

**BANKS AND CREDIT UNIONS:  
KEEPING THE PLAYING FIELD LEVEL**

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## BANKS VERSUS CREDIT UNIONS

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## List of Acronyms

BHC	Bank Holding Companies
CBO	Congressional Budget Office
CRA	Community Redevelopment Act
FDIC	Federal Deposit Insurance Corporation
FHLB	Federal Home Loan Banks
FRB	Federal Reserve Board
GAO	General Accounting Office
GSE	Government-Sponsored Enterprise
HUD	U.S. Department of Housing and Urban Development
NCUSIF	National Credit Union Share Insurance Fund
S & L	Savings and Loans
S-Corp.	Chapter S Corporation
SBA	Small Business Administration
TBTF	Too-big-to-fail

# **BANKS AND CREDIT UNIONS: KEEPING THE PLAYING FIELD LEVEL**

## **EXECUTIVE SUMMARY**

### **A. PURPOSE OF THE PAPER**

This paper describes the nature and estimates the magnitude of tax, loan (liability), and safety net (deposit and other insurance) benefits afforded by the federal government to both banks (insured commercial banks and savings institutions) and credit unions. The relative level of benefits is relevant to policy for two reasons. First, they may create taxpayer burdens that are always a concern to policymakers. Second, they may also create subsidized competitive advantages that are likely to be a focal point of policy concern in the years ahead.

For the past several years banks have found themselves in an anomalous situation. On the one hand, banks have complained about the tax treatment afforded to credit unions because the credit unions were seeking to restore the scope of potential members (the interpretation of the common bond). On the other hand, banks were seeking to remove limitations on their own activities (line of business restrictions), while they fought to hold onto a broad array of their own subsidies. In spite of the bright light that this contradictory situation has shined on the benefits that banks enjoy, banks have pushed ahead with their campaign to simultaneously restrict credit union activity and expand their own.

The purpose of this paper is not to debate the merits or demerits of any of these specific policies. It does not address the magnitude of the benefits to society or whether the same goals could be accomplished in more efficient ways. Rather, to ensure that policymakers have a balanced view, the paper documents the existence of federal policies that favor banks in comparison to those that favor credit unions.

### **B. QUALITATIVE ASSESSMENT OF SUBSIDIES**

While it is true that credit unions receive some favorable federal income tax treatment, it is also true that many federally insured commercial banks and savings institutions do so as well (see Table ES-1). More importantly, federally insured commercial banks and savings institutions are given many other policy advantages that credit unions are not. Some of the deposit insurance, tax, and loan programs available to banks are not available to credit unions. Credit unions participate in some of the same programs that federally insured commercial banks and savings institutions do, but frequently to a much lesser extent.

TABLE ES-1

QUALITATIVE ASSESSMENT OF FEDERAL DEPOSIT INSURANCE, TAX AND  
LOAN BENEFITS ENJOYED BY BANKS AND CREDIT UNIONS

<u>POLICY AREA</u>	<u>BANKS</u>	<u>CREDIT UNIONS</u>
<u>SAFETY NET</u>		
<u>FAILURE ASSISTANCE</u>		
Too Big To Fail		
Banks	Available	Available, never used
Hedge Funds	Available	Not Available
Foreign Govts	Available	Not Relevant
Bail Outs	Available	Available, Never Used
Goodwill Payments	Available	Not Available
<u>INSURANCE</u>		
FDIC Underpricing	Available	Mitigated
<u>LIQUIDITY</u>		
Discount Window	Available	Limited Use
Payment System	Available	Limited Use
<u>TAX BREAKS</u>		
Exemption	S-Corp Exemption FHLB Exemption	Federal Income Tax Limited Use
Favorable Rules		
Small Bank	Loss Reserve	NA
S&L	Bad Debt Forgiven	NA
All	Foreign Income Deferral Preferred Trust Security	NA NA
<u>SUBSIDIZED LIABILITIES</u>		
FHLB	Available	Limited Use
Interest Free	Available	Not Available
Demand Deposits		
Small Bus Admn	Available	Limited Use
Comm. Develop.	Available	Not Available
Grants		
Education	Available	Limited Use
Housing	Available	Limited use

- On balance, federally insured commercial banks and savings institutions receive much more favorable treatment by federal policymakers.

### **C. GENERAL APPROACH TO COMPARISONS**

Although the qualitative conclusion is clear, quantifying and comparing the benefits enjoyed by the two sets of institutions is a complex task. Different institutions enjoy different benefits. Moreover, credit unions are much smaller than federally insured commercial banks and savings institutions – on average about one-twentieth the size (See Table ES-2).

TABLE ES-2  
DESCRIPTION OF INSURED FINANCIAL INSTITUTIONS

INSTITUTION/ CATEGORY	NUMBER	ASSETS (\$ Billion)	AVG. SIZE (\$ Million)
<b>BANKS</b>			
ALL	10,600	6,300	596
COMMERCIAL BANKS	8,900	5,300	593
SAVINGS INSTITUTIONS	1,700	1,000	616
<b>POOLS OF ASSETS</b>			
S-CORPORATIONS	~1,100	~100	~90
FHLB	6,700	400	60
SMALL BANKS	~7,500	~1,000	~130
SAVINGS INSTITUTIONS	1,700	1,000	616
MONEY CENTER BANKS	100	400	40
FOREIGN LOANS			
<b>CREDIT UNIONS</b>			
ALL	11,400	380	33

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Identifying sets of institutions with similar size and recognizing the sizes of the institutions being compared are important because credit unions are more likely to encounter specific types of institutions providing specific functions in the marketplace. Several important sets of institutions have assets of considerable size compared to credit unions. For example, the assets of the Federal Home Loan Banks (FHLB) are about equal in size to all credit unions. Bank S-Corporation assets are



equal to between one-quarter and one-third of the total assets of credit unions. Small banks (assets less than \$500 million) have at least twice the assets of credit unions.

The credit union benefits are compared to three different estimates of bank benefits.

First, we calculate the total dollar value of bank benefits. The total dollar amount is relevant to tax expenditure analysis and the budget deficit/surplus issue.

Second, we examine sets of institutions with pools of resources and other characteristics that are similar to credit unions. This comparison gives a picture of the relative order of magnitude of benefits and also an idea of the competitive impact, since these institutions are likely to go head-to-head in the marketplace with credit unions.

Third, we estimate the rate of benefit on a per dollar of asset basis. This presents a general measure of the potential for subsidized competitive advantage.

The analysis also identifies separately explicit out-of-pocket dollar costs to taxpayers and implicit cost savings to banks, which may not directly come out of taxpayers pockets. The distinction can be demonstrated with the following example.

- When taxpayers were forced to pay \$150+ billion to bail out Savings and Loans, that was an explicit cost to taxpayers of the federal safety net – the guarantee that the federal government stands behind funds deposited in the banking system.
- When banks, on an ongoing basis, are able to hold a lower capital ratio, because investors know the federal government guarantees them against catastrophe (Too-big-to-fail, full faith and credit and other policies), the banks get an implicit subsidy, because their cost of doing business is lowered. That may not come directly out of the pocket of taxpayers. If the government required a higher capital ratio, for example, the subsidy would be removed, but taxpayers would not be “richer.”

#### **D. ABSOLUTE VALUE OF SUBSIDIES**

To render the comparison reasonable and fair and provide an order of magnitude estimate, we start with the credit union federal income tax exemption (called a tax loss or expenditure). It turns out that assuming credit unions were to pay the full corporate income tax, the “tax loss” is at most \$1 billion. It would be

considerably less if credit unions were to avail themselves of tax planning strategies used by most corporations to limit their tax liabilities. However, using a \$1 billion figure is a very convenient metric that “conservatively overestimates” the baseline tax benefits enjoyed by credit unions.

We also estimate that for every \$1.00 of tax loss, the safety net affords the credit unions at most an additional \$1.30. It could be considerably less than that, given the lower level of risk that credit unions place on taxpayers.

- Thus, the total credit union benefit – explicit and implicit – is in the range of \$1.1 billion to \$2.3 billion per year.
- A comparable figure for the benefits enjoyed banks is in the range of \$30 billion to \$65 billion.

## **1. THE SAFETY NET**

The difference between the absolute value of benefits received by banks and the credit unions is extremely large (see Table ES-3). The one-time costs associated with the banking crisis of the past decade (\$150 billion), all of which are attributable to savings and loans, dwarfs the annual credit union benefit (\$1.1 billion to \$2.3 billion per year at most).

- No credit unions were bailed out by federal taxpayers as part of the S&L crisis of the late-1980s/early-1990s. With the bailout costing at least \$150 billion, it would take between 75 and 150 years for the credit union benefits (at current levels) to cost taxpayers what the S&L bailout cost them.
- The pending litigation over legislation that changed the treatment of capital in failed S&Ls (“goodwill”), for which taxpayers have been held accountable by the Supreme Court, will equal \$20 billion to \$30 billion in federal expenditures, a number which is equivalent to 10 to 30 years of credit union benefit.

The absolute value of the ongoing, out-of-pocket cost of benefits associated with the safety net is also quite large.

TABLE ES-3  
COMPARISON OF FEDERAL BENEFITS:  
BANKS VERSUS CREDIT UNIONS  
(BILLIONS OF DOLLARS)

ONGOING BENEFITS

	SAFETY NET	LOANS	TAX BREAKS	TOTAL
ALL BANKS	21 - 52	6.7 - 9.3	2.4 - 3.5	30.1 - 64.8
CREDIT UNIONS	6 - 1.3	Negligible	.5 - 1	1.1 - 2.3

ONE-TIME BENEFITS

BANKS	170 - 180	0	3	173-183	NA
CREDIT UNIONS	0	0	0	0	NA

- The value of under-priced deposit insurance and other federal guarantee policies to banks runs in the range of \$21 billion to \$52 billion per year.
- The interest alone on the S&L bailout is over \$2 billion per year.

Credit unions pose a much smaller risk to taxpayers than federally insured commercial banks and savings institutions. They have a higher ratio of capital to assets, a lower risk portfolio of assets, and a private, cross-guarantee in their insurance fund.

- Reflecting these factors, we estimate credit union safety net benefits in the range of \$.6 and \$1.3 billion per year.

**2. SUBSIDIZED LOANS**

Banks also enjoy other benefits from subsidized liabilities that are substantial.

- Interest free deposits save banks \$4 billion to \$6 billion per year. Credit unions do not receive this type of benefit.

- Federal funds for grants and loans equal \$2.5 billion per year. Credit unions have limited use of these funds.
- The provision of low cost funds through the FHLB system has a value in the range of \$.2 to \$.8 billion per year. Credit unions make limited use of these funds.

### **3. TAX BENEFITS**

Banks also enjoy significant favorable tax treatment.

- S-Corporations and small banks enjoy almost \$.3 to \$.4 billion annually of favorable tax treatment.
- Preferred trusts yield favorable tax benefits in the range of \$2 billion to \$3 billion per year.

### **E. POOLS OF BANK ASSETS SIMILAR TO CREDIT UNIONS**

As noted above, not all banks enjoy all the benefits. However, it is likely that each category of banks enjoys a larger benefit than similar credit unions as the following examples show.

- S-Corporations pay no corporate income taxes. Given their size and number, the pool of tax-exempt resources available to banks through the S-Corporation exemption is equal to between one-tenth and one-fifth of the credit union total.
- Similarly, the twelve Federal Home Loan Banks are tax exempt and make funds available to member institutions at below market rates. Given the pool of resources available, the value of this benefit for this set of institutions is about equal to the credit union total.
- Small banks have favorable tax treatment of loan loss reserves. Given the favorable treatment and size of these institutions, the value of this benefit for this set of institutions equals at least one-fifth of the credit union total.
- S-Corporations and preferred trust securities, alone, exempt about as much bank equity from taxation as the total equity of all credit unions.

These comparisons involve institutions that are similar in size and activity to most credit unions. The ongoing benefits received substantially exceed that enjoyed by the credit unions.

**F. TAX SUBSIDIZED COMPETITION – THE RATE OF SUBSIDY**

The final comparison involves the rate of subsidization of competing depository institutions. In this comparison we divide the total benefits by the asset base of each set of institutions to which it applies. We also make this comparison for comparably size institutions.

TABLE ES-4  
FEDERAL BENEFITS/SUBSIDIES  
IN BASIS POINTS

INSTITUTION	LOW	HIGH
SMALL BANKS	48	144
CREDIT UNIONS	26	60

- Federally insured commercial banks and savings institutions of comparable size to credit unions receive a total federal benefit/subsidy rate of 48 to 144 basis points, while credit unions receive federal benefits/subsidies at a rate that is in the range of 26 to 60 basis points.
- Smaller banks, which are most like credit unions, are also likely to receive substantial tax and loan benefits.

Throughout the analysis extremely conservative assumptions have been used that underestimate the benefit/subsidy to banks and overestimate the benefit/subsidy to credit unions. The conclusion of the analysis, even under these conservative assumptions, is that banks receive at least twice the benefit/subsidy that credit unions do. Because the analysis is so cautious, it would be reasonable to compare the high-end of the estimate for banks to the low end for credit unions and argue that banks receive five times the benefit. In any case, the benefits/subsidies enjoyed by banks are substantially larger than those enjoyed by credit unions.

## **G. CONCLUSION**

The empirical evidence demonstrates clearly that banks enjoy favorable federal deposit insurance, tax and loan treatments that vastly exceed those enjoyed by credit unions. The effort by banks to eliminate the credit union federal tax exemption would help banks but would harm the public in three ways.

First, credit unions receive subsidies for a specific public purpose. The nonprofit nature of these institutions results in lower cost banking services provided to the members of the institution. Elimination of the tax treatment of credit unions would constrain their ability to raise capital, because, as non-profit institutions, they cannot issue stock. The result, given their capital structure, would severely restrict their ability to grow.

Second, bank efforts to alter the tax treatment of credit unions would eliminate an important source of competition for banks. If banks keep their own favorable treatment, while eliminating that enjoyed by others, they would gain an unfair tax-subsidized competitive advantage.

Third, it would undermine one segment of the financial institutions industry (credit unions) that has traditionally passed lower operating costs (including their federal benefits) through to members in the form of lower rates charged on loans, higher interest rates paid on deposits and lower fees on transactions. This would enable banks to achieve higher profits because they would be able hold onto a larger share of their subsidies. The pressure to pass benefits through to the public would be reduced.

We find no basis for the claim that the tax treatment of credit unions should be changed because it constitutes an unfair advantage *vis-à-vis* banks, in the context of policy debate over the definition of the common bond, or in any other context for that matter. If policy makers consider the full range of tax, safety net and loan treatment afforded banks and credit unions, they will find that banks have the advantage. Taking away the credit union federal income tax exemption would tilt the playing field even more in favor of banks.

The demonstration that banks enjoy federal benefits/subsidies that are much larger than credit unions underscores the irony of the contradiction in the current bank arguments. Not only are they seeking a larger advantage by attacking the credit union tax treatment, while defending their own subsidies, but also they are seeking to expand their own field of activities, while attempting to restrict that of the credit unions.

# **I. INTRODUCTION**

## **A. PURPOSE OF THE PAPER**

This paper describes the nature and estimates the magnitude of safety net (deposit insurance and related benefits), tax and loan benefits afforded by the federal government to both banks (federally insured commercial banks and savings institutions)<sup>1</sup> and credit unions. The goal is to convey to the public and policymakers in comprehensible terms a comparison of the complex financial treatments afforded to these two sets of financial institutions. Unlike most discussions of this issue, the purpose is neither to complain about them as “subsidies” nor to defend them as public policy; rather it is to ensure that policymakers are aware of the wide panoply of these federal policies when they consider changing them.

The relative level of benefits for each segment of the industry is relevant to policy for two reasons. First, they may create taxpayer burdens that are always a concern to policymakers. This issue feeds into the perennial budget deficit/surplus debate. Second, they may also create subsidized competitive advantages that are likely to be a focal point of policy concern in the years ahead.

The latter issue has been quite prominent in recent years because of the legislative and regulatory activities of banks. For the past several years banks have found themselves in an anomalous situation of attacking the favorable treatment of credit unions while seeking to expand favorable federal treatment of banks.

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<sup>1</sup> Throughout this paper we use the term banks generally to refer to federally insured commercial banks and savings institutions.

On the one hand, banks claim it is necessary to reduce or eliminate the favorable federal tax treatment afforded credit unions because the credit unions are seeking to relax limitations on their ability to do business with various segments of the public.<sup>2</sup> As a study by the American Bankers Association put it:

This paper examines in summary form the tax policy basis for the credit union tax exemption in the context of current efforts of credit unions to abolish the single common bond requirement. Abolition of that requirement would enable large credit unions to offer a broad range of deposit, credit and other financial services to substantial segments of the general public...

Moreover, as discussed below, continuing to exempt credit unions from the federal income tax could, in the absence of the single common bond requirements, reasonably be viewed as inconsistent with the well-established congressional policy against tax-subsidized competition.<sup>3</sup>

On the other hand, the banks are seeking to remove limitations on the scope of their own activities (line of business restrictions), while they fight to hold onto a broad array of favorable federal deposit insurance, tax and loan benefits afforded to them. This internally contradictory posture shined a very bright light on the subsidies that banks enjoy.<sup>4</sup>

There is no more succinct a statement of the subsidy issue than testimony provided by Alan Greenspan, Chairman of the Federal Reserve

[A] number of observers have argued that there is no subsidy associated with the federal safety net for depository institutions – deposit insurance, and direct access to the Federal Reserve’s discount window and payment system guarantees. The Board strongly rejects this view. In saying this, the Board fully agrees that mandated government supervision and regulation impose significant costs on banks, costs which, in many cases, can and should be reduced. But given that these costs cannot be avoided by a bank, no rational

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<sup>2</sup> They are seeking to restore the scope of potential members known as the common bond.

