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

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Prepared on behalf of the National Association of Federally-Insured Credit Unions
www.nafcu.org/research

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EXECUTIVE SUMMARY

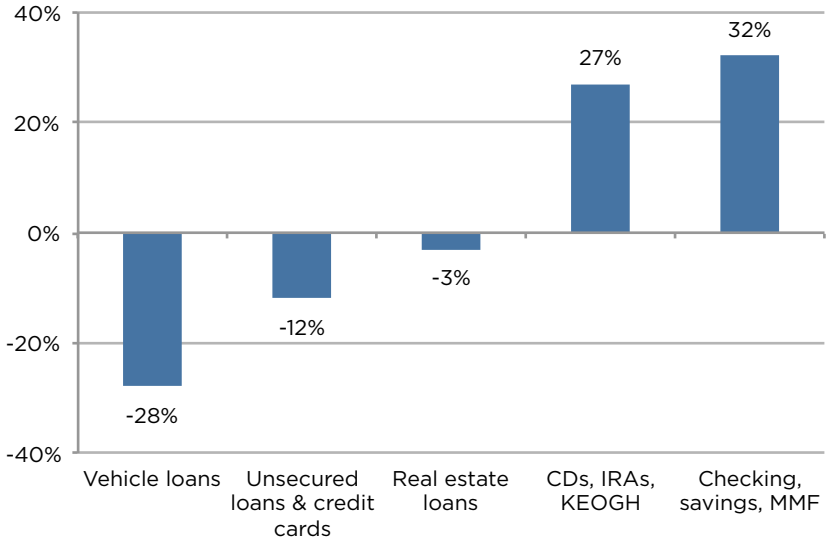
Credit unions are member-owned, not-for-profit cooperative financial institutions that serve defined fields of membership under the general oversight of volunteer boards of directors. Democratically owned and operated, credit unions are organized without capital stock and governed under a "one member, 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.

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 $38 billion in lost income tax revenue over the next 10 years. GDP would be reduced by $142 billion, and 883,000 jobs would be lost over the course of the next decade 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. Statistical analysis revealed the following estimates of the interest rate differential between U.S. banks and credit unions for the period 2006-2015 (Chart 1):

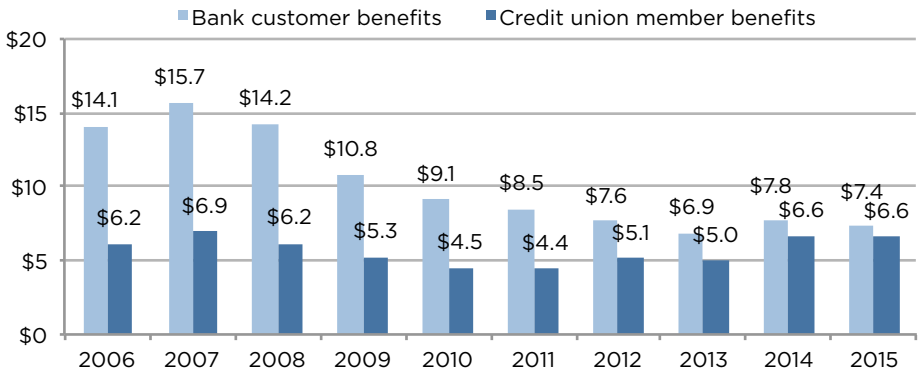
- Credit union rates on new and used car loans are 28 percent lower than bank rates, on average.
- Credit card and unsecured loan rates are 12 percent lower at credit unions.
- Real estate loans are 3 percent lower at credit unions.
- Interest rates on CDs, IRAs, and KEOGH accounts were 27 percent higher at credit unions.
- Interest rates on savings, checking, and money market accounts were 32 percent higher at credit unions.

Chart 1: Interest rate differences, credit unions vs. banks
percent difference, 2006-2015 average



The direct benefits to credit union members of these better loan and deposit rates were estimated to range from $4.4 to $6.9 billion annually over the past ten years (Chart 2). Total credit union member benefits over the period were estimated to be $56.7 billion.

