

Savings and Loan Associations: An Analysis of the Recent Decline in Profitability

By Daniel J. Vrabac

Over the past two years, the savings and loan industry has fought a losing battle with high and volatile interest rates and increased competition for deposits. In the process, the industry registered losses of over \$4.6 billion in 1981—more than 14 percent of the previous year's net worth.¹ As a result, many savings and loan associations have had to merge with another institution or seek other types of aid from federal insurance corporations.

This article examines the factors behind the sudden and rapid decline in the profitability of the savings and loan industry. The article begins with an overview of the industry in terms of its function, structure, and legal and regulatory environment. The second section analyzes the asset and liability factors that have contributed to the losses experienced by savings and loans in recent years. The final section

reviews the problems of the industry and discusses some alternatives for improvement in the profit picture.

THE SAVINGS AND LOAN INDUSTRY

Savings and loan associations as a group constitute one of the nation's most important depository institutions. As such, they help channel the nation's savings into productive investment by accepting deposits from savers and making credit available to investors. For the most part, S&L deposits are obtained from individuals, while credit extensions take the form of mortgages on private residences. S&L's are the nation's major providers of residential mortgage funds: at the end of 1981, they held 53 percent of the nation's outstanding private residential mortgage credit.²

Industry Structure

At the end of 1981, there were 3,779 federally insured S&L's with \$651 billion of assets. Most of these S&L's are small, as indicated by the fact that those with \$50 million or less in assets constitute 45 percent of all S&L's but hold only

¹ This article deals only with those associations whose deposits are insured by the Federal Savings and Loan Insurance Corporation (FSLIC). FSLIC associations accounted for more than 98 percent of all S&L assets at the end of 1980.

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² Data and descriptions in this section were obtained primarily from the *1981 Savings and Loan Sourcebook*, published by the U.S. League of Savings and Loan Associations, and the Federal Home Loan Bank Board *Journal*, various issues.

Table 1
SIZE DISTRIBUTION OF INSURED SAVINGS AND LOAN ASSOCIATIONS
1981

<u>Asset Size (Millions of Dollars)</u>	<u>Number</u>	<u>Percent of Total</u>	<u>Total Assets (Billions of Dollars)</u>	<u>Percent of Total</u>
Under 10	305	8	1.8	—
10 to 25	635	17	11.0	2
25 to 50	757	20	27.7	4
50 to 100	820	22	59.0	9
100 to 250	740	19	115.6	18
Over 250	529	14	435.9	67
All savings and loan associations	3,779	100	651.0	100

SOURCE: Federal Home Loan Bank Board.

6 percent of industry assets. Conversely, associations with \$250 million or more in assets constitute only 14 percent of all S&L's but hold 67 percent of industry assets (Table 1).

S&L's have two distinct forms of ownership. One is the mutual organization in which depositors are owners and are entitled to vote on association affairs. Mutuals represented 79 percent of all S&L's and held 71 percent of S&L assets at the end of 1981. The other form of ownership is the stock organization, which issues shares of capital stock that can be bought and sold in the marketplace. Shareholders have voting rights and may also receive dividends. At the end of 1981, stock associations accounted for 21 percent of all S&L's and held 29 percent of all assets. The stock form of organization was limited to state-chartered associations until late 1973 when the Federal Home Loan Bank Board (FHLBB) began authorizing conversion of federally chartered mutual S&L's to stock form.³

Legal and Regulatory Environment

Savings and loan associations may be chartered on either the federal or the state level.

Federally chartered S&L's are regulated by the Federal Home Loan Bank System and, to a lesser extent, by the Federal Reserve System under the Monetary Control Act of 1980. All federally chartered associations are required by law to have their savings deposits insured by the Federal Savings and Loan Insurance Corporation (FSLIC)—the savings and loan industry counterpart to the banking system's Federal Deposit Insurance Corporation (FDIC). State-chartered associations are monitored by the respective state banking or savings and loan regulatory department. Most state-chartered associations are insured by the FSLIC, although insurance is not legally required.