<sup>3</sup> American Bankers Association, *Credit Unions: Exploiting Their Tax Exemption*, November 1997, p. 6... 18.

<sup>4</sup> The battle was renewed at the start of the new year, see Yingling, Edward I, “Memorandum to Members of the U.S. House of Representatives,” *American Bankers Association*, January 7, 1999.



bank manager would ignore the opportunity to take advantage of the lower cost of funds, or equivalently, the lower capital ratio, that access to the safety net demonstrably provides. While it is true that the safety net does increase the possibility of loss to taxpayers, a far larger public policy concern is that it provides banks with a government-sanctioned competitive advantage over non-bank firms.<sup>5</sup>

This study attempts to impose consistency on the public policy arguments in two ways.

First, this paper examines the subsidies enjoyed by banks in the context of current efforts by banks to abolish the restrictions on the scope of their economic activity, which would enable banks to offer a broader range of financial services to the general public.

Second, this paper considers the additional advantage banks would gain through tax-subsidized competition, if only the benefits of the credit unions were removed, as the banks advocate.

In order to establish a proper basis for evaluating federal policies affecting financial institutions – banks and credit unions – policy makers must understand how both sets of institutions accomplish their business and public policy purposes. In the final chapter, the report describes the set of subsidies that credit unions receive and compares them to the magnitude of the bank subsidies.

## **B. BENEFITS AND SUBSIDIES CONSIDERED**

Banks are favored by three broad categories of policies (see Table I-1).

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<sup>5</sup> Greenspan, Alan, “Testimony of Chairman Alan Greenspan,” before the Subcommittee on Finance and Hazardous materials of the Committee on Commerce, U.S. House of Representatives, July 17, 1997 (1997a), p. 3, emphasis added). See also “Statement Before the Subcommittee on Capital Markets, Securities and Government-Sponsored Enterprises of the Committee on Banking and Financial Services, U.S. House of Representative, February 13, 1997 (1997b), March 19, 1997 (1997c)).

TABLE I-1  
 QUALITATIVE ASSESSMENT OF FEDERAL DEPOSIT INSURANCE, TAX AND  
 LOAN BENEFITS ENJOYED BY BANKS AND CREDIT UNIONS

<u>POLICY AREA</u>	<u>BANKS</u>	<u>CREDIT UNIONS</u>
<u>SAFETY NET</u>		
FAILURE ASSISTANCE		
Too Big To Fail		
Banks	Available	Available, Never Used
Hedge Funds	Available	Not Available
Foreign Govts	Available	Not Relevant
Bail Outs	Available	Available, Never Used
Goodwill Payments	Available	Not Available
INSURANCE		
FDIC Underpricing	Available	Mitigated
LIQUIDITY		
Discount Window	Available	Limited Use
Payment System	Available	Limited Use
<u>TAX BREAKS</u>		
Exemption	S-Corp Exemption	Federal Income Tax
	FHLB Exemption	Limited Use
Favorable Rules		
Small Bank	Loss Reserve	NA
S&L	Bad Debt Forgiven	NA
All	Foreign Income Deferral	NA
	Preferred Trust Security	NA
<u>SUBSIDIZED LIABILITIES</u>		
FHLB	Available	Limited Use
Interest Free Demand Deposits	Available	Not Available
Small Bus Admn	Available	Limited Use
Comm. Development Grants	Available	Not Available
Education	Available	Limited Use
Housing	Available	Limited use

- Safety net subsidies enjoyed by banks include inexpensive deposit insurance, easy credit, and guarantees against failure or assurances of soft landings in case of financial distress. The purpose of these subsidies is to ensure the soundness of the financial system and protect small depositors.
- Targeted benefits are offered through banks in the form of loan guarantees and grants and low-cost deposits. The purpose of these programs is to encourage loans for specific purposes such as education, housing and community development.
- Federal tax benefits enjoyed by banks include exemption from taxes for specific types of income or for specific types of banks, or special treatment of expenses.

Many consumer advocates routinely defend some of these policies because they protect the public – particularly small depositors – or accomplish important social goals – particularly ensuring the availability of credit to people or purposes that might be underserved or unserved. However, some of these policies are a source of concern to consumer advocates because they result in extraordinary returns to bank owners (stockholders).

While it is true that credit unions receive some favorable federal income tax treatment, it is also true that many banks do so as well. More importantly, most banks are given many other policy advantages that credit unions are not. In some cases the deposit insurance, tax, low cost deposit and loan programs available to banks are not available to credit unions. In other cases, credit unions participate in some of the same programs that banks do, but frequently to a much lesser extent due to differences in authorities and priorities. Finally, there are some benefits available to credit unions that are not available to some or all banks. On balance, as this analysis shows, banks receive much more favorable treatment by federal policymakers.

### **C. METHOD OF COMPARISON**

Although the qualitative conclusion that banks receive more favorable federal policy treatment than credit unions is clear, quantifying and comparing the benefits enjoyed by the two sets of institutions is a complex task. Different institutions enjoy different benefits. Moreover, credit unions are much smaller than banks – on average less than one-twentieth the size. Recognizing the size of the institutions being compared and identifying sets of institutions with similar size are important (see Table I-2). In the aggregate banks have about 15 times the assets of credit unions.

Several important sets of institutions have assets of considerable size compared to credit unions. For example, the Federal Home Loan Bank (FHLB) system is about equal in size to all credit unions. Small banks (assets less than \$500 million) have about twice the assets of credit unions.<sup>6</sup> Credit unions are likely to encounter these institutions or their resources in the marketplace.<sup>7</sup>

To present a fair comparison, we provide a variety of analyses.

First, we calculate the total dollar value of bank benefits. The total dollar amount is relevant to tax expenditure analysis and the budget deficit/surplus issue.

Second, we examine sets of institutions with pools of resources and other characteristics that are similar to credit unions. This comparison gives a picture of the relative

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<sup>6</sup> Kwan, Simon and Randy Toole, "Recent Developments in Loan Loss Provisioning at U.S. Commercial Banks," Federal Reserve Bank of San Francisco, *Economic Letter*, July 25, 1997.

<sup>7</sup> Kwast, Myron L., Martha Starr-McCluster and John D. Wolken, "Market Definition and the Analysis of Antitrust in Banking," *Antitrust Bulletin*, Winter 1997, conclude that households and small businesses stay local for their financial services. Smale, Pauline, "Multiple-Group Federal Credit Unions: An Update," *CRS Report for Congress*, May 6, 1998, p. 5.

TABLE II-2  
DESCRIPTION OF FEDERALLY INSURED DEPOSITORY INSTITUTIONS

INSTITUTION/CATEGORY	NUMBER	ASSETS \$BILLION	AVG. \$MILLION
<b>BANKS</b>			
(a)			
ALL	10,600	6,300	596
COMMERCIAL BANKS	8,900	5,300	593
SAVINGS INSTITUTIONS	1,700	1,000	616
<b>POOLS OF ASSETS</b>			
(b)			
S-CORPORATIONS	~1,100	~100	~90
(c)			
FHLB	6,700	400	60
(d)			
SMALL BANKS	~7,500	~1,000	~130
(a)			
SAVINGS INSTITUTIONS	1,700	1,000	616
(e)			
MONEY CENTER BANKS	100	400	40
FOREIGN LOANS			
(f)			
<b>CREDIT UNIONS</b>			
ALL	11,400	380	33

- (a) Federal Deposit Insurance Corporation, *The FDIC Quarterly Banking Profile*, Third Quarter 1998.  
 (b) Engen, John R. "S-Corp: Protecting Against IRS Wolves," *US Banker*, November 1998.  
 (c) Federal Home Loan Bank System, *Quarterly Financial Report*, September 30, 1998.  
 (d) U.S. Department of Commerce, *Statistical Abstract of the United States: 1997*, Table 783 for the percentage of banks and bank assets in institutions below \$500 million.  
 (e) Curry, Timothy, Christopher Richardson and Robin Heider, "Assessing International Risk Exposure of U.S. Banks," *FDIC Banking Review*, 11:3, 19998.  
 (f) Callahan's 1999 *Credit Union Directory*, "Credit Union Peer Classification," p. 25.

order of magnitude of benefits and also an idea of the competitive impact, since these institutions are likely to go head-to-head in the marketplace with credit unions.

Third, we estimate the rate of benefit on a per dollar of asset basis. This presents a general measure of the potential for subsidized competitive advantage.

The analysis also identifies explicit out-of-pocket dollar costs to taxpayers separately from implicit cost savings to banks, which may not directly come out of taxpayers' pockets. The distinction can be demonstrated with the following example.<sup>8</sup> When taxpayers were forced to pay \$150+ billion to bail out savings and loans, that was an explicit cost to taxpayers of the federal safety net – the guarantee that the federal government stands behind the banking system.

When banks, on an ongoing basis, are able to hold a lower capital ratio, because investors know the federal government guarantees them against catastrophe (Too-big-to-fail, and other policies), the banks get an implicit subsidy, because their cost of doing business is lowered, but that may not come directly out of the pocket of taxpayers. If the government

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<sup>8</sup> The Congressional Budget Office, *Assessing the Public Costs and Benefits of Fannie Mae and Freddie Mac* (1996), p. x, describes the problem of conceptualizing and measuring the subsidy as follows:

For example, one such provision stipulates that GSE obligations are satisfactory collateral for ensuring the safety of the federal government's own funds when those are deposited in private institutions. The combined effect of those special provisions is to persuade the financial markets that GSE securities have "agency status" and are nearly as safe as if a federal government agency had issued them. On the strength of that implied guarantee, investors continued to lend money to Fannie Mae and Freddie Mac at relatively low interest rates even during the early 1980s, when Fannie Mae was economically insolvent.

Using GSE status to enhance the credit quality of the enterprises provides Fannie Mae and Freddie Mac with savings in funding costs worth billion of dollars. The benefit has "no cost" to the government or taxpayers only in the same restricted sense that the government would incur no out-of-pocket cash cost in providing free hydropower to an aluminum producer or giving federal lands to a developer, even though the recipients and their competitors would be willing to pay for those "gifts." In giving away the federal government's credit standing, which many private firms would pay to acquire, economic benefits are being transferred that are equivalent to those provided by writing treasury checks.

required a higher capital ratio, the subsidy would be removed, but taxpayers would not be “richer.”

#### **D. OVERVIEW OF FINDINGS**

To render the comparison reasonable and fair and provide an order of magnitude estimate, we start by estimating that the credit union federal income tax exemption (called a tax loss or expenditure). It turns out that assuming credit unions pay the full corporate income tax, the “tax loss” is at most \$1 billion per year. It could be considerably less if credit unions availed themselves of tax planning strategies used by most corporations to limit their tax liabilities. However, using a \$1 billion figure is a very convenient metric that “conservatively overestimates” the baseline tax benefits enjoyed by credit unions.

We also estimate that for every \$1.00 of tax loss the safety net affords the credit unions at most an additional \$1.30. It could be considerably less given the lower risk to which credit unions expose taxpayers. Thus, the total credit union benefit – explicit and implicit – is in the range of \$1.1 billion to \$2.3 billion per year. This baseline estimate is compared to three different estimates of bank subsidies.

In the aggregate, as our analysis indicates, bank benefits are in the range of \$30 to \$65 billion per year compared to the \$1.1 to \$2.3 billion enjoyed by credit unions.

The largest element in the gross subsidy for federally insured commercial banks and savings institutions is the safety net subsidies that arise from the federal government commitment to stand behind the banking system (serving as a lender of last resort and ultimate reinsurer of depository and other assets), the underpricing of deposit insurance, and the underpricing of liquidity.

The second largest component of bank subsidies involves access to guaranteed liabilities or other funds at below market rates. This includes the Federal Home Loan Bank System, student loans, and interest free deposits, among other programs.

The final component of bank subsidies is favorable federal tax treatment. This includes a variety of forms of favorable treatment that banks enjoy. S-Corporations have a tax exemption that is similar to the credit unions. Similarly, the twelve Federal Home Loan Banks are tax exempt and make funds available to member institutions at below market rates. Small banks have tax subsidies and loan programs available. Savings institutions have large benefits from Federal guaranteed loan programs and some tax subsidies

The final comparison involves the rate of subsidization. In this comparison we divide the total benefits by the asset base of the various segment of depository institutions to which it applies. In the aggregate, we find that comparably sized banks receive federal subsidies and benefits in the range of 48 to 144 basis points, compared to credit unions whose rate is in the range of 26 to 60 basis points.<sup>9</sup> The bank benefits and subsidies are certainly more than twice as large.

The empirical evidence demonstrates clearly that banks enjoy favorable federal deposit insurance, tax treatment and loans that vastly exceed those enjoyed by credit unions. The effort by banks to eliminate favorable credit union tax treatment would help banks expand their activities and reward their shareholders but harm the public in three ways.

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<sup>9</sup> Basis points are calculated by taking the total value of the subsidy, dividing by the asset to which it applies and multiplying by 100. Basis points are frequently used in financial analysis and are equal to hundredths of a percent. That is, an interest differential of 1 percent is referred to as 100 basis points. See Congressional Budget Office, *Assessing the Public Costs and Benefits of Fannie Mae and Freddie Mac*, 1996, p. xi, for the application of a similar methodology applied to the estimation of the benefit/subsidy.



First, in a broad sense, credit unions provide different functions to the public that would be undermined by the elimination of the federal tax treatment of credit unions because they cannot issue stock and expand their capital base. The result, given their limited capital structure, would severely restrict their ability to do grow.

Second, bank efforts to alter the tax treatment of credit unions while keeping their own favorable treatment, would eliminate an important source of competition for banks.

Third, undermining one segment of the financial institutions (credit unions) industry that has traditionally passed lower operating costs (including their federal benefits) through to members in the form of lower rates charged on loans or higher interest rates paid on deposits would enable banks to achieve higher profits because they would be able hold onto a larger share of their subsidies.

We find no basis for the claim that the tax treatment of credit unions should be changed because it constitutes an unfair advantage *vis-à-vis* banks, in the context of policy debate over the definition of common bond, expanded powers or in any other context for that matter. If policy makers consider the full range of tax, safety net cost of funds and loan treatment afforded banks and credit unions they will find that banks have a substantial advantage. Taking away the credit union tax exemption would tilt the playing field even more in favor of banks.

#### **D. OUTLINE OF THE PAPER**

Chapter II discusses the issue of safety net subsidies enjoyed by banks. This is the largest and most complex subsidy area, since the subsidies are implicit in many respects. It identifies the components of the safety net, discusses the impact of safety net subsidies on

competition in the industry, and estimates the size of the subsidies. Appendix A presents a formal discussion of the economic issues underlying the current debate over bank subsidies.

Chapter III discusses the other bank subsidy programs. These are more straightforward in terms of their design and impact. Most of these programs can be identified as budget line items, either outlays or tax “expenditures.”

Chapter IV compares banks and credit unions and presents conclusions.

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## **II. SAFETY NET SUBSIDIES**

### **A. THE IMPACT OF SAFETY NET SUBSIDIES**

The recent debate over safety net subsidies that banks enjoy was precipitated by concerns about the “leakage” of the subsidy into the new areas into which banks would like to expand. It has given rise to an intense debate about the definition and size of the subsidy. Some commenters have called Federal Reserve Board Chairman Greenspan’s analysis “nonsense,”<sup>10</sup> but the subsequent analysis has demonstrated the existence of a substantial federal subsidy for commercial banks.<sup>11</sup>

The specific mechanism that creates this subsidy from the safety net program is bank access to funds at lower costs than would otherwise be the case.

Because banks share with the FDIC the risk of default on their loans, banks’ expected risk-adjusted rate of return on loans is higher than it would be without FDIC deposit insurance. The lower a bank’s capital, and the greater the riskiness of its loan portfolio, the greater the risk borne by the FDIC, and the greater the deposit insurance enhancement to the bank’s expected returns on loans. Unless the bank’s expected return enhancement is completely offset by the FDIC’s deposit insurance premium or by tighter supervisory and regulatory restrictions, the bank receives a subsidy.

While the subsidy accrues directly to the bank as higher loan returns than those received by an unsubsidized lender, one might equivalently think of the subsidy as accruing in the form of reduced funding costs. In the absence of deposit insurance, depositors would demand that their interest rate include a risk premium to compensate them for the chance that the bank’s assets might default, rendering the bank incapable of repaying depositors. If deposit insurance premia do not likewise compensate the FDIC for this risk, then the

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<sup>10</sup> Ely, Bert, “Comment: Greenspan’s Deposit Insurance Subsidy Argument is Nonsense,” *The American Banker*, June 6, 1997, Article 66.

<sup>11</sup> The direct response to the complaint about Greenspan’s view of the subsidy is encapsulated in Walter, John R., “Can a Safety Net Subsidy be Contained?,” *Economic Quarterly*, winter 1998; Ellienhorn, Gregory, The Cost of Bank Regulation: A Review of the Evidence, (Washington, D.C., Board of Governors of the Federal Reserve System, April, 1998); Myron L. Kwast and S. Wayne Passmore, “The Subsidy Provided by the Federal Safety Net: Theory, Measurement and Containment,” *Finance and Economic Discussion Series* (Washington, D.C., Board of Governors of the Federal Reserve System, December, 1997)

bank is paying too little for its deposits in interest plus insurance premium expenses.

Like the subsidy from deposit insurance, similar subsidies – from TBTF, from access to the discount window, and from the ability to borrow from the Fed using daylight overdrafts -- also increase with bank risk.<sup>12</sup>

Much of the debate about leakage of the bank safety net subsidy is driven by a concern that expansion of bank activities would increase the size of the subsidy and risk to taxpayers. However, the subsidies received by banks are also a public policy concern because they are a source of tax-subsidized competitive advantage for banks vis-à-vis their competitors.

