

National Association of Federally-Insured Credit Unions

> Economic Benefits of the Credit Union Tax Exemption to Consumers, Businesses, and the U.S. Economy



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EXECUTIVE SUMMARY

Credit unions are member-owned, not-for-profit cooperative financial institutions that serve defined fields of membership under the general oversight of volunteer boards of directors. Democratically owned and operated, credit unions are organized without capital stock and governed under a "one member, one vote" principle—each member has one vote, regardless of the amount on deposit. While banks are operated with the purpose of maximizing profits for their shareholders, the purpose of credit unions is to return those benefits to their member-owners. As a result, credit unions in many markets offer interest rates which are superior to those of other competing financial institutions. The benefit of those better rate offerings extends beyond credit union members to bank customers as well, due to increased competition.

By virtue of their unique cooperative structure and mutual purpose, credit unions have been exempt from federal income tax since 1935. Those basic defining characteristics of a credit union, no matter the size, endure today as they did then. While competing financial institutions with different organizational structures have often challenged credit unions' tax-exempt status, Congress has consistently affirmed the credit union tax exemption.

The benefits of credit unions are vital to many communities, and the loss of the federal income tax exemption would have far-reaching consequences. Our analysis indicates that removing the credit union tax exemption would cost the federal government \$56 billion in lost income tax revenue over the next 10 years. GDP would be reduced by \$120 billion, and employment would drop by nearly 80,000 jobs per year over that span as well.

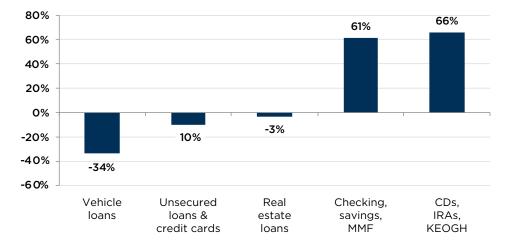




This study quantifies the benefits to all consumers – both credit union members and bank customers – of having a credit union presence in financial markets. Historical data from Datatrac reveals the following interest rate differentials between U.S. banks and credit unions for the period 2011-2020 (Chart 1):

- > Credit union rates on new and used car loans are 34 percent lower than bank rates, on average.
- > Credit card and unsecured loan rates are 10 percent lower at credit unions.
- > Real estate loan rates are 3 percent lower at credit unions.
- Interest rates on CDs, IRAs, and KEOGH accounts were 66 percent higher at credit unions.
- > Interest rates on savings, checking, and money market accounts were 61 percent higher at credit unions.

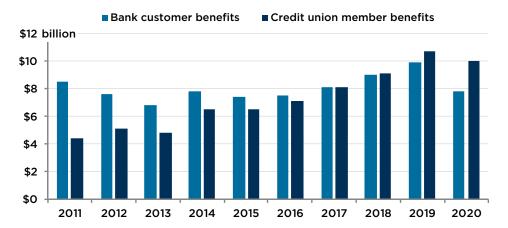
CHART 1: PERCENT DIFFERENCES IN INTEREST RATES, CREDIT UNIONS VS. BANKS, 2011-2020 AVERAGE



The direct benefits to credit union members of these better loan and deposit rates were estimated to range from \$4.4 to \$10.7 billion annually over the past ten years **(Chart 2)**. Total credit union member benefits over the period were estimated to be \$72.5 billion.



CHART 2: ANNUAL CREDIT UNION MEMBER & BANK CUSTOMER BENEFITS



The benefit of better credit union loan and deposit rates to bank customers, due to increased competition, was even larger in aggregate. A 50 percent reduction in the credit union market share would cost bank customers an estimated \$6.8 billion to \$9.9 billion per year in higher loan rates and lower deposit rates. The total losses to bank customers under such a scenario totaled \$80.7 billion over the ten-year period examined. The total combined benefit to U.S. consumers—both credit union members and bank customers—from the presence of credit unions in financial markets was \$153 billion over the ten-year period of the study, or approximately \$15 billion per year.

These results match the findings from previous studies of the impact of eliminating the credit union tax exemption in Canada and Australia, where the number of credit unions was severely reduced following taxation. Reduced competition for consumer financial services led to higher interest rates on consumer loans and lower interest rates on deposits in both countries.

A very conservative estimate of \$8.4 billion per year reduction in personal income (50 percent of the average estimated annual loss to consumers, adjusted for inflation) resulting from higher loan rates and lower deposit rates due to a diminished credit union presence in the economy would lead to an annual reduction in GDP of about \$12 billion and a loss of 79,000 jobs per year over the next decade. These figures were estimated using Inforum's macroeconomic forecasting model, which measures the total direct and indirect losses of personal income, consumption, and GDP resulting from the elimination of the credit union tax exemption. The reduction in personal income would lead to a loss of \$5.6 billion per year in federal income tax revenue.



Introduction

In 1934, Congress passed the Federal Credit Union Act (FCUA), which created the federal credit union charter. In 1935, the Commissioner of the Internal Revenue Service (IRS) ruled federal credit unions were exempt from paying federal income taxes. A 1937 amendment to the FCUA explicitly granted a federal income tax exemption for federal credit unions. Congress reaffirmed this tax exemption in 1998 as part of its "findings" for Public Law 105-219, The Credit Union Membership Access Act, noting that credit unions are exempt from federal taxes because they are member-owned, democratically operated, notfor-profit organizations, generally managed by volunteer boards of directors. As a 2001 Treasury Department study explained, the rationale for this exemption is based on the fact that credit union member shares are their deposits and that they are cooperative organizations "operated entirely by and for their members" on a nonprofit basis. Federally-insured state chartered credit unions are also exempt from federal income tax under Section 501(c)(14)(A) of the Internal Revenue Code.

In recent years, numerous researchers have provided evidence of the important role played by credit unions in their local communities. They have found that consumers benefit from the presence of credit unions in the marketplace, and that these benefits are a direct result of the federal tax exemption. Consistent with basic microeconomic theory, increasing the number of firms in a market tends to lower prices offered by sellers; similarly, the increased availability of substitute goods provides competitive pressure. The presence of credit unions not only helps members get better rates, but also serves as a check on the interest rates banks offer their customers.

