Profitability of credit unions, commercial banks and savings banks: A comparative analysis
Kaushik, Surendra K;Lopez, Raymond H
American Economist; Spring 1996; 40, 1; ProQuest Central
pg. 66

PROFITABILITY OF CREDIT UNIONS, COMMERCIAL BANKS AND SAVINGS BANKS: A COMPARATIVE ANALYSIS

by Surendra K. Kaushik and Raymond H. Lopez*

Abstract

The liberalization of product and price competition among depository intermediaries in the United States has tended to make them more similar since enactment of the Depository Institutions Deregulation and Monetary Control Act in 1980 (DIDMCA). Credit unions have developed into highly efficient organizations for meeting the basic financial needs of their members. Credit unions, although only one-twelfth their size, are at least as profitable as commercial banks and savings banks. The savings banking industry has maintained its competitive profitability as the industry has shrunk in the late 1980's and early 1990's. Credit union loan portfolios have grown more rapidly than either commercial banks' or savings institutions'. Their net interest margins have been above the banks' in recent years. Growth in the equity capital accounts of credit unions has been consistently more than double that of commercial banks since 1985, giving them a substantial advantage with regard to overall "safety and soundness" compared with commercial and savings banks.

I. Introduction

The liberalization of product and price competition among depository intermediaries in the United States has tended to make them more similar since enactment of the Depository Institutions Deregulation and Monetary Control Act in 1980 (DIDMCA). Commercial banks, savings banks and credit unions compete against one another even as they remain different deposit taking institutions under the law. Regulation, in an environment of changing laws relating to financial services, applicable to these institutions has moved in favor of taking advantage of economic forces and laws allowing them to enter one another's traditional areas of business while continuing to offer their specialized services to the public. It is important to assess the performance of depository institutions in the new market process. Credit unions have expanded their loan portfolios and deposit categories only in the consumer marketplace. In contrast, commercial banks, with broader authority, have made significant inroads in real estate lending, corporate financing and the transactions side of financial services. Savings banks, likewise, have expanded their products and services while losing a part of their portfolio and market share to the other two institutions.

The focus of this study is on a comparison of the performance of credit unions, commercial banks and savings banks in the deregulatory environment of the 1980's. Profitability is the measure of both performance of each of the industries and the degree of competition among them. This approach follows the on-going study of profitability of the commercial banking industry during the past four years by the Board of Governors of the Federal Reserve System. Whereas the Federal Reserve analyzed performance of commercial banks only, this study presents a comparative analysis of profitability of credit unions, commercial banks and savings banks.

II. Methodology

The methodology used in this paper is similar to the Federal Reserve studies of commercial banking profitability in each of the four years since 1989. The structure of those studies is used as a model for this study. Profitability results of commercial banks, using income

*The authors are on the faculty of the Lubin School of Business of Pace University, Graduate Center, One Martine Avenue, White Plains, NY 10606. Shwetha Kamath, Edmund Douglas, and Michael Brancamp provided research assistance for this paper. The authors wish to thank the editor and an anonymous referee for their helpful comments on an earlier version.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.mar

statement and balance sheet data, are compared with those of credit unions and savings banks.

Data representing the financial performance of credit unions have been generated from National Credit Union Association (NCUA) annual reports. Information is presented in two major categories, Federally Chartered/Federally Insured credit unions and State Chartered/ Federally Insured credit unions. These two groups, representing over 90 percent of operating credit unions and over 90 percent of total industry assets, were combined into composite balance sheets and income statements and used as a proxy for the entire industry.

Data for the commercial banking industry comes from the Flow of Funds Statements of the Federal Reserve. Specifically, information is provided covering "all insured domestic commercial banks and non-deposit trust companies." Data on insured savings banks are from the Federal Deposit Insurance Corporation.

It is hypothesized that credit unions, although only one-twelfth their size, are at least as profit able as commercial banks and savings banks. A joint hypothesis is that, on average, a large commercial bank is not more profitable than the average credit union or a medium size savings bank.

III. A Comparative Analysis of Profitability

Consolidation among depository institutions has been a major trend in the financial services industry over the last decade. The number of commercial banks has declined by over 20 percent since 1980, while credit unions contracted by over 25 percent.[1] Even greater decline of over 30 percent were observed in the savings and loan industry. These results reflect both the economic environment of increased competition in financial services as well as problems more specific to each of the industries as they reallocate their asset and liability portfolios in response to changing market conditions.

It is hypothesized here that, ex ante, a more open and competitive environment would lead to profit maximizing portfolio shifts in the balance sheets of competing depository institutions. This process would move these industries towards a long-run equilibrium position of similar asset and liability structures, within the limits of regulatory standards. The price competition element of the process would lead to similar returns in equilibrium. In an ongoing process of short-run equilibria, however, the markets would produce different returns on assets. These short-run returns, of course, would result in portfolio adjustments towards long-run equilibrium positions.

The process of price and product competition was an important factor in bringing about deregulation of the financial services industry and liberalization of their activities in the 1970s and 1980s. Deregulation and liberalization of banking markets have in turn strengthened the competitive environment. The markets and the U.S. Congress are ready for another round of liberalization in the 1990s following the case-by-case approach of the Federal Reserve in recent years.[2]

The Federal Reserve itself is not only quite aware of the impact of this churning of bank portfolios, it actually researches its impact on the commercial banking industry. Before 1986, when price and product competition became fully operational under DIDMCA[3] and the Depository Institutions Act of 1982 (the Garn-St. Germain Act)[4], the Federal Reserve studied profitability of commercial banks every few years. In recent years, however, these studies are performed every year to stay abreast of the successes and trouble spots in a highly charged competitive environment. This is in part due to Federal Reserve sensitivity to what happened to the savings bank industry following DIDMCA and Garn-St. Germain.

