An Economic Policy Analysis
of the Tax Subsidy for Credit Unions

by William A. Kelly, Jr.

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The views, analysis and conclusion of this research study are those of the researcher, William A. Kelly, Jr.
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EXECUTIVE SUMMARY

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Two-Page Summary

Taxpayers Subsidize Credit Unions

Each year taxpayers provide a subsidy to credit unions, which at current asset levels will have a long term average of about $2 billion a year. However, the cost to taxpayers can best be reckoned in what is given up for this amount. For example, consider the recent funding of health insurance for children of modest income families who don't have insurance, known as CHIP (Children's Health Insurance Program). This was re-authorized and signed by the President in February 2009. The basic part of the existing plan was extended for 10 years after considerable debate and concern over mounting deficits. Half the cost of this would be covered by the $2 billion a year, or $20 billion over 10 years.

- Evaluation of the legislative language of the Federal Credit Union Act (FCA) makes clear that credit unions are exempt from income taxes “because they serve “… especially people of modest means.”

While organizational and governance structure consistent with cooperatives is also mentioned as a reason, the tax code gives no general exemption from income taxes to cooperatives; instead, Congress put the income tax exemption for credit unions directly in the Federal Credit Union Act. This indicates that organizational and governance structure is secondary at best and “serving especially people of modest means is the justification for the tax exemption.”

The language, "especially people of modest means," is not intended to mean the near-destitute, but rather the middle of the income spectrum tilted toward the lower end of the middle.

Credit union leaders often note that the subsidy helps them benefit their members particularly in providing lower loan rates and higher rates on savings. The research reported here used the most respected database for household finances, the Federal Reserve's 2007 Survey of Consumer Finances, based on in-home interviews with more than 4,000 nationally representative households.

2 See note 1.
3 Some have argued that the common bond is the reason for the tax exemption. I find no official documentation that this is the case.
4 This is a triennial series and the Federal Reserve System releases the data about 18 months after collection. Therefore the data used here was collected in 2004 and released in 2006. The 2009 release of 2007 data occurred after this research was completed. However the results from the 2004 data were striking and the numbers we used are generally relative. Therefore, 2007 data almost certainly would show quite similar results.
Actual Effect of the Subsidy

We divide the households into five groups (quintiles) based on their income. The intent of the subsidy is to help especially those in the three middle groups but tilted toward the low middle. We estimate that 89% of the benefits that flow through lower loan rates and higher savings rates go to the top three groups. This is opposite to the intended effect.

This happens for three reasons. First the dollar value of the benefit from more favorable rates on loans and deposits is proportional to the size of the loans and deposit accounts, and more affluent households have larger accounts. Second, income distribution in the United States is highly skewed toward the top, and this magnifies the first effect. Therefore the design of the subsidy is flawed. Third, although the pattern of credit union service shifts some of the benefits from the top quintile toward the others, almost 73% of this goes to the middle and high middle\textsuperscript{5}. Therefore, the effect of credit union service patterns tilts strongly toward the upper end of the middle spectrum of income.

Individual Credit Unions Differ

Although credit unions as a group benefit the upper end of the middle income spectrum much more than the lower end of the middle, they vary a great deal among themselves in serving modest-income households, with performance running from exemplary to lackluster, or worse, in serving especially people of modest income. Current subsidy policy creates perverse incentives by providing a uniform subsidy regardless of how well a credit union performs the mission that tax-payers subsidize it to do.

Policy Implications

Taxpayers would benefit from a policy that required credit unions to pay income taxes as do other businesses, including cooperatives. However, the tax should include tax credits that could offset the tax and leave the full subsidy, depending on how well a credit union carries out its mission. This would continue the full subsidy to support the many credit unions whose work in serving especially people of modest income is exemplary. The research reported here develops a prototype model to illustrate one way to evaluate how a credit union carries out the mission that taxpayers subsidize it to do.

\textsuperscript{5} Credit union service patterns shift 11% of actual benefits out of the top quintile but 8 percentage points of this (8/11 = 73\%) goes to the middle and upper middle group.
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SUMMARY RESULTS

by William A. Kelly, Jr.
An Economic Policy Analysis of the Tax Subsidy for Credit Unions
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As of October 19, 2009

The Subsidy from U.S. Taxpayers

In the United States, taxpayers contribute an annual subsidy to credit unions of about $2 billion.

The “credit union income tax exemption” is a taxpayer subsidy for credit unions because, given government appropriations, taxpayers pay more taxes than they would without the credit union exemption. The $2 billion is an approximate figure for a long-run average, which assumes assets of about $800 billion, long-term average return on assets of about 0.7%, and a corporate tax rate of 35%. Over ten years, this is $20 billion.