This report analyzes the likely impact on consumers of financial services and the wider economy if these competitive pressures were reduced significantly as a result of a change in the credit union federal income tax status. In reviewing recent academic and government literature on the importance of credit unions to the U.S. economy, this report quantifies the benefits to both credit union and bank loan and deposit consumers of having a credit union presence in local markets. These benefits spread further throughout the economy, and estimates of these larger impacts are analyzed and presented as well.



Data Analysis Demonstrates the Benefits of Credit Unions

To quantify benefits to the U.S. economy from the presence of credit unions, the most direct approach is to estimate the savings that credit union members have experienced from lower loan interest rates and higher interest on deposits, as compared to other financial institutions. In the absence of the federal tax exemption, it is likely that credit unions would be unable to offer these more attractive rates.

The difference between average mid-year (end of June) bank and credit union rates for several loan and deposit categories is used as the measure of savings to credit union customers, with the difference then expressed as a percentage of the bank rate. It should be noted that the difference between bank and credit union rates is likely to be a conservative estimate of the benefits to credit union customers, since in the absence of credit unions in the market we would expect bank rates to be less favorable to customers. In addition, we do not adjust for inflation over the past ten years – in real terms the aggregate savings to credit union customers expressed in current dollars would be still higher.

Credit unions offer better rates than banks

In the category of auto loans, utilizing data from credit unions and banks on 48- month new car loans and 36- month used car loans, credit union rates are found to average 34 percent lower than bank rates. Unsecured loans and credit card interest rates are estimated to be 10 percent lower than bank rates. Real estate loans were estimated to be 3 percent lower than equivalent bank rates. In the case of deposits, credit union CDs, IRAs, and KEOGH accounts were estimated to pay 66 percent higher rates than banks. Money market, savings, and interest-checking accounts were estimated to pay 61 percent higher rates at credit unions than equivalent bank products.

These credit union advantages (disaggregated by product and year) were multiplied by each year's mid-year bank rate to obtain an annual interest rate benefit, which was then applied to the volume of credit union loans or deposits of a particular category to derive the benefit obtained from being a credit union member. The results are shown in **Chart 3**. Clearly auto loans represent the largest source of gains to credit union members, with benefits of \$41.4 billion from 2011-2020. Bank customer benefits were greatest for unsecured and credit card loans. In terms of deposit accounts, credit union members gained \$9.7 billion due to more favorable rates on CDs, IRAs, and KEOGH accounts, and \$5.7 billion from better rates on savings, interest checking and money-market accounts. Across all deposit and loan products, credit union members gained a total of \$72.5 billion over the ten-year period of the study, 2011-2020.



Bank customer benefits Credit union member benefits \$50 billion \$40 \$30 \$20 \$10 \$0 Vehicle CDs. Checking. Unsecured Real loans loans & estate IRAs, savings, credit cards loans KEOGH MMF

CHART 3: CREDIT UNION & BANK CONSUMER BENEFITS BY PRODUCT

Credit union market presence has a beneficial effect on bank rates

As noted above, the consumer benefits from the participation of credit unions in local financial services markets are not limited to credit union members. Several studies have shown that banks respond to credit unions (as they would to any potential substitute product) by making their loan and deposit rates more attractive. To estimate the magnitude of these effects, and especially their relation to the credit union tax exemption, this study analyzes the question: "What effect would a 50 percent reduction in the credit union market share have on bank loan and deposit rates (and the associated costs and benefits to bank consumers)?" This is a conservative approach, as eliminating the federal tax exemption might have an even larger impact on the presence of credit unions. As discussed in greater detail below, Gasbarro et al. (2007) found that the 1994 imposition of federal taxes on credit unions in Australia led to a dramatic decline in the number of credit unions there, from 833 in May 1973 (at the start of their tax exemption) to only 149 remaining in 2006.

First, the estimated effects of changes in the local credit union market share on bank rates for two types of consumer loans are taken from previous research (Feinberg (2003)), and from this, the impact of a 50 percent reduction in the credit union market share on bank loan rates for all non-credit card consumer loans is determined. This leads to an estimated increase in loan rates, which is then applied to the volume of outstanding bank loans of a similar type to yield an estimate of the annual savings to bank loan consumers from 2011-2020. A similar analysis is conducted for deposit rates, based on estimates produced by Hannan (2002), who studied the impact of credit unions on bank deposit rates for interest checking, money market deposit accounts, and CDs. The estimates in Feinberg's 2003 study were based on the 1992-1998 period, and Hannan's 2002 estimates were based on 1998 data, so the assumption is made that the underlying relationships between a credit union presence in a local market and bank loan and deposit pricing have not changed since then.



Feinberg (2003) found that every 1 percent change in credit union market share led to a 0.05 percent change (in the opposite direction) in unsecured (non-credit card) bank loan rates, and to a 0.10 percent change (in the opposite direction) in new vehicle loan rates at banks. For the purpose of this report, an equivalent impact on used vehicle loan rates is assumed as well. A 50 percent reduction in the credit union share would, therefore, yield a 2.5 percent increase in unsecured loan rates at banks and a 5 percent increase in vehicle loan rates at banks. The 2.5 percent increase is also applied in this report to all other consumer bank loans.

The effect of a 50 percent reduction in credit union presence on bank automobile loan rates is estimated to range from a 21 basis point to a 27 basis point increase per year over the 2011-2020 period. These figures were derived by averaging mid-year (end of June) rates for bank 48-month new car loans and 36-month used car loans from DataTrac data, and then determining the impact of a 5 percent increase in these rates. These basis point increases were then applied to the volume of auto loans outstanding at banks. For all other bank loans, an increase of between 7 and 34 basis points resulted from applying the 2.5 percent estimated increase in rates to the annual mid-year bank rate, and these basis point increases were applied to the annual volumes of "other" bank loans to individuals, less auto loans. The resulting change in borrowing costs to bank consumers is interpreted as the benefit from the existing credit union presence in local markets.