One of the key goals of the Federal Reserve is clearly the maintenance of safety and soundness of the nation's banking system. Formally, the Federal Reserve, since DIDMCA, has widened its responsibility to other depository institutions due to application of its reserve requirements on deposit liabilities of commercial and savings banks. The National Credit Union Association (NCUA) has responsibility for credit union industry activities in this regard.

These profitability studies are, therefore, important indicators of shifts in commercial bank portfolios in the new competitive environment. This paper takes that structure as a beginning premise to ask the following questions: What is the impact of the new environment on other depository institutions, specifically credit unions and insured savings banks, as

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma

they compete with commercial banks? What are the shifts in their balance sheets? What is the impact on their profitability in relation to commercial banks? To answer these questions, we have made calculations, similar to the Federal Reserve studies, for the credit union and the savings banking industries. These calculations, using Federal Reserve definitions, where applicable, are then used to compare the three industries with respect to their bottom line impact, i.e. profitability.

Income Statement and Profitability

In Table 1, data are presented for selected income and expense items of these three industry segments for the last four years. They show different trends over the period, but also some interesting similarities which may reflect the fact that diversification is blurring many of the distinctions between these institutions.

Both commercial banks and insured savings institutions made significant progress in increasing profitability over the last few years. Major restructuring has taken place in commercial bank balance sheets since 1990, with investment portfolios increasing in both absolute and relative size. To a lesser extent this has been the pattern observed in the insured savings institutions, except that they have experienced absolute declines in loan portfolios (primarily real estate loans), as well as an overall contraction in assets.

For credit unions, both loan and investment portfolios have expanded since 1989. However, holdings of securities have expanded significantly faster than loan volume, resulting in the lowest loan/asset and loan/share ratios in more than a quarter century. In fact, it would be difficult to find a period of time when the asset structure of the industry looked anything like it does today! Credit unions have been more successful at attracting member deposits (savings) than at making loans in an increasing competitive environment.

With respect to the operating performance of these industry segments, the net interest margin of credit unions has been quite stable since 1989, with a slight downward trend (Table 1). In contrast, commercial banks have seen their margins grow fairly steadily. By 1992 commercial banks' net interest margins reached the level of the credit union industry, i.e. 3.9 percent. For the insured savings institutions, recovery of interest margins has been even more dramatic, expanding from 1.68 percent in 1989 to 3.07 percent in 1992. Savings banks have made significant financial progress in recent years but still are about 0.8 percentage points lower than credit unions and commercial banks (Figure 1). Price competition seems to be working across industries and size of firms as would be expected under DIDMCA, especially since 1986 when Regulation Q of the Federal Reserve concerning interest rate ceilings on deposits was fully phased-out.

All three industries have negative non-interest margins.[5] Credit unions have a much higher negative position when compared to either commercial banks or insured savings institutions. For most years credit unions' non-interest margins exceed those of commercial and savings banks by 0.5 to 1.2 percentage points. These margins (for credit unions) include subsidies in the form of some type of "sponsor support" which has the effect of keeping operating expenses lower than for their competitors. The higher negative non-interest margin for credit unions is indicative of a much smaller percentage of their income being generated from fees and miscellaneous services. Commercial banks have been especially successful at generating and growing fee income. In contrast, the cooperative philosophy of the credit union industry results in lower fees collected for specific services and less fees collected in total. Savings banks, likewise, have more diversified sources of income than credit unions, although not nearly as extensive as commercial banks.

Loss provisions for all the institutions have been trending downward over the period under study. However, the level for credit unions has been less than one-half that of commercial banks and about two-thirds of the insured savings institutions. The more restricted member oriented consumer loans of the industry, coupled with its more conservative lending philosophy, have contributed to this pattern of performance. Credit unions have had a better record of making "good" loans and/or "loan workouts" when members experience financial difficulty than either of their "for-profit" competitors.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma

TABLE 1

Selected Income And Expense Items: 1989–92 (1)

Percent	Credit Unions				U.S. Commercial Banks				Insured Savings Institutions			
Item	1989	1990	1991	1992	1989	1990	1991	1992	1989	1990	1991	1992
New interest margin	3.92	3.862	3.776	3.892	3.53	3.46	3.61	3.9	1.68	2.03	2.49	3.07
Net non-interest margin	−2.589	−2.54	−2.44	−2.88	−1.8	−1.82	−1.93	−1.92	−1.34	−1.59	−1.62	−1.64
Loss Provisions	0.444	0.482	0.442	0.347	0.98	0.96	1.02	0.77	0.73	0.73	0.64	0.49
Securities Gain	−0.001	0.002	0.017	0.028	0.03	0.01	0.09	0.12	0.09	0.01	0.09	0.07
Income before taxes	0.886	0.842	0.911	1.293	0.78	0.7	0.75	1.33	0.39	−0.29	0.22	0.93
Taxes and extraordinary ite	N.A.	N.A.	N.A.	N.A.	0.31	0.26	0.27	0.43	0.09	0.11	0.27	0.4
Net income	0.886	0.842	0.911	1.293	0.49	0.49	0.53	0.92	−0.38	−0.38	0.08	0.66
Dividends*	0.227	0.172	0.118	0.144	0.44	0.42	0.43	0.42	0.11	0.1	0.16	0.2
Retained income	0.659	0.67	0.793	1.149	0.04	0.07	0.1	0.51	−0.49	−0.48	−0.08	0.46

1. As a percentage of average net consolidated assets.
N.A.: Not applicable.

* For Credit Unions—Net Transfer to Statutory Reserve.