Chart 2: Credit unions & bank consumer benefits by year
2006-2015, billions $



The benefit of better credit union loan and deposit rates extends to bank customers as well, due to increased competition. A 50 percent reduction in the credit union market share would cost bank customers an estimated $6.9 billion to $15.7 billion per year in higher loan rates and lower deposit rates. The total losses to bank customers due to less favorable rates totaled $102.2 billion over the ten-year period examined. The total benefit to U.S. consumers from the significant presence of credit unions in financial markets was $159 billion over the ten-year period of the study, or $16 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 billion per year reduction in personal income resulting from higher loan rates and lower deposit rates due to a diminished credit union role in the economy would lead to an annual reduction in GDP of about $14.2 billion and a loss of 88,000 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 $3.8 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, not-for-profit organizations, generally managed by volunteer boards of directors. As a 2001 Treasury Department study further 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 non-profit 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 local financial services markets. They have found that consumers benefit from the presence of credit unions in the financial services marketplace. 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.

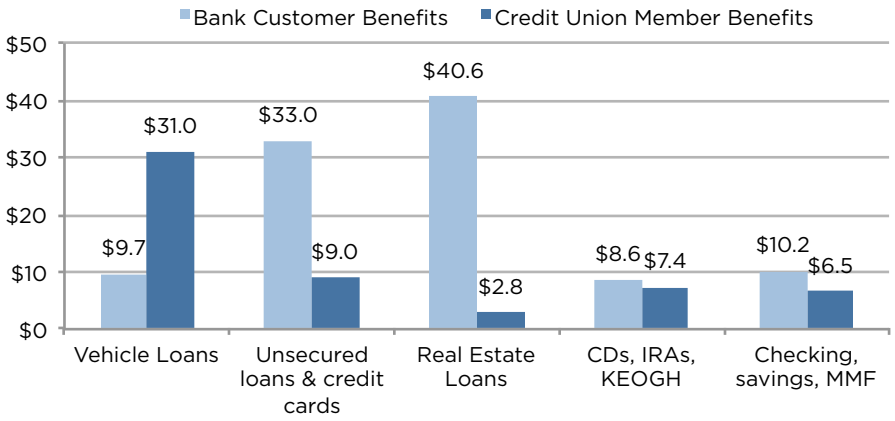
The difference between average mid-year (end of June) bank and credit union rates for several loan and deposit categories is used as the measure of savings to credit union customers, with the difference then expressed as a percentage of the bank rate. An alternate approach involving statistical regression analysis was employed in an earlier study but produced results quite similar in the aggregate to the approach taken here. 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

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 28 percent lower than bank rates. Unsecured loans and credit card interest rates are estimated to be 12 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 28 percent higher rates than banks. Money market, savings, and interest-checking accounts were estimated to pay 34 percent higher rates at credit unions than equivalent bank products.

These credit union advantages 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 $31 billion from 2006-2015. Benefits are observed for other types of loans as well. In terms of deposit accounts, credit union members gained $7.4 billion due to more favorable rates on CDs, IRAs, and KEOGH accounts, and $6.5 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 $56.7 billion over the ten-year period of the study, 2006-2015.

Chart 3: Credit union & bank consumer benefits by product
2006-2015 total, billions $



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 2006-2015. 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 3-month 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. It is unlikely that the underlying relationships between a credit union presence in a local market and bank loan and deposit pricing have 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 39 basis point increase per year over the 2006-2015 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 data prior to 2013, this value was constructed based on a constant share of non-credit-card, non-real-estate loans to individuals. For all other bank loans, an increase of between 7 and 38 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, respectively.

Assuming these effects would apply more broadly, these percentage changes were also applied to mid-year bank deposit rates from 2006 to 2015, and then the resulting interest rate changes to annual volumes of bank deposits of money market accounts, transaction accounts, and the sum of savings and time deposit accounts, respectively. The total estimated benefits received by bank customers total roughly $102 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 almost $159 billion from 2006-2015, or approximately $16 billion per year.

Table 1. Estimated benefits to credit union members and bank customers by state, 2006-2015

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 2015. Credit union and bank consumers from larger states received substantial gains from the presence of credit unions in their markets. The largest consumer benefits amounted to $18.8 billion in California, $16.8 billion in New York, $11.3 billion in Texas, $7.7 billion in Virginia, $7.4 billion in Florida, and $6.3 billion in Illinois.