As for the impact on deposit rates offered by banks, Hannan (2002) estimated the separate impact of the credit union market share (his favored measure was the credit union membership in a local market as a share of the local adult population) on bank/thrift rates on money market deposit accounts, interest checking, and 3-month CDs. Based on the average credit union market shares in his data sample and bank rates at the time, the impact of reducing these ratios by 50 percent (as was the approach above for loan rates) would imply a 12 basis point decrease in money market rates, an 11 basis point reduction in interest checking rates, and a 9 basis point reduction in 3-month CD rates. These basis point differences amounted to a 4.4 percent, 6.9 percent, and 2.1 percent change in interest rates at the time, respectively.

Assuming these effects would apply more broadly, these percentage changes were also applied to mid-year bank deposit rates from 2011 to 2020, and then the resulting interest rate changes to annual volumes of bank deposits of money market accounts, transaction accounts, and all other savings and time deposit accounts, respectively. The total estimated benefits received by bank customers total roughly \$80.7 billion over the ten-year period of the study.

The total benefit to U.S. consumers from the presence of credit unions in local financial markets was obtained by adding together the benefits to credit union members and benefits to bank consumers. These benefits encompass both reduced loan interest expenditures



and increased deposit interest received by both bank and credit union members. Consumer benefits totaled \$153 billion from 2011-2020, or approximately \$15 billion per year.

TABLE 1. ESTIMATED BENEFITS TO CREDIT UNION MEMBERS AND BANK CUSTOMERS BY STATE, 2011-2020

In order to examine these effects on a state-level basis, these gains were apportioned on the basis of each state's share of total credit union and bank deposits in 2020. Credit union and bank consumers from larger states received substantial gains from the presence of credit unions in their markets. The largest ten-year benefits amounted to \$19.2 billion in California, \$15.5 billion in New York, \$12.6 billion in Texas, \$7.9 billion in Florida, and \$5.8 billion in North Carolina.

Millions current \$	Total consumer benefits 2011-20	Bank customer benefits 2011-20	CU member benefits 2011-20	Bank customer benefits 2020	CU member benefits 2020	State pctg of bank deposits 2020	State pctg of CU deposits 2020
U.S.	\$153,208	\$80,711	\$72,497	\$7,854	\$10,015	100%	100%
Alabama	\$1,861.0	\$674.5	\$1,186.5	\$65.6	\$163.9	0.8%	1.6%
Alaska	\$405.3	\$74.1	\$331.1	\$7.2	\$45.7	O.1%	0.5%
Arizona	\$2,173.8	\$899.0	\$1,274.8	\$87.5	\$176.1	1.1%	1.8%
Arkansas	\$632.0	\$430.8	\$201.2	\$41.9	\$27.8	0.5%	0.3%
California	\$19,200.3	\$9,341.8	\$9,858.4	\$909.1	\$1,361.9	11.6%	13.6%
Colorado	\$2,481.1	\$897.6	\$1,583.5	\$87.3	\$218.7	1.1%	2.2%
Connecticut	\$1,474.5	\$848.6	\$625.9	\$82.6	\$86.5	1.1%	0.9%
Delaware	\$2,555.2	\$2,433.4	\$121.8	\$236.8	\$16.8	3.0%	0.2%
Dist. of Col.	\$1,007.0	\$343.0	\$664.1	\$33.4	\$91.7	0.4%	0.9%
Florida	\$7,883.6	\$3,690.7	\$4,192.8	\$359.1	\$579.2	4.6%	5.8%
Georgia	\$3,125.1	\$1,493.7	\$1,631.4	\$145.4	\$225.4	1.9%	2.3%
Hawaii	\$933.2	\$265.1	\$668.1	\$25.8	\$92.3	0.3%	0.9%
Idaho	\$850.6	\$172.5	\$678.1	\$16.8	\$93.7	0.2%	0.9%
Illinois	\$5,069.5	\$3,185.7	\$1,883.9	\$310.0	\$260.2	3.9%	2.6%
Indiana	\$2,111.2	\$846.6	\$1,264.5	\$82.4	\$174.7	1.0%	1.7%
lowa	\$1,503.9	\$525.6	\$978.2	\$51.2	\$135.1	0.7%	1.3%
Kansas	\$934.9	\$461.4	\$473.4	\$44.9	\$65.4	0.6%	0.7%
Kentucky	\$1,118.3	\$514.1	\$604.2	\$50.0	\$83.5	0.6%	0.8%
Louisiana	\$1,296.8	\$646.3	\$650.5	\$62.9	\$89.9	0.8%	0.9%
Maine	\$622.1	\$191.6	\$430.5	\$18.6	\$59.5	0.2%	0.6%