Purpose of Research

The research reported here investigates broadly but thoroughly all pertinent policy aspects of the tax subsidy for credit unions, in order to answer the following three questions:

1) What are taxpayers providing the subsidy for credit unions to do?  
2) How well are they doing it, as a group and individually?  
3) What policy changes, if any, would best serve congressional intent?
Summary Results

1. Congress intends that taxpayers provide the subsidy to credit unions to encourage service to "especially people of modest means." We find the most accurate interpretation refers to a focus not on the near-destitute, but rather on the middle of the income spectrum, tilted toward the lower end. The top panel of Figure 1 illustrates one hypothetical distribution that would fit this description.

2. Actual effect. To estimate the actual pattern of benefits credit unions provide to their members, we estimate the pattern for a key benefit that credit union leaders often point to, which is lower rates on loans and higher rates on savings, on average. Such benefits to a household are proportional to the amount of loans and deposits it has in credit unions. To calculate the amount of loans and deposits held by each quintile of households, we use data from the triennial 2007 Survey of Consumer Finances (SCF) sponsored by the Federal Reserve System. Academic researchers generally regard this dataset as the most comprehensive and accurate source for household finances. It is based on in-home interviews with over 4,000 households that are representative of the national population. The SCF is carried out by the National Opinion Research Center at the University of Chicago. In this survey households were not asked whether a credit union they used had a state or federal charter. However, since the subsidy for all credit unions comes from a Federal statute, we do not distinguish between credit union service patterns by charter type.

The bottom panel of Figure 1 shows the results. Using 2007 data from the SCF, we estimate that 89% of the benefits go to the top three income groups. This occurs for several reasons. First, the subsidy has a flawed design. The dollar value of a household’s benefit from favorable interest rates is proportional to the size of the loan or deposit account, and these accounts are larger for more affluent households. Second, the great majority of household income in the United States goes to the top three income quintiles. Third, we estimate that credit union service patterns effectively transfer the benefit away from the top and bottom quintiles, but of the amount transferred, almost three-quarters of this goes into the middle and higher middle income groups.

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6 See note 2.
The net effect, as shown in the bottom panel of Figure 1, is that Congress is requiring taxpayers to subsidize credit unions in a way that produces the opposite of the intended effect.

**Figure 1**

- **Distribution of Credit Benefits: Targeted**
- **Distribution of Credit Benefits: Actual**

Bar charts showing the distribution of credit benefits among income quintiles, comparing targeted and actual distributions.
3. Individual Credit Unions. Although we find that as a group credit unions service patterns tilt benefits of the subsidy strongly away from the low middle portion of the middle income spectrum, individual credit unions differ substantially from one another in this regard. We used data from the 5300 call report of the National Credit Union Administration to examine these differences. The data indicate that some credit unions provide far more loan and/or savings benefits to the more modest end of the income spectrum than do other credit unions. Achievements in the mission for which taxpayers subsidize them range from exemplary to lackluster, or even the reverse of their mission.

In particular the research here develops a rough prototype measure for how well a given credit union carries out its mission to serve "especially people of modest means," relative to other credit unions. This prototype assigns a “grade” to each credit union of 1 to 5, with 1 representing the best service toward the lower end of the middle income spectrum. We calculate the grade for each federally insured credit union7, and we report the distribution of the grades across credit unions.

4. Policy Implications. Given that credit unions differ widely in how well they carry out their Congressionally-mandated mission to serve "especially people of modest means", having taxpayers provide a uniform subsidy to all credit unions generates a perverse incentive. The subsidy continues in the same way whether a credit union responds well, poorly, or even opposite to achieving the mission that taxpayers subsidize them to do. Therefore, taxpayers would be better served by the following policy changes:

a) Congress should modify the subsidy to require the same income tax payments from credit unions that other businesses, including cooperatives, pay. However, it should provide tax credits for mission achievements that make it possible for the net tax rate to range from zero, as now, to the full tax. The latter provision is important to continue to fully support the work of the many credit unions of all sizes, out of some 8,000 total, that have exemplary achievements in serving people of modest means.

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7 The vast majority of credit unions have federal share (deposit) insurance through NCUA.
b) Appropriate authorities should produce a well-designed measure that sorts credit unions roughly into three to five classes, based on their mission achievements. The rough prototype measure presented here only suggests a starting point. Since taxpayers effectively subsidize credit unions through the federal income tax system, and since states with income taxes generally follow federal policy in this regard, the mission oversight authority probably should reside at the federal level, since the subsidy and the reason for it are independent of whether a credit union has a state or federal charter.