Source: Annual Report, National Credit Union Administration, 1989–1992
"Profits and Balance Sheet Developments at U.S. Commercial Banks in 1992," Federal Reserve Bulletin, July 1993.
Federal Deposit Insurance Corporation Statistics on Banking, 1992.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma

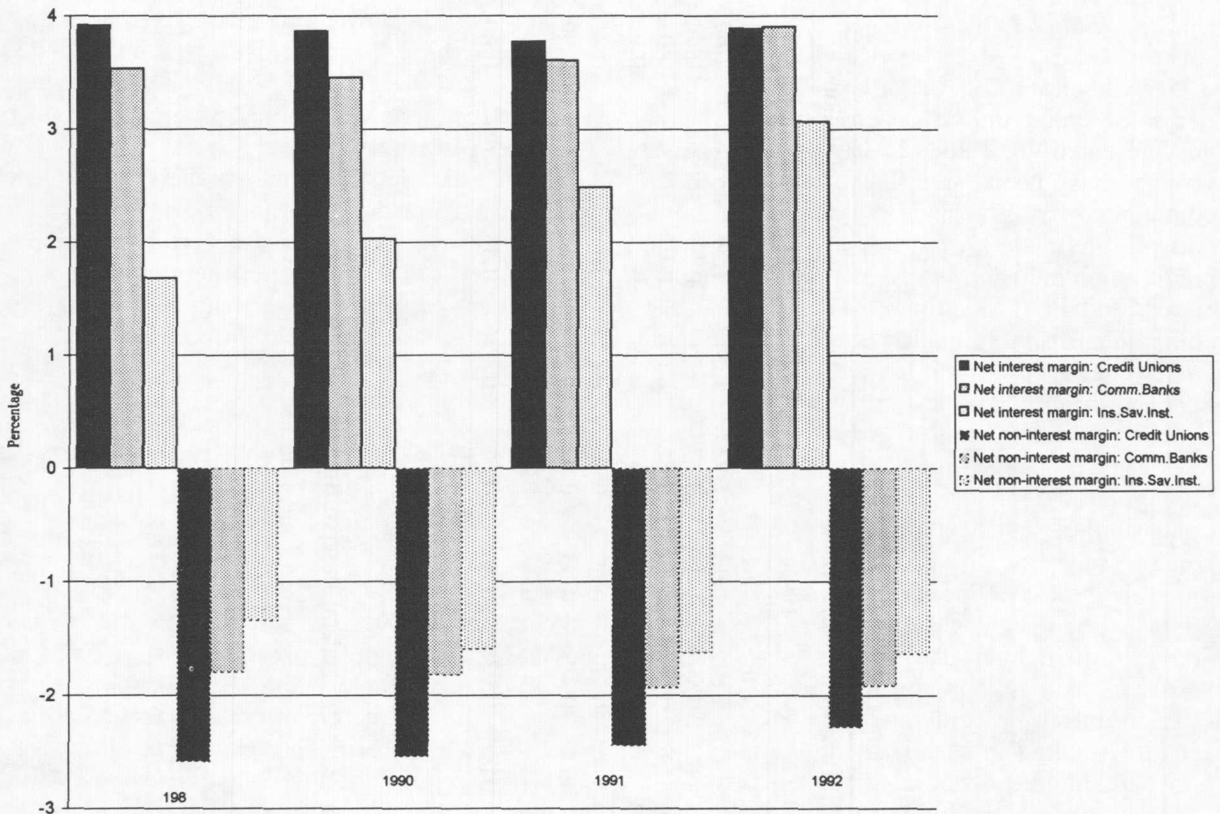

FIGURE 1: Comparison of Interest and Non-Interest Margins for Credit Unions, Commercial Banks, and Savings Banks

Income before taxes shows how these industry segments are similar and getting even more so over time. Credit unions generated consistently higher income margins over their competitors up to 1992 when commercial banks moved slightly ahead (1.33 percent vs. 1.29 percent). While the insured savings institutions are doing much better than even a few years ago, they only reached 0.93 percent in 1992.

Net income after taxes and extraordinary items show significant differences between the three groups. Since credit unions are owned by their members, they are not subject to income taxes (either accrued or actually paid in a given year). Therefore, their margins are not affected by tax rates and remain unchanged from the comparison above.

The year 1992 was an extremely profitable year for commercial banks, with profits exceeding $31 billion, for an average return on assets of a record 0.92 percent; it compares to 1.29 percent for the credit union industry and 0.66 percent for insured savings institutions.

Commercial banks and savings institutions now pay out cash to their owners in the form of dividends. In contrast, credit unions, by law, must make a "net transfer to statutory reserves" based on their margins and the risk complexion of their asset portfolios. These transfers have averaged only about one-third of the commercial bank dividends and about one-half of savings institutions' dividend payments.