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Millions current \$	Total consumer benefits 2011-20	Bank customer benefits 2011-20	CU member benefits 2011-20	Bank customer benefits 2020	CU member benefits 2020	State pctg of bank deposits 2020	State pctg of CU deposits 2020
Maryland	\$2,379.4	\$949.1	\$1,430.3	\$92.4	\$197.6	1.2%	2.0%
Massachusetts	\$4,425.0	\$2,597.4	\$1,827.6	\$252.8	\$252.5	3.2%	2.5%
Michigan	\$4,678.3	\$1,481.3	\$3,197.0	\$144.1	\$441.7	1.8%	4.4%
Minnesota	\$2,703.7	\$1,420.3	\$1,283.4	\$138.2	\$177.3	1.8%	1.8%
Mississippi	\$661.3	\$337.1	\$324.2	\$32.8	\$44.8	0.4%	0.4%
Missouri	\$1,742.4	\$1,063.3	\$679.1	\$103.5	\$93.8	1.3%	0.9%
Montana	\$396.1	\$149.4	\$246.8	\$14.5	\$34.1	0.2%	0.3%
Nebraska	\$661.0	\$375.4	\$285.6	\$36.5	\$39.5	0.5%	0.4%
Nevada	\$930.1	\$585.4	\$344.7	\$57.0	\$47.6	0.7%	0.5%
New Hampshire	\$697.2	\$220.7	\$476.5	\$21.5	\$65.8	0.3%	0.7%
New Jersey	\$2,893.2	\$2,103.5	\$789.8	\$204.7	\$109.1	2.6%	1.1%
New Mexico	\$811.0	\$200.7	\$610.3	\$19.5	\$84.3	0.2%	0.8%
New York	\$15,487.8	\$11,373.9	\$4,113.9	\$1,106.8	\$568.3	14.1%	5.7%
North Carolina	\$5,800.9	\$2,596.7	\$3,204.3	\$252.7	\$442.6	3.2%	4.4%
North Dakota	\$364.0	\$180.0	\$183.9	\$17.5	\$25.4	0.2%	0.3%
Ohio	\$3,791.7	\$2,372.8	\$1,418.9	\$230.9	\$196.0	2.9%	2.0%
Oklahoma	\$1,331.7	\$594.7	\$736.9	\$57.9	\$101.8	0.7%	1.0%
Oregon	\$1,989.4	\$516.1	\$1,473.2	\$50.2	\$203.5	0.6%	2.0%
Pennsylvania	\$5,235.7	\$2,611.5	\$2,624.2	\$254.1	\$362.5	3.2%	3.6%
Rhode Island	\$534.2	\$194.4	\$339.7	\$18.9	\$46.9	0.2%	0.5%
South Carolina	\$1,423.7	\$547.7	\$876.0	\$53.3	\$121.0	0.7%	1.2%
South Dakota	\$4,304.4	\$4,130.3	\$174.2	\$401.9	\$24.1	5.1%	0.2%
Tennessee	\$2,267.3	\$1,006.2	\$1,261.0	\$97.9	\$174.2	1.2%	1.7%
Texas	\$12,562.6	\$7,119.9	\$5,442.7	\$692.8	\$751.9	8.8%	7.5%
Utah	\$5,247.7	\$3,720.9	\$1,526.8	\$362.1	\$210.9	4.6%	2.1%
Vermont	\$305.8	\$88.6	\$217.2	\$8.6	\$30.0	0.1%	0.3%
Virginia	\$4,695.7	\$1,981.8	\$2,713.9	\$192.8	\$374.9	2.5%	3.7%
Washington	\$4,144.5	\$1,021.2	\$3,123.3	\$99.4	\$431.5	1.3%	4.3%
West Virginia	\$379.6	\$202.6	\$177.0	\$19.7	\$24.5	0.3%	0.2%
Wisconsin	\$2,883.0	\$934.2	\$1,948.8	\$90.9	\$269.2	1.2%	2.7%
Wyoming	\$240.3	\$97.4	\$142.9	\$9.5	\$19.7	O.1%	0.2%

Source: NCUA 5300 call report data (CU deposits) and FDIC Summary of Deposits (bank deposits)

Broad economic impact from loss of the credit union tax exemption

Inforum's Long-term Interindustry Forecasting Tool (LIFT) model was used to estimate the broader economic impact of these consumer benefits. The LIFT model uses a "bottom-up" approach to macroeconomic modeling that works like the actual economy, building aggregate totals from details of industry activity for 121 productive sectors. The model describes how changes in individual industries, such as increasing productivity or changing international trade patterns, affect related sectors and the economy as a whole. Parameters in the behavioral equations differ among products, reflecting differences in consumer preferences, price elasticity, and industrial structure. The detailed level of disaggregation permits the modeling of prices by industry, allowing one to explore the causes and effects of relative price changes.

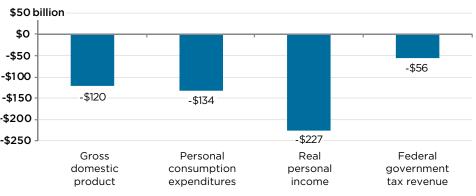


CHART 4: TOTAL ECONOMIC IMPACT FROM LOSS OF CREDIT UNION TAX EXEMPTION — FORECASTED FROM 2021-2030 (2021\$)

Total employment losses from 2021-2030 = 786,000 job-years

The model estimates the total direct and indirect losses of personal income and consumption resulting from the elimination of the credit union federal tax exemption. A reduction of \$8.4 billion per year in personal income would lead to a decline in GDP of about \$12 billion per year and employment losses of approximately 79,000 jobs per year over the next decade **(Table 2)**. This reduction in personal income also leads to a loss of \$5.6 billion per year in federal income tax revenue.



TABLE 2. LIFT MACROECONOMIC RESULTS

	Re	ference C	ase	AI	ternate C	ase	Difference				
LIFT Macroeconomic Results billions 2021\$	2021	2030	2021-30 Average	2021	2030	2021-30 Average	2021	2030	2021-30 Average	2021-30 Total	
Gross domestic product	22,273	26,696	24,659	22,262	26,685	24,647	-10.6	-11.0	-12.0	-120.4	
Personal consumption expenditures	15,549	19,216	17,506	15,536	19,202	17,493	-12.5	-13.6	-13.3	-133.5	
Gross private fixed investment	3,957	5,284	4,597	3,956	5,282	4,595	-0.1	-1.8	-1.9	-19.4	
Real national income	18,763	21,835	20,528	18,751	21,803	20,506	-11.5	-32.7	-22.3	-222.9	
Real personal income	19,536	23,187	21,336	19,523	23,158	21,313	-12.4	-29.8	-22.7	-227.0	
Billions of current dollars											
Personal interest income	1,566	2,652	1,847	1,561	2,649	1,842	-5.3	-3.5	-4.9	-48.6	
Disposable income	16,954	24,427	20,487	16,944	24,397	20,466	-10.3	-30.0	-21.0	-210.4	
Federal government tax revenue	4,012	6,538	5,174	4,010	6,529	5,168	-2.6	-8.6	-5.6	-55.5	
Total employment (thousands of jobs)	157,934	167,572	164,249	157,890	167,506	164,170	-44.1	-66.3	-78.6	-785.9	
Unemployment rate (percent)	6.02	4.28	4.63	6.05	4.31	4.67	0.03	0.04	0.05		

LIFT and STEMS are products of Interindustry Economic Research Fund, Inc., College Park, MD. More detail on Inforum's products and services can be found at www.inforum.umd.edu.

Overview of Prior Research on the Benefits of Credit Unions

Credit unions have been exempt from federal income tax since their inception. Previous studies have pointed to the consumer and societal benefits of credit unions, and this report demonstrates these benefits empirically using the most recent data.