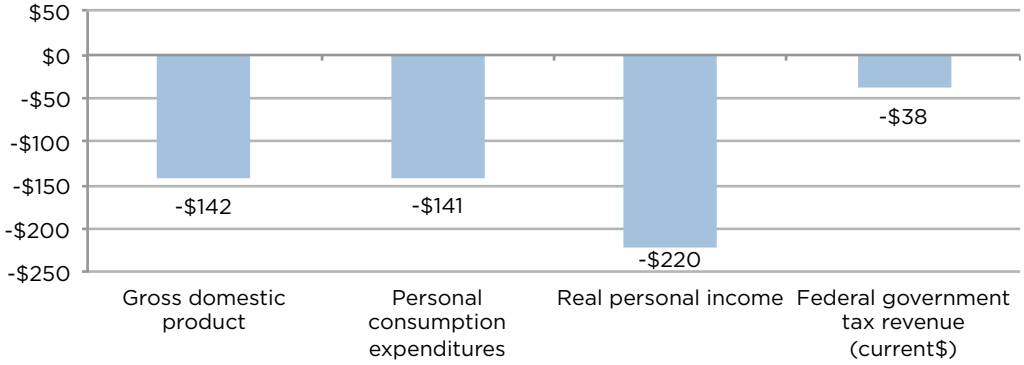
Millions current $	Total consumer benefits 2006-15	Bank customer benefits 2006-15	CU member benefits 2006-15	Bank customer benefits 2015	CU member benefits 2015	State pctg of bank deposits 2015	State pctg of CU deposits 2015
U.S.	**$158,896**	**$102,172**	**$56,724**	**$7,428**	**$6,587**	**100%**	**100%**
Alabama	$1,847.6	$882.3	$965.2	$64.2	$112.1	0.9%	1.7%
Alaska	$560.5	$110.8	$449.7	$8.1	$52.2	0.1%	0.8%
Arizona	$1,759.7	$1,019.2	$740.5	$74.1	$86.0	1.0%	1.3%
Arkansas	$709.3	$586.4	$122.9	$42.6	$14.3	0.6%	0.2%
California	$18,750.2	$11,204.8	$7,545.4	$814.6	$876.2	11.0%	13.3%
Colorado	$2,108.7	$1,126.3	$982.4	$81.9	$114.1	1.1%	1.7%
Connecticut	$1,637.0	$1,161.8	$475.3	$84.5	$55.2	1.1%	0.8%
Delaware	$3,430.0	$3,324.7	$105.3	$241.7	$12.2	3.3%	0.2%
Dist. of Col.	$828.2	$435.4	$392.8	$31.7	$45.6	0.4%	0.7%
Florida	$7,438.3	$4,852.9	$2,585.4	$352.8	$300.2	4.7%	4.6%
Georgia	$3,066.8	$2,058.0	$1,008.8	$149.6	$117.1	2.0%	1.8%
Hawaii	$870.6	$370.6	$500.0	$26.9	$58.1	0.4%	0.9%
Idaho	$527.0	$210.1	$316.9	$15.3	$36.8	0.2%	0.6%
Illinois	$6,292.2	$4,490.9	$1,801.4	$326.5	$209.2	4.4%	3.2%
Indiana	$2,091.7	$1,094.2	$997.4	$79.6	$115.8	1.1%	1.8%
Iowa	$1,409.3	$755.5	$653.8	$54.9	$75.9	0.7%	1.2%
Kansas	$937.4	$657.7	$279.7	$47.8	$32.5	0.6%	0.5%
Kentucky	$1,107.1	$721.1	$386.0	$52.4	$44.8	0.7%	0.7%
Louisiana	$1,440.0	$943.9	$496.0	$68.6	$57.6	0.9%	0.9%
Maine	$563.8	$240.5	$323.3	$17.5	$37.5	0.2%	0.6%
Maryland	$2,282.8	$1,265.3	$1,017.5	$92.0	$118.2	1.2%	1.8%
Massachusetts	$5,099.6	$3,584.1	$1,515.5	$260.6	$176.0	3.5%	2.7%
Michigan	$4,312.4	$1,838.5	$2,473.8	$133.7	$287.3	1.8%	4.4%
