

Were S&L Financial Statements Misleading? Some Evidence and Policy Prescriptions

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Abstract

The savings and loan (S&L) crisis was alleged to be caused in part by regulatory accounting practices. These accounting methods allowed some S&Ls to improve their apparent financial health, when in fact these S&Ls were in poor financial condition. In an experimental setting, this paper finds that potential depositors were misled by RAP statements causing them to make suboptimal deposit decisions. These results have both practical and policy implications for government regulators, management, and depositors.

Introduction

The thrift crisis in the late 1980's brought considerable attention to the accounting practices used by savings and loan institutions (S&Ls). Prior to the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA), S&Ls were permitted to use specialized accounting methods, known as regulatory accounting practices (RAP), which were set by the Federal Home Loan Bank Board (FHLBB). These methods were typically more liberal than generally accepted accounting principles (GAAP), allowing S&Ls to report higher net worths under RAP. Because the FHLBB used net worth in assessing an S&L's financial soundness, S&Ls which would have violated their minimum net worth or capital requirements based on GAAP often were able to exceed these requirements based on RAP.

The use of RAP in the S&L industry has been widely criticized by academics, politicians, and business leaders. For example, Frederick D. Wolf, Director of the Accounting and Financial Management Office in the General Accounting Office, commented in 1987: "Essentially RAP has been used in the last few years to paper over the problem, to tell why [the FHLBB does not] take regulatory action or to make it appear as if the situation isn't so bad" (Arnold, 1988, p. 45). Likewise Dennis Beresford, Chairman of the Financial Accounting Standard Board (FASB), said: "I am ... concerned about the fact that there are depositors, investors, lenders and others who perhaps are looking at two different institutions and not even realizing that there are two dramatically different bases of accounting" (Arnold, 1988, p. 33).

These views contrast with those of FHLBB officials. Because the FHLBB oversaw the Federal Savings and Loan Insurance Corp. (FSLIC), the industry's insurance fund, one primary motive of using RAP was to maintain depositor confidence and to prevent a "run" on weak S&Ls. In particular, the FHLBB was concerned about the public perception between positive and negative numbers. For example, then FHLBB member Lawrence White explained in 1987: "People don't like the idea of seeing a minus number. They would much prefer to see a positive number, even if it is a falsely portrayed positive number. They prefer positive numbers rather than negative numbers and that, of course, is the origin of much of the recent RAP efforts to turn what otherwise would be negative numbers into positive numbers" (Arnold, 1988, p. 19).

The intent of this paper is to examine whether depositors were misled by RAP accounting, as these quotes imply. Using an experimental design, actual and potential S&L depositors were asked to make a hypothetical deposit decision by indicating a preference between one of two S&Ls. The S&Ls were designed so that the weaker S&L used RAP, and thus appeared healthier than the second S&L, which used GAAP. The outcome of these tests show depositors consistently chose to deposit money in the S&L using RAP even though it was the weaker S&L.

Though FIRREA effectively curtailed the use of RAP for S&Ls, the issue remains timely. In early 1991, federal bank regulators proposed more liberal accounting for bad real-estate loans in order to increase bank

lending.¹ The evidence presented in this study suggests that making banks appear healthier on paper might lead depositors to the weaker banks which, based on the S&L experience, could place further strain on the banking system.

Background

Prior to FIRREA, S&Ls were regulated by the FHLBB.² The FHLBB was responsible for, among other things, monitoring the financial health of its member institutions. This was done by enforcing a minimum net worth or capital (i.e. assets less liabilities) requirement for each S&L. When an S&L did not meet its minimum net worth requirement, the FHLBB was able to close the S&L, replace the S&L's management, or sell the S&L.