Negative consequences of taxing credit unions in Canada and Australia

Burger (1991) examined how the federal income taxation of Savings & Loans in the 1950's and of Canadian credit unions in 1972 affected these institutions' operations. He noted that under federal income taxation the capital-to-asset ratios for S&Ls sharply declined. Similarly, the capital-to-asset ratio for Canadian credit unions declined from an average of 6 percent (1967-1971) to an average of 3.75 percent (1971-1976) after the change in tax policy. Reduced capital reserves severely restrict any financial institution's ability to lend. Both of these experiences are viewed by Burger as suggesting the vulnerability of U.S. credit unions to federal income tax.

More recently, Gasbarro et al. (2007) examined the effect of the 1994 imposition of federal income taxes on credit unions in Australia, in order to determine how federal income taxation might affect U.S. credit unions. There were 833 credit unions in Australia in May 1973 (beginning of tax exemption), about 400 in 1994, and only 149 remained in 2006. This reduction in the number of credit unions is believed to have been the direct result of a significant decrease in returns on equity, as returns on equity for the remaining credit unions fell dramatically after taxation.

Credit unions' positive effect on market loan rates

Feinberg (2001) presented a theoretical framework for understanding the impact that credit unions have on bank loan rates, and then examined data on small local markets in the U.S. to see how unsecured and new vehicle loan rates are affected. High state-level credit union membership rates were found to put downward pressure on both unsecured and new vehicle rates. Feinberg (2003) broadened the analysis to examine large and small local markets, finding unsecured and new vehicle loan rates to be reduced in response to greater local credit union market shares (with a high rate of state-level credit union membership also putting downward pressure on bank loan rates). Both Feinberg studies support the view that competition from credit unions leads to better rates being offered by banks, producing a direct benefit to consumers.

Combining the results of the two studies on market averages and individual bank pricing suggests that a one percent change in credit union market share is associated with a -0.05 percent and -0.10 percent decline, respectively, in unsecured and new vehicle loan rates.



Based on this finding, a 50 percent reduction in the credit union share would imply a 2.5 percent and 5 percent increase in unsecured and new vehicle bank loan rates. A later calculation by Feinberg using 2004 data estimated that bank loan consumers would pay an extra \$1.7 billion dollars in interest if this significant reduction in the credit union share of local financial services markets occurred.

Better bank rates from market competition

In a similar study on the deposit side, Hannan (2002) applied three different proxy variables to determine the importance of credit unions in determining bank deposit interest rates in local geographic markets: (1) the share of total market deposits accounted for by credit unions; (2) the ratio of credit union members in a metropolitan area to the population in the area over the age of 18; and (3) the number of potential occupational credit union members in the area to the population over age 18. Hannan noted these alternative measures each have their advantages and disadvantages in measuring the influence of credit unions in a particular market.

Hannan's results indicate that credit union competition leads to banks offering better rates in all three instruments analyzed (money market deposit accounts, interest bearing checking accounts, and threemonth CDs). Based on Hannan's findings, it is estimated that a 50 percent decline in the credit union market share would lead to a 4.4 percent decline in bank money-market deposit rates, a 6.9 percent decline in interest checking rates, and a 2.1 percent decline for threemonth CDs.

Unique credit union structure provides broad benefits

Cooper (2003) offered a broader picture of credit union benefits. This study stressed not only the importance of a tax exemption for credit unions, but also how their unique organizational structure benefits consumers. Cooper reported that as of 2003 the benefits to credit union members due to lower loan and higher deposit rates were equivalent to a total of \$9 billion per year in consumer savings (the typical yearly average household savings was valued at \$250 per credit union member). Cooper also cited a 1997 Consumer Federation of America survey in which 70 percent of the respondents said that credit unions offer consumers better rates than banks.

A 2005 study by the Government Accountability Office (GAO) presented arguments for and against continuing the federal tax exemption for credit unions, without drawing any policy conclusions. It noted that an important rationale for the federal tax exemption is the view of credit unions as "member-owned, democratically operated, not-for-profit organizations generally managed by volunteer boards of directors." The GAO also pointed out that banks, especially small banks, are provided similar forms of tax relief through Subchapter S status, which today covers nearly one-third of banks, and acknowledged concerns about the capital raising ability of credit unions in the absence of the federal income tax exemption.



Credit unions consistently offer better rates than for-profit financial institutions

Feinberg and Rahman (2006) examined a combined sample of bank and credit union loan rates, from the mid-1990s, finding credit union new vehicle loan rates to be more than 10 percent lower than bank loan rates, after controlling for other factors (such as local market characteristics, and the financial institution's market share). While suggesting significant savings to credit union members, no calculation of the magnitudes involved was performed. Jackson (2006) took a somewhat different approach to bank/credit union comparisons. Looking at the effect of asymmetric pricing behavior by banks and credit unions on the deposit and loan rates offered, he noted that on the loan side "credit unions lower rates faster when the market rates are falling than they raise the rates when market rates are rising, resulting in lower average loan rates over the interest cycle."

Heinrich and Kashian (2008) analyzed cross-sectional data for 175 depository institutions, as of June 2005. The study compared the deposit and loan interest rates offered by credit unions with (a) all banking institutions, (b) credit unions recently converted to for-profit institutions, and (c) banking institutions that have never been credit unions. The results show that credit unions consistently offer lower loan rates and higher savings rates in comparison to other banking institutions (with the exception of interest bearing checking accounts). The largest difference in rates between credit unions and former credit unions appeared to be on standard savings accounts, with credit unions providing a better rate. The authors did note that it is difficult to pin-point what accounts for the variation in rate other than institutional differences. While their findings are supportive of the credit union tax exemption, they could not rule out other factors leading to consumer benefits passed on by credit unions.

Sub-S institutions do not pass on their tax benefits to consumers

Depken, et al. (2010) examined whether the tax benefits provided to Sub-S banks are passed along to consumers in the form of more favorable interest rates. Given that Sub-S banks are not subject to corporate federal income taxes (the tax burden is passed through to shareholders) one might expect that Sub-S banks would pass these tax benefits on to consumers in the form of lower loan and higher deposit rates than traditional C-Corporation banks. As of June 2008, Sub-S chartered banks were roughly 30 percent of U.S. banking institutions. The authors used OLS regression (though similar results are obtained with more sophisticated modeling) with variables for whether the institution is a Sub-S bank or not, whether the institution is a credit union or not, a regional dummy variable, and a dummy variable for the size of the institution. The results suggest that Sub-S institutions offer the same or lower deposit rates than traditional banking institutions,



with no differences in loan rates. Concomitantly, Depken found that credit unions offer lower loan rates, suggesting that although Sub-S institutions do not pass on their tax benefits to consumers, credit unions do.