Minnesota	$3,032.5	$2,056.1	$976.4	$149.5	$113.4	2.0%	1.7%
Mississippi	$721.0	$478.3	$242.8	$34.8	$28.2	0.5%	0.4%
Missouri	$2,154.1	$1,516.4	$637.7	$110.2	$74.1	1.5%	1.1%
Montana	$431.6	$206.0	$225.6	$15.0	$26.2	0.2%	0.4%
Nebraska	$776.7	$582.7	$194.0	$42.4	$22.5	0.6%	0.3%
Nevada	$1,734.0	$1,633.5	$100.5	$118.8	$11.7	1.6%	0.2%
New Hampshire	$619.3	$301.8	$317.5	$21.9	$36.9	0.3%	0.6%
New Jersey	$3,544.9	$2,919.0	$625.8	$212.2	$72.7	2.9%	1.1%
New Mexico	$759.8	$291.0	$468.8	$21.2	$54.4	0.3%	0.8%
New York	$16,775.4	$13,361.4	$3,414.0	$971.4	$396.5	13.1%	6.0%
North Carolina	$5,739.8	$3,409.6	$2,330.2	$247.9	$270.6	3.3%	4.1%
North Dakota	$407.3	$249.6	$157.8	$18.1	$18.3	0.2%	0.3%
Ohio	$3,986.6	$2,846.9	$1,139.6	$207.0	$132.3	2.8%	2.0%
Oklahoma	$1,437.3	$801.7	$635.6	$58.3	$73.8	0.8%	1.1%
Oregon	$1,549.6	$634.3	$915.3	$46.1	$106.3	0.6%	1.6%
Pennsylvania	$5,441.8	$3,438.2	$2,003.6	$250.0	$232.7	3.4%	3.5%
Rhode Island	$514.4	$270.4	$244.0	$19.7	$28.3	0.3%	0.4%
South Carolina	$1,290.3	$724.7	$565.5	$52.7	$65.7	0.7%	1.0%
South Dakota	$4,489.9	$4,346.9	$143.0	$316.0	$16.6	4.3%	0.3%
Tennessee	$2,236.2	$1,267.8	$968.4	$92.2	$112.5	1.2%	1.7%
Texas	$11,307.7	$7,044.9	$4,262.8	$512.2	$495.0	6.9%	7.5%
Utah	$5,906.9	$4,974.4	$932.5	$361.7	$108.3	4.9%	1.6%
Vermont	$300.9	$116.7	$184.2	$8.5	$21.4	0.1%	0.3%
Virginia	$7,703.5	$2,658.8	$5,044.7	$193.3	$585.8	2.6%	8.9%
Washington	$3,411.4	$1,304.2	$2,107.2	$94.8	$244.7	1.3%	3.7%
West Virginia	$472.8	$305.7	$167.1	$22.2	$19.4	0.3%	0.3%
Wisconsin	$2,810.5	$1,353.4	$1,457.1	$98.4	$169.2	1.3%	2.6%
Wyoming	$269.8	$143.0	$126.8	$10.4	$14.7	0.1%	0.2%