5. Policy Choices

In considering policy changes, decision-makers and taxpayers should use the economic concept of "opportunity cost", which is what one gives up to get something. For example, the current $2 billion a year subsidy that taxpayers provide to help credit unions serve especially modest income households could instead provide any of the following:

a) Consider the recent funding of health insurance for children of modest-income families without insurance, known as CHIP (Children's Health Insurance Program). This was re-authorized and signed by the President in February 2009. The basic part of the existing plan was extended for ten years after considerable debate and concern over mounting deficits. Half the cost of this would be covered by the $2 billion-a-year average long-term subsidy now given to credit unions.8

b) A full-tuition scholarship for the first year for the 1 million new high-school graduates each spring who enter a two-year college or technical school in the fall.9

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8 The basic plan is the baseline that was in the existing law that was reauthorized, and the Congressional Budget Office (CBO) estimates its cost to the Federal budget over the next ten years at about $5 billion a year. See "Congressional Budget Office Cost Estimate", February 11, 2009, for "H.R. 2, Children's Health Insurance Program Reauthorization Act of 2009 As cleared by the Congress and signed by the President on February 4, 2009" [emphasis in the original] www.cbo.gov. The amounts in the basic plan needed to extend existing benefits are shown in the accompanying table in the CBO document on the line "CHIP Allotments Assumed in the Current-Law Baseline", citing as sources, "CBO and the Joint Committee on Taxation." The accompanying text states that "Under CBO's January 2009 baseline projections, funding for CHIP allotments was assumed to continue at approximately $5 billion each year after the program's previously scheduled expiration on March 31, 2009." (The new legislation not only extended the prior coverage for ten years but increased allotments for some expanded coverage.)

9 About 3 million students graduate from high school per year. 65% go to college. 45% of these, or about two-thirds of high school graduates, go to 4-year colleges. Sources: www.higheredinfo.org, www.census.gov/Press-Release, and Charles Murray, WSI Opinion Archive January 17, 2007. Average tuition at junior colleges is $2,272 (http://www.collegeboard.com/prod_downloads/press/cost06/community_colleges_06). $2.5 billion/$2,272 = 1.1 million.
c) An annual voucher, which would pay for parents to select a school of their choice, for every public school student in Detroit, Washington D.C., Milwaukee, Denver and St. Louis.  

10

d) An intensive head start program for the 10% most disadvantaged 3- and 4-year-old children in Maine, Massachusetts, New Hampshire, Vermont, Connecticut, Rhode Island, New Jersey, Pennsylvania and New York. Professor James J. Heckman, nobel laureate in economics at the University of Chicago, has found that with such programs: "All the evidence says that we can reduce inequality, and it's economically efficient."11

Additional Important Findings

1. No market failure in the market for credit provides a reason to subsidize credit unions. The subsidy must be justified by a social mission.

2. Other countries at a similar stage of economic and financial development also have financial institutions organized as cooperatives, as credit unions are. We examined tax policy ten other such countries, and in all of these, cooperative financial institutions pay taxes. These include the G7 countries, which besides the United States include the U.K., Germany, France, Italy, Japan, and Canada, plus Ireland, the Netherlands, and Austria, as well as in many Eastern European countries affiliated with the Austrian financial cooperative, including Russia.

3. The organizational form of a cooperative, which implies one person-one vote for the board of directors, provides no exemption from income taxes in the U.S. tax code. The exemption for credit unions is provided separately in the Federal Credit Union Act, and is tied directly to their mission of serving especially people of modest means.

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10 Detroit public schools, 2008-2009, number of students 94,000, Wikipedia, 3-25-09. D.C. public schools. Approximately 4,000 teachers and a student teacher ratio of 25 to 1 = 100,000, www.k12.dc.us, Milwaukee. Nove3mber 2008, enrollment 80,000, 20,000 using vouchers at www.educationalissues.suite101.com. Total enrollment for Milwaukee, D.C., Detroit, = 100,000+80,000+94,000=274,000. MKE voucher value up to $6607. Using this value $2.5 billion would provide vouchers for 378,300 students. St. Louis public schools,33,000, Wikipedia..Denver Public Schools 73,000, Wikipedia. Total = 380,000. 1700 is 0.4% of 378,300. Amount would cover 99.6% = 100% rounded.

11 The High/Scope program cost $10,600 per pupil, in 2005 dollars. Source: Business Week, October 23, 2006, "Going Beyond Head Start". The cost per child in 2009 dollars is $12,226. $2.5 billion would fund 204,516 students. Age 3-4 U.S. population is 10 million, source: uscensus.gov/population. Bottom 10% of age 3-4 population is approximately 1 million. $2.5 billion would serve about 200,000, or one-fifth of U.S. population age 3-4 population at bottom 10% of the most disadvantaged scale. One-fifth of the U.S. population is 300/5 = 60 million. States listed have population of 55 million, source: U.S. Census bureau Census 2000, as cited in www.factmonster.com Information Please Database, 2007
4. The leadership of the Credit Union National Association (CUNA), in a 2006 letter to the Chair of the House Ways and Means Committee, did not dispute the findings of a 2006 General Accountability Office (GAO) study that found credit unions "continue to lag behind banks" in serving people of modest means. In fact the letter stated that "no wonder" this is the case, given historical restrictions about whom credit unions could serve. It further stated that the "recent" (1996) changes to remove those restrictions had not had adequate time to work, despite a passage of 10 years.
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DETAILED FINDINGS

by William A. Kelly, Jr.
Detailed Findings

The detailed research results cover the following issues in the sections below.