Credit unions continue to be an important competitive influence in current markets

More recently, Chatterji et al. (2015) noted gains in credit union shares of consumer financial services markets after the financial crisis of the late 2000s. These gains were especially strong for those credit unions with distinct "non-bank" identities, and suggest that credit unions provide an important competitive influence in these markets.

Similarly, Cororaton (2020) finds credit unions to have increased lending after the Great Recession, relative to commercial banks. She attributes this to more competitive loan pricing, due to "memberoriented firm objectives" by credit unions.

Recent work confirms that credit unions pass the benefits of their tax exemption on to members

DeYoung, et al (2019), in a University of St. Andrews (Scotland) working paper, examine what they call the relative inefficiencies of banks and credit unions, finding credit unions to be more inefficient. However, this is essentially a by-product of differing goals and organizational structures of the two types of financial institutions. Importantly, when they consider prices credit unions actually pay and charge for inputs and outputs they find that virtually all the benefits of the federal tax exemption are passed on to credit union members.

Furthermore, van Rijn et al (2021) examine individual data from the Federal Reserve's Survey of Consumer Finances from 2001 to 2019 to confirm that households receiving auto loans – on both new and used vehicles -- from credit unions pay substantially less in interest than similar households receiving bank loans. They estimate the aggregated savings to credit union members on these loans alone is larger than the estimated value of the credit union corporate income tax exemption. But as they do not consider savings on other types of loans and benefits from higher deposit rates to credit union members – let alone competitive benefits to bank customers -- they acknowledge that the benefits identified in their study are surely an underestimate of the true value to consumers of credit unions' presence in the market.

The previous literature outlined in this study documents clear savings to both credit union and bank consumers due to the presence of credit unions in local financial services markets. While it may not be possible to determine the exact degree to which the federal tax exemption is responsible for consumer savings, it clearly plays a major role. This study provides an updated analysis of total consumer benefits and economic gains resulting from the credit union presence over the past decade.



Conclusions

Loss of the credit union tax exemption would result in direct losses to consumers

Making very conservative assumptions, this report finds that in the absence of the credit union federal tax exemption, a significant reduction of the presence of credit unions in the U.S. economy would have resulted in a direct loss to consumers of \$153 billion over the tenyear period studied. These losses would be due to both increased loan interest expenditures and reduced deposit interest received by bank and credit union members alike.

A reduction in credit union market presence would hurt all consumers

The presence of credit unions in local consumer lending markets has a significant positive impact on both bank customers and credit union members for both loans and deposits. Consumers saved and earned approximately \$15 billion per year over the past decade in direct benefits thanks to the presence of credit unions in financial markets. These benefits are unlikely to occur without the federal tax exemption granted to the credit union industry.

It is worth nothing that the simulated 50 percent reduction in credit union market share assumed in this study is a very conservative estimate of what would likely occur as a result of the elimination of the federal tax exemption, as the Australian case demonstrates. Therefore, the effects simulated in this study likely understate the true benefit of credit unions to bank loan consumers. Furthermore, the calculated benefits to credit union members presented above may underestimate their gains from the presence of credit unions in local markets, as bank rates would be less favorable (and the gap between actual credit union interest rates and bank rates would be even larger).

Loss of the credit union tax exemption would have farreaching consequences for the overall economy

There are even larger consequences to the overall economy when these credit union benefits are applied to Inforum's dynamic general equilibrium model. In the absence of the federal tax exemption, reduced purchasing power by bank and credit union members would lead to reduced consumer spending in other sectors of the economy. The reduced purchasing power in the U.S. economy resulting from a \$23 billion annual loss of personal income would reduce consumer spending by about \$13 billion per year over the next decade (in 2021 dollars). This would result in a reduction in GDP of approximately \$12 billion per year and employment losses of roughly 79,000 jobs per year. Model results incorporate the elimination of preferential loan and deposit rates for credit union members as well as the effect on bank consumers of reducing the market share of credit unions.



Notes

- Some credit union/bank interest rate differences may not be lost without the federal income tax exemption. The volunteer nature of some credit union positions and donated office space received by some credit unions might allow slightly more attractive loan and deposit pricing to continue, but the much smaller average size of credit union institutions would likely continue to disadvantage them vis-à-vis larger banking firms.
- 2. The estimated effects on bank loan rates in Feinberg's 2003 study were determined only for unsecured non-credit card loan rates and for new vehicle loans; however extrapolating these to other consumer loans is reasonable.
- 3. Statistical estimates are generally most accurate for small changes, in this case for small changes in the credit union market share; however, there was substantial variation in the credit union share among the markets analyzed in the original published research, and a 50 percent change from the mean value certainly includes data points from the original sample of observations.
- 4. Hannan's (2002) estimates were expressed in terms of basis point changes due to changes in the credit union market share (rather than in percentage changes in loan rates); these basis point changes were transformed into estimated percentage changes from the 1998 bank deposit interest rates, and those percentage changes were then applied to mid-year average rates for each year.