Source: NCUA 5300 call report data and FDIC Summary of 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 121 commodities and 71 industries. 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 impact from 2017-2026 (billions 2017$)



Total employment losses from 2017-2026 = 883,000 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 $8 billion per year reduction in personal income would lead to a reduction in GDP of about $14.2 billion per year and employment losses of approximately 88,000 jobs per year over the next decade (Table 2). This reduction in personal income also leads to a loss of $3.8 billion per year in federal income tax revenue.

Table 2. LIFT Macroeconomic Results

	Reference Case			Alternate Case			Difference			
LIFT Macroeconomic Results billions 2017$	2017	2026	2017-26 Average	2017	2026	2017-26 Average	2017	2026	2017-26 Average	2017-26 Total
Gross domestic product	19,247	23,108	21,148	19,233	23,096	21,134	-13.5	-12.2	-14.2	-141.5
Personal consumption expenditures	13,627	16,613	15,087	13,613	16,599	15,073	-13.8	-14.3	-14.1	-140.5
Gross private fixed investment	3,281	4,107	3,714	3,280	4,105	3,711	-0.6	-1.7	-2.8	-28.2
Real national income	16,564	19,392	17,868	16,547	19,370	17,846	-17.9	-22.7	-22.3	-223.3
Real personal income	16,724	20,714	18,719	16,703	20,694	18,697	-20.9	-20.6	-22.0	-220.1
Billions of current dollars										
Personal interest income	1,478	2,614	2,024	1,474	2,612	2,020	-4.1	-2.8	-3.7	-36.7
Disposable income	14,433	20,859	17,442	14,426	20,838	17,425	-6.8	-21.0	-16.9	-169.0
Federal government tax revenue	3,554	5,323	4,379	3,553	5,318	4,375	-1.5	-4.8	-3.8	-38.4
Total employment (thousands of jobs)	157,398	165,410	161,247	157,332	165,338	161,159	-66.2	-71.8	-88.3	-882.7
Unemployment rate (percent)	4.51	5.03	4.90	4.55	5.07	4.95	0.0	0.0	0.1	

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 tax-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 three-month 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 three-month 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. It is also worth noting that the share of Sub-S banks has risen from 30 percent at the time of the study to 34 percent as of September 2016.