The "bottom line" of this analysis is retained earnings, added to the capital accounts of each financial institution, as a reserve for future losses. Credit unions have been much more consistent at generating retained earnings and much more successful with respect to the level of retained earnings. Retained earnings have generally been more than double that of either commercial banks or savings institutions, although the latter groups are trending upward at a much more rapid rate in recent years.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.mana

Balance Sheet Developments

Growth and shifts in various balance sheet items for credit unions and commercial banks are presented in Table 2. Credit union asset growth has been significantly higher than commercial banks' since 1985. When comparisons are made it must be mentioned that the credit union industry, with $250 billion in assets at year end 1992, is quite a bit smaller than the commercial banking industry, at $3,500 billion.

Although credit union loan growth rates have been consistently more than double the levels for commercial banks, a slowdown in loan demand has been experienced by both institutions. From growth rates approaching 20 percent in 1985, credit union levels have declined to the 3.5–4.5 percent range since 1990. For commercial banks the growth rate declined from about 8 percent in 1985 to just over 2 percent in 1990. For 1991 and 1992 their loan growth rates were actually negative, as the slow growing economy and competition from bank and non-bank lenders actually resulted in a small contraction of loan portfolios in each of those years.

Credit union and commercial bank loan portfolios are converging in the real estate and consumer financing categories as was anticipated by the Depository Institutions Act of 1982 (Garn-St. Germain Act). These data are presented in Table 2. Both institutions have experienced rapid, but declining growth in their real estate portfolios. Credit union growth rates have been double or triple commercial bank growth rates in the period. Credit union real estate loans are primarily of the home equity and variable rate variety, while commercial bank loans also extend into the commercial end of the marketplace. Specific credit unions may be more vulnerable to regional weakness in the real estate area, or weakness due to problems at a sponsor (defense bases closings). However, many have managed these loans quite successfully, in terms of volume, liquidity, and saleability (first mortgage) in the secondary markets to reduce risks to their own portfolios.

Consumer loan growth has lagged real estate growth for both credit unions and commercial banks since 1985, although the differential has narrowed considerably in the last few years. Credit unions have been more successful at growing their consumer loan portfolios. From double digit growth in 1985, credit unions expanded these loans by just 4 percent in 1992. Commercial banks experienced declines from almost the same levels of 2.5 percent in 1991 and 1.5 percent in 1992.

Real estate has been the smallest component of credit union loan portfolios and it was due primarily to caution on the part of members (consumers) in taking on new debt in the face of uncertainty in economic growth and instability in the job market outlook. In contrast, it could be argued that part of the slowdown at commercial banks was due to a policy of restructuring lending in order to enhance capital ratios.

Credit union loan portfolios have been lengthening, due to the expansion of real estate assets on their balance sheets. At the same time securities portfolios have expanded rapidly with the net result being a reduction in the overall average asset maturity of the industry. Even as these trends develop, the overwhelming short term maturity structure of credit union liabilities is cause for concern. These increased risk levels probably require the higher and growing capital ratios being generated by the industry in recent years and the regulatory pressures from the NCUA to continue to foster capital growth in the 1990's.

Both credit unions and commercial banks have seen their securities portfolios grow much more rapidly than loan portfolios in the last 8 years. Credit union growth rates have generally been double those of commercial banks over the period. Both institutions have been more successful at attracting consumer savings when compared to making loans, with the result being increases in investment portfolios. Another incentive for commercial banks was that many of these investments would not be used in calculating certain risk-adjusted capital ratios, due to their lower risk levels. Therefore, banks could continue to attract deposits, build assets and grow their capital at a rate fast enough to increase capital-asset ratios (Figure 2).

On the deposit side of the balance sheet, credit union growth outstripped that of commercial banks by a wide margin. It may also be observed that diversity of deposit categories is greater for commercial banks. Credit unions do not have "foreign deposits" or "other checkable deposits" on their books.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.man

TABLE 2

Annual Rate of Growth of Balance Sheet Items: 1985–92 (1)