If banks receive a subsidy allowing them to raise funds at below-market rates, banking companies can benefit by passing the advantage on to their nonbank subsidiaries (either bank affiliate or direct bank subsidiaries). By passing the subsidy on to these subsidiaries, BHC profits can be enhanced as their subsidiaries' costs decline. Costs incurred by subsidiaries decline when subsidized sources of funds replace market-priced sources. This benefit gives banking companies a strong incentive to replace market-priced funding with subsidized funding, in other words, to shift the subsidy to nonbanks...

Perhaps the most important reason for containing a subsidy is to prevent its enlargement. An enlarged subsidy means increased costs for taxpayers and greater misallocation of resources...

Another reason for containing the subsidy is to prevent nonbank affiliates from gaining the competitive advantage that leakage could impart.<sup>13</sup>

The bank subsidy can have two impacts. It can be passed through to the public or it can be retained by the banks in the form of higher profits “[t]o the extent that banking markets are imperfectly competitive, banks may capture some of the subsidy.”<sup>14</sup> Recent debates over subsidies do not focus attention on the issue of imperfect competition and what it implies in

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<sup>12</sup> Walter, 1998, p. 10.

<sup>13</sup> Walter, 1998, p. 10.

<sup>14</sup> Walter, 1998, p. 14.

terms of the market power of banks, and it will not be addressed at length in this paper because the competitive impact is not altered greatly by the assumption about the extent of competitiveness of the market. The more competitive the market, the greater the impact of tax subsidized competition on other firms in the market. The less competitive the market, the larger the increase in profits to shareholders that would result from the subsidy. The actual outcome is likely to reflect a mixture of competitive gain and increased profits. To the extent that altering the credit union tax treatment would uniquely affect the competitive pressures to pass subsidies through to ratepayers, this issue takes on considerable significance, as discussed in Chapter IV.

The pervasive subsidies that banks enjoy are a concern for Federal policymakers given their demands for substantial expansion of the scope of their activities. Should they be allowed to enter new product markets, that subsidy might significantly distort competition. The impact on competition is analogous to the impact of removing the favorable Federal tax treatment from credit unions. Appendix A presents a brief description of the subsidies and their impact in economic terms that have been used in the ongoing debate.

## **B. THE COMPONENTS OF SAFETY NET SUBSIDIES**

Federal tax, safety net and other benefits for financial institutions are intended to serve a number of purposes.<sup>15</sup> The dominant subsidy is the safety net subsidy. The primary

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<sup>15</sup>While the fundamental purpose of the safety net is accepted by most analysts (e.g. Hoenig, Thomas M., "Bank Regulation: Asking the Right Questions," *Federal Reserve Bank of Kansas City*, First Quarter 1997; Coggins, Bruce, *Does Financial Deregulation Work?: A Critique of Free Market Approaches* (Edward Elgar: Massachusetts, 1998); and Kwast and Passmore, 1997; Dewatripont, Mathias and Jean Tirole, *The Prudential Regulation of Banks* (MIT Press, Cambridge, 1993 ); Litan, Robert E. and Jonathan Rauch, *American Finance for the 21<sup>st</sup> Century* (Brookings, Washington, 1998), there are many who believe that much of the function of the

purpose of safety net subsidies in the banking industry is to ensure the safety and soundness of the banking system.<sup>16</sup> As Chairman Greenspan put it:

Critically, the central bank has the responsibility to forestall financial crises (including systemic disturbances in the banking system) and to manage such crises once they occur.

Supervisory and regulatory responsibilities afford the Federal Reserve both the insight and the authority to use crisis management techniques that are less blunt than open market operations, and more precisely calibrated to the problem at hand. Such tools not only improve our ability to manage crises but, more importantly, help us to avoid them. Indeed, we measure our degree of success in this area not by the number of crises we assist in containing, but rather the number of crises which could have erupted but did not...

A key element of avoiding systemic concerns is management of the payment system.<sup>17</sup>

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Federal Reserve could be accomplished in less regulatory ways (e.g. Calomiris, Charles W., *The Postmodern Bank Safety Net: Lessons from Developed and Developing Economies* (Washington, D.C., 1997).

<sup>16</sup> A great deal of attention has been focused on the choice of instruments. The clearest conclusion appears to be that the effectiveness of specific instruments depends very much on market conditions and bank motivation. Therefore, a mix of instruments is best (Kupiec and Paul H. and James M. O'Brien, *Depository Insurance, Bank Incentives, and the Design of Regulatory Policy*, Board of Governors of the Federal Reserve System, December 1997, pp. 34...35).

In reality, regulatory design is likely to require choices among a set of feasible policies any one of which will be uneven in its effectiveness and less than optimal for individual banks. The choices will continue to include minimum capital rules, variable premium rates, asset restrictions, supervision and monitoring, and possibly some formal use of incentive mechanisms. Given the bank-specific nature of socially preferred regulation, it may be appropriate that different policy alternatives be emphasized for different types of banks.

Similar conclusions about the need for or effectiveness of mixed regulatory approaches are supported by the findings of Rochet, Jean-Charles, "Capital Requirements and the Behaviour of Commercial Banks," *European Economic Review*, 1992; Gjerde, Oystein and Kristian Semmen, "Risk-based Capital Requirements and Bank Portfolio Risk," *Journal of Banking & Finance*, 1995; S. Nagarajan and C.W. Sealy, "Forbearance, Deposit Insurance Pricing And Incentive Compatible Regulation," *Journal of Banking and Finance*, 19,1995, "State-contingent Regulatory Mechanisms and Fairly Priced Deposit Insurance," *Journal of Banking and Finance*, 22, 1998), Brewer, Elijah, III William E. Jackson III and Thomas S. Mondschean, "Risk, Regulation and S&L Diversification into Nontraditional Assets," *Journal of Banking & Finance* , 1996.

<sup>17</sup> Greenspan, 1997a, p. 5...6.

Current discussions in the financial literature of the bank subsidy question in the context of the safety net and the expansion of bank activity identify four primary sources of subsidies.<sup>18</sup>

- Deposit insurance is priced below market.<sup>19</sup>
- Banks have the ability to borrow from the federal discount window at reduced cost.<sup>20</sup>
- Banks have the ability to overdraw accounts at a price that is below market.<sup>21</sup>
- Banks benefit from a policy that prevents the largest banks from failing, which has the effect of protecting their uninsured creditors (and often shareholders) at no charge.<sup>22</sup>

The concerns expressed by the Federal Reserve about the leakage of the subsidy would be academic and unjustified if those actual subsidies were small. Clearly, Federal Reserve Board Chairman Greenspan and other financial analysts believe that they are not.

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<sup>18</sup> Walter, 1998, p. 2.

There are three possible means of bank subsidy mentioned in most discussions: underpriced deposit insurance, an unpriced line of credit from the Federal Reserve (the Fed) discount window, and underpriced daylight overdraft loans from the Fed. Additionally, a fourth subsidy, available to the largest banks, exists because of a government policy that protects (free of charge) uninsured creditors of banks considered “too-big-to-fail.”

<sup>19</sup> Walter, 1998, Kwast and Passmore 1997, in addition to Greenspan, 1997 for discussions of the underpricing. These studies are a direct response to Whalen, Gary, “The Competitive Implications of Safety Net-Related Subsidies,” *Office of the Comptroller of the Currency*, Economics Working Paper, 97-9, 1997, which claimed that there was no net subsidy, and Gary Whalen, “Bank Organizational Form and the Risk of Expanded Activities,” *Office of the Comptroller of the Currency*, Economic Working Paper 97-1, January 1997, which argued that organizational forms could largely contain the subsidy.

<sup>20</sup> Walter, 1998.

<sup>21</sup> Walter, 1998; Mengle, David L., David B. Humphrey and Bruce J. Summers, “Intraday Credit: Risk, Value, and Pricing,” Federal Reserve Board of Richmond, *Economic Review*, January/February 1987.

<sup>22</sup> Wall, Larry D., “Too-Big-to-Fail After FDICA,” Federal Reserve Bank of Atlanta, *Economic Review*, 1993; Feldman, Ron J. and Arthur J. Rolnick, “Fixing FDICIA: A Plan to Address the Too-Big-To-Fail Problem,” Federal Reserve Bank of Minneapolis, *1997 Annual Report*, March 1998; Walter, 1998.

Estimating the magnitude of the subsidies is difficult, however, primarily because one must place values on how much private markets would charge to provide insurance against events that might or might not happen. Since the values and probabilities change dramatically over time, so does the value of the subsidies.<sup>23</sup> It is all too easy in good times to forget the bad times. As the Chairman of the Federal Reserve put it:

While some benefits of the safety net are always available, it is critical to understand that the value of the subsidy is smallest for very healthy banks during good economic times, and greatest at weak banks during a financial crisis.<sup>24</sup>

Analytic studies of the subsidy have reached a similar conclusion.

In contrast to the difficult times of a few years ago, today the economy is performing well, the banking industry is on the verge of its sixth straight year of record profits, and 98 percent of U.S. banks are, at least by regulatory capital standards, well-capitalized. In such an environment, the gross value of the safety net subsidy to the banking industry is surely small for the vast majority of banks...

Thus, the measurements of the value of the subsidy at a particular time is dependent on perceptions of market participants at a particular time...

From a public policy point of view, the safety net helps to ensure a stable banking and financial system, the substantial benefits of which accrue not only to banks, but also to the entire nation. Moreover, it is critical to recall that the value of the safety net is lowest when economic growth is robust and the financial condition of banks is strong. Equally critical, the value of the subsidy soars when the economy turns sour and banks start to look shaky.<sup>25</sup>

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<sup>23</sup> The outcome of the analysis also turns on assumptions about the behavior of regulators (see Pennachi, George G., "A Re-examination of the Over-(or Under-) Pricing of Deposit Insurance," *Journal of Money, Credit and Banking*, 1987.

<sup>24</sup> Chairman Greenspan 1997a, p. 3.

<sup>25</sup> Kwast and Passmore, 1997, pp. 3...8... 37.



Most of the empirical evidence brought to bear on the bank subsidy debate in recent years reflects the relatively good times of the mid- and late-1990s. Therefore, there is a tendency to underestimate the long term size and value of the subsidies.

Analysts typically attempt to identify the value and impact of each of the elements of the safety net program separately, but there is no doubt that they are interrelated. For example, Humphrey describes the relationship between payments system support (Fedwire), deposit insurance, and government backing as follows:

The Federal Reserve was attempting to address its credit risk on Fedwire (a real time gross settlement network). The problem was that many (usually large) banks were running their positive opening-of-day reserve accounts down to large negative positions during the day and incurring net debits that were multiples of their equity capital. Since the Federal Reserve guaranteed that funds transferred on Fedwire are final funds, the failure of a bank with a net debit creates credit risk for the Federal Reserve. More accurately, because the failure of a bank with a net debit would likely lead to a collateralized discount window loan, this credit risk would have been absorbed by the FDIC and other creditors of the failed bank. If the failed bank's equity and the FDIC's deposit insurance fund were inadequate to cover the losses, the credit risk would have been passed to the U.S. Treasury (which has authority to lend a certain amount to the FDIC), and finally to the taxpayers, who would have been the final creditors.<sup>26</sup>

While most discussions of safety net programs start with a discussion of the pricing of deposit insurance, the observations above lead us to conclude that the starting point should be the guarantee against failure. The bottom line is that the Federal Reserve System will guarantee the soundness of the banking system starting with the most significant institutions – the so-called mega-banks – but the benefits of the policy spill over to all banks.

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<sup>26</sup> Humphrey, David B., "Advances in Financial Market Clearing and Settlement," in Robert E. Litan and Anthony M. Santomero, *Papers on Financial Services* (Brookings, Washington, D.C., 1998), p. 128.

Moreover, although the policy of preventing the failure of the largest banks has been officially stated in the form of identifying specific banks as “Too-big-to-Fail,” the general backing of the banking system with the full faith and credit of the U.S. government is seen as a very strong financial benefit/subsidy.<sup>27</sup> As Federal Reserve Chairman Greenspan put it,

What was it worth in the late 1980s and early 1990s for a bank with a troubled loan portfolio to have deposit liabilities guaranteed by the FDIC, to be assured that it could turn illiquid assets to liquid assets at once through the Federal Reserve discount window, and to tell its customers that payment transfers would be settled on a riskless Federal Reserve Bank? For many it was worth not basis points but percentage points. For some, it meant the difference between survival and failure. In contrast today, when the economy is performing well and the banking industry has just experienced its fifth straight year of record profits, it is perhaps too easy to ignore the value of the safety net and see only its costs. The Board believes that prudent public policy should take a longer view.<sup>28</sup>

Thus, while the specific and direct estimation of the bank subsidy through the four specific mechanisms identified above is the most common identification of the source of subsidies, an implicit source of subsidy has also been noted – the backing of the U.S. government. The significance of that commitment should be readily apparent in the recent cost of fulfilling the guarantee against failure in the savings and loan industry. Estimates of the cost of the savings and loan bailout are staggering.

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<sup>27</sup> Ambrose, Brent W. and Arthur Warga, “Implications of Privatization: The costs to Fannie Mae and Freddie Mac,” in Department of Housing and Urban Development, *Studies on Privatizing Fannie Mae and Freddie Mac* (Washington, D. C. 1996); Furlong, Edward D. “Evolution of the North American Banking System,” Board of Governors of the Federal Reserve System, *OECD Committee on Financial Markets* (Washington, D.C., July 1994); Kau, James B. and Donald C. Keenan, “an Option-theoretic Model of Catastrophes Applied to Mortgage Insurance,” *Journal of Risk and Insurance*, 63:4, 1996.

<sup>28</sup> Greenspan, 1997c, p. 3.

## **C. BAILOUTS**

### **1. SAVINGS AND LOANS**

The cost of the S&L bailout to taxpayers has been estimated in excess of \$150 billion.<sup>29</sup> These bailout costs are large, highly visible charges borne by taxpayers that reinforce the value of federal deposit insurance. Moreover, it is a mistake to think about it as a cost that is long gone. Interest on the S&L bailout continues to cost Federal taxpayers \$2-\$3 billion per year.<sup>30</sup>

In addition, a recent Supreme Court ruling seems certain to make the bailout figure much higher.<sup>31</sup> The adverse ruling deals with the way a certain type of capital (“goodwill”) was treated by the government. Initially, “good will” in thrifts was used to meet regulatory capital requirements. When Congress changed that treatment, owners of some S&L’s had to raise more capital, which led to failure of the institution or jeopardized the safety and soundness of their institutions.<sup>32</sup> These shareholders convinced the Supreme Court that the change in treatment was an unconstitutional taking of their property. Now, it remains to be seen how much it will cost taxpayers, since estimation of the extent of the harm to owners is still in dispute. Current estimates are that the final bill paid by taxpayers to these S&L

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<sup>29</sup> Official estimates of the outlay of dollars by taxpayers are an unfolding process and mount over time. Official estimates can be found in General Accounting Office, *Deposit Insurance Funds*, 95-84, 1995. *Inspectors General: Mandated Studies to Review Costly Bank and Thrift Failures*, 97-4, 1996, *Financial Audit: Resolution Trust Corporation’s 1995 and 1994 financial Statements*, July 2, 1996; *Financial Crisis Management*, May 1997. This analysis does not include the opportunity cost of the bailout, which could increase the estimate of the real cost to taxpayers by 20 to 50 percent (Ely, David P. and Nihil P. Variya, “Opportunity Costs Incurred by the RTC in Cleaning Up S&L Insolvencies,” *The Quarterly Review of Economics and Finance*, Fall 1996).

<sup>30</sup> General Accounting Office, *RTC’s Financial Statements*, 1995, p. 18.

<sup>31</sup> Labatan, Stephen, “The Debacle that Buried Washington,” *New York Times*, November 22, 1998.

<sup>32</sup> Park, Sangkyun, “Why did Goodwill Matter in 1989?,” Staff Paper, N.D., Federal Reserve Bank of New York.

shareholders for “goodwill” will be in the range of \$20 to \$30 billion over the next few years.<sup>33</sup>

These “goodwill” costs have two implications for the analysis in this paper. First, they underscore the impact of subsidies that enable banks to avoid raising capital in the marketplace. Second, unlike the initial costs of the savings and loan bail out, which were used to ensure that depositors were made whole, these billions of dollars of federal subsidies go to bank owners.

## **2. OTHER INSTITUTIONS**

The commitment of the Federal Reserve to defending the financial system appears to be quite broad. Its recent activities in brokering the rescue of “the world’s most celebrated hedge fund, Long-Term capital”<sup>34</sup> has raised even more questions about the extent and cost of the safety net subsidy. While the analysis of the Too-big-to-fail policy was focused on whether or not the Federal Reserve could exercise much discretion in engineering the bailout of targeted banks,<sup>35</sup> the Federal Reserve executed the same function for a non-insured financial institution that was clearly not covered by the formal policy. As James Leach, Chairman of the House Banking Committee put it:

[A] failure of this magnitude and the Fed’s decision to intervene on behalf of a private company raise profound public policy questions...

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<sup>33</sup> Seiberg, Jaret, “Decision is Deferred in Key Goodwill Case, January 6, 1998; *American Banker*; “Cal Fed Seeks \$1.6 Billion for U.S. in Goodwill Case,” Bloomberg, January 11, 1998; Labatan 1998.

<sup>34</sup> Leach, James, A., “Opening Statement, Hearing on Hedge Funds, Long-Term Capital Management LP,” *House Banking and Finance Committee*, October 1, 1998, p. 1.

<sup>35</sup> Wall, 1993.

The industry numbers between 3,000 to 5,500 funds and somewhere between \$200 and \$300 billion in investment capital. About a third of the funds are highly leveraged; in Long-Term's case, about 27 to 1. That means that these funds are supporting booked assets on the order of \$2 trillion.

Large financial institutions make this leveraging possible, often with federally insured funds. If taxpayers are to share in the risk, they or at least their protectors – bank regulators and in some cases the CFTC and the SEC – ought to understand what risks are involved...