The legal and regulatory environment has helped the savings and loan industry become the nation's predominant private mortgage

³ In addition, the FHLBB recently approved several amendments to its conversion rule that make it easier and less costly for S&L's to switch to stock form, e.g., increasing the maximum percentage of stock which could be held by an individual, and increasing the time period from 45 days to two years in which an S&L must begin its stock subscription offering once a conversion is approved. See Lisa J. McCue, "S&L's Get Help on Switching to Stock Form," *American Banker*, April 29, 1982.

lender. This has been accomplished in part by providing S&L's a tax incentive for investing in mortgage loans.⁴ In order to obtain tax reductions, though, S&L's must maintain a very high proportion of total assets in mortgages. The funds for mortgage lending come from deposit accounts on which S&L's are allowed in some cases to pay higher rates than competing "full service" depository institutions.⁵ The rates paid on deposits—with some exceptions—are subject to ceilings set by federal regulatory authorities.⁶

Since 1980, S&L's have been placed under the regulatory arm of the Depository Institutions Deregulation Committee (DIDC) set up by the Monetary Control Act. The DIDC is responsible for determining what ceiling rates can be paid on the various types of deposit accounts.⁷ The Monetary Control Act reduces the tax disincentive for S&L's to hold non-mortgage assets and permits the nationwide use of NOW accounts. S&L's which do offer NOW accounts or other reservable liabilities are required to hold reserves at a Federal Reserve Bank.

Industry Growth and Change

The S&L industry has grown considerably in the past decade. At the same time, changes have

⁴ For a discussion of the evolution of the tax incentive to invest in mortgages, see Kenneth R. Biederman and John A. Tuccillo, *Taxation and Regulation of the Savings and Loan Industry*, Lexington, Mass.: D.C. Heath and Co., 1976, pp. 5-8.

⁵ The rationale behind the necessity of the savings and loan differential is explained in Biederman and Tuccillo, pp. 49-51.

⁶ The exceptions are large certificates of deposit, 18-month or longer IRA's, and the new 3½-year or longer ceiling free deposits.

⁷ Although a differential exists on the rates paid on certain deposits by S&L's, the DIDC, under the authority of the Monetary Control Act, has established a schedule of interest ceilings on all time and savings accounts that applies to all depository institutions and will gradually be phased out by 1986.

occurred in the composition of S&L assets and liabilities. Total assets increased over the past 10 years at an annual rate of 12.6 percent, as assets rose from \$200 billion at the end of 1971 to \$651 billion at the end of 1981 (Chart 1). During the same period, mortgage loans and securities backed by mortgages increased at an annual rate of 12.4 percent, and savings deposits rose at a rate of 11.9 percent. Total assets and mortgage loans and securities, as well as total deposits, rose less rapidly in the last half of the 1970s than in the first half.

The relative importance in S&L asset portfolios of mortgage-related loans and securities has declined in recent years, although the great majority of S&L assets continues to consist of mortgage-related assets. Mortgages and securities backed by mortgages accounted for 83 percent of total S&L assets at the end of 1981, compared with 85 percent in 1971 (Table 2). S&L holdings of mortgage-backed securities have grown rapidly, increasing as a percentage of total assets from less than 1 percent in 1971 to 5 percent in 1981. The importance of other loans, mainly consumer loans, has also increased and in 1981 accounted for 2.8 percent of the total, compared with 1.4 percent in 1971.

