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# THE COST OF COMPLIANCE: THE EFFECTS OF REGULATORY ACCOUNTING PROCEDURES ON THE SAVINGS AND LOAN CRISIS

**[1]Pizzo, S., [2]Fricker, M., & [3]Muolo, P.**

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**Abstract**

This study examines the impact of regulatory accounting procedures (RAP) on the Savings and Loan (S&L) crisis in the US during the 1980s. The study highlights how RAP resulted in unintended consequences that led to one of the most significant bank collapses in the US since the Great Depression of 1929. RAP afforded S&Ls the ability to defer loan gains and losses, which altered financial reporting standards. This led to S&Ls being able to accumulate deferred losses for hedging operations and selling low-yielding long-term assets, resulting in further complications as S&Ls transitioned between RAP and GAAP. The study highlights the unintended consequences of regulatory accounting procedures, adding to the accounting literature. It cautions regulatory bodies to be careful when considering their actions because even well-intentioned regulations can have unintended consequences.

## INTRODUCTION

GAAP and IFRS are the two most commonly utilized accounting frameworks worldwide. However, many entities are also required to adhere to additional regulatory guidelines when performing the accounting for their organization. Examples of regulatory accounting can be found in the energy sector, governmental agencies, financial institutions, and utility companies. In many instances, additional regulatory policies are implemented to enhance the information symmetry between entities
(Beatty & Liao, 2014). Additionally, regulation is also utilized to enhance stability in certain entities. For example, Basel III was implemented in the commercial banking industry to heighten financial stability (Lileikiene et al., 2021). Unfortunately, in many situations, these regulations cause unintended consequences. One previous study has shown that the implementation of Basel III was related to higher borrowing costs for consumers (Obi & Sil, 2015). As such, regulatory bodies should be extremely careful when considering the totality of their actions. This study explores the unintended consequences of regulatory accounting procedures on the U.S. Savings and Loan Crisis. By better understanding the effects of RAP on the S&L crisis, this study hopes to contribute to the accounting literature by highlighting the possible negative consequences of regulatory accounting.

The Savings and Loan (S&L) crisis was characterized by numerous failures of financial institutions nationwide that cost an estimated $ 152.9 billion in direct and indirect costs (Curry & Shibut, 2000). During the period 1986-

[123] Sorrell College of Business, Troy University, Troy, Alabama, USA

1995, 1,043 thrifts, with total assets of over $500 billion failed. (Curry & Shibut, 2000). The Savings and Loan Crisis has been the most significant bank collapse since the Great Depression of 1929. Numerous reasons for these failures have been proposed and investigated. The use of Regulatory Accounting Practices (RAP) has been cited for the failure (Arnold, 1988; Barth, Brumbaugh, Sauerhaft, & Wang, 1985; Brumbaugh, 1988), as well as the idea of agency theory (Cole & Eisenbeis, 1996).

Cooperman, Wolfe, Verbrugge, and Lee (1995) suggested that Stockholder Wealth Effects contributed to the failure. The collapse has also been linked to the high and volatile interest rates during the late 1970s and the early 1980s because it exposed thrifts to interest risk caused by a mismatch in duration and interest sensitivity of assets and liabilities (Barth et al., 1985; Brumbaugh, 1988). Brumbaugh, Carron, Jaffee, and Poole (1987) proposed that the phase-out and eventual elimination in the early 1980s of the Federal Reserve's Regulation Q caused increasing costs of thrift liabilities relative to many fixed-rate assets and adversely affected industry profitability and capital. Also, delays in funding the thrift insurance fund during the 1980s and the RTC during the 1990s led to regulators failing to close many insolvent institutions promptly.

The deregulation of the S & L industry was meant to help, but this caused thrifts to accept greater financial risk. Deregulation allowed the institutions to take up the business of land acquisition, development, and construction loans. The S&L industry was created to invest in home mortgages, but deregulation shifted to other types of investments that offered high interest returns but also exposed S&Ls to greater investment risks (Balderston, 1986; Goldwasser, 1990; Kenton, 2021). The failure was a result of deregulation, conflicting regulation, and re-regulation that led to complications in the industry (Margavio, 1993; Molloy & Primoff, 1989; Tucker & Salam, 1994; Steinreich, 2014). Others have cited assertations of fraud to have caused the S&L collapse (Kenton, 2021; Pizzo, Fricker, & Muolo, 1989).