It would appear that the Fed's intrusion into our market economy can be justified only if it can be credibly shown there was a clear and present danger to the financial system in Long-Term Capital's failure and that there were no stabilizing alternatives, i.e., other credible bids on the table. Although no public money was involved, this is the first time the too-big-to-fail doctrine has ever been applied beyond insured depository institutions.<sup>36</sup>

In addition to the apparent willingness of federal banking regulators to extend the Too-big-to fail policy to other institutions, there is an ongoing problem with the concentration of assets in the banking industry. As mergers increase the size of institutions, more banks may come to be defined as Too-big-to-fail.<sup>37</sup>

### **3. INTERNATIONAL "SUBSIDIES"**

The willingness of the Federal Reserve to intervene to protect the banking system has not been limited to domestic financial crises. In the past two decades of dealing with financial crises at home, the Federal Reserve system has also been involved in major bail outs in several foreign nations. The bailouts have taken a variety of forms and combinations of public and private monies. The Federal Reserve System role is essentially to provide liquidity, invariably at below market rates, to support the financing of exports by US banks,

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<sup>36</sup> Leach, 1998, p. 2.

international loans and currency transactions. By the standards of the bailouts undertaken in the Asian crisis and for Latin American nations, the resolution of the Mexican Debt Crisis of 1982 was small,<sup>38</sup> but nonetheless it follows the same pattern. Short term loans and access to massive amounts of currency were provided to foreign governments and banks, while longer-term packages of IMF loans (many supported by U.S. tax dollars), loan payment forgiveness and local fiscal and monetary belt tightening were worked out.<sup>39</sup>

There are very large sums involved. For example, the FDIC estimates that the loans that the major money center banks presently have abroad, which benefit most directly from these policies, equal about 80 percent of the total assets of the credit unions – about \$300 billion.<sup>40</sup>

#### **4. ONGOING SUBSIDIES FOR THE GUARANTEE AGAINST FAILURE**

The belief that investors hold – that the full faith and credit of the United States government stands behind the U.S. banking system (both here and abroad) – has been validated time and again in the past two decades. The value of that guarantee persists, while

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<sup>37</sup> “Fed’s Meyer Sees Room for Improvement in Bank Supervision,” *Bloomberg*, Jan 11, 1999; Beger, Allen N., et al, “The Consolidation of the Financial Services Industry: Causes, Consequences, and Implications for the Future,” *Journal of Banking and Finance*, 23, 1999.

<sup>38</sup> GAO, 1997.

<sup>39</sup> Hoenig, Thomas M., “The International Community’s Response to the Asian Financial Crisis,” Federal Reserve Bank of Kansas City, *Economic Review*, Second Quarter 1998; Lindsey, Lawrence B., “The Asian Crisis and the IMF,” *Committee on Banking and Finance, U.S. House of Representatives*, January 30, 1998, “Congress and the International Monetary Fund,” *Subcommittee on Oversight of the Committee on Banking Financial Services, U.S. House of Representatives*, April 21, 1998; Calmoris, Charles W., “The IMF’s Moral Hazard,” *Washington Times*, August 5, 1998.

<sup>40</sup> Curry, Timothy, Christopher Richardson and Robin Heider, “Assessing International Risk Exposure of U.S. Banks,” *FDIC Banking Review* 11:3, 1998.

the magnitude of the bailouts has inspired vigorous efforts to better control the exposure of the public to risk.<sup>41</sup>

As a result of the demonstrated commitment by the Federal government to prevent failure, on an ongoing basis, markets require less of a risk premium from institutions that enjoy preferential treatment from the government. The lower risk premium that financial institutions pay reflects the value of the subsidy. In a good year, i.e. a year when taxpayers are not

called on to make good on the guarantee, the banks receive the benefit without imposing an additional direct burden on taxpayers, but the subsidy still exists. The value of that subsidy has been estimated in recent analyses by economists in the Federal Reserve System to be in the range of 30 – 100 basis points.<sup>42</sup> Table II-1 shows this as an independent value of failure insurance. As Federal Reserve analysts put it recently:

Part of the subsidy provided by the safety net – that part which can be actuarially evaluated – can be offset by explicit charges for the services provided. However, pricing the absolute confidence that the public has in the government’s support of the banking system is more difficult. The U.S. government is the only entity that cannot become insolvent in dollar obligations, because it can create them at will. Absolute public confidence therefore cannot be reproduced in the private sector, and the fact that the required government guarantees are granted to banks makes banks distinct from most other firms in our society.<sup>a/</sup>

a/ In essence, the government is providing “catastrophic” insurance to bank liability holders. Individual banks may not be protected, but the government protects most liability holders from the collapse of the banking system. Such protection has value, as bank creditors need not attempt to price for very low probability but extremely negative outcomes.<sup>43</sup>

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<sup>41</sup> Jordan, John S., “Crisis Management Worked in New England,” *New England Economic Review*, September/October 1998 argues that the parties to the crisis, bank managers, regulators and market participants have improved their performance over time.

<sup>42</sup> Kwast and Passmore, 1997, citing Ambrose and Warga, 1996.

<sup>43</sup> Kwast and Passmore, 1997, p. 3.

TABLE II-1:  
MAGNITUDE OF BANK ONGOING SAFETY NET SUBSIDIES  
MEASURED IN BASIS POINT ANNUALLY

	LOW	HIGH
COMPONENTS OF THE SAFETY NET		
a, b		
Failure Assistance	30	100
a, c		
Insurance Underpricing	0	30
c, d		
Liquidity	5	20
a		
VALUE OF CAPITAL STRUCTURE DIFFERENCE	50	80
a, b		
RANGE OF POSSIBILITIES	30	150
BANKS COMPARABLE IN SIZE TO CREDIT UNIONS	30	120

SOURCES AND NOTES:

a/ Myron L. Kwast and S. Wayne Passmore, 1997, "The Subsidy Provided by the Federal Safety Net: Theory, Measurement and Containment," *Finance and Economic Discussion Series* (Washington, D.C., Board of Governors of the Federal Reserve System, December, 1997)

b/ Ambrose, Brent W. and Arthur Warga, "Implications of Privatization: The costs to Fannie Mae and Freddie Mac," in Department of Housing and Urban Development, *Studies on Privatizing Fannie Mae and Freddie Mac* (Washington, D. C. 1996); Department of Housing and Urban Development, *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility* (Washington, D. C. 1996); Congressional Budget Office, *Assessing the Public Costs and Benefits of Fannie Mae and Freddie Mac* (1996).

c/ Walter, John R., "Can a Safety Net Subsidy be Contained?," *Economic Quarterly*, winter 1998.

d/ Dunaif, Daniel, "Chase, Morgan, Citi Leading a \$1.2 Billion Loan for Honeywell," *American Banker*, March 17, 1997; Goodwin, William, "Deals" Socal Edison Combining 18 Credit Lines into 1," *American Banker*, July 6, 1994; Mengle, David L., David B. Humphrey and Bruce J. Summers, "Intraday Credit: Risk, Value, and Pricing," Federal Reserve Board of Richmond, *Economic Review*, January/February 1987.



There appears to be considerable agreement that the value of catastrophic deposit failure insurance is about 25 to 30 basis points on the low end.<sup>44</sup> It is only at the high-end that estimates differ widely. They range from 40 to 150 basis points, with single point estimates as high as 100 basis points.<sup>45</sup> After reviewing the literature, CBO uses a single point estimate of 70 basis points, noting that

recent estimates of the funding benefit of GSE status to Fannie Mae and Freddie Mac indicate the average savings are 0.25 percentage points to 2 or more percentage points a year for each dollar of funds acquired.<sup>46</sup>

#### **D. UNDERPRICED DEPOSIT INSURANCE**

In banking literature a great deal of attention has focused on the issue of the pricing of deposit insurance by the federal government.<sup>47</sup> Generally, there is strong evidence in the

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<sup>44</sup> U.S Department of Housing and Urban Development, *Privatization of Fannie Mae and Freddie Mac: Desirability and Feasibility Study*, July 1996, Chapter IV.

<sup>45</sup>The high-end estimates are discussed in CBO, 1996, p. 17. In the case of Fannie Mae and Freddie Mac, the high-end may include other benefits which are not being modeled in this paper for purposes of comparing safety net benefits between banks and credit unions

<sup>46</sup> CBO, 1996, pp. xi-xii.

<sup>47</sup> There is a large literature that attempts to show that risk taking behavior is influenced by underpriced deposit insurance (Bhattacharya, Sudipto, Arnough W.A. Boot, and Anjan V. Thakor, "The Economics of Bank Regulation," *Journal of Money, Credit and Banking*, 30:4, 1998; Leonard, Paul A. and Rita Biswas, "The Impact of Regulatory Changes on the Risk-Taking Behavior of State Chartered Savings Banks," *Journal of financial Services Research*, 13:1, 1998; Galloway, Tina M. Winson B. Lee and Dianne M. Roden, "Banks' Changing Incentives and Opportunities for Risk Taking," *Journal of Banking and finance*, 21, 1997; Brewer, Jackson and Mondschean, 1996; Brewer, Elijah, "The Impact of Deposit Insurance on S&L Shareholders' risk/Return Trade-Offs," *Journal of Financial Services Research*, 9, 1995; Keely, Michael, C., "Bank Capital Regulation in the 1980s: Effective or Ineffective," Federal Reserve Bank of San Francisco, *Economic Review*; Par, Sangkyun, "Risk-taking Behavior of Banks Under Regulation," *Journal of Banking and Finance*, 21, 1997; Walker, David, "Effects of Deregulation on Failing Thrift Institutions," *Applied Economics*, 26, 1994; Mazumdar, Sumon C., "Bank Regulations, Capital Structure and Risk," *Journal of Financial Research*, 19, 1996; Park, Sangkyun and Stavros Peristiani, "Market Discipline by Thrift Depositors," *Journal of Money, Credit and Banking*, 30:3, 1998, Part I; Gjerde and Semmen, 1995; Benson and Kaufman, 1998; Carow, Kenneth A. and Glen A. Larsen, Jr., "The Effect of FDICIA Regulation on Bank Holding Companies," *The Journal of Financial Services Research*, 1997; Chan, Yuk-Shee and Stuart I. Greenbaum and Anjan V. Thakor, "Is Fairly Priced Deposit Insurance Possible?," *Journal of Finance*, 47:1, 1992; Craine, Roger, "Fairly Price Deposit Insurance and Bank Charter Policy," *Journal of Finance*, 50:5, 1995; Goldberg, Lawrence G and Sylvia C. Hudgins, "Response of

literature that riskier banks receive substantial subsidies by being charged too little for insurance, while the net subsidy (including other regulatory costs, as discussed below) for all banks is small.<sup>48</sup> The number is in the range of 0 for low risk banks to 30 basis points for high-risk banks.<sup>49</sup> The riskier banks are found to receive the larger subsidies since they would be charged more in a marketplace.

### **E. UNDERPRICED LIQUIDITY**

One of the primary goals of the Federal Reserve System is to ensure liquidity and the smooth operation of the payment system. In order to accomplish this goal, the system makes short term credit available to member banks. The banks have a line of credit open for daily overdrafts through the Fedwire,<sup>50</sup> as well as longer-term credit available through the discount window.<sup>51</sup> Analysis of the price the Federal Reserve charges for these services consistently find that it underprices them.<sup>52</sup>

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Uninsured Depositors to Impending S&L Failures: Evidence of Depositor Discipline,” *The Quarterly Review of Economics and Finance*, 36:3, 1996; Epps, T.W., Lawrence B. Pulley and David B. Humphrey, “Assessing the FDIC’s Premium and Examination Policies Using Soviet Put Options,” *Journal of Banking & Finance*, 1996; Pyle, David H, “Capital Regulation and Deposit Insurance,” *Journal of Banking and Finance*, 10, 1986; Rochet, 1992; John, Kose, Teresa John and Lemma W. Senbet, “Risk-shifting Incentives of Depository Institutions: A New Perspective on Federal Deposit Insurance Reform,” *Journal of Banking and Finance*, 15, 1991). If this literature is correct, the claims that expanding banking powers pose no threat to the safety net is clearly in error.

<sup>48</sup> Kwast and Passmore, 1997.

<sup>49</sup> Kwast and Passmore, 1997; Ambrose and Warga, 1996; Walter, 1998; Whalen, 1997.

<sup>50</sup> Furfine, Craig H. and Jeff Stehm, “Analyzing Alternative Intraday Credit Policies in Real-time Gross Settlement Systems,” *Journal of Money, Credit and Banking*, 30:4, 1998; Richards, Heidi Willman, “Daylight Overdraft Fees and the Federal Reserve’s Payment system Risk Policy,” *Federal Reserve Bulletin*, December 1995; Mengle, Humphrey and Summers, 1987.

<sup>51</sup> Mitchell, Karlyn and Douglas K. Pearce, “Discount Window Borrowing Across Federal Reserve Districts: Evidence Under Contemporaneous Reserve Accounting,” *Journal of Banking and Finance*, 16, 1992; Cosimano, Thomas F. and Richard G. Sheehan, “Is The Conventional View of Discount Window Borrowing Consistent with the Behavior of Weekly Reporting Banks,” *Review of Economics and Statistics*, 1994; Clause, James A, “Recent Developments in Discount Window Policy,” *Federal Reserve Bulletin*, November 1994; Flannery,

The potential subsidy appears to be in the range of 50 to 70 basis points. However, there are limits on the access to these funds. The value of the liquidity policies lies more in the open line of credit, than in the ability to capture the value of an interest rate difference.<sup>53</sup> Therefore, the actual value of this subsidy would appear to be in the range of 5 to 20 basis points on specific lines of credit.<sup>54</sup>

## **F. CAPITAL RATIOS**

Another approach can be taken to measuring the value of the bank safety net. Chairman Greenspan's testimony suggests that there is an equivalence between "the lower cost of funds, or equivalently, the lower capital ratio,"<sup>55</sup> that access to the safety net demonstrably provides. In short, we should be able to see the value of the safety net in capital ratios.

Because banks are backed by the safety net, capital markets look on them more favorably than other financial institutions, or as Federal Reserve analysts recently put it "firms

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Mark, "Financial Crises, Payment System Problems, and Discount Window Lending," *Journal of Money Credit and Banking*, 28:4, 1996, Part 2; Kaufman, George G., "Comment on Financial Crises, Payment System Problems, and Discount Window Lending," *Journal of Money Credit and Banking*, 28:4, 1996, Part 2; Shaffer, Sherrill, "Capital Requirements and Rational Discount-Window Borrowing," *Journal of Money Credit and Banking*, 30:4, 1998.

<sup>52</sup> Walter, 1998; Megle, Humphrey and Summers, 1998.

<sup>53</sup> Walter, 1998. The 5 to 20 basis point range is the range of commercial costs Walter observes for lines of credit.

<sup>54</sup> Walter, 1998 compares the discount window and the overdraft fees to the fed fund rate. He finds a difference of 75 basis points between the discount rate and the fed funds rate, but identifies nonprice costs and collateral as offsetting factors. Since the fed fund rate is used as the point of comparison for both subsidies, this would appear to be the upper limit. Mengle, Humphrey and Summers, 1987 estimate the figure in the range of 100 to 125 basis points for 1986. This is reduced by 20 basis points to reflect a decline in interest rates and 25 basis points to reflect fees imposed on overdrafts. Small overdrafts are excluded from the fees.

<sup>55</sup> Greenspan, 1997a, p. 3.

receiving benefits from the federal safety net should, all other things equal, operate with lower capital-to-asset ratios.<sup>56</sup> The conclusion of this analysis is quite clear

[a]cross all size categories finance company equity ratios are considerably larger than those at commercial banks. At the largest firms, the difference is 2.1 percentage points. But size is, once again, clearly important. At firms with total assets between one and ten billion dollars, the finance company ratio is 5.4 percentage points above that of comparably sized commercial banks, while for firms under one billion dollars the difference climbs to 9.0 percentage points.

In general, the market will require relatively risky firms to hold higher capital ratios. Since finance companies are normally viewed as having riskier portfolios than banks, this perception could account, at least in part, for the higher capital ratios at finance companies. In an effort to control for risk differences, we conducted a firm-by-firm comparison... These comparisons... indicated that over this period the market required equity-to-asset ratios to be at least four percentage points higher, and frequently seven to nine percentage points higher, at finance companies.<sup>57</sup>

The undercapitalization argument appears to have substantial empirical support both in terms of regulatory reform<sup>58</sup> and in terms of market responses.<sup>59</sup> Capitalization also appears to play a key role in minimizing the cost of resolving financial problems to all external parties including the federal taxpayer.<sup>60</sup> When private markets are confronted with

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<sup>56</sup> Kwast and Passmore, 1997, p. 18, emphasis added

<sup>57</sup> Kwast and Passmore, 1997, pp. 28-29.

<sup>58</sup> Benston, George J. and George G. Kaufman, "Deposit Insurance Reform in the FDIC Improvement Act: The Experience to Date," Federal Reserve Bank of Chicago, *Economic Perspectives*, 1998. (1997a, 1997b, 1998).

<sup>59</sup> Cornett, Marcia Millon, Hamid Mehran and Hassan Tehranian "The Impact of Risk-Based Premiums on FDIC Insured Institution," *Journal of Financial Services Research*, 13:2,1998, found that safer banks (higher capital ratio) are less affected by the increased regulatory requirements and insurance premiums.