On the liability side, deposits make up by far the largest portion, although the relative importance of deposits has declined in recent years. Deposits accounted for 79 percent of total liabilities and net worth in 1981, down from 85 percent in 1971. Borrowings—mainly from Federal Home Loan Banks—have increased in importance, totaling 13 percent of total liabilities and net worth in 1981, up sharply from 5 percent in 1971. Net worth—equity capital and retained earnings—declined from 6.5 percent of total liabilities and net worth in 1971 to 4.3 percent in 1981; nearly half of that decline was in 1981 alone. Apart from changes in invested capital, changes in net worth reflect changes in after-tax profits. The rapid decline

Table 2
PERCENTAGE DISTRIBUTION OF ASSETS AND LIABILITIES
OF INSURED SAVINGS AND LOAN ASSOCIATIONS

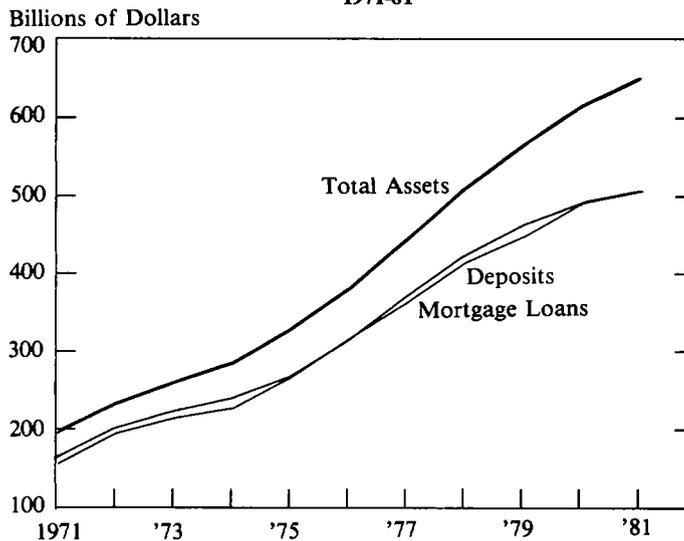
1971, 1976, 1981

	<u>1971</u>	<u>1976</u>	<u>1981</u>
Mortgage Loans	84.9	82.6	78.3
Cash and Investments	10.9	9.8	10.2
Mortgage-Backed Securities	0.0	2.7	5.0
Other Loans	1.4	2.1	2.9
Real Estate Owned	0.4	0.5	0.5
Other Assets	2.4	2.3	3.1
Total Assets	100.0	100.0	100.0
Deposits	84.6	85.6	78.7
Borrowings	4.5	5.0	13.6
Loans in Process	2.5	1.8	1.0
Other Liabilities	1.9	2.0	2.4
Total Liabilities	93.5	94.4	95.7
Net Worth	6.5	5.8	4.3
Total Liabilities and Net Worth	100.0	100.0	100.0
Number of Institutions	4,271	4,044	3,779

SOURCE: Federal Home Loan Bank Board.

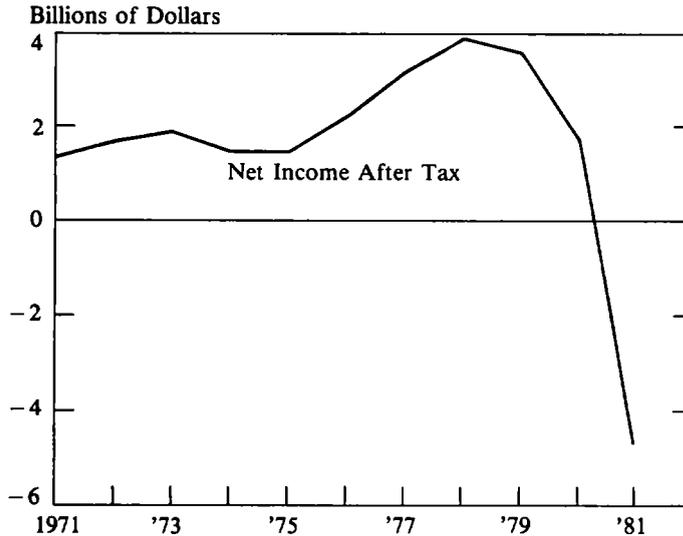
Chart 1
ASSETS, MORTGAGE LOANS, AND DEPOSITS
OF INSURED SAVINGS AND LOAN ASSOCIATIONS

1971-81



SOURCE: Federal Home Loan Bank Board.