Percent	Credit Unions								U.S. Commercial Banks							
Item	1985	1986	1987	1988	1989	1990	1991	1992	1985	1986	1987	1988	1989	1990	1991	1992
Total Assets	28.96	23.40	9.80	8.10	4.78	7.90	14.56	13.79	8.90	7.60	2.00	4.40	5.40	2.70	1.30	2.30
Interest Earning Assets	28.92	23.39	9.91	8.09	4.46	8.10	14.64	13.75	9.70	8.00	3.90	3.90	5.80	2.30	2.00	2.50
Loans	19.82	15.67	15.58	14.25	7.73	3.52	4.58	4.48	7.90	7.50	4.10	5.70	6.50	2.30	−2.60	−1.10
Real Estate	58.26	216.00	46.08	28.28	16.03	8.90	7.78	5.28	13.70	17.60	16.60	12.60	12.90	8.80	2.80	2.00
Consumer	17.40	−1.36	7.28	9.05	4.11	0.90	2.90	4.04	15.80	8.60	4.60	7.70	6.30	0.50	−2.50	−1.50
Securities	50.26	37.84	1.00	−2.96	−2.46	18.79	35.10	23.34	14.00	10.30	7.50	3.00	4.10	8.30	14.40	11.50
Non-Interest Earning Assets	29.52	23.22	7.30	8.26	10.83	4.48	13.22	14.54	3.60	5.30	−11.10	8.40	2.40	5.70	−3.50	−0.10
Total Liabilities	29.16	23.74	9.40	7.74	4.22	7.65	14.45	13.27	8.80	7.60	2.20	4.10	5.50	2.40	1.00	1.40
Deposits	30.00	24.21	9.10	7.56	4.71	7.66	14.34	13.23	7.90	7.80	2.30	4.10	4.80	3.90	1.60	0.40
Foreign	NA	NA	NA	NA	NA	NA	NA	NA	1.90	6.00	−25.90	−7.60	−0.30	−4.90	4.00	−4.30
Domestic	30.00	24.21	9.10	7.56	4.71	7.66	14.34	13.23	9.70	8.40	10.10	6.30	5.70	5.20	1.30	1.10
Demand	35.15	26.08	13.31	5.58	8.05	7.43	14.32	22.68	8.90	13.20	−10.80	0.60	0.40	0.70	−2.00	12.60
Other Checkable	NA	NA	NA	NA	NA	NA	NA	NA	17.80	32.80	7.80	7.60	2.50	6.40	14.80	18.60
Savings	29.51	24.02	8.67	7.77	4.37	7.68	14.35	12.21	23.90	13.60	39.90	1.10	0.50	6.50	14.40	13.10
Subordinated Notes and De	−2.68	4.27	22.42	12.17	−4.19	7.85	19.33	15.56	42.30	16.30	3.80	2.40	14.90	23.10	3.80	33.20
Other	NA	NA	NA	NA	NA	NA	NA	NA	12.70	6.40	1.50	4.30	8.60	−5.30	−2.00	5.30
Equity Capital	23.35	17.59	15.99	15.33	12.58	11.31	11.54	19.99	9.80	7.50	−0.70	8.90	4.20	6.90	5.80	13.80
Loss Provisions	54.24	63.98	26.24	13.11	15.64	17.31	5.03	−10.81	24.50	24.40	72.80	−6.50	15.30	3.00	−0.30	−1.00

1. From year end to year end.

NA: Not applicable.

* For Credit Unions—Non-Interest Bearing Liabilities.

Source: Annual Report, National Credit Union Administration, 1985–1992.

"Profits and Balance Sheet Developments at U.S. Commercial Banks in 1992," Federal Reserve Bulletin, July 1993.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma

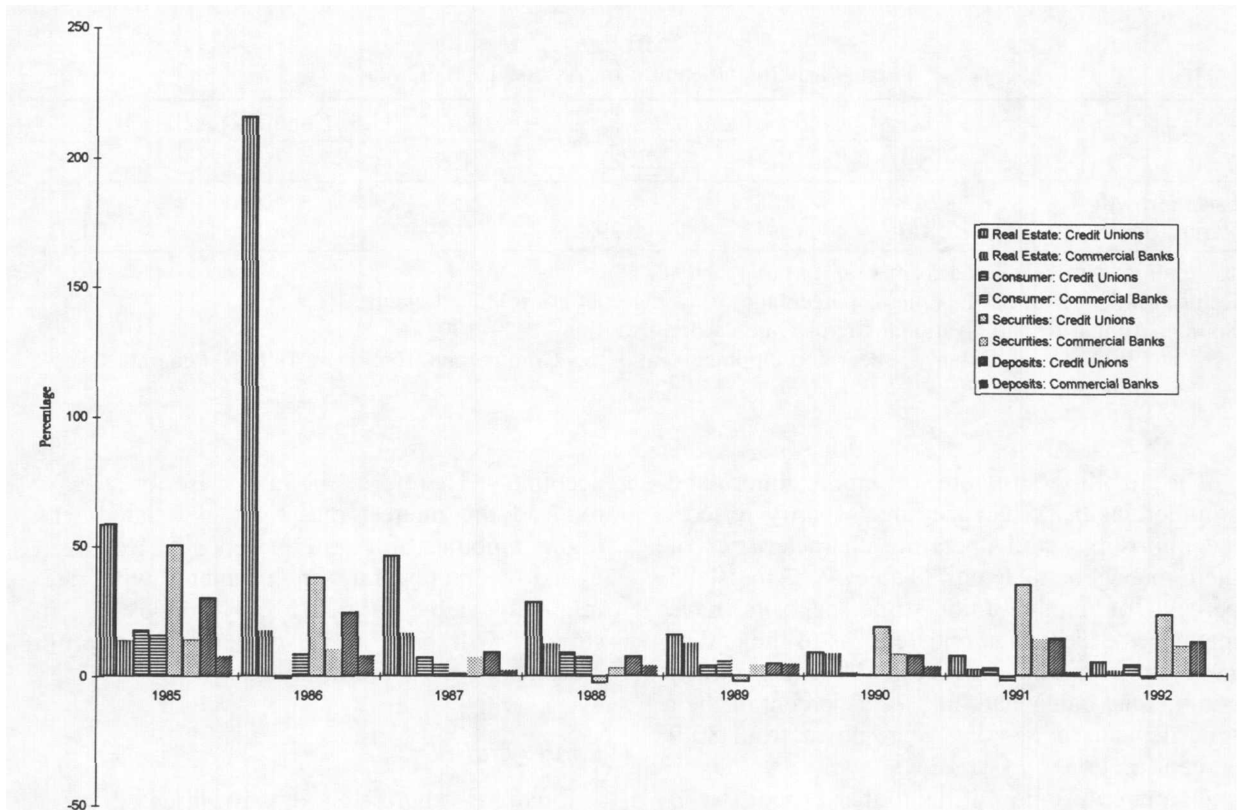

FIGURE 2: Comparison of Annual Growth Rates in Real Estate, Consumer, Securities, and Deposits for Credit Unions and U.S. Commercial Banks

Equity capital growth in both industries declined from 1985 through 1991, with credit unions consistently exceeding commercial banks by more than 100 percent. In 1992, credit union equity growth was almost 20 percent while commercial bank growth was 13.5 percent, it's highest in 8 years.