<sup>60</sup> Peek, Hoe and Eric S. Rosengren, "Will Legislated Early Intervention Prevent the Next Banking Crisis?," *New England Economic Review*, 1996., Federal Reserve Bank of Boston, "The Use of Capital Ratios to Trigger Intervention in Problem Banks: Too Little, Too Late," *New England Economic Review*, September/October 1996); Jordan, 1998; Edward J. Kane and Min-The Yu, "Opportunity Cost of Capital Forbearance During the Final Years of the FSLIC Mess," *Quarterly Review of Economics and Finance*, 36:3, 1996, argue that government forbearance allowed banks to proceed with less capital than would have been required by capital markets (p. 271)

the prospect of less government backing they require higher rates of capitalization. When risks are seen to rise, markets demand higher capitalization. When higher capitalization is required, there is less risk borne by taxpayers.

A capital equity-to-asset difference in the range of 2.5 to 9 percentage points has a dramatic impact on the cost of doing business. Return on equity in the banking business has run in the range of 14 to 16 percent. Return on assets has run in the range of 1 to 2 percent. Thus, relying on less equity reduces operating costs by 12 - 13 percent for each percentage point difference in equity. Moreover, the return on bank equity is measured in after-tax-dollars. Therefore, the value in gross terms is larger in pretax dollars. Thus, a 2.5 percent difference in capital yields a .30 percent difference in after tax costs and a .50 percent difference (.30/.63) in before tax costs. Thus, each percentage point of reduced capital equals about 20 basis points of lower cost. Translating this difference into basis points puts the benefit of this bank subsidy in the range of 50 basis points to “at least” 80 basis points and could be as high as 140 to 180 basis points for those institutions with much lower capital ratios. As noted above, this high end estimate is consistent with the range observed by the Congressional Budget Office.

Even if we were to stick with a narrow range closer to the capital ratio differences, e.g. 2.5 percentage points to 4 percentage points, the dollar value of the benefits is huge. This translates into a range of 30 to 80 basis points. Given bank assets of \$6.3 trillion the dollar value of the subsidy would be \$19 billion to \$50 billion per year.

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Had robust mark-to-model standards for S&L capital adequacy been routinely enforced, FSLIC guarantees would not have displaced private capital on a mammoth scale and surviving members of the industry would have proved more profitable. Lessening hidden tax liability for households and hidden subsidies to risky lending institutions would have shortened the disinflation process and allowed the U.S. to hold a more valuable capital stock today.

## **F. MITIGATING FACTORS**

Greenspan's characterization of the safety net subsidies concludes not only that they exist, but it explicitly identifies several key characteristics of the subsidy that have taken center stage in recent debate.<sup>61</sup>

First, some bank analysts have taken the position that many of the regulatory costs attributed to the oversight of the safety net would be incurred in any event.<sup>62</sup> Earlier analysts, who conceded that insurance or liquidity were underpriced also claimed that regulatory costs more than offset the subsidy,<sup>63</sup> although the aggregate measurement was uncertain.<sup>64</sup> The issue being debated is whether or not there is a net subsidy for banks.

It is clear that the safety net is a subsidy that would have a substantial competitive impact. Most of the regulatory costs that the banks claim they pay have nothing to do with the safety net. They are costs associated with consumer protection and antidiscrimination statutes.<sup>65</sup> Even if there are large, fixed costs of regulatory compliance, the marginal benefits of capturing the subsidy will still affect bank behavior.<sup>66</sup> Increasing or decreasing the

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<sup>61</sup> Greenspan, 1997a, emphasizes the fact that banks will maximize the benefits of the subsidy at the margin. Greenspan, 1997b, emphasizes the organizational behavior of banks in capturing the safety net subsidy.

<sup>62</sup> Ellienhausen, 1997; Walter, 1997; Miller, Merton, H., "Do the M&M Propositions Apply to Banks?", *Journal of Banking & Finance*, 19, 1995.

<sup>63</sup> Goodfriend, Marvin, "Discount Window Borrowing, Monetary Policy and the Post-October 6, 1979 Federal Reserve Operating Procedure," *Journal of Monetary Economics*, 12, 1983; Mengle, David L, "The Discount Window," in Timothy Q. Cook and Robert K. LaRoche, *Instruments of the Money Market*, (Richmond: Federal Reserve Bank of Richmond, 1993); Whalen, 1997.

<sup>64</sup> Pennachi, 1987; Gorton, Gary and Richard Rosen, "Corporate Control, Portfolio Choice, and the Decline of Banking," *Journal of finance*, 50, 1995; Kwast and Passmore, 1997; Marcus Alan, J. and Israel Shaked, "The Valuation of FDIC Deposit Insurance Using Option-pricing Estimates," *Journal of Money, Credit and Banking*, 16, 1984.

<sup>65</sup> Ellienhausen, 1997.

<sup>66</sup> Kwast and Passmore, 1997.

amount of the safety net subsidy will have no impact on the other regulatory costs; therefore it makes sense for banks to maximize the value of the safety net they capture.

Echoing the analysis of Federal Reserve Staff,<sup>67</sup> Chairman Greenspan summarized the behavioral response of banks as follows.

It is argued by some that the cost of regulation exceeds the subsidy. I have no doubt that the costs of regulation are large, too large in my judgement. But no bank has turned in its charter in order to operate without the cost of banking regulation, which would require that it operate also without deposit insurance or access to the discount window or payments system. To do so would require both higher deposit costs and higher capital. Indeed, it is a measure of the size of banks' net subsidy that most nonbank financial institutions are required by the market to operate with significantly higher capital than banks. Most finance companies, for example, with credit ratings and debenture interest costs equal to banks are forced by today's market to hold six or seven percentage points higher capital-to-asset ratios than those of banks.<sup>68</sup>

From the point of view of this paper the other regulatory costs are irrelevant for a second reason. Credit unions also bear virtually all the other regulatory costs that banks do.<sup>69</sup> To the extent that net subsidies are important, the regulatory cost side weighs on credit unions as heavily as on banks.

Regardless of the existence of the subsidy in the aggregate it also seems clear that high risk banks are recipients of a subsidy.<sup>70</sup> Federal insurance is based on a low average price with little differentiation between institutions. High-risk banks pay too little, low risk banks pay too much. It still makes sense for each of the banks to maximize the value of the subsidy to them.

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<sup>67</sup> Kwast and Passmore, 1997.

<sup>68</sup> Greenspan, 1997c.

<sup>69</sup> California Credit Union League, *Laws and Regulations Affecting Credit Unions*, 1998.

## **H. CONSERVATIVE ESTIMATE OF SAFETY NET SUBSIDIES FOR COMPARING BANKS AND CREDIT UNIONS**

The direct estimates of the magnitude of the value of the components of the safety net are similar to the estimates from capital ratios. The close correspondence between these two estimates should lend confidence to the estimate, although there is a wide range of possibilities at the high end of the range.

The conservative estimate in Table II-1 for purposes of comparison with credit unions is placed in the range of 30 to 120 basis points. This range is chosen for the comparison between banks and credit unions based on the following reasoning.

At the low end there is consistency across the estimates. At the high end there are wider differences, but there is very strong evidence that smaller banks derive greater benefit as measured by the capitalization ratios. Kwast and Passmore note that for all non-banks the average capital ratio is 2.5 percent points higher and in their more controlled comparisons for large banks the difference is “at least 4 percentage points higher and frequently seven to nine percentage points higher.”<sup>71</sup> For small banks in their analysis the difference is much larger, between 8 and 11 percentage points. The range of 30 to 120 basis points is equivalent to a difference of capitalization ratios of 1.5 to 6 percentage points, which is quite conservative as a measure of the value of the safety net for small banks.

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<sup>70</sup> Epps, T. W., Lawrence B. Pulley, and David B. Humphrey, “Assessing the FDIC’s Premium and Examination Policies Using ‘Soviet’ Put Options,” *Journal of banking and Finance*, 20, 1996; Walter, 1997

<sup>71</sup> Kwast and Passmore, p. 29.



### **III. OTHER FEDERAL BENEFITS ENJOYED BY BANKS**

The safety net is only one of the federal benefits conferred on banks. It is obviously a very large one, but there are other substantial federal benefits that banks enjoy. (see Table III-1). We have identified two other broad categories of bank subsidies – targeted loans or low cost deposits and tax breaks. The targeted loan programs can be divided into two types – loan guarantees and grants. The loan guarantee programs are very much akin to the safety net programs in the sense that the federal government guarantees repayment, in whole or in large part, of the loans. This makes the cost of such loans much lower and induces banks to participate in the programs.

The loan grant programs work differently. They do not attempt to affect the marginal cost of banking activities and indirectly affect the market. They involve the direct transfer of funds to, or the failure to collect funds from banks for specific reasons or activities. Only the targeted loans can be reduced in price. The market for the specific type of loan may be affected, but, unless the loans represent a substantial part of the market, the effect is limited.

#### **A. ACCESS TO GUARANTEED LIABILITIES**

##### **1. LOAN PROGRAMS**

One recent discussion of the Federal Home Loan program describes it in very much the same terms as the safety net program. The key is federal government backing.

TABLE III-1  
QUANTATIVE ASSESSMENT OF FEDERAL BENEFITS ENJOYED BY BANKS

	<u>POLICY</u>	<u>TOTAL VALUE</u>	
		BILLIONS OF DOLLARS ONE-TIME	ONGOING (annually)
INSURANCE			
SAFETY NET (CONSERVATIVE ESTIMATE)	REDUCED COST OF BUSINESS BAIL OUT INITIAL GOODWILL	150 20-30	19 - 50
	INTEREST ON BAIL OUT		2
SUBTOTAL		170 - 180	21 - 52
SUBSIDIZED LIABILITIES			
LOAN GRANTS FHLB	DIRECT LOAN TAX EXEMPT FULLY INSURED		2.5 .2 - .8
INTEREST FREE DEMAND DEPOSITS	REDUCED COST OF BUSINESS		4 - 6
SUBTOTAL		0	6.7 - 9.3
TAX BREAKS			
S-CORP PREFERRED TRUST SMALL BANK S&L BAD DEBT FOREIGN INCOME	EXEMPT DEDUCTION LOSS EXCEPTION FORGIVEN EXEMPTION	3	.1 - .2 2 - 3 .2 .1
SUBTOTAL		3	2.4 - 3.5
GRAND TOTAL		173-183	30.1 - 64.8

SOURCE: See text for a discussion.

Although FHL Bank System debt does not carry an explicit federal government guarantee, the fact that FHL Banks operate under a federal charter and government supervision creates a perception of an implicit government guarantee. FHL Bank debt carries an AAA credit rating and coupon income is exempt from state and local income taxes...

FHL Bank advances offer member institutions several advantages over other sources of funds. First, advances are immediately available. Second, member institutions have a fair amount of flexibility in choosing the maturity and volume of their advances. Third, advances do not carry the withdrawal risk associated with deposits. Fourth, unlike deposits, no reserve requirements or deposit insurance premiums are associated with advances.<sup>72</sup>

The funds made available through the FHLB system are quite large.<sup>73</sup> Although the FHLB provides functions similar to the Federal Reserve System does, its assets have not been included in the previous analysis. Therefore, we must identify the magnitude of the subsidy involved and its distribution between banks and credit unions.

The Home Loan Banks System is a so-called “government-sponsored enterprise.” It’s a privately owned company, or set of twelve companies, chartered by the federal government. It exists to further a public purpose centered on housing finance. And, in return, the government gives it benefits not available to fully private businesses.

Let’s take a quick look at some of those benefits. The Home Loan Bank System has its own line of credit at the Treasury. It is exempt from federal corporate income tax. It is exempt from state and local corporate income taxes and so is interest on its debt securities. It is exempt from registering its securities with the Securities and Exchange Commission. Public Funds can be invested in those securities. Those securities can serve as collateral for government deposits. Those securities are issued and transferred through the Federal Reserve’s electronic book-entry system, just like Treasury bonds.

All that brings us to the most important benefit of all. Capital market participants, looking at these and other specific benefits, evidently believe that the government implicitly stands behind the System. These market participants accordingly lend the System hundreds of billions of dollars at rates

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<sup>72</sup> Ashley, Lisa K. Elijah Brewer III, and Nancy E. Vincent, “Access to FHLBank Advances and the Performance of Thrift Institutions, Federal Reserve Bank of Chicago, *Economic Perspectives*, pp. 37... 39.

<sup>73</sup> Federal Home Loan Bank System, *Quarterly Financial Report*, June 30, 1998.

only slightly above those on Treasury securities; rates below those available to even the highest-rates private borrowers.<sup>74</sup>

The FHLB System has almost \$400 billion in assets that are tax-exempt and subject to the safety net guarantee. In fact, the FHLB assets equal the total assets of the credit unions. Because the Federal Home Loan Banks are both tax exempt and provides safety net functions, it makes funds available to its member institutions at below market rates. In the previous chapter the value of Federal Reserve System liquidity was estimated in the range of 5 to 20 basis points. The FHLB provides a similar function for its members. With an asset base of approximately \$400 billion the subsidy would be in the range of \$.2 billion to \$.8 billion per year (assuming the mid-point of the range).<sup>75</sup>

Interestingly, the Federal Home Loan Bank System has been embroiled in a debate about the expansion of their activities.<sup>76</sup> A major concern is an increase in the subsidy.

Other programs provide similar financial benefits or subsidies for depository institutions. Many of these programs are carried as budget items, so their dollar value is estimated precisely. Excluding the largest loan guarantee program and the FHLB system that was addressed above, the 1999 federal budget subsidies for the four types of loans that are most frequently also made in commercial markets are approximately \$2.5 billion.<sup>77</sup> This

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<sup>74</sup> Carnell, Richard S. "Remarks Before the American Enterprise Institute," December 2, 1998, emphasis added.

<sup>75</sup> This is extremely conservative since it only takes the liquidity benefit into account.

<sup>76</sup> Horvitz, Paul M., "Statement of the Shadow Financial Regulatory Committee on Expanded Powers for Federal Home Loan Banks," *Statement No. 144*, May 4, 1998; Harrison, David, "Home Loan Banks Trim Share of Assets Going to Nonhousing Investment," *American Banker*, January 28, 1999.

<sup>77</sup> Budget of the United States, *Analytical Perspectives, Fiscal Year 1999*, Table 8-3, excluding direct student loans.

includes, community and rural development, and non-FHLB housing loans, but excludes direct student loans.

## **2. INTEREST FREE DEMAND DEPOSITS**

Interest free demand deposits are a source of low cost assets for banks. These are true checking accounts on which banks currently are not allowed to pay interest. Over the course of 1998, they averaged just under \$400 billion.<sup>78</sup> By not paying interest on these funds, banks save 1 to 2 percent. The benefit is in the range of \$4 to \$6 billion per year.

## **B. TAX BREAKS**

Banks receive a number of preferential federal tax treatments. These typically involve favorable treatment of income or expenses, although some involve complete exemption from taxation. The largest tax break available to some banks is a tax exemption that is akin to the exemption afforded credit unions. At least two types of institutions receive such an exemption. As already noted, the 12 Federal Home Loan Banks are exempt. The benefits of that exemption are passed through to members in the lower cost of funds discussed earlier.

## **1. S-CORPORATION EXEMPTION**

One of the most interesting tax breaks is an exemption from income taxes for certain banks.<sup>79</sup> This exemption is similar to the exemption enjoyed by credit unions.<sup>80</sup> The

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<sup>78</sup> *Money Stock and Debt Measures*, Federal Reserve Release, January 21, 1999.

<sup>79</sup> Baran, Mark R., "Should You Bank on Subchapter S?", *American Banker*, "Subchapter S, One Year Later," *American Banker*, April 1998; Hall, C. Well, III, "Proposed Regulations Clarify Requirements for S Corporation Subsidiaries," *Journal of Corporate Taxation*, 25:4, 1999; Goldstein, Richard, "Banks as S Corporations: The Small Business Job Protection Act of 1996," *Banking Law Journal*,

exemption, known as an S-Corporation, has been extended to banks with fewer than 75 owners and legislation has been introduced to increase that number to 150. While this may sound like a narrow exemption, it is not. Over 1,000 banks have availed themselves of this tax loophole.<sup>81</sup> The largest, and first bank, to take advantage of the S-Corporation exemption had over \$1 billion in assets. While 80 percent of the banks that have elected S-Corp status are smaller than \$100 million, the remainder are large.

Assuming that S-Corporations are typical of banks with assets below \$1 billion, based on the distribution of the first 1,000+ S-Corps, we estimate an average size of \$88 million.<sup>82</sup> Thus, with “well over 1,000 banks and a handful of Savings and Loans,”<sup>83</sup> the total asset presently covered by the S-Corp exemption is between one-quarter and one-third the size of the total assets of credit unions. The number of banks taking advantage of the S-Corp exemption could increase to 2500 under current law and would increase dramatically if the number of owners allowed were doubled.<sup>84</sup>

The precise magnitude of the benefit to banks depends on what one assumes about bank dividend and tax avoidance policy, as well as the personal income tax rate. It also

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<sup>80</sup> The similarity exists in the treatment of corporate income, which would not be subject to federal income taxation. Stockholders in banks would pay personal income taxes on the money. If credit unions retained the income as earnings, there would be no personal income taxes. However, to the extent that the income is passed through to credit union members in the form of higher interest rates, they would pay personal income taxes on the income. Whether or not differential loan rates would impact personal income taxes depends on the type of loan.

<sup>81</sup> Engen, John R., “S-Corps: Protecting Against IRS Wolves,” *USBanker*, November, 1998.

<sup>82</sup> This is the weighted average size of banks below \$1 billion ( $[.8 * \text{banks} < \$100 \text{ million}] + [.2 * \$100 \text{ million} < \text{banks} < \$1 \text{ billion}]$ ).

<sup>83</sup> Baran, Mark R. “Should You Bank on Subchapter S?”, *American Bankers Association*, Community Banking, 1998; Engen, 1998

<sup>84</sup> Engen, p. 71.

depends on whether one is considering tax losses from the treasury point of view or tax subsidized competition from the financial institution point of view.