Chart 2
AFTER-TAX INCOME OF
INSURED SAVINGS AND LOAN ASSOCIATIONS
1971-81



SOURCE: Federal Home Loan Bank Board.

in S&L profits in the last few years has led to a number of failures and subsequent mergers with other institutions. The number of S&L's declined by 5.1 percent from 1971 to 1978, but fell another 6.6 percent from 1978 to 1981. The interpretation, causes, and implications of the erosion in S&L profits are discussed in the following section.

THE PROFITABILITY OF SAVINGS AND LOAN ASSOCIATIONS

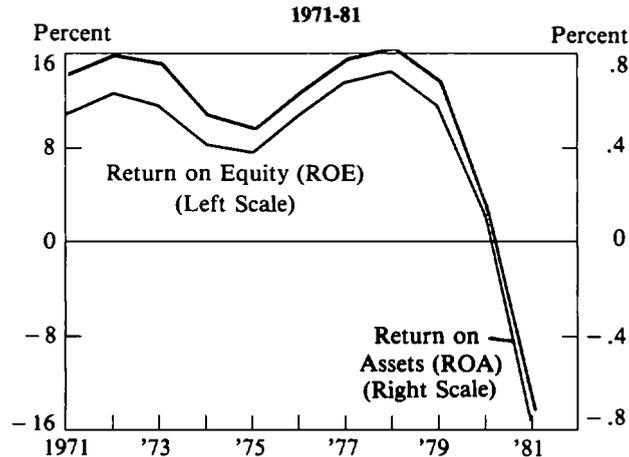
After-tax profits at savings and loan associations rose during most of the 1970s and achieved a record level of \$3.9 billion in 1978. Profits turned sharply downward thereafter—by 1980, profits had fallen below their 1971 level. In 1981, the industry suffered losses of over \$4.6 billion—an amount greater than any prior year's gain (see Chart 2).

In analyzing the profitability of financial institutions, it is useful to focus on profits relative

to equity or assets. Two commonly used measures of profitability are the ratio of after-tax profits to equity—the return on equity, ROE—and the ratio of after-tax profits to total assets—the return on assets, or ROA. Arithmetically, ROA is a determinant of ROE, in that profit per dollar of equity (ROE) equals profit per dollar of assets (ROA) multiplied times assets per dollar of equity, or the leverage ratio.⁸ In practice, ROE and ROA move together, as shown in Chart 3 for the 1971-81 period. The leverage ratio measures the extent that assets are financed by nonequity sources and influences the degree of change in ROE rather than the direction of change. An increase in the leverage ratio enhances ROE when ROA is positive, but has a negative impact on ROE when ROA is negative.

⁸ In other words, $ROE = ROA \times LR = \text{after-tax profits, } P, \text{ divided by total assets, } A, \text{ times total assets divided by}$

Chart 3
RETURN ON ASSETS AND RETURN ON EQUITY
OF INSURED SAVINGS AND LOAN ASSOCIATIONS



SOURCE: Federal Home Loan Bank Board.

NOTE: ROA is equal to net after-tax income divided by average total assets.
 ROE is equal to net after-tax income divided by average equity.
 All averages are 13-month averages, December to December.

The remainder of this section focuses on an analysis during the 1971-81 period of the behavior of ROA. As shown in Chart 3, ROA fluctuated between 0.5 and 0.8 percent during most of the period, but plunged in 1980 and 1981, falling to a negative 0.7 percent by 1981. To facilitate the analysis, ROA is broken down into two ratios: the gross return on assets (the ratio of total revenues to total assets) and the expense ratio (the ratio of total expenses to