I. Economic Reasons for the Subsidy
II. International Tax Policy for Comparable Institutions and Economies
III. Non-Economic Reasons for U.S. Taxpayers to Subsidize Credit Unions
IV. Credit Union Service to Modest income Households
V. Variation among Credit Unions in Serving Modest Income Households
VI. Implications

Section I: Economic Reasons for US Taxpayers to Subsidize Credit Unions

No economic reason, such as a market failure, justifies requiring taxpayers to subsidize credit unions.

Credit union services have neither the characteristics of an economic “public good” (for example research results) nor of an “externality” (for example education), each of which would be provided at less than an economically efficient level if left entirely to private markets. Example, research results are public goods, and education is partly a public good and partly a private. In each case the amount provided by a purely private market would be too low. To correct this market failure, state and federal governments support research, and they provide support for schools and colleges directly from taxes or with a voucher system in some cases, either of which increases the amount provided above the level a purely private market would provide.
Section II. International Income Tax Policy for Comparable Institutions

Findings on International Income Tax Policy

- The analysis here assesses the presence or absence of income taxes on credit unions in countries with a similar level of economic development and financial market development.

- We include credit unions and cooperative banks in ten other countries. These include Canada because of its similarities to the United States, and nine more countries with large well, developed economic and financial systems. They are the United Kingdom, France, Germany, Italy, and Japan. To these are added (7) Australia because of its similarity to the United States; the (8) Netherlands, home of Rabobank, which is often regarded as an exemplary model; (9) Austria, which is home to a Raifheisen Bank, which includes an international network of cooperates in 15 Central and Eastern Europe countries, including (10) Russia, which is sometimes invited to G7 summits.

The credit unions and cooperative banks in all of these countries have active systems and they follow principles of the International Cooperative Alliance (ICA), of which they are members. U.S. credit unions follow parallel principles and are members of ICA via their membership both in the World Council of Credit Unions and the National Cooperative Business Association. U.S. credit unions trace their ancestry and development from a model in Quebec, which in turn came from France, which, along with many other European countries used a system originally developed in Germany in the mid nineteenth century. Their modern day descendants adhere to the one-person, one-vote, cooperative governance system, and adhere to the same seven principles published by the International Cooperative Alliance as credit unions do. They belong to the IAC, through membership in its division, the International Cooperative Banking Association (ICBA), as do cooperative banking systems in Japan, which has well developed systems, such as the Norinchukin.

- The analysis was done country by country, and determined payment of income taxes by examination of financial statements for institutions in each of these countries.

- Among the cooperative banks and credit unions in the 10 similar countries plus the United States, credit unions in the United States are the sole exception to paying income taxes.

- Implication: The 10 countries most similar to the United States in economic size and development find no economic reason to exempt credit unions and cooperative banks from income taxes.
Section III. Non-Economic Reasons for U.S. Taxpayers to Subsidize Credit Unions

- Evaluation of the legislative language of the Federal Credit Union Act (FCA) makes clear that credit unions are exempt from income taxes “because they serve “... especially people of modest means.”¹²

While organizational and governance structure consistent with cooperatives is also mentioned as a reason, the tax code gives no general exemption from income taxes to cooperatives; instead, Congress put the income tax exemption for credit unions directly in the Federal Credit Union Act. This indicates that organizational and governance structure is secondary at best and “serving especially people of modest means is the justification for the tax exemption.”¹³

Section IV. Credit Union Service to Modest Income Households

- CUNA’s Position before 1998

The Credit Union National Association (CUNA) argued that credit unions were restricted in serving people of modest means by limitations on who they could serve.

- 1998 FCA Amendments

Amendments to the Federal Credit Union Act in 1998¹⁴ allowed for much wider fields of membership, which thereby allowed credit unions to serve more people of modest means.

- 2006 Government Accountability Office (GAO) Study: “Credit Unions Continue to Lag Behind Banks”

A GAO study in 2006, requested by the House Ways and Means Committee, found that credit unions “continued to “lag behind banks” in serving people of modest means.