A simple example demonstrates the complexity of the analysis. Assume a non-exempt corporation pays full corporate income taxes of 34 cents on a dollar of income. Shareholders receive the remaining 66 cents as income, with 100 percent dividend payout. Assume they must pay the highest personal income tax rate of approximately 40 percent. They pay an additional 26 cents. The total tax is 60 cents. If the corporation becomes an S-Corp, the corporate income tax goes away. The tax would be 40 cents. The tax loss is 20 cents and the cut in the rate is 33 percent.

Suppose the personal income tax rate of shareholders is only 27 percent, closer to the national average. The original dollar only generated 52 cents of taxes ( $[(.34 * 1.00 = .34] + (.27 * .66 = .18)$ ). The S-Corp dollar generates 27 cents of taxes ( $.27 * \$1.00 = \$0.27$ ). The tax loss is 27 cents and the change in the tax rate is 52 percent.

If not all dollars of income are declared as dividends, the analysis becomes even more uncertain. Thus, the value of the tax exemption varies depending upon behavior and tax breaks.

The issue becomes even more complex, for the present analysis, when it is recognized that credit union members pay personal income taxes too. Credit unions do not pay members “dividends” as such, but they do pay higher interest rates, which results in higher personal income tax liabilities. If credit unions were subject to corporate taxes, they might endeavor to minimize tax burdens, as banks do. For example, they could increase interest rates so that revenues just equal expenses. Their tax liability would look exactly like S-Corporations (but, as noted in the next chapter their ability to raise capital would be undermined). They would

pay no corporate income taxes but their “dividends” (i.e. higher interest rates) would be subject to the full personal income tax.

For the purposes of this discussion, we assume that the S-Corp tax exemption yields a benefit to banks between one-third and two-thirds of the credit union exemption.<sup>85</sup> Given the asset size of the S-Corporations, this yields a benefit of between \$.1 and \$.2 billion.

## **2. SMALL BANK LOSS RESERVE ACCOUNTING**

Small banks are allowed to treat their loan loss reserves in a different manner than other banks. This has the effect of lowering their tax rate compared to large banks of ten percent (6 basis points compared to 63 basis points).<sup>86</sup>

Small banks, defined as banks with assets below \$500 million, have aggregate assets of about \$800 billion.<sup>87</sup> This is just over twice the size of the assets of credit unions. Thus, the favorable treatment of loss reserves is equal to about one-fifth of the total tax benefit conferred on credit unions (one tenth of the benefit is applied to twice the assets). If the credit union exemption is worth \$1 billion, the small bank loan loss treatment is worth two-tenths of that, or \$200 million.

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<sup>85</sup> Credit unions have net income one-third lower than banks under current tax treatment; see Lopez Raymond and Surenda Kaushik, *Profitability of Credit Unions and Commercial Banks in the 1990's: A Comparative Analysis* (Center for Applied Research, Pace University, nd).

<sup>86</sup> Raymond and Surenda; Kaushik, Surendra and Raymond Lopez, “Profitability of Credit Unions and Commercial Banks and Savings Banks: A Comparative Analysis,” *American Economist*, Spring 1996); Kuprainov, Anatoli, “Tax Disincentives to Commercial Bank Lending,” Federal Reserve Board Bank of Richmond, *Economic Quarterly*, Spring, 1997.

<sup>87</sup> This estimate is based on the 1996 percentages of small banks in the total number and total assets of banks.



### 3. BAD DEBT FORGIVENESS

As a one-time tax measure, and in an effort to induce savings and loans to change their charters to commercial banks, Congress forgave certain tax liabilities that had been incurred by S&Ls through preferential tax treatment of bad-debt reserves.

The Small Business Job Protection Act also waived recapture of bad-debt reserves for the years prior to 1988. According to the Act, thrifts need only to recapture reserves set-aside after January 1, 1988, rather than their entire bad-debt reserves. Congressional estimates are that there are approximately \$14.7 billion in bad-debt reserves in the industry, and that approximately \$10.3 billion are pre-1988 reserves and thus exempt from taxation.<sup>88</sup> As Jim Leach, Chairman of the House Banking Committee put it,

Congress, in tax legislation last year, effectively removed one of the largest obstacles and one of the major costs that thrifts incur under thrift charter conversion legislation. Last year the thrift industry asked that Congress make thrift charter conversion less costly and Congress responded by approving legislation forgiving \$3 billion in past S&L tax obligations related to bad debt reserves.<sup>89</sup>

This is a one time tax benefit for one segment of the banking industry that is substantial (equal to at least three years of the total credit union tax loss benefit).

### 3. PREFERRED TRUST SECURITIES

Preferred trust securities enable banks to meet their capital requirements with specialized debt instruments rather than equity capital.<sup>90</sup> As a result, the interest paid to

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<sup>88</sup> Federal Deposit Insurance Corporation, *A United Charter for Banks and Savings Associations*, Staff Study, October 25, 1996.

<sup>89</sup> Leach, James A., "CBO Report Cites Benefits of Thrift Charter Conversion," June 16, 1997; Congressional Budget Office, *Eliminating the Federal Thrift Charter*, June 1997.

<sup>90</sup> Simkin, Morris N., "Trust Preferred Securities: A Banker's Primer," *Banking Journal*, 1997. "Bank Capital Notes Sell Well in First Week Offered," *Minneapolis Star Tribune*, November 23, 1996.

owners is deductible as an expense rather than generating income that is taxable. The net effect is to lower the effective tax rate.

On balance, capital securities have the tax advantage of debt while counting toward the parent company's risk-based capital requirements but not creating the potential for bankruptcy from a missed dividend payment.<sup>91</sup>

In order to raise a dollar of equity banks must pay \$.15 in after tax income. This means they pay about \$.08 in taxes. Replacing that dollar with a dollar of a preferred security trust generates about \$.10 of interest expense. This lowers the tax liability by \$.034. Thus, the tax benefit is approximately \$.11 per dollar of preferred trust.

By late 1997, the total value of preferred security trusts held by banks was \$20 billion<sup>92</sup> to \$25 billion.<sup>93</sup> This implies a tax savings of \$2 billion to \$3 billion. The amount of capital that has been raised by banks with preferred trust securities is equal to about 60 percent of the total equity in credit unions.

#### **4. FOREIGN INCOME DEFERRAL**

Banks have long enjoyed favorable treatment of foreign income.

Prior to 1987, income earned in connection with the active conduct of foreign financial services businesses, including interest, dividends and certain gains, was exempt from current U.S. income tax.<sup>94</sup>

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<sup>91</sup> Sinkley, Joseph, F., Jr., "Comment: Issuing Trust-Preferred Too Good a Game to Sit Out," American Banker Online, December 21, 1998.

<sup>92</sup> Sinkley, 1998.

<sup>93</sup> Kline, Alan, "Community Banks Join the Trend to Sell Trust-Preferred for Capital," American Banker Online, November 4, 1997; Padgett, Tania, "With Tax Break Threatened, A Flurry of Trust-Preferred," *American Banker*, June 5, 1997.

<sup>94</sup> "Cancellation of Limited Tax Benefit: Report Pursuant to the Line Item Veto Act, P.L. 104-130," *Federal Register*, Vol 62, No. 155, August 12, 1997.

This tax exemption was eliminated in 1987, but restored in 1997. Although the President exercised a line item veto of this policy, the tax exemption was restored when the veto was declared unconstitutional.

The value is in the range of \$60 million to \$100 million per year.<sup>95</sup>

## **5. OTHER TAX BENEFITS**

There are a variety of other, small tax strategies that are available to banks to limit their tax liabilities. These include housing credits,<sup>96</sup> inheritance tax breaks,<sup>97</sup> and tax – exempt bonds.<sup>98</sup>

## **H. CONCLUSION**

This chapter has examined policies that afford banks favorable treatment in federal tax policies and policies that make funds available to banks at rates below market levels. The effect of these policies is to lower the costs of banks below fully taxed, market-based levels. The total value to banks of these other benefits is in the range of \$10 billion to \$13 billion per year. Adding this to the safety net benefit, yields a total federal deposit insurance, tax and loan benefit of \$30 billion to \$65

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<sup>95</sup> American Banker, *High Court Restores Tax Break for Foreign Units*, June 29, 1998; American Banker, *Measure Would Ease Taxes on Bank Subsidiaries Abroad*, July 16, 1998.

<sup>96</sup> Netzer, Jenny, “Comment: Housing Credits Still Winners for Yields, CRA Compliance,” *American Banker*, October 1, 1998; Gillam, Carey, “SunTrust Plans Wider Housing Investments,” *American Banker*, May 26, 1998.

<sup>97</sup> McConnell Bill, “Inheritance Tax Break in Budget Looks Like Puzzle for Bank-Ownning Families,” *American Banker*, August 5, 1997.

<sup>98</sup> Citizens for Tax Justice, *The Hidden Entitlements*, Chapter 4, Tax-Exempt Bonds,

billion. As discussed in the next chapter, this is much larger than the \$1.1 billion to \$2.3 billion of benefits that credit unions enjoy.

## **IV. CREDIT UNIONS**

Having demonstrated the existence of very large federal benefits that banks enjoy, the question becomes “how do they compare to the benefits that credit unions enjoy?” This comparison will be made in terms of both rates and absolute dollar values, where applicable. Both qualitative and quantitative comparisons are made.

### **A. PUBLIC POLICY FUNCTIONS**

While our central concern in this paper is with the existence of federal benefits and not their purpose, we have briefly described the stated purposes of benefits to banks. In a broad sense, credit unions receive federal benefits for a specific public purpose that is somewhat different from that of banks.<sup>99</sup> Credit unions have a unique structure. They are non-profit institutions that rely on volunteer boards of directors.<sup>100</sup> The nonprofit nature of these institutions results in lower cost financial services provided to the members of the institution.<sup>101</sup>

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<sup>99</sup> Srinivansan and King, p. 33. ; *Brief of the Consumer Federation of America, Inc. and U.S. Public interest Research Group Inc., As Amicia Curiae in Support of Petitioners*, National Credit Union Administration v. First National Bank and Trust Company, Credit Union National Association, et al. v. First national Bank and Trust Company, 1996, cites consumer satisfaction surveys as evidence of the credit union serving consumer needs p. 11.

<sup>100</sup> Srinivansan Aruna and B. Frank King, “Credit Union Issues,” Federal Reserve Bank of Atlanta, *Economic Review*, Third Quarter, 1998 p. 33 Consumer Federation of America, pp. 12.

<sup>101</sup> It has also been argued that the cost structure of credit unions is constrained by the common bond limitation which results in simpler, lower cost operating structures which reflect the simpler marketing and service approaches taken by credit unions (Likens, James D., “Cooperative Credit Associations and Credit Unions,” *Insight: Occasional Papers from Western CUNA Management School*, April, 1998.)

Credit unions are not-for-profit institutions. They return earnings to their members as reduced fees, reduced interest rates on loans, or as higher dividends on shares (which is equivalent to interest on deposits).<sup>102</sup>

They generally are much smaller than banks, averaging about one-twentieth the size. Approximately 99.4 percent of all credit unions would be classified as small banks.<sup>103</sup> Credit unions cannot raise capital by issuing stock. They rely on retained earnings to do so,<sup>104</sup> and, thus, their growth is constrained. Elimination of the tax treatment of credit unions would constrain their ability to raise capital, because, as non-profit institutions, they cannot issue stock. The result, given their capital structure, would severely restrict their ability to grow.<sup>105</sup> This is the conclusion reached by one study that considered the impact of removing the tax exemption of a similar set of institutions

In their early years, savings and loan associations developed along lines similar to credit unions. However, as they moved away from their mutual foundations, grew rapidly and became competitive threats to other established financial institutions, they lost their tax exemption. The impact was not immediately apparent, since their effective tax rate was small. However, succeeding changes in tax law sharply raised the effective tax rate. Taxation did not lead to a “level playing field” between financial institutions. The reverse was the case. Taxation, combined with economic conditions and the changed competitive environment of the 1970s and 1980s, led to a deteriorating capital position of the savings and loans.<sup>106</sup>

In addition to the direct public function provided by credit unions, they also provide an indirect function as competition to banks. Bank efforts to alter the tax treatment of credit

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<sup>102</sup> Srinivansan and King, p. 33; Consumer Federation of America, p. 13; Cook, Robert W., *A Study of State-Chartered Credit Unions in Virginia*, January 1998.

<sup>103</sup> Srinivansan and King, p. 33, show that only 70 credit unions have assets larger than \$480 million.

<sup>104</sup> Srinivansan and King, p. 33.

<sup>105</sup> Srinivansan and King, p. 38.

<sup>106</sup> Burger, Albert E. and Gregory M. Lypny, Taxation of Credit Unions (Filene Research Institute, October, 1991).

unions would not only eliminate an important function provided to the public, they would also eliminate an important source of competition for banks.<sup>107</sup>

More broadly, the favorable position of credit unions in these matters has a beneficial restraining effect on comparable financial products offered by banks as they seek to meet competition, thus benefiting bank customers indirectly as well as credit-union members directly. In commenting on the sometimes sharp competitive differences between credit unions and banks, Cleary Professor of Management (Edward Kane) noted that (particularly larger) credit unions “threaten not so much market share but pricing.” (USBanker, Nov. 1996, at 54.) In providing choice and competition, credit unions “bid down the margins” so banks can’t charge higher price in near-monopoly markets, (Id. At 58) (Comptroller Ludwig’s affirmation that allowing various types of financial institutions to become more competitive is a winning proposition for all participants.)<sup>108</sup>

This issue was briefly identified in Chapter II and is discussed at greater length in Appendix A.

This chapter addresses the claim made by banks that such competition is “unfair” because credit unions have a subsidy advantage. The differences are estimated in terms of dollars and subsidy rates.

## **B. THE SAFETY NET**

In principle, credit unions are backed by the same federal government safety net commitments as banks. The taxpayer stands behind the safety net guarantees. In practice, credit unions cannot and have not made use of many of these subsidies. In part this stems from the structure of the industry and its general practices. In part this stems from the unique deposit insurance fund that credit unions have adopted, which provides greater

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<sup>107</sup> Srinivansan and King, p. 39-40.

<sup>108</sup> Consumer Federation of America, p. 14.

TABLE IV-1  
COMPARISON OF FEDERAL BENEFITS:  
BANKS VERSUS CREDIT UNIONS  
(BILLIONS OF DOLLARS)

ONGOING BENEFITS

	SAFETY NET		LOANS		TAX BREAKS		TOTAL	
	Low	High	Low	High	Low	High	Low	High
ALL BANKS	21	52	6.7	9.3	2.4	3.5	30.1	64.8
CREDIT UNIONS	6	1.3	Negligible		.5	1	1.1	2.3

ONE-TIME BENEFITS

BANKS	170 – 180	0	3	173-183	NA
CREDIT	0	0	0	0	NA

SOURCE: See text.

buffers against recourse to taxpayer assistance.<sup>109</sup> The GAO found that at the height of the crisis in the banking industry credit unions were in much better shape with about 15 percent more capital than in the banks and five times as much equity per dollar of insured assets in the credit union insurance fund. The difference has persisted over time. A 1997 Department of the Treasury study found that credit unions has a ratio of reserve to total assets that was 37 percent higher than banks.<sup>110</sup> However, the ratio of insurance funds to insured deposits has

<sup>109</sup> General Accounting Office, *Credit Unions: Reforms for Ensuring Future Soundness*, July 1991, p.3; Bowsher, Charles A, "Credit Unions: The Failure of Capital Corporate Federal Credit Union," statement before *Committee on Banking, Housing,, and Urban Affairs*, United States Senate, February 28, 1995.

<sup>110</sup> U.S. Department of the Treasury, *Credit Union*, December 1997, p. 67.



equalized as Congress has required bank insurance funds to increase their coverage ratio.<sup>111</sup> Credit unions did this as a matter of routine practice.

## **1. REDUCED RELIANCE ON PARTS OF THE SAFETY NET**

In general, the too-big-to-fail policy and other bailouts of major financial institutions are irrelevant to credit unions who do not qualify for such treatment. Federal tax dollars were not used to bail out any credit unions during the widespread financial problems of the 1980s and 1990s.

Because of their size and the nature of their business activity, credit unions also make little use of the other aspects of the safety net. They do not visit the discount window frequently or make much use of overdraft activity. In this case, credit unions are like many small banks, which also make little use of these privileges.

## **2. REDUCED INSTITUTIONAL RISK TO TAXPAYERS**

Other elements of the safety net are available to credit unions but have not been used or are mitigated because of credit union organizational structure. Moreover, credit unions have an alternative means of deposit insurance that may provide a somewhat greater buffer between the credit unions and the taxpayer.<sup>112</sup>

The credit unions have a deposit insurance mechanism, the National Credit Union Share Insurance Fund (NCUSIF), that provides the same function as the Federal Deposit

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<sup>111</sup> Walker, David, A., *Credit Union Insurance and Regulation* (Center for Business-Government Regulation, Georgetown University, Washington, D.C., 1997), p. 17.

<sup>112</sup> Walker, 1997, U.S. Department of Treasury, 1997.

Insurance Corporation, but does so in a way that makes it less likely that credit unions will have to be bailed out by tax payers.

The NCUSIF collects premiums from member credit unions and requires each member to place 1 percent of its insured deposits in the insurance fund (see Figure IV-1). That insurance fund reserve can be used to rescue credit unions that are in trouble. If the insurance fund is stressed or depleted by losses, the fund calls on members to restore its solvency, before the fund would take recourse to taxpayers. Likewise, if the available reserve is at the required level, excess assets are returned to members as a dividend on the assets.