Like many regulated industries in the U.S., S&Ls were permitted to use specialized accounting practices.³ These methods, which were established by the FHLBB, were in some cases required and in other cases could be elected for use by an S&L. Because RAP usually produced higher net worth than GAAP, S&Ls which were below their capital requirements based on GAAP were often able to exceed these requirements based on RAP. However, because insurance funds were limited, the FHLBB often did not intervene when the S&L violated its minimum capital requirement, but delayed intervention until an S&L had a negative net worth. Because S&Ls with negative net worth based on GAAP could often produce positive net worth based on RAP, these S&Ls also had incentive to use RAP.

There were four RAP methods which were particularly controversial.⁴

1. Deferred loan losses. Under RAP issued in 1981, the FHLBB allowed member S&Ls to defer and amortize losses on the sale of certain mortgage loans, mortgage-related securities, and debt securities. This treatment differs from GAAP, which requires immediate recognition of losses.

2. Appraised equity capital. The FHLBB allowed S&Ls to include in net worth the difference between the fair market value and book value of certain fixed assets. This was a one-time election, and the difference was computed for any date between January 1, 1982 and December 31, 1985. This differs from GAAP because unrealized gains on fixed assets are not recognized until the assets are sold.

3. Net Worth Certificates. The Garn-St. Germain Depository Institutions Act of 1982 allowed troubled S&Ls to issue net worth certificates (NWCs) to the FSLIC. The FSLIC would in turn issue a promissory note to the S&L. The NWCs were redeemed as the S&L earned

profits, but the FSLIC note was collectible only if the S&L failed. Because the note's benefit depended on the liquidation of the S&L, the note did not qualify as an asset under GAAP. Under RAP, the note was included as an asset in computing net worth.

4. Subordinated debentures. Subordinated debentures issued by S&Ls were included in RAP net worth, but under GAAP they were classified as a liability. S&Ls were able to include all subordinated debentures that matured in more than one year in RAP net worth.

The differences between GAAP and RAP accounting by S&Ls were considerable. Based on FHLBB data, at the end of 1986, 597 S&Ls were below their minimum capital requirements based on RAP net worth while 1,004 S&Ls (or about 31 percent of all S&Ls) were below their constraints based on GAAP net worth.⁵ To the extent that RAP statements affect depositors' decisions, the use of RAP becomes an important accounting policy and public policy issue.

Research Proposition

Those wanting to deposit money in an S&L may possess a preconceived decision model which includes assessing the S&L's financial soundness.⁶ The question of interest is whether the use of RAP will alter the decision making process. The previous quotations by policy makers imply that depositors will ignore the method of accounting and will choose the healthier appearing S&L even if that S&L uses RAP and its apparent financial health is largely cosmetic.

To test this proposition, we first examine whether RAP statements are misleading. Suppose two S&Ls, A and B, are identical with two exceptions. First, S&L A is below its minimum capital requirement while S&L B exceeds its minimum capital requirement.⁷ From a regulatory standpoint, S&L B would be considered stronger than S&L A. Second, suppose S&L A uses RAP causing it to report higher net worth than S&L B which uses GAAP. In such a case, the depositor who focuses on net worth while ignoring the method of accounting would choose to deposit money in S&L A even though it is the weaker S&L. Thus, the following research proposition is tested:

Research proposition 1. Depositors choosing between two S&Ls will choose the S&L with the highest net worth even when the S&L is weaker financially than the other S&L.

From a theoretical viewpoint, there are at least two possible reasons why depositors might fail to undo the S&L's financial statements. The first is functional fixation⁸; the second is effort avoidance where depositors want to minimize the effort or cost needed to interpret

the statements.

Next, we examine whether the algebraic signs of the net worths being reported by the two S&Ls affects the degree of this behavior. The comment by FHLBB member White, that the public would rather see positive than negative numbers, implies that depositors would be more likely to ignore accounting methods when confronted with one S&L with a positive net worth and one S&L with a negative net worth than when confronted with two S&Ls with positive but different net worths. Based on this, we test the following research proposition:

Research proposition 2. Depositors will more likely to ignore accounting methods when choosing between two S&Ls with positive and negative net worths than when choosing between two S&Ls with positive, but different, net worths.