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

Most recently, Chatterji et al. (2015) noted gains in credit union shares of consumer financial services markets after the recent financial crisis. 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.

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 $159 billion over the ten-year 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 $16 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 also 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 far-reaching 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 $10 billion annual loss of personal income would reduce consumer spending by about $14 billion per year over the next decade (in 2017 dollars). This would result in a reduction in GDP of approximately $14.2 billion per year and employment losses of roughly 88,000 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

1. 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

	Reference Case			Alternate Case			Difference			
Personal Income (millions 2017 $)	2017	2026	2017-26 Average	2017	2026	2017-26 Average	2017	2026	2017-26 Average	2017-26 Total ($b)
TOTAL U.S.	**16,723,938**	**20,714,457**	**18,718,852**	**16,703,061**	**20,693,849**	**18,696,846**	**-20,877**	**-20,608**	**-22,006**	**-220.1**
Alabama	200,585	242,619	221,518	200,336	242,377	221,258	-249	-241	-260	-2.6
Alaska	46,276	59,843	53,247	46,215	59,781	53,181	-61	-62	-65	-0.7
Arizona	293,120	376,837	333,949	292,781	376,491	333,585	-340	-346	-364	-3.6
Arkansas	122,281	151,100	136,452	122,140	150,962	136,303	-141	-139	-149	-1.5
California	2,248,212	2,752,924	2,500,142	2,245,473	2,750,246	2,497,265	-2,739	-2,678	-2,877	-28.8
Colorado	301,139	392,198	346,433	300,782	391,831	346,047	-357	-367	-385	-3.9
Connecticut	267,447	322,219	295,232	267,137	321,920	294,907	-311	-299	-325	-3.3
Delaware	49,201	63,635	56,376	49,063	63,496	56,234	-138	-139	-142	-1.4
Dist. of Col.	51,349	63,649	57,305	51,277	63,577	57,229	-73	-72	-76	-0.8
Florida	976,765	1,237,490	1,103,726	975,593	1,236,312	1,102,480	-1,172	-1,178	-1,247	-12.5
Georgia	453,899	569,445	511,895	453,364	568,912	511,326	-535	-533	-569	-5.7
Hawaii	76,621	94,505	85,406	76,521	94,407	85,302	-99	-98	-104	-1.0
Idaho	68,066	84,811	76,385	67,984	84,730	76,298	-82	-81	-87	-0.9
Illinois	692,943	823,107	760,149	692,086	822,288	759,258	-858	-818	-891	-8.9
Indiana	298,458	360,654	329,079	298,104	360,312	328,710	-353	-341	-369	-3.7
Iowa	153,887	184,331	169,311	153,696	184,148	169,113	-191	-183	-199	-2.0
Kansas	149,678	179,147	164,714	149,504	178,980	164,532	-174	-167	-182	-1.8
Kentucky	182,715	218,979	200,232	182,503	218,776	200,011	-212	-203	-220	-2.2
Louisiana	220,173	278,795	249,591	219,915	278,535	249,315	-258	-259	-276	-2.8
Maine	61,353	73,522	67,366	61,277	73,448	67,287	-76	-73	-79	-0.8
Maryland	368,544	442,507	406,271	368,115	442,096	405,823	-429	-412	-448	-4.5
Massachusetts	454,188	563,098	509,274	453,601	562,517	508,656	-587	-580	-619	-6.2
Michigan	447,338	539,990	493,947	446,778	539,449	493,363	-560	-542	-584	-5.8
Minnesota	302,441	375,647	339,201	302,059	375,269	338,798	-382	-378	-403	-4.0
Mississippi	114,836	140,144	127,367	114,702	140,013	127,226	-134	-130	-141	-1.4
Missouri	280,289	338,751	309,678	279,952	338,426	309,326	-337	-326	-352	-3.5
Montana	46,849	57,779	52,254	46,791	57,721	52,192	-58	-57	-61	-0.6
Nebraska	100,721	121,843	111,571	100,600	121,726	111,444	-121	-117	-127	-1.3
Nevada	133,133	167,572	150,239	132,955	167,394	150,051	-178	-178	-188	-1.9
New Hampshire	78,563	94,326	86,500	78,469	94,235	86,401	-95	-91	-99	-1.0
New Jersey	595,317	734,217	667,043	594,629	733,540	666,313	-689	-677	-730	-7.3
New Mexico	83,920	103,490	93,744	83,816	103,388	93,635	-104	-102	-109	-1.1
New York	1,204,403	1,426,253	1,316,384	1,202,763	1,424,684	1,314,690	-1,641	-1,569	-1,694	-16.9
North Carolina	449,704	564,218	506,612	449,105	563,620	505,979	-599	-598	-632	-6.3
North Dakota	44,311	58,815	52,062	44,256	58,758	52,002	-55	-57	-60	-0.6
Ohio	548,363	660,361	604,295	547,710	659,732	603,614	-653	-629	-682	-6.8
Oklahoma	196,510	254,542	225,328	196,275	254,302	225,075	-234	-240	-252	-2.5
Oregon	188,600	233,379	210,390	188,371	233,153	210,149	-229	-226	-241	-2.4
Pennsylvania	696,906	850,735	774,798	696,066	849,917	773,916	-840	-818	-882	-8.8
Rhode Island	56,389	66,900	61,569	56,320	66,833	61,497	-70	-67	-72	-0.7
South Carolina	206,154	259,669	232,241	205,914	259,429	231,985	-240	-240	-255	-2.6
South Dakota	45,322	56,186	50,787	45,161	56,026	50,623	-161	-160	-164	-1.6
Tennessee	308,813	390,360	348,887	308,445	389,991	348,496	-368	-369	-391	-3.9
Texas	1,424,036	1,908,696	1,664,434	1,422,316	1,906,883	1,662,555	-1,720	-1,813	-1,879	-18.8
Utah	128,796	163,954	146,242	128,514	163,671	145,950	-281	-283	-292	-2.9
Vermont	32,160	38,602	35,321	32,120	38,564	35,280	-40	-39	-42	-0.4
Virginia	476,413	596,402	538,020	475,736	595,729	537,307	-677	-674	-713	-7.1
Washington	402,239	503,010	452,154	401,747	502,521	451,633	-492	-489	-520	-5.2
West Virginia	73,151	87,427	80,147	73,065	87,345	80,058	-86	-82	-89	-0.9
Wisconsin	286,487	342,995	314,704	286,128	342,649	314,330	-360	-346	-374	-3.7
Wyoming	34,874	42,778	38,884	34,832	42,737	38,839	-42	-41	-44	-0.4