In short, a system of private industry, “cross-guarantees” stands as a buffer between the insurance fund and the taxpayer. In this structure, the total capital of credit unions stands between losses and the taxpayer; a distinctly different and less risky (to taxpayers) system from the deposit insurance system of the Federal Deposit Insurance Corporation

### **3. BEHAVIORAL REDUCTION OF RISK**

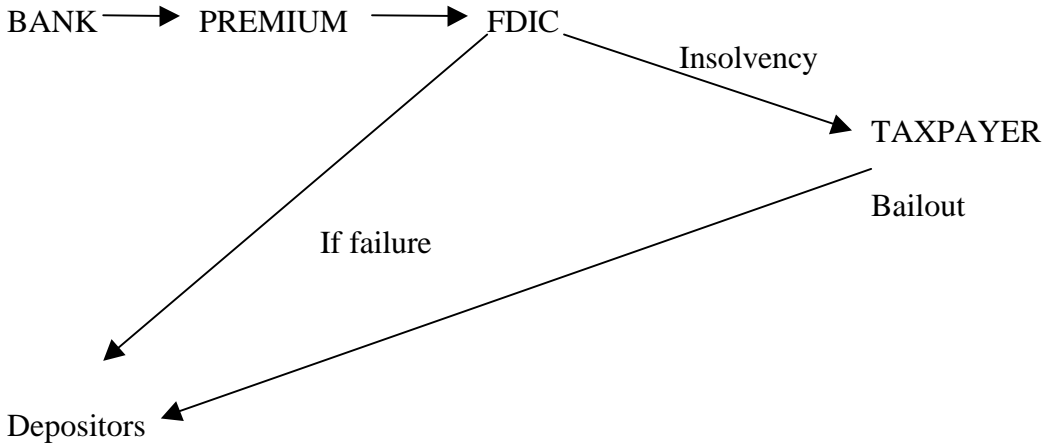
Because of the nature of the credit unions and their activities, there are behavioral reasons that credit unions pose less risk to taxpayers. Credit unions reduce the exposure of taxpayers to risk because their investments are generally restricted to lower risk instruments. Credit unions have fewer powers than banks and, as a result, their balance sheet is inherently less risky on the asset side.<sup>113</sup>

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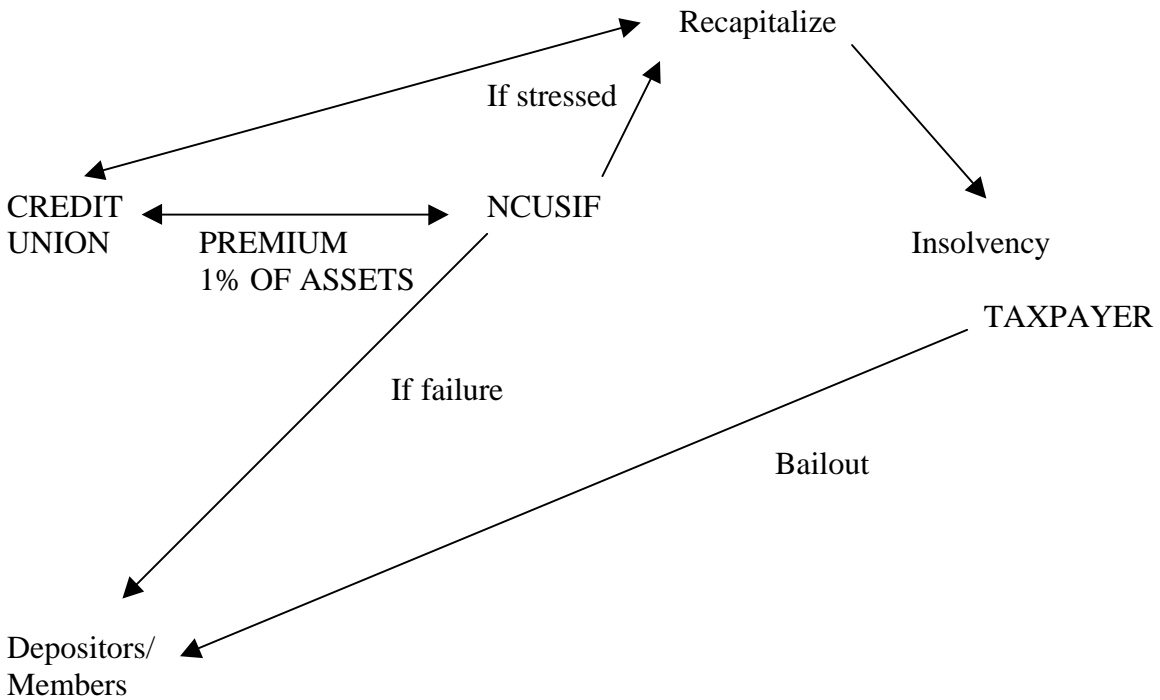
<sup>113</sup> U.S Department of the Treasury, 1997, p. 105; Walker, 1997, p. 85.

FIGURE IV-1:  
DIFFERENCES IN INSTITUTIONAL STRUCTURE EXPOSE TAXPAYERS  
TO LESS RISK OF CREDIT UNION FAILURE

BANK INSURANCE STRUCTURE



CREDIT UNION INSURANCE STRUCTURE



Credit unions also have substantially higher capital to asset ratios. The capital asset ratio of banks is about 8 percent. For credit unions it is over 11 percent.<sup>114</sup> Since credit unions are smaller, the comparison should be controlled for the size of assets. Federally insured commercial banks and savings institutions with assets below \$1 billion have an average core capital ratio of just over 10 percent, compared to a credit union capital to asset ratio of 11.6 percent.<sup>115</sup> With less risky assets and higher capital/asset ratios, the likelihood of insolvency is reduced and the magnitude of any potential claim on taxpayers from uninsured deposits is likely to be lower.

#### **4. THE VALUE OF LOWER RISK TO TAXPAYERS**

It should be noted that the institutional and behavioral differences impose higher costs on credit unions as discussed in the previous chapter. They bear an additional cost in the “opportunity cost” of lost earnings on the 1 percent of NCUSIF deposits. By having a higher capital to asset ratio, they incur higher costs. There is an explicit difference in the cost of doing business. There is also an implicit difference in the value of the subsidy enjoyed, as a result of the willingness to “burden” members to ensure the capitalization of the federal share insurance fund.

The net effect of these differences in institutional structure and behavioral characteristics is striking. The simple bottom line is that while thousands of savings and loans failed in the past two decades and were bailed out by the taxpayer, not one credit union has been bailed out by the taxpayer.

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<sup>114</sup> Walker, 1997.

<sup>115</sup> *FDIC: Statistics on Banking*, Second Quarter 1998; Callahan, 1999, p. 34.

In the previous section we noted that the \$150+ billion S&L/bank bail out of the past two decades demonstrates to the markets that the government commitment to the safety net is real and allows banks to operate in the market with lower levels of capital and with lower costs. One could argue that the credit unions derive no subsidy from the safety net, since even in very difficult times the institutional structure handled the problem without recourse to taxpayer money to bail out failing institutions.

While that argument is plausible, it is too extreme. The guarantee against catastrophe still exists, even if the institutional and behavior characteristics make recourse to it less likely. To the extent that this is a function only the federal government can provide, there is a value extracted from it by all institutions it covers. The ability of the credit unions to recapitalize the insurance fund is not certain. It may be less likely that credit unions will have recourse to taxpayers in the case of failure compared to banks, but it certainly is not impossible.

Thus, the subsidy enjoyed by credit unions lies somewhere between zero and an amount equal to that enjoyed by banks. Credit unions derive considerably less benefit from the safety net than banks, but estimating exactly how much less is difficult.

For example, the higher capitalization ratio fills a significant part of the gap between uninsured and insured financial institutions.<sup>116</sup> Thus, the credit unions have lower risk and higher equity to absorb losses and an institutional mechanism to replenish the insurance fund. For the purpose of this analysis we could conservatively assume that credit unions pose less risk to taxpayers and derive half the benefit of the catastrophic deposit insurance functions of the federal government. This estimate is conservative because it could be justified on the

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<sup>116</sup> Dwyer, et al.; Hirtle, Beverly, "Bank Holding Capital Ratios and Shareholder Payouts," *Current Issues in Economics and Finance*, 4:9, 1998.

basis of the capital ratio difference alone. For example, based on the analysis in Chapter II, the 1.5 percent difference in capital-to-asset ratio would have a value of 30 basis points. This alone would cut the value of the safety net in half at the high end and eliminate it altogether at the lower end.<sup>117</sup>

The cross guarantee is an added buffer between the credit unions and recourse to taxpayers in the event of financial difficulties. Capital in financial institutions keeps them from going to the insurance fund for help in times of stress. They draw down their own resources first. The cross guarantee keeps the insurance fund from going to the taxpayer for help. The fund would draw on its own resources first and then it would call on its members to replenish it before it made recourse to taxpayers. The credit union insurance fund would not be out of resources until all of the capital of its members is exhausted. With capital in the fund equal to about 1.3 percent of insured assets, the credit union fund has about the same level of assets as the bank insurance funds compared to insured deposits. However, the cross guarantee makes additional capital available which is equal to over 10 percent of insured assets. Thus, the credit union assets that stand between the fund and recourse to taxpayers are more than seven times as large for banks. If this view is taken, it could be argued that credit unions derive between 3 and 15 basis point of benefit compared to the 30 to 120 derived by banks.

Based on the earlier discussion, we conclude that credit unions get little if any benefit from federal liquidity policies and the underpricing of federal deposit insurance. Thus, we

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<sup>117</sup> Whalen, 1997, shows a difference between high risk and low risk banks of 30 basis points. Other sources cited indicate a difference of 15 to 35 basis points, as assumed here, is quite reasonable.

conservatively conclude that the value of the federal safety net to credit unions is, at most, half that of banks in the range of 15 to 35 basis points.

Given the assets of credit unions, this would have a dollar value of \$.6 billion to \$1.1 billion.

## **C. SUBSIDIZED LIABILITIES**

### **1. THE FEDERAL HOME LOAN BANK SYSTEM**

Credit unions are eligible to participate in the FHLB system, but they hardly do.<sup>118</sup> For example, while in number credit unions make up about 50 percent of all the financial institutions considered in this analysis (banks plus credit unions), they make up less than 2 percent of all the institutions who participate in the Federal Home Loan Bank System. While credit unions account for about 4 percent of all the assets covered in this study, they account for less than 1 percent of all the Federal Home Loan Bank system loans. Based on their relative size banks derive four times the benefit from the from the home loan bank system.

### **2. OTHER LOANS PROGRAMS**

Credit unions make very little use of the other federal loan programs that are available to banks. The loan programs identified in Tables III-1 and IV-1 include only programs in which credit unions have negligible participation.<sup>119</sup>

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<sup>118</sup> Federal Home Loan bank System, 1998, p. 5.

<sup>119</sup> Credit Union National Association, *Credit Union Services Profile*, December 1997.

## **D. TAX EXEMPTION**

The center of the debate as the banks have framed it is the federal tax exemption enjoyed by credit unions. It turns out that assuming credit unions pay the full corporate income tax, the “tax loss” is at most \$1 billion.<sup>120</sup> It could be considerably less if credit unions availed themselves of tax planning strategies used by most corporations to limit their tax liabilities.

Indeed, considering the favorable tax treatment afforded to banks, if credit unions were given the same treatment as banks, they could eliminate a large part of their tax burden. Most would qualify as small banks. One could argue that since they have no owners, but only members, they should qualify as S-Corporations. As noted above, they could achieve substantial tax savings. They could avail themselves of preferred trust securities. The equity that banks have in S-Corporations and preferred trust securities just about equals the sum of the equity in all credit unions.

However, starting with a \$1 billion figure is a very convenient metric that “conservatively overestimates” the baseline tax benefits enjoyed by credit unions. This is the maximum federal tax benefit enjoyed by credit unions. It would be entirely possible that the actual taxes paid, should the exemption be lifted would be half that.

## **E. CONCLUSION**

### **1. QUANTIFICATION OF BENEFITS/SUBSIDIES**

The conclusion of this report can be summarized in both terms of the differential costs of doing business that banks and credit unions exhibit as a result of federal insurance, tax and

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<sup>120</sup> Joint Committee on Taxation



loan benefits and the differences in the total dollars received by the two sets of institutions. The former comparison is important in addressing the question of tax-based competitive advantages, the latter is important in addressing the question of budget deficits and surpluses. The latter is much more familiar. Moreover, the latter is much more concrete, because it can be framed in terms of specific costs imposed on taxpayers.

The difference between the absolute value of benefits received by banks and the credit unions is extremely large. The one-time costs associated with the banking crisis of the past decade (\$150 billion), all of which are attributable to S&Ls dwarfs the annual credit union benefit (\$1.1 billion to \$2.3 billion at most).

- No credit unions were bailed out by federal taxpayers as part of the S&L crisis of the late-1980s/early-1990s. With the bailout costing at least \$150 billion, it would take between 75 and 150 years for the credit union benefits (at current levels) to cost taxpayers what the S&L bailout cost them.
- The pending litigation over legislation that changed the treatment of capital in failed S&Ls (“goodwill”), for which taxpayers have been held accountable by the Supreme Court, will equal \$20 billion to \$30 billion or 10 to 30 years of credit union benefit.

The absolute value of ongoing, out-of-pocket cost of benefits associated with the safety net is also quite large

- The value of under-priced insurance and other federal guarantee policies to banks runs in the range of \$21 billion to \$52 billion per year.
- The interest alone on the S&L bailout is over \$2 billion per year.
- The comparable number for credit unions is between \$.6 and \$1.3 billion per year.

Banks enjoy other benefits that are substantial.

- Interest free deposits save banks between \$4 billion and \$6 billion per year.

- Federal funds for grants and loans equal \$2.5 billion per year.
- The provision of low cost funds through the FHLB system has a value between \$.2 billion and \$.8 billion per year.

Banks enjoy significant favorable tax treatment.

- S-Corporations and small banks enjoy about \$.3 to \$.4 billion of favorable tax treatment.
- Preferred trusts yield favorable tax benefits in the range of \$2 billion to \$3 billion.

In the aggregate, bank benefits are in the range of \$30 to \$90 billion per year compared to the \$1.1 to \$2.3 billion enjoyed by credit unions.

As noted above, not all banks enjoy all the subsidies. However, it is likely that each category of banks enjoys a larger subsidy than similar credit unions as the following examples show.

- S-Corporations have a tax exemption that is similar to the credit unions. These institutions are generally about two and one-half times as large as credit unions. There are ten times as many credit unions, so that the pool of tax-exempt resources available to banks through the S-Corporation exemption is equal to between one-quarter and one-third the size of the credit union total.
- Similarly, the twelve Federal Home Loan Banks are tax exempt and make funds available to member institutions as below market rates. The pool of resources available to its members is larger than the total pool of resources available to credit unions.
- Small banks have tax subsidies and loan programs available. The tax benefit is about one tenth the size of the credit unions, but the assets to which it applies are at least twice as large.
- Savings institutions have large benefits from guaranteed loan programs and some tax subsidies. The assets are about three times as large and the tax benefit is about one tenth as large.

These comparisons involve institutions that are similar in size and activity to most credit unions. The ongoing benefits received substantially exceed that enjoyed by the credit unions.

The final comparison involves the rate of subsidization (see Table IV-2). In this comparison we divide the total benefits for loans and tax breaks by the total asset base of the financial institutions. We then add the safety net subsidy.

TABLE V-2  
FEDERAL BENEFITS/SUBSIDIES  
IN BASIS POINTS

INSTUTION	LOW	HIGH
SMALL BANKS	48	144
CREDIT UNIONS	26	60

- Federally insured commercial banks and savings institutions receive a total federal benefit/subsidy rate of 48 to 144 basis points. Credit unions receive federal benefits/subsidies at a rate that is in the range of 26 to 60 basis points.
- Smaller banks, which are most like credit unions, are likely to receive substantial capitalization, tax and loan benefits.

Throughout the analysis extremely conservative assumptions have been used that underestimate the benefit/subsidy to banks and overestimate the benefit/subsidy to credit unions. The conclusion of the analysis, even under these conservative assumptions, is that banks receive at least twice the benefit/subsidy that credit unions do. Because the analysis is

so cautious, it would be reasonable to compare the high-end of the estimate for banks to the low end for credit unions and argue that banks receive five times the benefit. This would be justified on the basis of capitalization ratios alone. In any case, the benefits/subsidies enjoyed by banks are substantially larger than those enjoyed by credit unions.

## **2. PUBLIC POLICY IMPLICATIONS**

Thus, we find no basis for the claim that the tax treatment of credit unions should be changed because it constitutes an unfair advantage *vis-à-vis* banks, in the context of policy debate over the definition of common bond, or in any other context for that matter. If policy makers consider the full range of tax, safety net and loan treatment afforded banks and credit unions they will find that banks have a substantial advantage.

Bank efforts to alter the tax treatment of credit unions, if successful, would not only restrict the ability of an important set of institutions to serve the public, but they also eliminate an important source of competition for banks. If banks keep their own favorable treatment, while eliminating those enjoyed by others, they would gain an unfair tax-based competitive advantage. This would undermine one segment of the financial institutions industry that has traditionally passed lower operating costs (including their federal benefits) through to members in the form of lower rates charged on loans or higher interest rates paid on deposits. This would enable banks to achieve high profits because they would be able hold onto a larger share of their subsidies. The pressure to pass benefits through to the public would be reduced.

Thus, the elimination of the tax treatment of credit unions would increase the advantage that banks already have in terms of federal benefits resulting in significant harm to the public. The demonstration that banks enjoy federal benefits/subsidies that are much larger

than credit unions underscores the irony of the contradiction in the current bank arguments. Not only are they seeking a larger advantage, by attacking the credit union tax treatment, while defending their own subsidies, but also they are seeking to expand their own field of activities, while restricting that of the credit unions.

## APPENDIX A

### TAX-SUBSIDIZED COMPETITION

The impact of a tax-subsidized competitive advantage has been described in recent discussions in standard economic terms (see Figure A-1).

A per-dollar-of-deposits safety net subsidy is equivalent to a negative sales (or ad valorem) tax. One can analyze the effects of a safety net subsidy by applying a figure frequently used to analyze the effects of taxation.