Growth in loan loss provisions for both industries has trended downward over the last 8 years. Changing market conditions and regulatory pressures have much to do with these patterns of performance as well as specific year-to-year variations. Again, reflecting the strengthening of the economy, both credit unions and commercial banks reduced their loss provisions in 1992.

Over the last few years the yield curve has been especially steep, even as it has shifted downward. Both credit unions and commercial banks have actually increased their holdings of short term securities (maturities of less than one year). This has contributed to a shortening of the average maturity of their portfolios. Credit unions had just over 39 percent of their portfolios in these shorter maturities, significantly higher than the 26.6 percent for commercial banks as of year end 1992.

To highlight the impact and importance of loan activity on the operations of both credit unions and commercial banks, we have produced Table 3. It shows clearly that, since 1990, credit unions have continued to grow their loan portfolios in a slow but consistent manner. This performance has contributed to their higher and growing return on assets when compared to commercial banks.

In contrast, commercial bank loan growth has been quite inconsistent, with a downward trend over the period. These rates are also about one-quarter to one-half the rates for credit unions. The result of being relatively less successful at growing their loan portfolios has contributed to their significantly lower return on assets—it has been between one-half and two-thirds the level for credit unions in this period.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.man

TABLE 3
Loan Growth and Return on Assets: 1990–92 (1)

Percent Year	Credit Unions 1990	1991	1992	U.S. Commercial Banks 1990	1991	1992
Loan Growth	3.52	4.58	4.48	2.3	−2.6	1.1
Return on Assets	0.842	0.911	1.293	0.49	0.53	0.92

1. Loan growth calculated from year-end to year-end.
Return on Assets in net income as percentage of average net consolidated assets.
Source: Annual Report, National Credit Union Administration, 1989–1992.
"Profits and Balance Sheet Developments at U.S. Commercial Banks in 1992," Federal Reserve Bulletin, July 1993.

The liability structure of credit union and commercial bank balance sheets partly reflects the philosophy and operating characteristics of their management teams (Table 4). Almost 95 percent of credit union time deposits have maturities of less than one year, as of the end of 1992, up from 92.3 percent in 1990. In contrast, commercial banks had only 74.7 percent of their time deposits under one year, down from 80.9 percent in 1990.

One manifestation of the higher proportion of short term deposits at credit unions is a lower interest rate paid on these liabilities. These items are also riskier to the credit union because they must have their rates reset more often. If interest rates rise, a larger percentage of these deposits will be reset sooner, costing the credit union in terms of higher interest expenses, *ceteris paribus*.

Commercial banks have been lengthening their longer term, more expensive time deposit accounts. Therefore, if rates rise they have reduced the interest rate risks associated with higher amounts of long term deposits. However, in a low interest rate environment, with rates relatively stable or rising only modestly, this strategy will have an adverse effect on profit margins vis-a-vis credit unions.

Loan Quality

Financial intermediaries are affected by a number of forces. Some are external to the organization, such as trends and patterns of interest rates and the strength of the economy. Others are internal, reflecting managerial capabilities and the effectiveness of operating policies and procedures. Table 5 presents a number of measures of loan quality for both credit unions and commercial banks in the 1990's (over the 3 years). Loss provisions represent the reserves set aside for potential

TABLE 4
Maturity Structure of Selected Assets and Liabilities at Year-end, 1990–92

Percent Account and Maturity Range	Credit Unions 1990	1991	1992	U.S. Commercial Banks 1990	1991	1992
Securities						
One year or less	37.65	39.36	39.26	26.00	26.00	26.60
More than One year	62.35	60.64	60.74	74.00	74.00	73.40
Total	100.00	100.00	100.00	100.00	100.00	100.00
Time deposits						
One year or less	92.34	93.58	94.17	80.90	79.20	74.70
More than One year	7.66	6.42	5.83	19.10	20.80	25.30
Total	100.00	100.00	100.00	100.00	100.00	100.00

Source: Annual Report, National Credit Union Administration, 1990–1992.
"Profits and Balance Sheet Developments at U.S. Commercial Banks in 1992," Federal Reserve Bulletin, July 1993.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma

TABLE 5
Measures of Loan Quality: 1990–92 (1)

Percent Year	Credit Unions 1990	Credit Unions 1991	Credit Unions 1992	U.S. Commercial Banks 1990	U.S. Commercial Banks 1991	U.S. Commercial Banks 1992
Net Charge-offs	0.65	0.65	0.59	1.42	1.58	1.29
Delinquency Rate	1.70	1.59	1.28	5.23	5.90	5.24
Loss Provisions	0.75	0.75	0.64	1.64	1.65	1.31

1. As a percentage of average outstanding loans.
Delinquent loans are non-accrual loans and those that are accruing interest but are more than thirty days past due.