According to Pizzo et al. (1989), "the meltdown of the savings and loan industry was a national scandal that left virtually no player untouched or unsullied. It was above all a story of failure, failure of politicians, failure of regulators, failure of the Justice Department, and failure of federal courts."

The number of new laws and regulatory changes affecting Savings and Loan organizations (S&L) increased steadily in the 1980s. According to Cahan and Johnson (1993), RAP contained four controversial methods. First, under the RAP issued in 1981, the Federal Home Loan Bank Board (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. The second method issued by the FHLBB allowed S&Ls to include the difference between the fair market value and the book value of certain assets in net worth. This was a one-time election. 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. The third controversial method was named the German Depository Institutions Act of 1982. The act allowed troubled S&Ls to issue net worth certificates (NWCs) to FSLIC. The FSLIC would, in turn, issue a promissory note to the S&L. The NWCs were redeemed as 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 the net worth. Finally, the fourth method allowed subordinated debentures issued by the S&Ls to be included in RAP net worth. 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. Cahan and Johnson (1993) cited all four of the methods afforded by RAP, as reasons for the S&L crisis. In 1981, the FHLB introduced the RAP-563c.14 (RAP). This new regulatory accounting procedure allowed an election for S&L with fiscal years ending on or after September 30, 1981. This election permits an S&L to defer loan gains and losses. In this election, loan losses could be reported as assets rather than being recognized as an immediate reduction in income. This "asset" could be included in net worth calculations to determine the financial well-being of an S&L. The FHLBB enacted RAP-563c.14, assuming that many S&Ls would be reluctant to sell certain low-yielding long-term assets at a discount because recognition of losses could severely hurt the current period's net income and net worth (United States

League of Savings Institutions, 1989, p. 3120). Much has been written in the financial press, suggesting that this procedure, which constitutes a departure from generally accepted accounting principles (GAAP), could distort the financial reporting of S&Ls (Arnold, 1988; Benston, 1985; Brumbaugh et al., 1987; Brumbaugh, 1988; Hill & Ingram, 1989). According to the United States League of Savings Institutions (USLSI), "This departure from GAAP was authorized to induce S&Ls to sell low-yielding long-term assets" (USLSI 1989, p. 3120).

This study aims to determine the effects of RAP on the S&L industry. This study explores the extent to which this regulatory procedure was used, the nature of the associated economic benefits, and its impact on key regulatory calculations. The next section describes the S&L operational environment and mechanics of deferred loss/gain recognition. The third section sets forth the three research questions used to guide this study. The fourth section describes the sample data and the methodology employed to answer the research questions. Section five contains the findings, and Section six provides a discussion of the results.

## LITERATURE REVIEW

S&Ls functioned across state boundaries and provided a wide spectrum of loan services. Although the industry began by providing financing for residential dwellings, S&Ls also provided financing for automobile purchases, mobile home purchases, and real estate development. The financial state of many S&Ls in the 1980s indicates that the industry did not perform well. Rising interest rates in the early 1980s contributed to increased risk in the S&L operating environment. In addition, improper S&L management also contributed to poor performance in the industry.

At the end of the second quarter of 1989, 401 thrifts were insolvent under GAAP (Klaeser, 1989). Congress responded to this situation by passing legislation such as the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA). FIRREA requires S&L to have tangible capital equal to 1.5 percent of physical assets as of August 1, 1989, and 3 percent by the end of 1994.

### RAP Transition

During the 1980s, the S&L industry transitioned between RAP and GAAP. The Competitive Equality Banking Act of 1987 (CEBA) requires S&Ls to file financial reports on a GAAP basis (Competitive Equality Banking Act of 1987). However, the FHLBB has allowed a phase-in CEBA requirement. The transition was completed in 1989 for unconsolidated reporting; consolidated reporting was completed in 1990. Effective January 1, 1989, S&Ls that used the RAP to report financial conditions were allowed to accumulate deferred loan losses for hedging operations. The FHLBB issued instructions permitting S&Ls to write off deferred losses to retained earnings in 1989 or to continue to amortize losses over the statutory period.

### Deferred Loss/Gain Recognition

Deferred loan losses arise when an organization disposes of loans with interest rates below the current market rates. To sell a loan under these conditions, it must be discounted from the book value to obtain the desired market yield. Deferred loan gains result from the sale of loans with a higher interest rate than the current market rates. To sell a loan under these conditions, a premium is attached to its book value to obtain the desired market yield. The results of a deferred loan loss/gain transaction may be amortized using the straight-line or level-yield method. The amortization period does not exceed the average term to the maturity of the disposed assets.