State estimates of employment losses due to reduction of credit union presence

	Reference Case (thousands of jobs)			Alternate Case (thousands of jobs)			Difference (number of jobs)			Difference (thousands)
Employment by state	2017	2026	2017-26 Average	2017	2026	2017-26 Average	2017	2026	2017-26 Average	2017-26 Total
TOTAL U.S.	**157,398**	**165,410**	**161,247**	**157,332**	**165,338**	**161,159**	**-66,230**	**-71,762**	**-88,280**	**-882.8**
Alabama	2,143	2,207	2,174	2,142	2,206	2,174	-845	-655	-911	-9.1
Alaska	393	431	413	393	431	413	-160	-193	-224	-2.2
Arizona	2,953	3,174	3,057	2,952	3,173	3,055	-1,017	-1,095	-1,396	-14.0
Arkansas	1,335	1,395	1,363	1,335	1,395	1,363	-368	-338	-481	-4.8
California	18,263	18,955	18,572	18,256	18,947	18,563	-7,181	-7,150	-9,209	-92.1
Colorado	2,851	3,081	2,964	2,849	3,080	2,962	-1,095	-1,229	-1,516	-15.2
Connecticut	1,862	1,931	1,894	1,861	1,930	1,893	-755	-1,115	-1,281	-12.8
Delaware	496	541	518	495	540	517	-829	-956	-995	-10.0
Dist. of Col.	840	954	906	840	954	906	-477	-585	-633	-6.3
Florida	9,118	9,714	9,391	9,115	9,711	9,387	-3,353	-3,382	-4,279	-42.8
Georgia	4,748	4,964	4,856	4,746	4,963	4,854	-1,777	-1,741	-2,279	-22.8
Hawaii	761	803	781	760	803	781	-313	-280	-351	-3.5
Idaho	743	778	760	743	778	760	-226	-215	-295	-2.9
Illinois	6,508	6,654	6,582	6,505	6,651	6,578	-2,873	-3,316	-4,033	-40.3
Indiana	3,260	3,329	3,289	3,259	3,328	3,287	-1,219	-1,003	-1,427	-14.3
Iowa	1,710	1,756	1,732	1,710	1,755	1,731	-687	-704	-885	-8.8
Kansas	1,572	1,617	1,594	1,571	1,616	1,593	-535	-591	-747	-7.5
Kentucky	2,067	2,108	2,082	2,067	2,108	2,082	-628	-491	-734	-7.3
Louisiana	2,233	2,400	2,314	2,232	2,399	2,313	-686	-807	-1,012	-10.1
Maine	670	698	683	669	698	682	-227	-238	-299	-3.0
Maryland	3,000	3,180	3,099	2,999	3,179	3,097	-981	-1,191	-1,451	-14.5
Massachusetts	3,862	4,100	3,976	3,860	4,097	3,974	-1,778	-2,538	-2,869	-28.7
Michigan	4,525	4,632	4,575	4,523	4,630	4,573	-1,840	-1,708	-2,259	-22.6
Minnesota	3,116	3,281	3,194	3,114	3,279	3,192	-1,398	-1,630	-1,965	-19.6
Mississippi	1,280	1,324	1,301	1,280	1,324	1,301	-391	-241	-389	-3.9
Missouri	3,085	3,206	3,144	3,084	3,205	3,142	-1,119	-1,270	-1,594	-15.9
Montana	515	545	529	515	545	529	-177	-208	-248	-2.5
Nebraska	1,096	1,134	1,115	1,096	1,133	1,115	-405	-504	-605	-6.1
Nevada	1,393	1,463	1,426	1,392	1,463	1,426	-725	-517	-699	-7.0
New Hampshire	700	716	707	700	715	707	-269	-321	-389	-3.9
New Jersey	4,394	4,610	4,504	4,392	4,608	4,501	-1,653	-2,199	-2,609	-26.1
New Mexico	912	973	942	912	973	941	-265	-220	-312	-3.1
New York	9,923	10,203	10,042	9,918	10,196	10,034	-5,302	-6,895	-7,851	-78.5
North Carolina	4,768	5,009	4,883	4,765	5,006	4,880	-2,327	-2,174	-2,722	-27.2
North Dakota	491	542	519	491	542	518	-201	-273	-310	-3.1
Ohio	5,876	6,074	5,969	5,874	6,071	5,966	-2,136	-2,166	-2,837	-28.4
Oklahoma	1,830	1,987	1,907	1,829	1,986	1,906	-614	-618	-794	-7.9
Oregon	1,963	2,056	2,004	1,963	2,056	2,004	-701	-599	-827	-8.3
Pennsylvania	6,496	6,838	6,662	6,494	6,835	6,659	-2,388	-2,984	-3,622	-36.2
Rhode Island	528	552	539	528	551	538	-208	-264	-311	-3.1
South Carolina	2,217	2,318	2,263	2,216	2,317	2,262	-768	-548	-808	-8.1
South Dakota	482	509	495	480	508	494	-1,101	-1,174	-1,221	-12.2
Tennessee	3,198	3,376	3,282	3,197	3,374	3,281	-1,181	-1,264	-1,601	-16.0
Texas	13,222	14,565	13,879	13,217	14,559	13,871	-5,463	-6,556	-7,814	-78.1
Utah	1,532	1,633	1,581	1,530	1,631	1,579	-1,898	-1,960	-2,141	-21.4
Vermont	345	358	351	344	358	350	-107	-113	-144	-1.4
Virginia	4,323	4,628	4,491	4,321	4,625	4,488	-2,516	-2,761	-3,191	-31.9
Washington	3,589	3,766	3,672	3,587	3,765	3,671	-1,456	-1,233	-1,672	-16.7
West Virginia	785	825	804	785	824	803	-210	-199	-280	-2.8
Wisconsin	3,108	3,179	3,140	3,107	3,178	3,138	-1,299	-1,256	-1,636	-16.4
Wyoming	318	337	328	318	337	327	-101	-94	-122	-1.2