¹² See note 2.
¹³ See note 2.
¹⁴ Credit Union Member Access Act, Public Law 105-217, August 7, 1998.
• **2006 National Credit Union Administration (NCUA) Study**

**NCUA’s study in 2006 found essentially the same results as the GAO Study**

NCUA objected to these 2006 GAO results because the data it used on household finances did not specify whether households used federally chartered credit union, which NCUA charters and regulates. NCUA gathered data from federal credit unions in 2006 and found results essentially similar to those found in the GAO study. However, it characterized these results by saying that credit unions served “who they were always supposed to serve,” “working Americans.” This characterization errs seriously being several decades out of date. Credit unions have long served millions of non-working people, including students, retirees, stay-at-home spouses, the unemployed, and the disabled. They generally include in their field of membership family members, often interpreted quite broadly, and usually adhere to “once a member, always a member” policy.

**CUNA’s Response**

The Credit Union National Association (CUNA), responded differently to the 2006 GAO Report. **It did not dispute the findings.** However, a 2006 letter to the Chair of the House Ways and Means Committee from the CUNA President states that the wider fields of membership allowed “recently” (eight years prior) had not had enough time to work. As a result it was “no wonder” that credit unions still lagged behind banks in this regard.

**Selected Earlier Studies**

• **Filene Research Institute Studies**

Studies by the Filene Research Institute report results in a series of studies in publications titled *Who Uses Credit Unions*[^15], with the most recent using 2004 data. These studies focused on the fact that most credit union members also used banks, so that “members versus non-members” oversimplifies the view of who credit unions serve. This is valid for the purpose of creating a broader set of categories describing households by their relative degree of relationship with credit unions and banks. The present study takes this general idea of variation further to estimate how the subsidy which taxpayers contribute to credit unions is in turn distributed across households that range from quite modest means to the quite affluent.

[^15]: Who Uses Credit Unions, Jinkook Lee, Filene Research Institute, 2007
• The Plantes Company Study in Wisconsin\textsuperscript{16}

A 2005 Study by The Plantes Company examined the locales served by 16 large Wisconsin credit unions. It found significant variation in the income level served among by these credit unions. It therefore suggested a variable income tax rather than a uniform one. For example, a tax on credit unions with a credit for those serving more modest income households would provide the subsidy for those performing their mission well, but not for those performing poorly.

Findings in the Present Study

Method of Estimate

Credit union leaders often point out that important benefits to members are lower rates on loans and higher rates on savings they get on average from credit unions, compared to banks. Therefore, in effect, credit unions pass on a significant part of the subsidy to credit union members in this way. This means that, on average, for every dollar of total loans outstanding at a credit union, a subsidy goes to the borrower, and for every dollar of total savings outstanding at a credit union, a subsidy goes to the saver. This allows us to estimate the relative extent to which this benefit from the subsidy goes to households of modest means versus more affluent households.

If credit union benefits were the same for each income group, then 20% of the benefits would go to each of the five quintiles of households by income. Quintiles show the income range for the 20% of households that have the lowest incomes, the next highest 20%, etc., to the highest 20%. If credit union benefits were especially in the middle income range tilted toward the lower end of the middle, then we would expect to see the percentage of benefits that goes to the middle three quintiles (60% of households) significantly larger than 60% and the percentage of benefits going to the lowest and highest quintiles each less than 20%.

The actual distributions are shown below. The second column gives an example of a distribution of benefits if credit unions served especially people of modest means. The third column shows the actual distribution. The results show that the benefits of lower loan rates and higher savings rates do not go especially to modest income households, but are concentrated in the top and the upper-middle quintiles. The section below on Specific Results provides the specific details of the findings.

\textsuperscript{16} “Are Large Wisconsin Credit Unions Deserving of Their Corporate Income Tax Exemption?”, Kay Plantes, Plantes Company, 3432 Sunset Drive, Madison, WI 53705.
Data

The data comes from the premier data set for household finances, the most recent Survey of Consumer Finances (SCF) 2007, sponsored by the Federal Reserve Board every three years and carried out by the National Opinion Research Center (NORC) at the University of Chicago, which maintains the highest standards for survey research. The data is based on extensive in-home interviews with a nationally representative sample of over 4,422 households. It allows us to see, for each household, the amount of savings and loans it has at credit unions. We determined the distribution of benefits from loans only, savings only, and both benefits combined. They showed similar patterns and we have reported here the distribution of the two combined.

We should note that the results are for households using credit unions, without distinction of charter type. Since the tax-payers profit the same subsidy to credit unions regardless of charter type, the policy issue applies to them as a whole independent of their charter. Below, we discuss the issue of supervision of credit unions with regard to the mission on which the subsidy is based.

Results

The table below shows the income brackets that divide households into five groups with an equal number of households, called income quintiles. The first column shows these income brackets. The second column provides, as an illustration only, one distribution of benefits consistent with benefits being focused in the middle of the income spectrum, but tilted toward the lower middle. The third column gives the actual estimated distribution of benefits from favorable rates on loans and savings.