In testing this proposition, we note that this is an empirical, not a normative, question. That is, support for research proposition 2 does not "justify" the use of RAP as a policy tool.

The depositor's decision not to undo alternative accounting methods may, in fact, be rational. The depositor will rationally choose not to undo the statements when the costs of restating the numbers exceeds the benefits of doing so. Thus, to make policy recommendations, some further understanding of depositors' behavior is required. Two additional research propositions examining the costs and benefits of undoing RAP statements are therefore examined.

The first reason depositors may fail to convert RAP statements into GAAP, or vice versa, is that education and information search costs are high. For example, most depositors will not be able to undo RAP statements because they lack the requisite accounting knowledge to do so. This does not mean depositors are ignorant, but rather that they have rationally chosen to remain uninformed in this particular area. To undo RAP statements, a depositor would have to know which items are included in RAP statements but not on GAAP statements. This would require at least a basic accounting education as well as knowledge of RAP accounting and the related regulatory process. The less motivated depositor could engage a qualified individual to recast and interpret the financial statements, but this too would be costly.

Even if a depositor is able to undo the statements and understands the regulatory process, the depositor would incur some cost to obtain the relevant financial disclosures. For instance, a depositor deciding between various S&Ls would need to obtain the necessary information from each S&L. Moreover, information

about an S&L's minimum capital requirement is not always disclosed in the financial statements issued to the public. This information could have been obtained directly from the FHLBB in these cases, which also involves some costs. Thus, the cost of undoing the statements and making meaningful comparisons among S&Ls is high.

The current disclosure practices of S&Ls allow us to test whether these education and search costs affect the depositor's decisions. Under the FHLBB and now under the Office of Thrift Supervision, most S&Ls provide depositors with "counter statements," which are balance sheets without footnotes or any other disclosures. Counter statements would be the most costly to undo, and as FASB Chairman Berensford noted, most depositors would probably not even know which method was used to prepare them.

However, S&Ls that are publicly traded and subject to the Securities and Exchange Commission's reporting requirements prepare annual financial statements under GAAP. These S&Ls provide information about their minimum capital requirements, and some also provide a reconciliation of their RAP and GAAP net worths.⁹ With more complete disclosure, education and search costs are substantially reduced. Holding the benefits of undoing these statements constant, increased disclosures causes the depositor to be more attentive to the underlying accounting method. Thus, we expect:

Research proposition 3. Ceteris paribus, depositors choosing between two S&Ls will be less likely to ignore accounting methods when relevant disclosure is increased.

The second, and perhaps more obvious, reason why average depositors rationally choose to ignore the method of accounting is that the benefits of undoing financial statements are low. This is due to the presence of government-backed deposit insurance. As Barth and Bradley (1988) note, the rationale for deposit insurance is that it provides protection for small depositors and prevents widespread bank runs which could result in macroeconomic instability. Prior to the enactment of FIRREA, the FSLIC insured deposits up to \$100,000.¹⁰ Even if their S&Ls were to fail, small depositors would, at worst, lose access to their money while waiting for the insurance fund to pay off their claims. Thus, when deposits are fully insured, depositors have little incentive to determine the financial soundness of an S&L.

This situation is considerably different in the case of uninsured deposits. In such a setting, depositors could lose their entire savings if their S&L were to fail. Here the potential benefit of undoing an S&L's financial statements to determine the true health of the institution would be large, perhaps approaching a depositor's

total savings. This no-insurance situation is similar to investments in capital markets, where investors have economic incentive to undo alternative accounting methods.¹¹

This difference in behavior induced by the presence of insurance is known as *moral hazard*. Related to this, our research expectation is tested by the following proposition:

Research proposition 4. Depositors choosing between two S&Ls will be less likely to ignore accounting methods when their deposits are not covered by insurance.