The income tax effects of deferred loss or gain, determined per GAAP, must be netted against the deferred amount. Determining the income tax effects of a deferred loss can be extremely complex. Under RAP, only probable income tax benefits should be netted against deferred amounts. Under GAAP, the estimated income tax benefits of net operating loss (NOL) carryforwards are generally not recognized. Therefore, estimated income tax benefits should not be netted against deferred losses when the deferred loss is a component of an NOL carry-forward unless such benefits are recorded under GAAP (USLSI, 1989, p. 2676).

### RAP Abuses

RAP-563c.14 was not applied as intended by the FHLBB. The FHLBB Alert Bulletin No. 50 highlights several alleged cases of abuse, such as attempts to recognize short-term profits through the mismatch of discount accretion and loss amortization. The Bulletin states: This type of transaction serves to hinder, rather than help improve,

the economic substance of an institution's asset and liability structure. The Board did not envision that this type of activity would become a widespread management tool and, accordingly, is disturbed by what can be a very dangerous, unsafe, and unsound activity (USLSI 1989, p. 3121). The manner in which S&L institutions technically followed regulations, but not the spirit of the regulations is referred to as regulatory arbitrage (Friedrich & Thiemann, 2021). Regulatory arbitrage has been studied in many different fields, specifically in the fields of accounting (Dye et al., 2015) and tax (Avi-Yonah, 2017). In many instances, regulatory bodies have to update laws or regulations to deal with regulatory arbitrage. For example, in the accounting sector, the FASB has recently implemented ASC 842 which focuses on lease accounting. This standard was necessary as entities were not following the spirit of previous guidance which resulted in operating leases being left off the balance sheet.

Entities not following the spirit of regulations have caused issues worldwide in many different periods. When examining the previous literature, very few studies have examined the effects of regulatory arbitrage on the S&L crisis. Therefore, this study looks to explore the S&L crisis through this lens. Further, this study expounds on the literature by examining how these decisions directly affected the financials of S&L institutions.

## MATERIALS AND METHODS

Three research questions were used to guide the exploration of RAP. Because RAP is elective, this study investigated the frequency of its use. The first question requires an exploration of S&L characteristics that permit generalizations about RAP adoption. The results of this research question will assist in understanding whether S&Ls selectively adopted RAP. Selectively adopting RAP could be considered a form of regulatory arbitrage.

**Research Question One:** How often was RAP adopted, and did the organizational type of the S&L entity affect this decision?

The second research question explored the possible motives for choosing between RAP and GAAP. This question was constructed based on the premise that S&L management would choose between GAAP or RAP based on economic benefits, such as reduced tax payments or increased cash flows, and, accordingly, ask if there was an economic benefit associated with choosing RAP.

**Research Question Two:** Did S&Ls that adopted RAP obtain beneficial economic results?

The third research question explores the effect of RAP on net worth calculations. By exploring the effect of RAP on Regulatory Net Worth (RNW), the study will be able to examine whether the S&Ls that adopted RAP were influenced by the ability to increase RNW. Each of these research questions assists in understanding whether RAP was adopted by S&Ls to influence the financial appearance of their institutions.

**Research Question Three:** What was the effect of RAP on Regulatory Net Worth (RNW) determination?

### Sample

The sample consisted of all S&L in operation in the state of Mississippi at the end of 1988. A list of these S&Ls is contained in Appendix A. Primary data sources are as follows:

(1) Federal Home Loan Bank Board Quarterly Financial Report (FHLBB Form 1313).
(2) Sheshunoff Savings & Loan Associations of Mississippi.
(3) US League of Savings Institutions.

The sample included 17 mutual and 25 stock organizations.

### Question One

To answer question one, financial data from 1981 through 1988 were considered to determine the adoption levels of RAP and the organizational form and income levels of S&Ls. An S&L was determined to have been using RAP in the presence of deferred gains or losses on the FHLBB Form 1313. To facilitate the use of statistical tools, the findings were coded as follows:

A) RAP choice: 0 = GAAP 1 = RAP.
B) Organizational form: 0 = Stock, 1 = Mutual.
C) 1981 and 1982 income: 0 = income in either period; 1 = loss in both periods.
D) Regulatory Net Worth at the end of 1983: 0 = RNW greater than three percent, 1 = RNW less than three percent. Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA). FIRREA requires an

S&L to have tangible capital equal to 1.5 percent of physical assets as of August 1, 1989, and three percent by the end of 1994.