Figure 1 plots supply and demand conditions for a perfectly competitive banking industry ... Banks' marginal cost of funds increases as they pay higher interest rates to attract more funds from depositors, leading to an upward sloping cost curve as depicted by MC... Borrowers' demand curve for loans is LD. The curve is downward sloping since borrowers will demand a larger quantity of loans as the loan interest rate declines. In competitive equilibrium the market price and quantity produced of a good are determined where the marginal cost curve (its supply curve) intersects the industry demand curve. Without a subsidy, the equilibrium is at point A.<sup>121</sup>

The subsidy represents a shift (lowering) of the cost curve for the bank receiving the subsidy.

The introduction of a subsidy would shift banks' marginal cost curve down to MC' by a vertical distance equal to the amount of the subsidy, the distance between points A and C.<sup>122</sup>

Under conditions of competition, the subsidy is passed through to the bank's customers (borrowers or depositors).

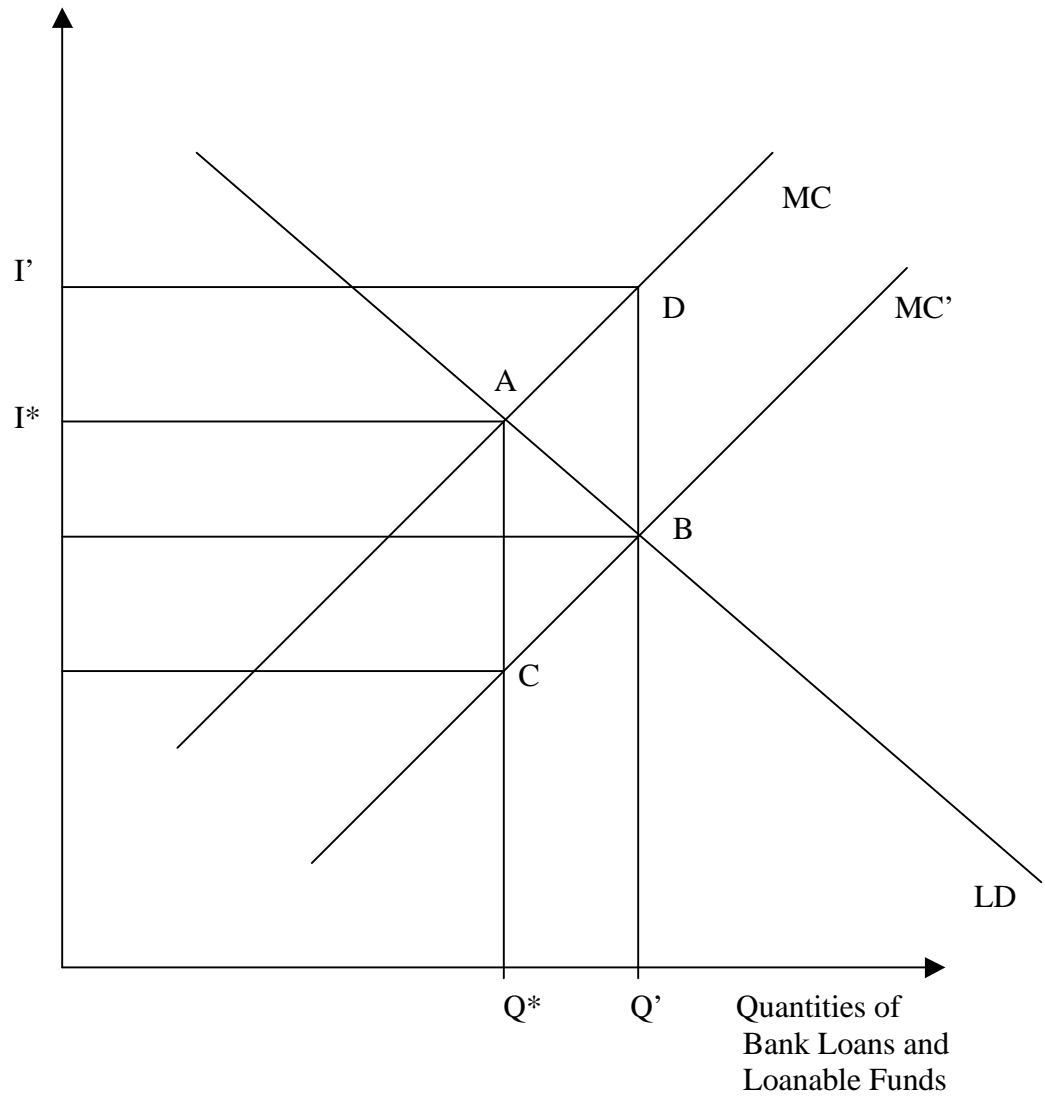
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<sup>121</sup> Walter, 1998, p. 14.

<sup>122</sup> Walter, 1998, p. 14.

**FIGURE A-1**  
**EFFECTS OF A SUBSIDY**

Interest Rate  
 On Loans,  
 Banks' Cost  
 of Funds



Walter, John R., "Can a Safety Net Subsidy be Contained?", *Economic Quarterly*, winter 1998.

At the initial loan rate ( $I^*$ ) and quantity of loans ( $Q^*$ ) made by banks, the subsidy to the industry is the rectangle with height AC and length  $Q^*$ ; and the entire subsidy is contained within banks. However, this loan rate/loan quantity combination is not an equilibrium because the marginal revenues exceed the marginal cost, and each bank will see an opportunity to expand its profit by making more loans. As banks compete to make additional loans, they will bid down the loan interest rate, causing the subsidy to leak to borrowers. Further, banks must gather more deposits in order to add loans.<sup>123</sup>

The extent to which the banks can keep the subsidy or are forced to pass it along depends on the competitiveness of the market.

A fundamental point about a safety net subsidy to banks is that its incidence will be determined by conditions in the markets for bank loans and deposits. That is to say, competition among banks will tend to make borrowers and depositors (whether businesses or individuals) the ultimate beneficiaries of any safety net subsidy. The idea is that a per-dollar subsidy would have the effect of lowering the marginal cost of bank loans. And competition among banks would tend to induce them to pass this cost saving along.<sup>124</sup>

The mechanism by which the subsidy is passed through is important. Firms without a subsidy would be squeezed.

To obtain more deposits, interest rates on deposits must increase, causing the subsidy to leak to depositors also. Ultimately competition will tend to move the banking industry to equilibrium at point B where loan interest rates equal the marginal cost of funds. At point B, competition has caused the subsidy to be transferred completely to borrowers and depositors.<sup>125</sup>

If the assumption of perfect competition in the banking industry is relaxed, then “[t]o the extent that banking markets are imperfectly competitive, banks may capture some of the subsidy.”<sup>126</sup> This can be seen in Figure A-2, where banks are able to price at the point where marginal costs equal marginal revenue, not where marginal costs equal demand.

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<sup>123</sup> Walter, 1998, pp. 13.. 14.

<sup>124</sup> Walter, 1998, pp. 13.. 14.

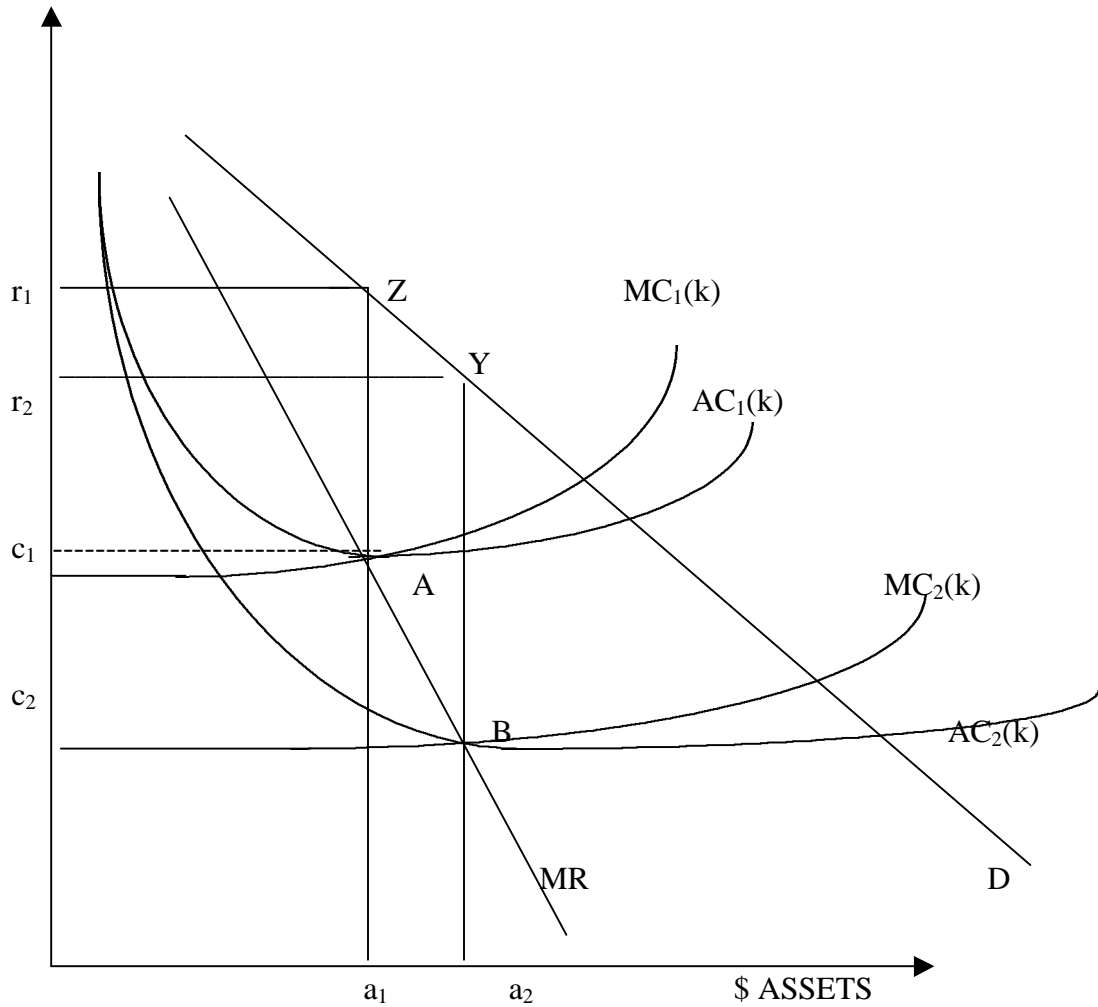
<sup>125</sup> Walter, 1998, p. 14.

<sup>126</sup> Walter, 1998, p. 14.



FIGURE A-2  
 COSTS AND PROFITS FOR THE BANKING SYSTEM

Interest Rate



Kwast Myron L. and S. Wayne Passmore, "The Subsidy Provided by the Federal Safety Net: Theory, Measurement and Containment," *Finance and Economic Discussion Series* (Washington, D.C., Board of Governors of the Federal Reserve System, December, 1997)

In Figure 2, the banking system's profits are denoted by the rectangle  $r_1c_1AZ$  in the no subsidy case and  $r_2c_2BY$  in the case of a subsidy. In our drawing, profits with the subsidy exceed profits without a subsidy, but this does not have to be the case.<sup>127</sup>

In this situation, they are exercising market power. That market power could stem from a variety of sources, concentration, barriers to entry, advertising, etc. Recent debates over subsidies do not focus attention on the issue of market power and it will not be addressed at length in this paper because the competitive impact is not altered greatly by the assumption about the extent of competitiveness of the market.

The more competitive the market, the greater the impact of tax subsidized competition on other firms in the market. The less competitive the market, the larger the increase in profits that would result from the subsidy. The actual outcome is likely to reflect a mixture of competitive gain and increased profits.

From the point of view of the competition between banks receiving subsidies and others who do not, the shift in the cost curve can also be represented as a difference between firms that have access to the subsidy and firms that do not (see Figure A-3).

Here, the nonbank equilibrium represents an industry that banks could not enter historically, but are now permitted to enter. With the entry of banks, the marginal cost curve falls to  $MC_{\text{bank}}(k)$  and thus yields drop from  $r_{\text{old}}$  to  $r_{\text{new}}$  and assets increase from  $a_{\text{old}}$  to  $a_{\text{new}}$ . The firms in the industry prior to the entry of banks were profitable, but without access to the subsidy, these firms suffer losses as the new competitive yield is less than their breakeven yield ( $r_{\text{even}}$  to  $r_{\text{new}}$ ).<sup>128</sup>

While these examples refer to banks that have a subsidy and move into lines of

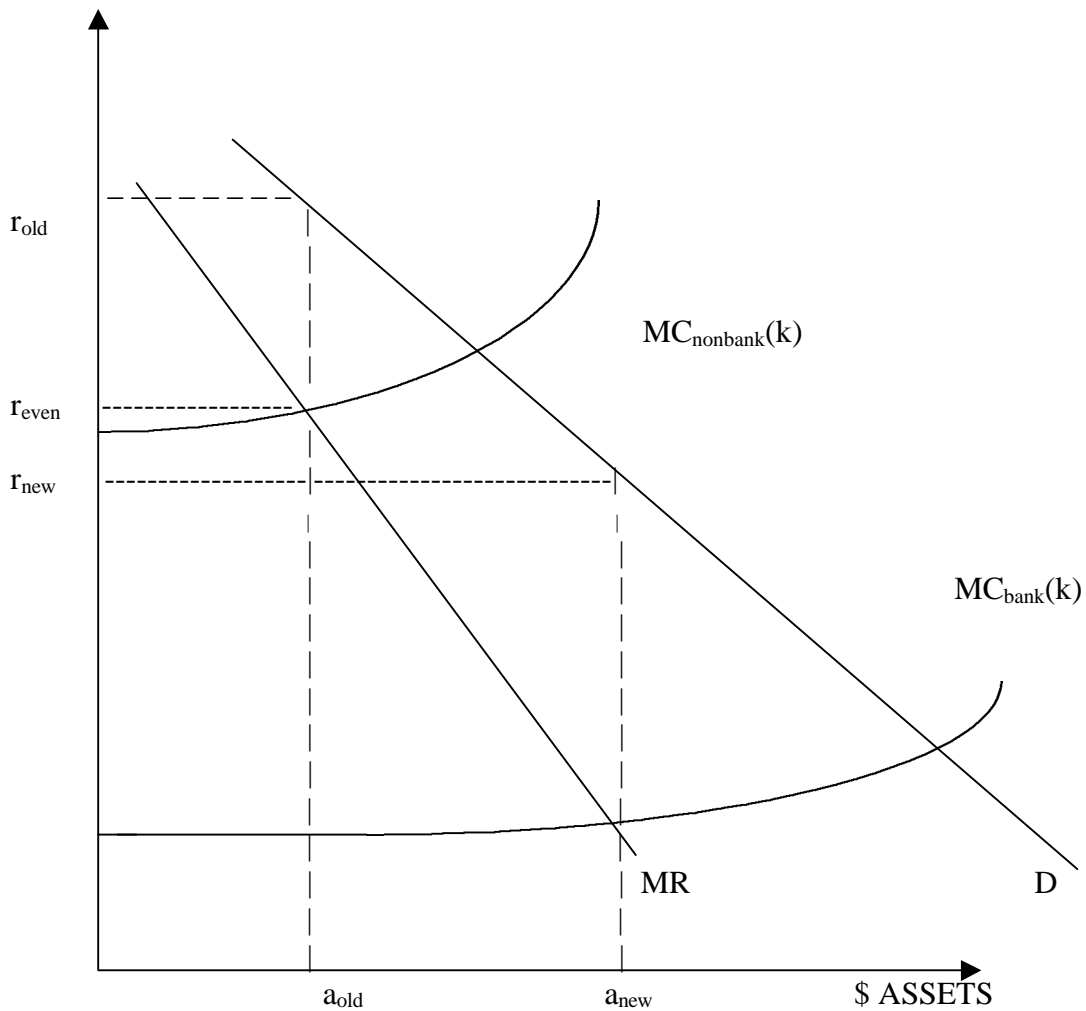
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<sup>127</sup> Kwast and Passmore, 1997, P. 13.

<sup>128</sup> Kwast and Passmore, 1997, p. 15.

FIGURE A-3  
BANK AND NON BANK COMPETITION  
IN NEW INDUSTRIES OPENED TO BANKS

Interest Rate



Kwast Myron L. and S. Wayne Passmore, "The Subsidy Provided by the Federal Safety Net: Theory, Measurement and Containment," *Finance and Economic Discussion Series* (Washington, D.C., Board of Governors of the Federal Reserve System, December, 1997)

business in which incumbent firms do not have a subsidy, the analysis would be identical in any situation where the bank has a subsidy and competitors do not. It would also apply to the situation in which a subsidy is removed from a competitor, while the banks' own subsidies are maintained. The firms with the subsidy gain a competitive advantage. Whether in the competitive situation where all subsidies are passed through to customers or banks capture some in a higher rate of profit, the firms that do not have the subsidy are at a disadvantage.<sup>129</sup>

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<sup>129</sup> General Accounting Office, *RTC's Financial Statements*, 95-157, 1995, p. 5 assumes a 50 percent pass through in modeling the effects of a reduction in insurance premiums for banks, vis-à-vis thrifts. Needless to say, the thrifts suffer a profit squeeze in the analysis

Although reliable statistical evidence is not available to predict responses, in one illustration GAO assumed banks would pass 50 percent of the savings from reduced premiums to customers and that thrifts, to remain competitive, would fully match the bank actions. Using the median thrift return on assets of 1 percent (100 basis points) and assets financed with 60 to 90 percent of assessable deposits, the estimated cost increase for these thrifts would be about 3.9 percent to 5.8 percent of annual after-tax earnings. A return on assets of only .5 percent (50 basis points) would double the cost as a share of earnings.