In summary, we seek to examine experimentally whether depositors in S&Ls are misled by RAP accounting. If they are, we examine whether this behavior is affected by the sign of the reported net worth. Two possible causes for this behavior, high education or search costs and moral hazard, are also considered.

Task And Subjects

Our experimental task involved the decision whether to deposit money in one of two hypothetical S&Ls, S&L A and S&L B. The subjects were asked to allocate 100 points between the two S&Ls based on the strength of their preference. For instance, a depositor who was 80 percent sure that the money would be placed in S&L A would allocate 80 points to S&L A and 20 points to S&L B.

These S&Ls were designed to be identical in all respects except for 1) the method of accounting and 2) proximity to regulatory constraints. The statements for S&L B were patterned after an actual S&L which had prepared GAAP statements. This was to insure that the relationship between various accounts was realistic. The statements for S&L A were based on the same GAAP numbers. Two RAP accounts, deferred loan losses and subordinated capital notes, were added to create S&L A's statements, giving this S&L a higher reported net worth under RAP.

The second difference was the level of minimum regulatory capital. This would not be unusual because, under the final FHLBB guidelines, the amount of minimum required capital depended on both the amount of an S&L's liabilities and the timing of the acquisition of those liabilities. In all experimental cases, S&L B exceeded its minimum capital requirement and S&L A was below its minimum capital requirement. Thus, from a regulatory standpoint, S&L B was stronger than S&L A. Based on this design, if misled by RAP accounting, the depositor would choose to allocate more points to S&L A, with its higher reported net worth, even though it was the weaker S&L from a regulatory standpoint.

To provide tests of the remaining propositions, we also manipulated three other variables. First, the algebraic signs of the S&Ls' net worths were manipulated so that approximately one-half of the subjects received statements where both S&Ls had positive net worths although S&L A's was greater than S&L B's. The remaining subjects received statements where S&L A had a positive net worth and S&L B had a negative net worth. Second, the type of statement was manipulated so that one-half of the subjects received counter statements plus a brief statement about the two S&Ls' capital requirements, and the remaining subjects received full-disclosure statements which included: 1) footnotes describing the accounting method used and the importance of net worth in the regulatory process; 2) the S&L's minimum capital requirement and whether the S&L exceeded or was below this requirement; and 3) a reconciliation of RAP and GAAP net worths. Third, the presence of insurance was manipulated so one-half the subjects were informed their deposits would be insured and the rest were informed their deposits would not be insured.

The respondents were instructed to assign the 100 points between S&Ls A and B based on how likely they would be to deposit \$20,000 in them.¹² The \$20,000 amount was selected as being large enough to make the subjects carefully consider their decision yet small enough to be realistic.¹³ Fig. 1 provides a schematic diagram of the research design.

The subjects were 169 individuals who, at the time of the experiment, either had funds deposited or planned to deposit funds in an S&L. These individuals were recruited from over 20 different business courses at a four-year public university with participation being voluntary. The subjects represent a fairly wide cross-section of both business and non-business majors. Their mean age was 23 years (range 18 to 44 years) and 46 percent were female.¹⁴

The experiment was described to the subjects as a survey of their current or future S&L deposit behavior. To enhance interest, the nature of the S&L crisis was briefly described prior to the administration of the test instrument. Subjects were fully debriefed at the conclusion of the experiment.

Data Analysis

To determine whether financial soundness was an important factor in the deposit decision, subjects were asked to evaluate five possible determinants that might affect the choice between two prospective S&Ls: 1) convenience (i.e., ATMs, drive-up tellers, extended hours), 2) location, 3) interest rates paid on deposits, 4) management reputation (integrity), and 5) financial condition. Each determinant was rated independently

**Figure 1
Research Design**

Cell 1 RAP Net Worth Positive GAAP Net Worth Positive Counter Statements Insurance	Cell 2 RAP Net Worth Positive GAAP Net Worth Positive Full Statements Insurance
Cell 3 RAP Net Worth Positive GAAP Net Worth Positive Counter Statements No Insurance	Cell 4 RAP Net Worth Positive GAAP Net Worth Positive Full Statements No Insurance