Source: Annual Report, National Credit Union Administration, 1989–1992.
"Profits and Balance Sheet Developments at U.S. Commercial Banks in 1992," Federal Reserve Bulletin, July 1993.

problems. Commercial banks generally have reserve provisions that are more than double those of the credit union industry. A major portion of the differential is a function of the composition of their loan portfolios—commercial banks make loans to a much more varied clientele composed of consumers as well as commercial and industrial borrowers. Credit unions are much more focused, meeting member demands for a growing variety of loans as their average size increases and their management's capabilities expand.

The delinquency rate experienced on loan portfolio also reflects the very different compositions of the two institutions. Credit union delinquency rates have continually fallen since 1990, from 1.70 percent of average loans outstanding to 1.28 percent at year end 1992. This pattern reflects the significant efforts made by credit union managements to not only expand portfolios but also enhance their quality. In contrast, commercial banks actually experienced a rising delinquency rate from 5.23 percent in 1990 to 5.9 percent in 1991. The rate came down in 1992, but only to the 5.24 percent level.

Not only are the trends experienced by the two institutions different, with commercial banks essentially steady while credit unions are declining significantly (almost 25 percent in 3 years), but the overall delinquency levels are quite different too. Commercial banks have been experiencing delinquency rates that are 3 to 4 times the level of credit unions! Actual loan charge-offs also show an interesting pattern. With declining interest rates, loan quality has been on the rise for both types of institutions. Net charge-offs have been declining for commercial banks and credit unions. However, the overall charge-offs at commercial banks have consistently been double those of the credit union industry.

In order to maintain their economic viability in a competitive environment, commercial banks have had to charge higher rates or pay less to depositors in order to compensate for the overall lower quality of their loan portfolios. This factor has contributed to the ability of credit unions to successfully expand their consumer financing activities.

Changes in Capital

Commercial banks may increase their capital accounts by issuing more securities to the investment community or directing a portion of annual profits after taxes (i.e. retained earnings) to their capital accounts. In contrast, credit unions have only one source of capital, the excess of income over expenses in any given period of time. Since 1985 the commercial banking industry has expanded its equity base in every year except 1987. The rates of increase ranged from a low of 4.2 percent in 1989 to a high of 13.8 percent in 1992. While commercial banks have increased their capital by single digit growth rates in 7 out of the past 8 years, all federally insured credit unions have expanded capital by double digit rates in every one of those years. They consistently generated growth rates 50 to 150 percent higher than the commercial banking industry!

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma

The differentials exhibited in Table 6 are a function of some of the following factors. Commercial banks are taxable institutions while credit unions are not subject to income taxes on earnings. In the case of commercial banks in recent years, where the statutory tax rate is 34 percent, their effective tax rate has been about 5 percent. Therefore, this has been only a small factor contributing to slower growth of their capital. Commercial banks have shareholders who are generally paid dividends. Any such payments reduce the retained earnings that could otherwise enhance capital. In contrast, credit unions must contribute to their regular reserve accounts, yet these transfers do contribute to their total capital account. Finally, any remaining funds being generated by the credit union are allocated to their "undivided earnings" account. This account is very similar to the retained earnings account found at commercial banks and also contributes to their capital.

IV. Conclusions

Our hypotheses concerning the relative profitability of credit unions compared with the banking industry are supported by the results presented in the paper. Our data show a narrowing of spreads between the two industries in many areas of performance. Credit unions have been very successful in the new deregulatory environment. Credit union loan portfolios have grown more rapidly than either commercial banks' or savings institutions'. Their net interest margins have been above the banks' in recent years.

Non-interest margins are negative and higher for credit unions than for commercial banks. Unlike banks, credit unions have sufficient fee based revenues to offset a higher proportion of operating expenses. In terms of operating expenses, these industries have similar average costs, with slightly lower costs for credit unions.

Commercial banks and credit unions are experiencing growth in assets faster than growth in loans in the last few years. Therefore, their investment portfolios have been increasing in absolute and relative size. This tends to hold down profitability since margins on loans are greater than those on investments.

Real estate loans as a percentage of assets have been growing significantly for both credit unions and commercial banks in the last 8 years. This could be an area of concern in the future, given the inherent maturity mismatch risk associated with their shorter term liabilities. Unless loans are made at variable rates they could also be exposed to interest rate risk.

The credit union industry's performance vis-a-vis its larger depository competitors has been very creditable. By focusing clearly on the consumer (credit union member) niche, credit

TABLE 6
Change in Total Equality Capital: 1985–92 (1)

Percent Year	Credit Unions: Federally Chartered, Federally Insured Credit Unions	Credit Unions: State Chartered, Federally Insured Credit Unions	Credit Unions: All Federally Insured CUs (Total)	U.S. Commercial Banks: Change in Equity Capital
1985	22.35	33.16	26.09	9.8
1986	17.59	19.45	18.27	7.5
1987	15.99	14.15	15.31	−0.7
1988	15.33	9.86	13.33	8.9
1989	12.58	11.98	12.37	4.2
1990	11.31	10.78	11.12	6.9
1991	11.54	24.28	16.01	5.8
1992	18.93	21.75	19.99	13.8

1. Change in equity capital calculated from year end to year end.
Source: Annual Report, National Credit Union Administration, 1985–1992.
"Profits and Balance Sheet Developments at U.S. Commercial Banks in 1992," Federal Reserve Bulletin, July 1993.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.mar

unions have generated a record of performance that is indeed exemplary. They are likely to end the 1990s in even a stronger competitive position with continued focus on the consumer financial services.