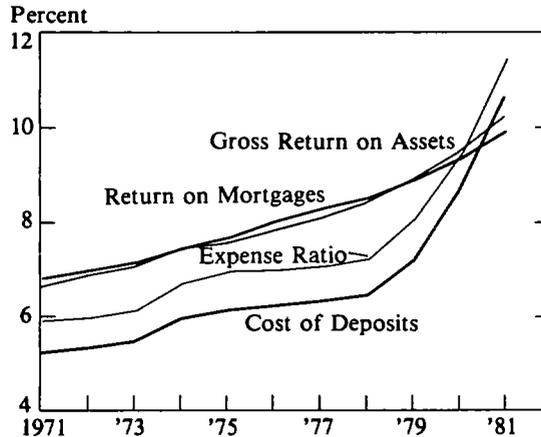
total assets). Arithmetically, ROA is equal to the gross return on assets minus the expense ratio.

Profitability—The Asset Factors

The gross return on assets depends on the return on each type of asset in S&L portfolios and the relative importance of the different types. As pointed out in the previous section, the importance of nonmortgage loans has increased in recent years. Thus, the return on these loans has had an increasingly larger impact on the gross return on assets at S&L's. Also, while the importance of investments has not increased, the return on investments has risen sharply, reflecting the rise in market interest rates. This has enlarged the impact of the investment portfolio on the gross return on assets. Nevertheless, while the impact of both nonmortgage loans and investments has increased, the gross return on assets continues to

equity, E , or $\frac{P}{A} \times \frac{A}{E}$. Some observers believe that there may be difficulty in using the ROE for savings and loan associations due to the predominance of the mutual form of organization. The equity portion of ROE for most businesses includes retained earnings and capital stock that has been previously issued and purchased by investors and that can be traded in the marketplace. The equity, or net worth, in a mutual organization comes solely from earnings retained in the association, because the owners are depositors and not shareholders.

Chart 4
GROSS RETURN ON ASSETS, EXPENSE RATIO, AND RELATED
MEASURES OF INSURED SAVINGS AND LOAN ASSOCIATIONS
1971-81



SOURCE: Federal Home Loan Bank Board.

NOTE: The gross return on assets is the sum of interest earned on mortgages, interest earned on all other earning assets, and noninterest operating income, divided by average total assets.

The return on mortgages is the interest earned on mortgages divided by average mortgages outstanding.

The expense ratio is the sum of the interest cost of deposits, the interest cost of borrowing, and noninterest operating expenses, divided by average total assets.

The cost of deposits is the interest paid on deposits divided by average deposits.

All averages are 13-month averages, December to December.

be dominated by the return on S&L mortgage portfolios (ROM) because of the continued predominance of mortgages in asset portfolios. For this reason, the trend in the gross return on assets follows very closely the trend in ROM (Chart 4).

The ROM during any period depends on the return on older mortgages in the portfolio as well as the return on new mortgages, RNM, closed during the period. ROM depends also on the turnover rate of mortgages, since the lower the turnover of older loans (sales, maturities, and prepayments as a percentage of loans outstanding), the greater the impact of the return on older mortgages and the less the impact of the return on new mortgages.⁹ Because the turnover rate on mortgages is low, ROM is not very responsive, on a year-to-year basis, to

changes in RNM. For example, in 1980, 67 percent of S&L mortgage portfolios had a return of 10 percent or less, compared with a return on new loans of 12.5 percent. In addition, 79 percent of these low-return mortgages had at least 20 years remaining until maturity.¹⁰ Thus,

⁹ The turnover ratio had averaged 14.6 percent of the average mortgage portfolio in the 1971-81 period, reaching a peak in 1977 of 18 percent. Turnover declined thereafter, dropping to 9.4 percent in 1981.

¹⁰ Although the term to maturity on these mortgages is 20 years or longer, mortgages on average remain on the books a much shorter time because of prepayments and sales. However, during periods of rising interest rates, early principal repayments decline, and the average length of time that outstanding mortgages remain on the books increases. From the *Report of the Task Force on Savings and Loan Portfolio Profitability*, July 1981, Table II-1, a report prepared for the Board of Directors of the Federal Home Loan Bank of Little Rock and the Federal Home Loan Bank Board.

short-run movements in ROM depend mainly on the return on old mortgages.