Cell 5 RAP Net Worth Positive GAAP Net Worth Negative Counter Statements Insurance	Cell 6 RAP Net Worth Positive GAAP Net Worth Negative Full Statements Insurance
Cell 7 RAP Net Worth Positive GAAP Net Worth Negative Counter Statements No Insurance	Cell 8 RAP Net Worth Positive GAAP Net Worth Negative Full Statements No Insurance

based on the perceived importance of that factor to the decision. Importance scores were recorded on a five-point scale anchored on 1, "Extremely Important," and 5, "Not At All Important." The highest mean importance ranking was assigned to interest rate on the deposit (1.27), following by financial condition (1.49), management reputation (1.62), convenience (2.09), and location (2.18).

Pairwise comparisons between the mean ratings for financial soundness and each of the other four determinants were all significant ($p < 0.001$). Thus, the subjects considered the interest rate on the hypothetical deposit to be the most important decision factor by a significant margin. However, since both financial condition and management reputation were ranked significantly higher than non-financial considerations, the indication is that depositors do consider financial condition when making deposit decisions. This finding supports our experiment's

focus on financial characteristics of S&Ls.¹⁵

The significance of the difference between the means of subjects' overall preference for S&L A vs. S&L B tests whether depositor were more likely to chose S&L A which used RAP. The overall mean preference for S&L A (the weaker of the two) was 62.23 points out of 100, vs. 37.77 allocated for S&L B. A paired-comparison t-test indicates the difference in preference is significant ($t = 5.31, p < 0.001$). The significantly greater preference for the weaker S&L with financial statements prepared under RAP supports research proposition 1.

The remaining three propositions were tested by a fully-crossed 2 (signs on net worth) x 2 (extent of disclosure) x 2 (insurance/no insurance) unbalanced analysis of variance (ANOVA). The three factors were tested between subjects. The comparison of between-subject cell means for RAP net worth positive/GAAP

Table 1
ANOVA Results for the Effects of
Net Worth Signs, Extent of Disclosure,
and Deposit Insurance on Preference for S&L A

Panel A: Cell Means (Sample Size)

	<u>Net Worth Signs</u>			
	<u>RAP Positive/GAAP Positive</u>		<u>RAP Positive/GAAP Negative</u>	
	<u>Counter Stmt.</u>	<u>Full Stmt.</u>	<u>Counter Stmt.</u>	<u>Full Stmt.</u>
<u>FSLIC Insurance</u>	67.10 (22)	52.00 (20)	78.46 (26)	59.72 (18)
<u>No Insurance</u>	59.12 (17)	44.20 (25)	76.25 (20)	47.38 (21)

Panel B: Treatment Means

<u>Extent of Disclosure</u>	<u>Net Worth Signs</u>		<u>Insurance</u>			
	<u>Counter</u>	<u>Full</u>	<u>RAP+/GAAP+</u>	<u>RAP+/GAAP-</u>	<u>Insurance</u>	<u>No Ins.</u>
	71.35	50.18	55.30	66.29	65.70	55.78

Panel C: ANOVA Table

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>	<u>Sig. of F*</u>
Disclosure	15946.223	1	15946.223	35.297	<0.001
Net worth signs	3675.811	1	3675.811	8.136	0.005
Insurance	2374.738	1	2374.738	5.256	0.023

* P-values associated with one-tailed (directional) tests

net worth positive vs. RAP net worth positive/GAAP net worth negative (signs on net worth) tests proposition 2. Likewise, the between-subject differences for full statements vs. counter statements (disclosure) tests proposition 3, and differences between subjects in the insured vs. non-insured deposit condition tests proposition 4. Since all of the propositions predict directional differences (i.e., preference for S&L A greater than preference for S&L B), all statistics and their related p-values are stated as one-tailed tests.