Growth in the equity capital accounts of credit unions has been consistently more than double that of commercial banks since 1985. The result is a higher capital-asset ratio for the industry giving it a substantial advantage with regard to overall "safety and soundness" compared with commercial and savings banks.

Notes

1. FDIC, Statistics on Banking 1992: A Statistical Profile of the United States Banking Industry. Washington, D.C., June 1993.
2. The Fed has expanded the list of allowed activities of banks in recent years, including broking, underwriting, etc. See various issues of the *Federal Reserve Bulletin* for legal developments.
3. Depository Institutions Deregulation and Monetary Control Act of 1980 opened up price competition in depository institutions.
4. Garn-St. Germain Act expanded powers of thrift institutions in the area of product and services offered by depository institutions.
5. Defined as Fee Income minus Operating Expenses.

References

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

Brunner, Allan D., and William B. English, "Profits and Balance Sheet Development at U.S. Commercial Banks in 1992," *Federal Reserve Bulletin*, July 1993, 649–673.

Brunner, Allan D., Diana Hancock, and M. McLaughlin, "Recent Developments Affecting Profitability and Practices of Commercial Banks," *Federal Reserve Bulletin*, July 1992, 459–483.

Brunner, Allan D., John V. Duca, and M. McLaughlin, "Recent Developments Affecting Profitability and Practices of Commercial Banks," *Federal Reserve Bulletin*, July 1991, 505–527.

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

Cargill, Thomas F., "Recent Research on Credit Unions: A Survey." Journal of Economics and Business, Winter 1977, 155–62.

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

Cox, William N., and Pamela V. Whigham, "What Distinguishes Larger and More Efficient Credit Unions?" *Economic Review*, Federal Reserve Bank of Atlanta, October 1984, 34–41.

Credit Union National Association, "Operating Ratios and Spreads," 1980–1992.

Danker, Deborah, and Mary M. McLaughlin, "Profitability of Insured Commercial Banks in 1983," *Federal Reserve Bulletin*, November 1984, 802–818.

Danker, Deborah, and Mary M. McLaughlin, "Profitability of U.S Chartered Insured Commercial Banks in 1985," *Federal Reserve Bulletin*, September 1986, 618–631.

Danker, Deborah, and Mary M. McLaughlin, "Profitability of U.S. Chartered Insured Commercial Banks in 1986." *Federal Reserve Bulletin*, July 1987, 537–551.

Duca, John V., and M. McLaughlin, "Developments Affecting Profitability of Commercial Banks," *Federal Reserve Bulletin*, July 1990, 477–499.

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.

Fried, Harold O., and C. A. Knox Lovell, "Evaluating the Performance of Credit Unions," *Center for Credit Union Research, School of Business*, University of Wisconsin-Madison, 1993.

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.

Kaushik, S. K., and R. H. Lopez, "Trading on a Common Bond," *Journal of Retail Banking*, Vol. 15, No. 3, Fall 1993, 41–44.

Kaushik, S. K., and R. H. Lopez, "The Structure and Growth of the Credit Union Industry in the United States: Meeting Challenges of the Market," *The American Journal of Economics and Sociology*, Vol. 53, No. 2, April 1994, 219–243.

Kim, Y. H., "Economies of Scale and Economies of Scope in Multiproduct Financial Institutions:

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma

Further Evidence From Credit Unions, *Journal of Money, Credit and Banking*, 1986, 18, 220–26.

Kohers, T., and D. Mullis, "An Update on Economies of Scale in Credit Unions," *Applied Economics*, 1988, 20, 1653–50.

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

Lovati, Jean M., "The Growing Similarity Among Financial Institutions." *Review*, Federal Reserve Bank of St. Louis, October 1977, 2–11.

Mallinson, Eugenie, "Profitability of Insured Commercial Banks in the First Half of 1983," *Federal Reserve Bulletin*, December 1983, 885–892.

McLaughlin, Mary M., and Martin H. Wolfson, "Profitability of Insured Commercial Banks in 1987," *Federal Reserve Bulletin*, July 1988, 403–418.

Moran, Michael J., "Thrift Institutions in Recent Years," *Federal Reserve Bulletin*, Vol. 68, No. 12, December 1982, 725–741.

Negri Opper, Barbara, "Profitability of Insured Commercial Banks," *Federal Reserve Bulletin*, August 1982, 453–465.

Negri Opper, Barbara, "Profitability of Insured Commercial Banks in 1982," *Federal Reserve Bulletin*, July 1983, 489–507.

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

U. S. Congress, *"Reforming Deposit Insurance,"* Congressional Budget Office, September 1990.

Von der Ohe, Robert, "Can You Ever Have Too Much Capital?" *Credit Union Executive*, 1991, 24–26, 29–31.

National Credit Union Administration, "Causes of Credit Union Failures 1981–1985." *Research Study* , No. 4, Washington, D.C.: National Credit Union Administration, Office of the Chief Economist, September 1987.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission. www.ma