The low turnover rate on mortgages reflects the long maturity and fixed-rate features of mortgage loan contracts. Although variable-rate and variable-term mortgages constitute nearly half of newly issued mortgage loans, they have not yet become a significant part of S&L mortgage portfolios. As a result, fixed-rate, long-term contracts remain by far the largest portion of mortgages in S&L portfolios.

While shorter run changes in the return on new mortgages have little effect on ROM, long-run movements in RNM do greatly affect ROM. Thus, ROM trended upward during the 1971-81 period, reflecting the upward trend in RNM (Chart 5). Due to the low turnover rate, though, movements in ROM lagged movements in RNM, so that ROM remained below RNM. Moreover, the gap between ROM and RNM has increased since 1978, due to two factors: the sharp rise in RNM and the slowdown in the turnover rate of mortgages, which reflects a decline in the gross amount of new mortgage loans closed. At the end of 1981, the gap between ROM and RNM was more than 4.5 percentage points.

The return on new mortgages depends, of course, on the market interest rate on new mortgage loans. Thus, the upward trend of RNM between 1971 and 1981 and its sharp rise since 1978 reflect similar movements in the

market interest rate on new mortgage loans (Chart 5). However, the spread between RNM and the market rate on new mortgages has widened considerably in the past few years, due in part to the increased use of "blends."¹¹ A blend is issued by an S&L to the new buyer of a home on which the S&L holds an assumable mortgage. The borrower is given a blended rate; that is, on the existing loan amount, the original rate remains, but on any additional funds, the borrower must pay a higher rate.

Blends have enabled S&L's to close new loans and remove some older, lower-yielding mortgages from the books, and also to compete with the creative financing techniques which avoid S&L involvement. The rate on a blended loan, however, is below the current market rate on a new loan and therefore widens the gap between RNM and the current market rate. By 1981, the various factors influencing RNM have resulted in a gap of 2 percentage points.

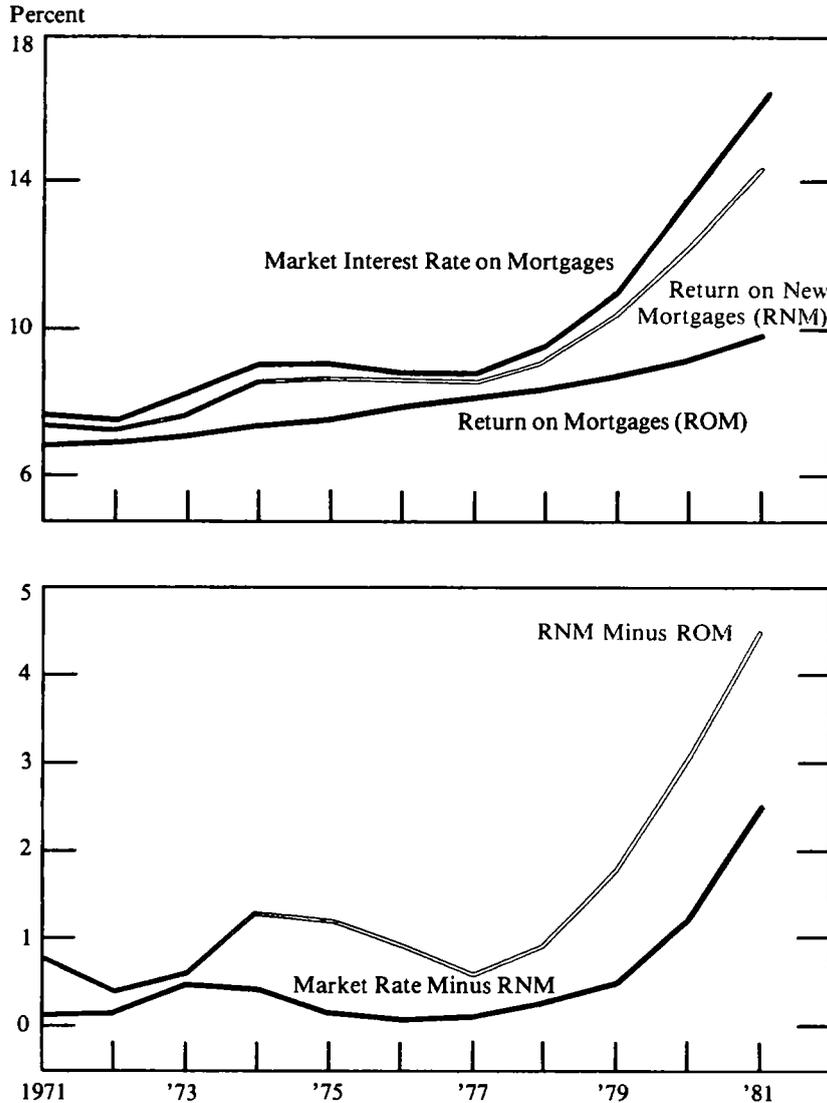
In summary, the return on S&L mortgage portfolios—and therefore the gross return on assets—has increased in recent years. However, due to the sharp rise in the market interest rate on mortgages, a decline in the turnover rate on mortgages, and other factors, ROM has not kept pace with the rise in the market rate on new mortgage loans. By 1981, the spread between the market interest rate on mortgages and the return on S&L mortgage portfolios had reached 6.7 percentage points, compared with an average of 1 percentage point in the 1971-78 period. As will be discussed later, this was a major factor contributing to the losses experienced by the industry.