These results, which are shown in table 1, show the individual treatment means and the related ANOVA statistics were significant and in the correct direction for all three predicted effects (p < .05). In addition, no interactions were significant, allowing direct interpreta-

tion of the treatment and cell means.

The subjects who received a RAP statement with a positive net worth that was followed by a GAAP statement with a negative net worth allocated more preference points to S&L A than subjects who received RAP and GAAP statements, both with positive but different net worths (mean point allocation of 66.29 vs. 55.30). The difference is significant (p < 0.005) and indicates these depositors were more likely to be misled by RAP when faced with an S&L which reported a negative net worth under GAAP. This result is consistent with the view presented by FHLBB member White and supports proposition 2.

The subjects who received the limited financial

statements (counter statements) allocated more points to S&L A (71.35 vs. 50.18) than subjects who received statements containing footnote disclosures regarding the accounting methods used to create the statements (disclosure manipulation). This finding was also significant ($p < 0.001$). Thus, as predicted by proposition 3, when provided with more information, depositors are less likely to be misled. The implication is that the extra disclosure either reduced education costs and the depositors were able to learn from the footnotes, reduced the information costs by providing the additional disclosure for free, or both.

The subjects who were told that their deposits would be federally insured favored S&L A more than subjects whose deposits were not insured (65.70 vs. 55.78). This difference is significant ($p < 0.05$) and indicates that when deposits are not insured, depositors appear to consider the accounting method more carefully in making their deposit decision. Thus, proposition 4 is also supported.¹⁶

Policy Implications

This paper provides evidence which shows that depositors were likely to be misled by statements prepared by S&Ls under regulatory accounting principles (RAP). Moreover, as shown in table 1, depositors were most likely to ignore the accounting method when provided with counter statements, S&Ls with positive RAP net worth and negative GAAP net worth, and FSLIC insurance on their deposits. These conditions are characteristic of the setting just prior to the enactment of FIRREA. These results tend to support the view that the use of RAP prolonged the S&L crisis.¹⁷ The inference is that if GAAP reporting by S&Ls had been required at an earlier date, the negative net worths reported by the weakest S&Ls would have diverted deposits to financially healthier S&Ls.

The results have implications for policy prescriptions in two areas: 1) S&L reform and 2) the proposed regulatory accounting practices for banks. Regarding S&L reform, two recommendations are made. First, the level of financial disclosure provided to depositors should be increased. Our results indicate that depositors made better decisions as the level of disclosure went up, even when deposits were insured. The reason is that with more disclosure, depositors were better able to overcome low knowledge levels. Thus, even under a GAAP reporting system, depositors need to be provided with enough information to assess the S&L's financial health, but the no-disclosure counter statements which are typically provided to depositors by S&L's are clearly inadequate.

Unlike the task in this experiment, which forced respondents to examine the financial statements, casual

observation suggests few depositors actually do this even when the information is provided to them. Thus, as an alternative to providing complete financial statements, a more efficient way to provide this information to depositors would be to initiate a rating system for S&Ls based on their regulatory soundness. For example, S&Ls which have extremely high levels of tangible capital, such as 10 percent, might be rated by the Office of Thrift Supervision (OTS), which now oversees the industry, as a 5. S&Ls with capital exceeding eight percent of tangible asset might rate a 4, and so on down to a rating of 1. The rating could be displayed at the S&L's counters, doors, or drive-up windows. This system would effectively reduce depositors' education and search costs to zero while, at the same time, increasing their knowledge levels. Based on our results, this should lead to improved depositor decisions, even when insurance is present.