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18 See the last part of this section for a discussion of credit union charter types.

19 Households in the SCF are not asked whether the credit unions they use are state or federally chartered. Therefore the data allows us to examine the distribution resulting from credit unions generally, but not distributions based on the charter type of the credit unions a household may use. The 2006 NCUA study found little difference in the results from data they collected on households that used only federally chartered credit unions, versus the results of the GAO study which used the SCF data used here.
### Table V.1

Percentage of Credit Unions Benefits by Quintiles of Household Income

<table>
<thead>
<tr>
<th>Quintile Income Range</th>
<th>% Credit Union Benefits</th>
<th>% Credit Union Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Targeted (Example)</td>
<td>Actual*</td>
<td></td>
</tr>
<tr>
<td>Less than $19,000</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>$19,000 to $35,000</td>
<td>35%</td>
<td>7%</td>
</tr>
<tr>
<td>$35,000 to $57,000</td>
<td>30%</td>
<td>11%</td>
</tr>
<tr>
<td>$57,000 to $95,000</td>
<td>25%</td>
<td>18%</td>
</tr>
<tr>
<td>Over $95,000</td>
<td>5%</td>
<td>61%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Data is from the Federal Reserve's Survey of Consumer Finances (2007).

The key findings are:

* The middle income range (the three middle quintiles) have 60% of the households but get less than 60% of the benefits (55%).

* The top quintile gets more than 12 times as much benefit from credit unions as the bottom quintile.

* The benefits to the middle group do not tilt at all toward the lower end of the middle, but strongly toward the upper end of the middle.

* The benefits to the upper middle are more than three times the benefits to the lower middle and double the middle quintile.

* The benefits (about three-fourths) go especially to the upper- and upper-middle-income households, rather than especially to people of modest means.

The Charts on the following page display the distributions in the table.
Figure V.1

Distribution of Credit Benefits:

Actual

Targeted

Income Quintile
Credit Unions

- Taxpayers effectively subsidize households that use credit unions, because the subsidy helps to support lower rates on loans and higher rates on savings.

- An estimate of the distribution of this benefit to households finds that the subsidy disproportionally benefits the middle- to upper-middle-income spectrum and above, not the middle- to lower-middle-income spectrum and below.

- The two charts in the Findings Section on pages 2-3, illustrate this pattern of who receives the benefits of the subsidy.

Banks

- Rather than receive an income tax exemption to serve especially people of modest means, banks effectively pay an additional tax above the income tax, in the form of a requirement to serve households that they would not serve to maximize return for their shareholders. This is the effect of Community Reinvestment Act (CRA). Since earlier studies, such as the GAO study found banks are ahead of credit unions in serving people of modest means, perhaps the stick works better than the carrot.

- However, in my view, putting credit unions under CRA would be an overly mild requirement and an inappropriate sort of "stick" given the large subsidy taxpayers provide to credit unions to serve especially people of modest means. The recommendation here is instead to put credit unions under the income tax, with credits to eliminate all or part of the tax depending on how well each credit union carried out the mission that taxpayers subsidize it to do.
Section V. Variation among Credit Unions in Serving Modest Income Households

Credit unions differ substantially among themselves, and not just on the most obvious external characteristic, which is size. For this study, we wish to investigate how they vary in their degree of service to modest income households.

Used Vehicle Loans

For comparing credit unions among themselves, we begin by considering one type of service, used vehicle loans. We reason that the average size of these loans at a credit union will tend to be larger for more affluent households than for less affluent households.

We first estimate the extent to which the size of the credit union is related to the average size used vehicle loan at the credit unions. We find that the size of a credit union as measured by total used vehicle loans outstanding explains a relatively minor part of the average size used vehicle loan among credit unions.

We rank credit unions by the average size of their used vehicle loans outstanding, specifically total dollar value of used car loans outstanding divided by the number of these loans outstanding. We recognize that average balances will vary from differences in average time to maturity, but we reason that with a sufficient number of loans, the maturity variations will roughly cause these effects to average out. The credit unions’ rank in average vehicle loan size serves as a rough proxy to gauge its degree of emphasis on serving people of modest means versus more affluent households.

Using this rank as an index number, we then form five groups of credit unions, each with one fifth of all credit unions with used vehicle loans outstanding. Group 1 (best for modest income service) consists of the credit unions in the bottom fifth of the ranking on average size of used vehicle loans. Group 2 consists of credit unions in the next highest fifth, and so on. This allows us to create a very rough sorting, 1, 2, 3, 4, and 5, of relative emphasis on service to modest income households on used vehicle loans. We view this as a rough prototype for a way to measure relative accomplishments among credit unions in serving people of modest means on used vehicle loans.
Other Types of Loans

We use the same approach to provide, for each credit union, a grade for six categories of loans: used vehicle, new vehicle, first mortgage, second mortgage, credit cards, and other unsecured loans. At this point each credit union will have six "mission grades," one for each type of loan.