A stepwise logistic multiple regression was performed between the dependent variable (DV), RAP adoption, and three independent variables (IVs): organizational form, 1981/1982 income, and 1983 RNW. This regression technique was used to determine the order in which the variables were entered into the regression equation. Standard regression and correlation analyses were employed as follow-up procedures to measure the impact of all variables in the equation and their associated correlations. The IVs were chosen based on the following rationale:

The preliminary analysis of organizational form indicated that mutual S&Ls had a higher adoption rate than stock organizations

**1981/1982 income**

The presence of two consecutive years of loss was hypothesized to put S&L management under sufficient pressure to choose an accounting method that could increase the future period's reported net income.

**1983 Regulatory Net Worth**

RNW measures the financial health of an organization and is hypothesized to contribute to the adoption of RAP if RNW is less than the statutory three percent. See the Financial Institutions Reform, Recovery, and Enforcement Act of 1989 (FIRREA).

**Questions Two and Three**

To answer research questions two and three, S&Ls with deferred losses or gains were further analyzed by creating a balance sheet and income statement for the period 1983-1988. This period was chosen based on a preliminary review of the data, which indicated that most of the sample adopted RAP after 1983. This period also allowed some measure of consistency between the periods studied due to an FHLB-mandated transition of reporting from a fiscal year basis to a calendar year basis in 1984.

Original data from FHLBB form 1313 were restated by removing the effects of deferred losses/gains from 1984 to 1985 and creating "revised financial statements". Beginning in 1984, deferred items (gains/losses) were recognized during the period in which they occurred. Income before taxes is computed. The hypothetical tax liability was calculated, and net income was determined for S&Ls that had a profit. If an S&L experienced a loss, it was carried forward as an NOL carryforward. The net income or loss was then closed to the retained earnings. The decision to carry forward all losses was based on a preliminary analysis of 1981 and 1982 earnings, which indicated that twenty-seven (64 percent) S&Ls had losses for both periods. The analysis also indicated that twenty-four (89 percent) of the S&Ls that had losses in 1981 and 1982 became RAP adopters. The recurrent loss condition of S&Ls reduced the likelihood that any loss could be used to offset prior period earnings and tax payments. The use of NOL carry-forwards also simplifies the calculation of hypothetical tax liability.

To accurately measure the economic impact of RAP on taxes in 1983, accrued and deferred tax balances were carried forward into 1988. Hypothetical out-of-pocket cash flows from 1984 to 1988 were calculated. The original out-ofpocket cash flow due to taxes was determined by performing detailed reconciliations of retained earnings, accrued taxes, deferred taxes, deferred losses, and amortization of deferred loss accounts. These reconciliations provided essential information on prior period adjustments to retained earnings and deferred loss activities. The hypothetical tax cash outflows were then compared to the original tax cash outflows to determine the economic consequences of adopting RAP. Hypothetical tax expense was calculated using the ratio of original current period gross income to original tax expense and applying this ratio to restated income before taxes. Retained earnings were adjusted to reflect the current period's income/loss and any previously identified prior period adjustments.

**RESULTS**

Table 1. Analysis of RAP Adoption (Based on Organizational Form for 1988 Year-End)

| **Organizational Form** | **Total # / %** | **Deferred Loss #** | **Deferred Gain #** |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Mutual | 17 40% | 12 | 0 |
| Stock | 25 / 60% | 6 | 1 |
| Total | 42 / 100% | 18 / 43% | 1 / 2% |

RAP was adopted by forty-five percent of the S&Ls studied. Table 1 shows the usage levels of 40% for mutual S&Ls and 60% for stock S&Ls. There is a significant difference in the number of deferred losses accumulated by stock and mutual organizations.

Table 2. Analysis of Deferred Losses/Gains (Based on Organizational Form for 1988 Year-End, Amount in Thousands)

| **Organizational Form** | **Deferred Loss** | | | **Deferred Gain** | |
|---|---|---|---|---|---|
| | **Number** | **Amount** | **%** | **Number** | **Amount** |
| **Mutual** | 12 | $60,896 | 92% | 0 | 0 |
| **Stock** | 6 | $5,341 | 8% | 1 | $109 |
| **Total** | 18 | $66,237 | 100% | 1 | $109 |

Table 2 indicates that the high incidence of RAP usage is also reflected in the large amounts of deferred losses for mutual S&Ls. Mutual S&Ls comprise 40% of the population studied, but account for 92% of all deferred losses.