Second, because deposit insurance increases the likelihood that depositors will ignore different accounting methods, deposit insurance needs to be reformed. Recently, Congress has begun to examine ways to do this with the House Banking Committee holding hearings in 1990. One often-mentioned reform is differential insurance rates, where weak S&Ls would pay higher rates instead of the flat percentage fee now charged to all S&Ls. Even with differential rates, weak S&Ls will end up paying higher interest rates to attract capital in hopes of improving their financial position and lowering their insurance rates. The high interest rates, however, make these S&L even more vulnerable to economic shocks, and thus more susceptible to failure when real estate markets are affected by economic recession.¹⁸

Instead, reform should include provisions affecting the depositor. S&Ls, and other financial institutions, are different from other businesses because their depositors are also their creditors. The typical depositor, however, does not behave like a typical creditor. Because of deposit insurance, depositors do not have incentives to determine the creditworthiness of their S&L. While it would be economically inadvisable and politically impossible to eliminate deposit insurance, a system of differential insurance coverage could be devised. For example, using the rating system above, the government might back 100 percent of the deposits at S&Ls with ratings of 5, but only 90 percent for S&Ls with ratings of 4, and 50 percent for S&Ls with ratings of 1. Thus, depositors would bear a part of the risk in choosing S&Ls. Low-rated S&Ls would pay higher interest rates to attract capital, but depositors in those institutions would bear additional risk as well. Depositors in low-rated S&Ls would therefore have incentives to determine what those risks are, thereby adding some market discipline to the system. S&Ls with less than 100 percent deposit insurance coverage can be seen as filling the

void between S&Ls as presently structured and uninsured money market funds.

The results of this experimentation also have policy implications for the proposed regulatory accounting method for banks. In early 1991, bank regulators recommended a change in accounting for bad real-estate loans. Under the proposed procedure, banks would be able to ignore the current market values of real estate assets and real estate loans and instead would be able to record these items based on their projected cash flows, which typically would be higher. This would produce an artificial increase in capital.


The evidence presented in this paper suggests that if these changes are implemented, the effect could be counterproductive and potentially disastrous. Because depositors would likely favor banks with greater reported net worth, deposits would be disproportionately diverted to the banks which have the most incentive to inflate their assets (i.e., the weaker banks). Rather than addressing real economic weaknesses, these banks could survive and increase their losses over time. This, combined with factors such as continuing weakness in the real estate market and low cash flows from non-productive loans, could lead to a new crisis in the banking industry.

Finally, the results also have implications for the accounting profession. Our research suggests that RAP statements did play a role in the S&L crisis. Even if the role was small, with the total cost of the S&L crisis approaching \$200 billion, that could be very costly in dollar terms. The disappointing aspect is that while the profession was clearly opposed to RAP, as FASB Chairman Beresford suggests, it was unable to force an earlier end to its use. In this regard, perhaps the lesson to be learned is that the accounting profession needs to become a much more powerful political force, reflecting the influence of the medical and legal professions on government represented through the American Medical Association and the American Bar Associations. Recent events in the banking industry suggest that unless the accounting profession responds to the challenges of the S&L and banking crises, there is little to stop government from continuing to use accounting numbers to achieve political ends.

Suggestions for Future Research

The results of this study provide some directions for future research. First, we suggested previously that depositors may be able to make better decisions if the S&Ls are rated (e.g., by the OTS) on the strength of their capital structures. To determine if this is actually the case, future research should determine depositors' sensitivity to financial strength vs. sensitivity to OTS ratings. This could be accomplished by assigning differ-

ent ratings to two S&Ls with similar, but not identical, financial strength as measured by capital structure in the financial statements. Depositor preference for each S&L could then be measured in the current study.

Another potentially important topic is the measurement of depositors' ability to interpret "warning signals" provided in S&L financial statements. One often-cited cause of the S&L crisis was the prevalence of "clean" (unqualified) audit opinions given to S&Ls that were in fact insolvent. This view holds that, if CPA firms had given proper notice to investors and creditors about the true financial condition of S&Ls through modified audit opinions, many of the losses suffered by investors and depositors could have been averted. To examine this contention, future research should address the role of the independent CPA firm on providing information to S&L financial statement users. Specifically, user reactions to a variety of audit opinions, including: 1) unqualified opinions; 2) unqualified opinions with an additional paragraph addressing going concern issues; and 3) disclaimers of opinion because of going concern issues, should be measured. These results could help shed light on how much weight is given to audit opinions by users of S&L financial statements, and whether the opinion plays a role in providing "early warning" of impending financial problems of S&Ls. 