Composite Mission Loan Grade

To get a composite mission grade for a credit union, we calculate a weighted average of its mission grade on each type of loan, with the weights being the outstanding value of loans in each type as a fraction of all loans outstanding. We repeat this process to get a composite mission loan grade on for each credit union.

Composite Mission Savings Grade

For a mission savings grade we use the same procedure, on five types of accounts: savings, checking, money market, certificates of deposit, and IRAs.

Overall Mission Grade

Next we calculate the overall mission grade for each credit union, as a weighted average of the Composite Mission Loan Grade and the Composite Mission Savings Grade. The weight for savings is savings outstanding divided by loans plus savings outstanding. The weight for loans is loans outstanding divided by the sum of loans and savings outstanding.

Mission Prototype Grade Illustration

To illustrate the prototype, we assigned grades to each credit union, using 5300 (call report) data from NCUA. We chose December 2006 to avoid the data being contaminated by any unusual effects from the financial crisis in 2008 or in the previous year.
Distribution of Loan Grades

The calculations from this data find that the 20% of credit unions with the lowest (best) Composite Mission Loan Grades have grades that range from 1.0 to 2.09. We find that the 20% of credit unions with the next best grades have a range from above 2.09 to 2.86. The last column on the right in Table V.1, Panel A, shows the top grade in each fifth of the credit unions. Each fifth represents a quintile of credit unions by loan grade. The second column in Panel A, of the table shows the average Composite Mission Loan Grade among credit unions in each quintile.

The credit unions in the first quintile, with scores from 1.0 to 2.09 are then assigned an overall grade of A for mission accomplishment in loans. B, C, etc. would be assigned to the second, third, etc, quintiles.

This is a relative rather than an absolute grade on mission accomplishment as measured by making loans of modest average size, which we take as a proxy for modest income. It seems reasonable to use a relative scale, since grades generally are relative. Also the overall distribution of credit union benefits to households is strongly skewed toward the high and high middle income groups. Therefore, a credit union that received an overall A for being in the best 20% of credit unions is probably doing a very good job on its mission, whereas those ranking with an F are probably making loans predominantly to the top one or two quintiles of household income.

Size Effects

The results from our prototype measure show a grade for each fifth of credit unions. However, suppose all of these credit unions were very small and accounted collectively for 1% of the dollar value of all credit union loans outstanding. This would mean that credit union members received 1% of the dollar value of all loans from credit unions with a grade of A, even though they were 20% of all credit unions. Therefore, we show in Panel B of Table V.1, average grades, but with the credit unions selected differently for each quintile. The same process as before is used to rank all credit unions by their loan grade. Then for each credit union we also calculate its total loans outstanding as a percentage of the loans of all credit unions outstanding. As before, we selects each credit union for the first quintile in order of its loan grade, but instead of stopping after reaching 20% of the credit unions, we stops when we have reached the credit union that brings total loans outstanding in the quintile to 20% of all credit unions loan outstanding.

This give a sense not only of each credit union’s grade but also the extent to which that grade affects more of the total population of people with credit unions loan. Thus, in Panel B of the table, the far right-hand column shows that in the first quintile (by loans outstanding) credit unions have Composite Loan Mission Scores up to 3.42. Therefore, members received 20% of the dollar value of outstanding loans from credit unions with a score within this range. Column two shows that the average score in this range is 2.38.
Comparison of Panels A and B of Table V.1 suggests a tendency for smaller credit unions to have better grades. However, this relationship, while present, has a relatively small influence. To see this we have created a scatter-plot, in which each dot represents one credit union's loan grade on the vertical axis and its total dollar value of loans outstanding on the horizontal axis (Figure V.1). The units on the horizontal scale are for the logarithm of the dollar value of each credit union's loans outstanding. Because the units are on a logarithmic scale (base 10), a change of one means the actual value is multiplied by 10. For example, the value of 4 means $10,000, 5 is $100,000. Therefore, we show on the plot only credit unions with at least $100,000 in loans outstanding, and most credit unions are to the right of (larger than) 6 ($1 million) on the horizontal axis. The far right end of the scale is 10.5, which is about $32 billion.

The wide scattering of points shows that size and grade is far from a tight relationship. Given most grade ranges, we can see a large number of credit unions of very different sizes within that grade range. However, we can also see that scores of 2 or under are virtually all for credit unions below log 8.3, which equals about $200 million in loans outstanding, and scores under 3 are virtually all under 9.3, or about $2 billion.