Table 3. Analysis of RAP Adoption by Year

| **Year** | **1981-83** | **1984** | **1985** | **1986** | **1987** | **1988** |
|---|---|---|---|---|---|---|
| **No. S&Ls** | 8 | 7 | 3 | 3 | 0 | 0 |

Table 3 indicates that RAP was selectively adopted, with over half of the sample adopting RAP two or more years after it was allowed.

Table 4. Stepwise Regression Results with Dependent Variable – RAP Adoption

| **Source of variation** | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|
| **Organization Type** | 1.211 | 1 | 1.211 | 5.213 | .0278 |
| **Residual** | 9.289 | 40 | .232 | | |
| **R square** | .115 | | | | |

The results of the stepwise regression are presented in Table 4. The regression model had an F of 5.23 and a significance of .0278. The organization type was the first and only IV to enter into the equation. The multiple $R^2$ of .1153, although not very high, was adequate for the exploratory nature of this study. Correlations were performed to further explore the relationships between the variables.

Table 5. Correlation between RAP Adoption, Organization Type, Income, and RNW

| | **Rap** | **Organization Type** | **Income** | **RNW** |
|---|---|---|---|---|
| **Rap Adoption** | 1.000 | .340 | .249 | .105 |
| **Organization Type** | | 1.000 | .007 | -.092 |
| **Income** | | | 1.000 | .254 |
| **RNW** | | | | 1.000 |

Table 5 shows the correlations between the variables. Organization type had the highest correlation of .340, with income having the second highest of .249, and RNW the lowest with .105. There was also a negative correlation between organizational type RNW of -.092. Based on the stepwise regression results and correlations of variables, additional regressions were performed to explore the relationships between the IVs and DV, as shown in Table 6.

Table 6. Multiple Regression on RAP Adoption

| **Two-Variable variation** | **Source** | **of Sum Squares** | **of DF** | **Mean Square** | **F** | **Sig of F** |
|---|---|---|---|---|---|---|
| Organization Type / Income | | 1.846 | 2 | 0.923 | 4.160 | .023 |

| | | | | |
|---|---|---|---|---|
| Residual | 8.654 | 39 | .223 | |
| R square | .176 | | | |

| Three-Variable variation | Source | Sum of Squares | DF | Mean Square | F | Sig of F |
|---|---|---|---|---|---|---|
| Organization Type / Income / RNW | | 1.909 | 3 | 0.636 | 2.815 | .052 |
| Residual | | 8.591 | 38 | .226 | | |
| R square | | .182 | | | | |

The full model (three IVs) had an F of 2.815, a significant F of .052, and an $R^2$ of .182. The full model was reduced by removing RNW, and another regression was performed. The reduced model had an F of 4.160, a significant F of .023, and an $R^2$ of .176. The multiple $R^2$ of .182 and .176, although low, are adequate for the exploratory nature of this study and indicate that RNW is not a strong predictor of RAP adoption and that other variables could increase the predictive power associated with RAP/GAAP adoption.

Table 7. Analysis of Unsuccessful S&Ls (S&Ls with operating losses in 1981 and 1982)

| | Mutual | Stock | Total | Percent |
|---|---|---|---|---|
| **Implemented: Deferred losses** | 9 | 6 | 15 | 60 |
| **Goodwill & Intangibles** | 0 | 6 | 6 | 24 |
| **GAAP** | 2 | 2 | 4 | 16 |
| **Total** | 11 | 14 | 25 | 100% |

Table 7 shows the adoption rates of S&Ls that had losses in 1981 and 1982. Mutual organizations had 12 RAP adopters and ten (83 percent) of the adopters experienced losses in 1981 and 1982. Stock organizations had six adopters, and all six had losses in 1981 and 1982. However, despite the compelling nature of these adoption patterns, the regression results indicate that losses in 1981 and 1982 are not significant predictors of RAP adoption.

