	**37.67%**	**37.79%**	**31.92%**	**32.87%**	**33.88%**	**40.08%**	**35.54%**
1994	**32.88%**	**34.32%**	**37.53%**	**37.22%**	**37.18%**	**31.17%**	**32.10%**	**33.11%**	**39.30%**	**34.89%**
1993	**32.24%**	**33.60%**	**36.98%**	**36.77%**	**36.57%**	**30.43%**	**31.35%**	**32.35%**	**38.52%**	**34.25%**
1992	31.62%	32.89%	36.43%	36.33%	35.98%	29.70%	30.62%	31.62%	37.74%	33.62%
1991	31.00%	32.20%	35.90%	35.90%	35.40%	29.00%	29.90%	30.90%	36.96%	33.00%
1990	30.00%	31.90%	38.10%	36.40%	32.80%	31.40%	31.00%	32.30%	36.18%	32.80%
1989	28.80%	32.30%	37.60%	35.80%	32.90%	31.30%	31.80%	29.00%	35.40%	32.90%
1988	25.40%	32.70%	37.50%	37.30%	33.20%	31.10%	29.60%	29.10%	33.90%	31.90%
1987	21.50%	29.30%	27.50%	27.40%	24.60%	27.90%	28.10%	28.80%	35.20%	29.30%
1986	23.00%	31.00%	28.00%	28.00%	30.00%	27.00%	29.00%	28.00%	32.00%	29.00%
1985	25.00%	33.00%	33.00%	36.00%	34.00%	30.00%	26.00%	31.00%	38.00%	32.00%
1984	23.00%	34.00%	34.00%	32.00%	38.00%	35.00%	34.00%	43.00%	NA	36.00%
1983	25.00%	35.00%	36.00%	40.00%	41.00%	32.00%	39.00%	56.00%	NA	40.00%
1982	29.00%	37.00%	41.00%	46.00%	45.00%	51.00%	51.00%	60.00%	NA	47.00%
1981	26.00%	43.00%	44.00%	35.00%	48.00%	52.00%	58.00%	64.00%	NA	46.00%
1980	31.00%	41.00%	40.00%	48.00%	48.00%	45.00%	46.00%	61.00%	NA	47.00%
Projected Compounded Growth rate:										
	1.98%	2.15%	1.49%	1.21%	1.65%	2.43%	2.39%	2.33%	1.94%	1.87%

Source: Operating Ratios & Spreads, CUNA, 1980-1991 Year end edition

Table 5
Distribution of Credit Unions by Common Bond
(in percent) sample information

Common Bond Category	Association	Occupation	Multiple Groups	Residential	Total
2000	12.10%	72.10%	7.40%	8.40%	100.00%
1999	12.34%	72.19%	7.21%	8.22%	100.00%
1998	12.57%	72.28%	7.02%	8.05%	100.00%
1997	12.82%	72.36%	6.84%	7.89%	100.00%
1996	13.06%	72.45%	6.66%	7.73%	100.00%
1995	13.32%	72.54%	6.49%	7.57%	100.00%
1994	13.57%	72.63%	6.32%	7.41%	100.00%
1993	13.83%	72.71%	6.16%	7.26%	100.00%
1992	14.10%	72.80%	6.00%	7.11%	100.00%
1991	14.60%	73.00%	5.70%	6.70%	100.00%
1990	15.00%	72.60%	5.70%	6.80%	100.00%
1989	15.30%	73.00%	5.20%	6.80%	100.00%
1988	16.20%	77.70%	NA	6.10%	100.00%
1987	16.20%	77.90%	NA	6.00%	100.00%
1986	16.10%	78.00%	NA	5.80%	100.00%
1985	15.90%	78.30%	NA	5.80%	100.00%
1984	16.60%	78.40%	NA	5.00%	100.00%
1983	16.60%	78.80%	NA	4.70%	100.00%
1982	16.50%	79.00%	NA	4.60%	100.00%
1981	16.10%	79.40%	NA	4.50%	100.00%
1980	16.20%	79.50%	NA	4.30%	100.00%
Projected Compounded Growth Rate	-1.89%	-0.12%	2.65%	2.10%	

Source: Operating Ratios and Spreads, CUNA, 1980 - 1991, Year End Edition

Table 6
Membership & Potential Membership by Common Bond
(in percent)
Sample Information

Common Bond	Association	Occupation	Multiple Groups	Residential	Total
2000	28.40%	41.30%	48.40%	18.20%	39.00%
1999	27.76%	40.98%	47.79%	17.75%	38.22%
1998	27.14%	40.66%	47.18%	17.31%	37.46%
1997	26.53%	40.35%	46.58%	16.88%	36.71%
1996	25.94%	40.03%	45.99%	16.47%	35.98%
1995	25.36%	39.72%	45.41%	16.06%	35.27%
1994	24.80%	39.41%	44.83%	15.66%	34.56%
1993	24.24%	39.10%	44.26%	15.28%	33.87%
1992	23.70%	38.80%	43.70%	14.90%	33.20%
1991	24.10%	38.60%	43.70%	14.10%	33.00%
1990	25.30%	38.10%	42.50%	14.10%	32.80%
1989	23.30%	38.10%	36.80%	16.20%	32.90%
1988	21.30%	38.00%	NA	14.90%	32.00%
1987	20.60%	35.60%	NA	11.80%	29.30%
1986	21.00%	38.00%	NA	10.00%	29.00%
1985	23.00%	43.00%	NA	10.00%	32.00%
1984	24.00%	41.00%	NA	18.00%	36.00%
1983	24.00%	47.00%	NA	18.00%	40.00%
1982	27.00%	56.00%	NA	21.00%	47.00%
1981	24.00%	55.00%	NA	21.00%	46.00%
1980	29.00%	56.00%	NA	19.00%	47.00%
Projected Compouded Growth Rate	2.29%	0.79%	1.29%	2.53%	2.03%

Source: Operating Ratios and Spreads, CUNA, 1980 - 1991, Year End Edition

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