Notes

1. For further details and a critique of the proposed rules, see L. White, "Another Financial Regulation Disaster," *The Wall Street Journal* March 22, 1991, p. A10.
2. Under FIRREA, the FHLBB was dissolved. The Office of Thrift Supervision, controlled by the Treasury Department, now oversees the S&L industry.
3. Other regulated industries using specialized accounting methods include banks, utilities, insurance companies, and railroads.
4. See the appendix to Arnold (1988) for an in-depth review of treatments under RAP and GAAP.
5. This paper does not consider why some S&Ls use RAP and other use GAAP. There are, however, other studies, such as Hill and Ingram (1989) and Blacconiere et al. (1988), which examine the determinants affecting this choice.
6. Though other factors (e.g., location, convenience, etc.) would also be expected to affect the choice of an S&L, the paper focuses on financial soundness. This is because, from a public policy standpoint, the importance of financial soundness is paramount. To minimize losses to the insurance fund, the regulator's objective is to channel deposits to the strongest S&Ls. This implies that those financial statements which give the depositors the best picture of the S&L's financial condition would be preferred.

7. The minimum capital requirement has been determined in various ways over time. Under the last FHLBB directive, the constraint was affected by both the level of an S&L's liabilities and the time when the liabilities were incurred (tighter constraints were placed on more recent liabilities). Thus, two S&Ls with identical balance sheets could have different minimum capital requirements.
8. Under functional fixation, decision makers may use financial statements without regard to the accounting methods being used even if they are aware of what those methods are. See N. Wilner and J. Birnberg (1986) for a review and assessment of the related research.
9. Less than six percent of all S&Ls are actually affected by the SEC reporting requirements. The large majority of S&Ls are either traded privately or are mutual associations in which the depositors are also the owners.
10. Under FIRREA, deposits at S&Ls are now insured by the Federal Deposit Insurance Corp. which also insures bank deposits. The maximum insured amount remains at \$100,000.
11. Capital markets research has generally shown that investors make adjustments for alternative accounting methods when pricing securities. See Foster (1986) for a review of some of the capital markets research involving accounting information.
12. The following question was used to elicit preference responses from subjects (full statement, no insurance condition shown): Based on the information presented in the statements of condition, indicate your preference for one of the two S&Ls by assigning 100 points between S&L A and S&L B. Unless you are absolutely sure of your preference, do not allocate all 100 points to any one S&L. For example, if you are 80 percent certain that you prefer S&L A, you will assign 80 points to S&L A and 20 points to S&L B. Remember, your deposit would NOT be fully insured by government backed deposit insurance.
 S&L A _____ points
 S&L B _____ points
13. The tests were also run with a \$5,000 deposit decision. The results were similar and are not reported here.
14. The instrument was administered to entire classes and non-depositors were subsequently deleted.
15. Because S&L A always used RAP and higher net worth, it is possible respondents might anchor on S&L A's net worth and make insufficient adjustment when examining S&L B's statements (Tversky and Kahneman, 1974). This would also explain why depositors might prefer S&L A. To determine whether this was an issue, we provided 81 respondents with non-standard versions of the instrument in which S&L A reported lower net worth than S&L B. The mean preference for the weaker S&L was compared for the two versions. There was no significance difference, which indicates that the order of presentation cannot explain the results.
16. The analysis was repeated with only those subjects which had funds currently deposited in an S&L (61 percent of the full sample). The findings were unchanged.
17. For example, Barth and Bradley (1988) show that GAAP net worth was negative for as many as five years before RAP net worth was negative.
18. For example, Texas S&Ls were paying a 200 basis point premium to attract deposits in the late 1980's.

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