Table 8. Analysis of Out-of-Pocket Tax Cash Flows (In Thousands)

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|
| **Original** | 229 | 745 | 2,862 | 6,954 | 3,059 | 2,935 |
| **Restated** | 229 | 95 | 1,004 | 3,991 | 3,060 | 2,361 |
| **Cash Retained** | 0 | 650 | 1,858 | 2,963 | -1 | 574 |
| **Cumulative** | 0 | 650 | 2,508 | 5,471 | 5,470 | 6,044 |

The analysis of financial statement data indicates that there is no favorable economic benefit associated with RAP adoption. RAP adoption is frequently associated with a high occurrence of unfavorable cash outflow. Detailed reconciliations indicated that, in all cases, the current period taxes were overstated. Table 8 presents the net effect of a restatement on taxes. These findings are contrary to those reported by Hill and Ingram (1989) who report, "Adopters, on average, had a larger potential tax benefit that could be obtained by selling low yield loans in conjunction with closer proximities to minimum net worth requirements."(p. 676). These conflicting results can be partially explained by the nature of these two studies. The Hill and Ingram (1989) study analyzed taxes paid over a ten-year period prior to 1981, and this study analyzed tax implications from 1983 forward.

The out-of-pocket tax costs and the amount of cash retained through income tax avoidance are listed in Table 8. The cash retained amounts represent the tax costs that could have been avoided if all losses were recognized in the current period. Thus, the tax consequences of RAP were detrimental to S&Ls. Organizations that adopted RAP paid more taxes, thereby reducing cash that would otherwise have been available to generate income or reduce liabilities. As Table 8 indicates, this overpayment aggregated to over six million dollars by 1988. These amounts represent approximations of the tax consequences of RAP and are provided only to indicate the magnitude of the tax over-payments associated with this sample.

Stock organizations that use RAP can also pay dividends while accumulating deferred losses. An analysis of stock S&Ls showed that two organizations paid dividends of approximately five hundred thousand dollars while

having current period operating losses and NOL carry-forwards. One of these S&Ls would now be able to meet and exceed the new capital requirements if it had retained the cash flows from the overpayment of taxes and had not paid dividends during periods of operating loss.

Table 9. Analysis of Deferred Items to Retained Earnings (In Millions)

| | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 |
|---|---|---|---|---|---|---|
| **Assets** | 2,111 | 2,401 | 2,512 | 2,778 | 2,941 | 2,600 |
| **Retained Earnings** | 68 | 85 | 106 | 129 | 130 | 119 |
| **Def Losses** | 46 | 77 | 80 | 74 | 68 | 64 |
| **Def Losses as a % of:** | | | | | | |
| **Assets** | 2.2% | 3.22% | 3.18% | 2.65% | 2.31% | 2.45% |
| **Retained Earnings** | 68.0% | 91.3% | 75.2% | 57.0% | 52.1% | 53.7% |

Application of RAP misstated RNW for the entire sample. S&Ls that deferred losses overstated RNW, and S&Ls that deferred gains understated RNW. Table 9 shows that deferred losses on the balance sheet represented 91.3 percent of retained earnings in 1984 for S&Ls that adopted RAP. Figure 1 shows the effect of removing deferred losses on retained earnings. The deferred loss activity is shown in Figure 2. Only one S&L reported a deficit on Form 1313 (original financial statement data). After restatement, eight S&Ls would have had to report a deficit on Form 1313 for 1984, and four of those eight had deficits from 1985 to 1988.

**DISCUSSION**

To begin with, this study explored how often RAP was adopted and whether or not the organizational type of the S&L entity affected this decision. Results indicate that 45% of S&Ls included in the sample adopted RAP and that organizational type was an important factor. Mutual organizations adopted RAP more often than stock organizations. This can partially be explained by the lack of monitoring by outside parties such as the SEC and stockholders. Another factor may be that mutual management had wider discretion and less accountability in adopting accounting changes than their stock counterparts. Additional analysis suggests that at least two other variables influenced the adoption of RAP. These variables, in order of importance, are poor income performance and low RNW (regulatory net worth). In totality, these results suggest that RAP was selectively adopted.

In general, S&Ls that were in weak financial condition were more likely to adopt RAP than stable institutions. This study provides evidence that suggests S&L management preferences dictated the form of financial reporting. Regression results indicate that mutual organizations that experienced successive periods of loss had a higher propensity to adopt RAP. In addition, the pattern of RAP adoption in this sample supports the contention that management selectively chose when to adopt RAP. In a study of accounting changes, Lilien, Mellman, and Pastena (1988) indicates that the "tendency of unsuccessful firms to enhance income through accounting changes is observable for both the smallest and the largest of the Fortune 500" (p. 656). Unfortunately, as discussed below, the adoption of RAP made it tougher for S&Ls to regain a strong, financial position.