Table V.2 shows the results of an ordinary least squares regression line that would give the best fit through the plot. The corresponding equation estimates have a coefficient of 0.48 or about 0.5. This means that along such a line, every time a credit union's size is multiplied by 10, its grade falls about one-half point. However, only a small fraction of points are near such a line, and the regression results show that size explains only 15% of the variance of the observations in the scatter-plot. So the evidence indicates that size is of small value in predicting a credit union's loan grade.

**Results**

We find that credit union size is a poor predictor of loan grades. Both small and large credit unions show a very wide variation among themselves in the average size loan they make, which is a rough proxy for the level of income of the members receiving the loan.

**Implications**

Implications follow in Section VI.
Table.V.1
Distribution of Loan Grades of Credit Unions

A. By Quintiles of Credit Union Loan Grades

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Loan Grade (Average)</th>
<th>Percentile</th>
<th>Loan Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>1.52</td>
<td>20%</td>
<td>2.09</td>
</tr>
<tr>
<td>40%</td>
<td>2.51</td>
<td>40%</td>
<td>2.86</td>
</tr>
<tr>
<td>60%</td>
<td>3.20</td>
<td>60%</td>
<td>3.51</td>
</tr>
<tr>
<td>80%</td>
<td>3.86</td>
<td>80%</td>
<td>4.20</td>
</tr>
<tr>
<td>100%</td>
<td>4.64</td>
<td>100%</td>
<td>5.00</td>
</tr>
</tbody>
</table>

B. $ of Loans Outstanding

<table>
<thead>
<tr>
<th>Quintile</th>
<th>Loan Grade (Average)</th>
<th>Percentile</th>
<th>Loan Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>2.38</td>
<td>20%</td>
<td>3.42</td>
</tr>
<tr>
<td>40%</td>
<td>3.69</td>
<td>40%</td>
<td>3.95</td>
</tr>
<tr>
<td>60%</td>
<td>4.22</td>
<td>60%</td>
<td>4.47</td>
</tr>
<tr>
<td>80%</td>
<td>4.66</td>
<td>80%</td>
<td>4.82</td>
</tr>
<tr>
<td>100%</td>
<td>4.94</td>
<td>100%</td>
<td>5</td>
</tr>
</tbody>
</table>
Figure V.1 Scatter-plot: Loan grade versus log of dollars of loans outstanding*

*Data from NCUA 5300 call report, year-end 2006.
Note: On the horizontal axis is the logarithm to the base 10, so 5 means loans outstanding are $100,000, 6 means $1 million, 8 is $100 millions, 8.7 = about $500 million, 9 is one billion, 10 is 10 billion, and 10.5 is about $32 million

Table V.2. Regression of Loan Grade on log_{10} of Loans Outstanding

<table>
<thead>
<tr>
<th></th>
<th>Loan Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>loans (log)</td>
<td>0.481</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.138</td>
</tr>
<tr>
<td>Observations</td>
<td>7962</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.15</td>
</tr>
</tbody>
</table>

Absolute value of t statistics in parentheses
* significant at 5%; ** significant at 1%
Section VI. Implications

An Income Tax with Credits

The Plantes Company study of 2005 examined the locations served by sixteen large credit unions in Wisconsin, and found results with striking implications for the taxpayer subsidy to credit unions. Some credit unions primarily served quite modest income areas and others served quite affluent areas. The affluence level in their service areas were highly correlated with the size of mortgage loans they made. The study suggested that an income tax with credits for serving people of modest means could leave some credit unions with no income tax, if they were carrying out their mission well. Other credit unions might receive partial credits, and still others, who served primarily affluent households, would receive no money from taxpayers to subsidize a mission they had failed to accomplish.

The present study takes this a step further. Using call report data from credit unions it develops a rough prototype measure credit union service to households of modest means. With a grading system of five categories, credit unions could see how they were doing in relation to other credit unions in carrying out the mission they have long been subsidized to do.

This prototype could be readily expanded to include other dimensions and credit unions could calculate a weighted average grade for an overall grade along a number of dimensions.

Mission Accomplishments

This study finds additional evidence, in line with prior research, that credit unions as a group serve especially the upper end of the middle of the income spectrum and therefore, as a group, do not accomplish the mission that taxpayers subsidize them to do. To continue to provide a uniform subsidy to all credit unions provides perverse incentives for achieving the mission that taxpayers subsidize them to do.

Taxpayers would be better served by having the income tax apply to credit unions, with credits for mission accomplishment which would continue the full subsidy to credit unions that accomplished their mission well, and partial to zero subsidy to those with less exemplary achievements.

This study does not distinguish between federally chartered and state chartered credit unions because the tax subsidy is in the Federal Credit Union Act and states follow the federal practice. Therefore, responsibility for evaluating credit union mission accomplishment should probably reside at the federal level.
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