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APPENDIX: STATE ESTIMATES OF PERSONAL INCOME LOSSES DUE TO REDUCTION OF CREDIT UNION PRESENCE

	R	eference Ca	se	A	lternate Cas	se	Difference				
Personal Income (millions 2021 \$)	2021	2030	2021- 2030 Average	2021	2030	2021- 2030 Average	2021	2030	2021- 2030 Average	2021- 2030 Total (\$b)	
TOTAL U.S.	19,535,867	23,187,483	21,335,708	19,523,443	23,157,639	21,313,011	-12,424	-29,844	-22,697	-227.0	
Alabama	226,035	258,318	242,693	225,925	258,040	242,486	-110	-278	-206	-2.1	
Alaska	47,725	57,187	52,532	47,690	57,113	52,475	-35	-74	-57	-0.6	
Arizona	353,007	429,326	391,023	352,861	428,880	390,707	-146	-446	-316	-3.2	
Arkansas	143,314	173,473	158,088	143,236	173,308	157,953	-79	-166	-135	-1.4	
California	2,766,267	3,322,421	3,032,836	2,764,308	3,318,098	3,029,444	-1,958	-4,323	-3,392	-33.9	
Colorado	368,295	461,350	413,419	368,048	460,787	412,993	-247	-562	-426	-4.3	
Connecticut	293,877	345,096	318,869	293,691	344,591	318,488	-186	-505	-381	-3.8	
Delaware	55,595	66,915	61,221	55,454	66,721	61,048	-141	-194	-172	-1.7	
Dist. of Col.	63,826	80,641	72,124	63,742	80,495	72,001	-84	-145	-123	-1.2	
Florida	1,183,813	1,469,240	1,322,560	1,183,231	1,467,812	1,321,469	-582	-1,428	-1,091	-10.9	
Georgia	539,479	639,331	589,573	539,250	638,588	589,049	-229	-744	-524	-5.2	
Hawaii	87,888	106,354	96,972	87,820	106,213	96,861	-68	-140	-110	-1.1	
Idaho	84,594	101,976	92,883	84,534	101,850	92,782	-61	-126	-101	-1.0	
Illinois	783,710	885,548	834,466	783,289	884,385	833,606	-421	-1,162	-861	-8.6	
Indiana	343,842	390,723	367,532	343,692	390,259	367,208	-149	-463	-324	-3.2	
lowa	172,447	197,173	184,635	172,345	196,923	184,445	-101	-250	-190	-1.9	
Kansas	163,795	186,107	175,090	163,717	185,880	174,925	-78	-227	-165	-1.7	
Kentucky	206,431	236,266	221,709	206,363	236,036	221,547	-68	-230	-161	-1.6	
Louisiana	237,123	282,567	260,107	237,012	282,268	259,889	-111	-299	-219	-2.2	
Maine	70,550	79,961	75,360	70,513	79,864	75,288	-36	-97	-72	-0.7	
Maryland	416,488	474,945	445,581	416,299	474,409	445,190	-189	-536	-390	-3.9	
Massachusetts	540,100	643,739	590,406	539,716	642,781	589,671	-384	-958	-735	-7.4	
Michigan	526,323	599,205	563,500	526,015	598,449	562,929	-308	-756	-571	-5.7	
Minnesota	352,335	415,536	383,377	352,133	414,979	382,963	-202	-557	-413	-4.1	
Mississippi	125,137	143,277	134,711	125,095	143,145	134,618	-42	-133	-93	-0.9	

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	Reference Case			A	lternate Cas	e	Difference				
Personal Income (millions 2021 \$)	2021	2030	2021- 2030 Average	2021	2030	2021- 2030 Average	2021	2030	2021- 2030 Average	2021- 2030 Total (\$b)	
Missouri	317,049	364,613	340,996	316,920	364,193	340,695	-129	-420	-301	-3.0	
Montana	54,984	66,701	60,648	54,948	66,627	60,588	-36	-74	-60	-0.6	
Nebraska	113,065	129,803	121,261	113,018	129,640	121,145	-47	-164	-116	-1.2	
Nevada	164,827	202,514	183,339	164,755	202,304	183,185	-72	-211	-154	-1.5	
New Hampshire	89,525	102,471	95,901	89,471	102,323	95,791	-54	-147	-109	-1.1	
New Jersey	663,446	771,160	717,267	663,159	770,127	716,547	-287	-1,033	-719	-7.2	
New Mexico	94,825	109,731	102,480	94,774	109,620	102,394	-50	-111	-85	-0.9	
New York	1,451,048	1,700,166	1,572,335	1,449,574	1,697,464	1,570,097	-1,474	-2,702	-2,237	-22.4	
North Carolina	528,314	627,593	577,758	527,943	626,770	577,126	-372	-823	-633	-6.3	
North Dakota	47,393	57,404	52,269	47,356	57,328	52,208	-37	-76	-61	-0.6	
Ohio	618,522	698,799	659,744	618,283	697,967	659,159	-239	-833	-585	-5.9	
Oklahoma	201,024	239,769	220,913	200,920	239,511	220,723	-104	-258	-189	-1.9	
Oregon	233,081	278,758	255,254	232,936	278,427	254,998	-145	-331	-256	-2.6	
Pennsylvania	778,014	893,874	836,692	777,645	892,727	835,865	-369	-1,147	-827	-8.3	
Rhode Island	62,525	70,539	66,606	62,491	70,447	66,538	-34	-92	-68	-0.7	
South Carolina	245,145	294,976	269,943	245,037	294,681	269,729	-107	-295	-214	-2.1	
South Dakota	50,987	61,198	55,900	50,746	60,912	55,629	-241	-287	-271	-2.7	
Tennessee	349,570	412,974	381,499	349,417	412,453	381,137	-153	-521	-362	-3.6	
Texas	1,624,912	2,038,664	1,830,402	1,623,763	2,035,969	1,828,406	-1,149	-2,695	-1,996	-20.0	
Utah	161,427	200,322	179,919	161,088	199,833	179,486	-339	-490	-432	-4.3	
Vermont	36,815	42,438	39,646	36,795	42,388	39,607	-20	-51	-39	-0.4	
Virginia	541,889	646,982	593,748	541,543	646,115	593,095	-346	-867	-653	-6.5	
Washington	513,682	625,936	566,893	513,313	625,129	566,255	-369	-807	-638	-6.4	
West Virginia	79,554	88,490	84,455	79,533	88,407	84,398	-21	-83	-57	-0.6	
Wisconsin	324,255	369,507	346,890	324,066	369,022	346,524	-189	-485	-366	-3.7	
Wyoming	37,993	45,425	41,686	37,968	45,381	41,648	-25	-44	-38	-0.4	