The sample was further analyzed to determine possible motives for using RAP. To accomplish this objective, RAP adoption patterns of unsuccessful and successful S&Ls were compared. An S&L was classified as being unsuccessful if it had incurred operating losses in both 1981 and 1982. Table 7 shows that twenty-seven S&Ls met the unsuccessful criteria and that sixteen (59 percent) subsequently used RAP, six (24 percent) had goodwill and other intangible assets on the balance sheets that made the determination of RAP usage difficult and five (19 percent) did not use RAP in future periods. The mutual organizations had a total of 17 RAP adopters with ten (59 percent) classified as unsuccessful. Stock organizations had six RAP adopters and all six were classified as unsuccessful. The results support Lilien et al.'s, (1988) findings that unsuccessful firms are more likely to choose accounting methods that tend to increase income.

The next question in our paper explored whether S&Ls that adopted RAP were able to obtain beneficial economic results. The economic benefits of RAP were illusory. RAP had associated higher cash out-flows because of higher tax expenses and dividend payments. S&Ls facing a capital shortage, or a liquidity problem compounded their problems by adopting RAP. Finally, this study examined how RAP affected RNW. Results indicate RAP resulted

in misstatements of RNW based on whether an S&L had deferred gains or deferred losses. Altogether, for those S&Ls that adopted RAP, their RNW was overstated.

Considering the discussion above, it should be noted that this study does have limitations. To begin, the sample of this study was S&L institutions in the state of Mississippi as of 1988. Although it is believed this sample is representative of all S&L institutions in the United States, it is possible regional differences could exist. For example, an S&L institution in California could have different characteristics than those in Mississippi. Another limitation exists related to the models presented for RAP adoption as these models only explain approximately 18% of the variance between those S&L institutions that adopted RAP. Therefore, it appears other variables influenced the decision of whether or not to adopt RAP. Exploring the remaining factors related to RAP adoption could be an opportunity for future research. Finally, as this study is focused on the S&L crisis that occurred during the 1980s and 1990s, researchers should exercise caution when extrapolating the results to today's banking environment.

## CONCLUSIONS

Regulatory accounting principles were originally intended to assist struggling S&Ls in meeting the FHLBB's capital requirements. Although the goal of RAP appeared virtuous, the results of these accounting principles were disastrous. This is evident as over 1,000 S&L associations failed between 1986 and 1995. This statistic is especially troubling as the overall economic climate for S&Ls improved during this time. The goal of this study was to examine how these RAPs explicitly impacted the S&L crisis.

RAP appears to have been a politically motivated and self-serving form of accounting procedure that masked the difficulties S&Ls were encountering. The use of RAP also increased the difficulty of evaluating an S&L and determining if an S&L was a victim of an unfavorable business cycle or was poorly managed. The amounts of the cash out-flows associated with RAP for each S&L studied were not material in comparison to total tangible assets. The cash out-flows, however, increase in importance when an S&L cannot meet prescribed net worth guidelines. For S&Ls struggling to meet more stringent capital requirements, RAP may have contributed to their capital scarcity.

The misuse of RAP and the subsequent S&L crisis resulted in major social implications. To begin, the Financial Institutions Reform, Recovery, and Enforcement Act became law in 1989. This law eliminated both the Federal Home Loan Bank Board (FHLBB) and the Federal Savings and Loan Insurance Corporation (FSLIC). Further, the implementation of this law held S&Ls to stricter capital requirements and limited the number of residential home loans these entities could invest in. The crisis also cost taxpayers in the United States over 100 billion dollars (Curry & Shibut, 2000). In summary, the actions of S&Ls in the 1980s were detrimental not only because of the enormous cost to taxpayers, but the crisis also made it harder for individuals to obtain home ownership.

This study also was one of the first to examine the S&L crisis through the lens of regulatory arbitrage. As such, it adds another data point to the negative outcomes related to entities following the explicit requirements of regulations, but not the spirit of the regulations. The results of this study should caution regulators that even well-intentioned regulations can have unintended consequences. The accounting industry is a prime suspect for these unintended consequences as new regulations are imposed frequently. Future research should examine any new regulations with caution and help regulatory bodies better understand all of the consequences that could be harmful to society. Future research could also explore the role regulatory arbitrage played in previous financial failures across the globe.

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