STATE ESTIMATES OF EMPLOYMENT LOSSES

	Reference Case (thousands of jobs)				Alternate Case (thousands of jobs)			Difference (number of jobs)			
Employment by state	2021	2030	2021-30 Average	2021	2030	2021-30 Average	2021	2030	2021-30 Average	2021-2030 Total	
Total U.S.	157,934	167,572	164,249	157,890	167,506	164,170	-44,141	-66,297	-78,602	-786.0	
Alabama	2,120	2,189	2,176	2,119	2,189	2,175	-469	-552	-758	-7.6	
Alaska	363	390	380	363	389	380	-95	-143	-164	-1.6	
Arizona	3,047	3,276	3,190	3,047	3,275	3,189	-606	-991	-1,205	-12.1	
Arkansas	1,320	1,411	1,377	1,319	1,410	1,377	-293	-281	-482	-4.8	
California	18,979	20,198	19,754	18,973	20,191	19,745	-5,818	-7,594	-9,614	-96.1	
Colorado	2,933	3,202	3,091	2,932	3,201	3,089	-905	-1,158	-1,414	-14.1	
Connecticut	1,779	1,889	1,852	1,778	1,888	1,851	-459	-962	-1,037	-10.4	
Delaware	482	516	503	481	515	503	-585	-676	-712	-7.1	
Dist. of Col.	843	944	902	843	944	901	-503	-652	-724	-7.2	
Florida	9,451	10,343	9,975	9,449	10,340	9,971	-2,169	-2,751	-3,848	-38.5	
Georgia	4,823	5,056	4,987	4,822	5,054	4,985	-1,018	-1,587	-1,918	-19.2	
Hawaii	766	830	804	765	829	804	-242	-328	-390	-3.9	
Idaho	801	852	832	801	852	832	-243	-287	-379	-3.8	
Illinois	6,338	6,549	6,508	6,337	6,546	6,505	-1,620	-2,737	-3,146	-31.5	
Indiana	3,238	3,340	3,322	3,238	3,339	3,321	-622	-1,038	-1,252	-12.5	
lowa	1,657	1,718	1,703	1,656	1,718	1,702	-398	-602	-748	-7.5	
Kansas	1,522	1,573	1,563	1,522	1,572	1,562	-288	-513	-608	-6.1	
Kentucky	2,044	2,116	2,101	2,044	2,116	2,100	-277	-441	-627	-6.3	
Louisiana	2,108	2,259	2,204	2,107	2,259	2,203	-351	-617	-772	-7.7	
Maine	653	683	675	653	683	675	-121	-259	-293	-2.9	
Maryland	2,936	3,076	3,031	2,935	3,075	3,030	-535	-1,046	-1,199	-12.0	
Massachusetts	3,875	4,164	4,057	3,874	4,162	4,055	-1,164	-2,328	-2,508	-25.1	
Michigan	4,536	4,690	4,663	4,535	4,688	4,661	-1,204	-1,734	-2,126	-21.3	
Minnesota	3,073	3,263	3,199	3,073	3,261	3,197	-725	-1,469	-1,626	-16.3	
Mississippi	1,239	8,282	1,274	1,238	1,281	1,273	-172	-198	-318	-3.2	
Missouri	2,991	3,131	3,092	2,990	3,130	3,091	-516	-1,055	-1,247	-12.5	

Continued >

	Reference Case (thousands of jobs)				Alternate Case (thousands of jobs)			Difference (number of jobs)			
Employment by state	2021	2030	2021-30 Average	2021	2030	2021-30 Average	2021	2030	2021-30 Average	2021-2030 Total	
Montana	504	547	529	504	547	529	-129	-170	-227	-2.3	
Nebraska	1,074	1,117	1,105	1,074	1,117	1,104	-188	-404	-452	-4.5	
Nevada	1,441	1,570	1,518	1,441	10,569	1,517	-282	-478	-616	-6.2	
New Hampshire	693	718	712	693	717	711	-187	-341	-376	-3.8	
New Jersey	4,303	4,516	4,451	4,302	4,514	4,449	-853	-2,056	-2,116	-21.2	
New Mexico	896	944	929	896	944	928	-167	-202	-289	-2.9	
New York	10,063	10,721	10,490	10,059	10,714	10,482	-4,704	-6,597	-7,474	-74.7	
North Carolina	4,841	5,103	5,017	4,839	5,101	5,014	-1,609	-1,981	-2,419	-24.2	
North Dakota	463	497	484	463	497	484	-139	-205	-245	-2.5	
Ohio	5,711	5,908	5,872	5,710	5,906	5,870	-901	-2,062	-2,352	-23.5	
Oklahoma	1,744	1,849	1,815	1,743	1,849	1,815	-373	-470	-620	-6.2	
Oregon	2,051	2,179	2,133	2,050	2,179	2,132	-522	-714	-930	-9.3	
Pennsylvania	6,308	6,638	6,542	6,307	6,635	6,539	-1,150	-2,839	-3,088	-30.9	
Rhode Island	518	544	537	518	544	537	-122	-250	-273	-2.7	
South Carolina	2,275	2,407	2,362	2,274	2,407	2,361	-468	-510	-756	-7.6	
South Dakota	469	502	489	468	501	488	-1,023	-1,084	-1,153	-11.5	
Tennessee	3,189	3,364	3,309	3,188	3,363	3,308	-678	-1,268	-1,412	-14.1	
Texas	13,356	14,541	14,072	13,352	14,535	10,065	-4,406	-6,055	-6,864	-68.6	
Utah	1,616	1,753	1,695	1,614	1,751	1,693	-1,581	-1,757	-1,942	-19.4	
Vermont	336	355	349	336	355	349	-62	-120	-148	-1.5	
Virginia	4,328	4,609	4,506	4,326	4,607	4,504	-1,250	-1,907	-2,172	-21.7	
Washington	3,760	4,021	3,919	3,759	4,020	3,317	-1,091	-1,456	-1,850	-18.5	
West Virginia	730	756	751	730	756	751	-35	-164	-198	-2.0	
Wisconsin	3,056	3,162	3,141	3,055	3,161	3,139	-750	-1,156	-1,417	-14.2	
Wyoming	294	314	307	294	314	306	-72	-51	-98	-1.0	
Wyoming	318	337	328	318	337	327	-101	-94	-122	-1.2	