Profitability—The Liability Factors

For S&L's, the second constituent ratio of ROA—the ratio of expenses to assets—depends mainly on the interest cost of deposits and borrowings rather than on noninterest operating expenses. The cost of borrowed funds has in re-

¹¹ Other factors have also influenced this spread. The increased use of variable-rate and variable-term mortgages has widened the spread because these types of mortgages have initial contract interest rates that are below new conventional fixed-rate loans. In addition, the prolific issuance of mortgage revenue bonds by states and municipalities to provide funds to borrowers for housing at rates well below market rates has widened the spread, because some of these loans are counted as new loans closed on S&L books. For additional discussion on types of blends and creative financing techniques, see John N. Frank, "Creative Financing: Time Bomb With a Short Fuse," *Savings and Loan News*, January 1982.

Chart 5
RETURN ON MORTGAGES AND RELATED MEASURES
OF INSURED SAVINGS AND LOAN ASSOCIATIONS
1971-81



SOURCE: Board of Governors of the Federal Reserve System and Federal Home Loan Bank Board.

NOTE: The market interest rate on mortgages is the average rate on new commitments for conventional first mortgages on new homes.

The return on new mortgages is the contract interest rate on all mortgage loans closed.

The return on mortgages is the interest earned on mortgages divided by average mortgages outstanding.

cent years had an increasingly larger impact on the expense ratio, as S&L's have increased their borrowings in response to a slowdown in deposit growth. Nevertheless, interest paid on deposits continues to account for most expenses. Thus, just as the gross return on assets follows closely movements in the return on mortgages, movements in the expense ratio closely parallel movements in the average cost of deposits (Chart 4).

The cost of deposits at S&L's depends on the relative importance of different types of deposits in the deposit structure and the cost of the various types. The latter, in turn, depends on the behavior of short-term market interest rates, along with interest rate ceilings that prevent S&L's from offering market rates on deposits.

Just as ROM has not been very responsive in the short run to changes in RNM, before 1979, the cost of deposits did not respond much to year-over-year changes in short-term interest rates. Thus, although short-term interest rates fluctuated sharply between 1971 and 1978, the cost of deposits showed relatively little year-over-year movement (Chart 6). The major reason for this unresponsiveness was the existence of ceilings on deposits that prevented S&L's from increasing their offering rates in line with market interest rates. The increases that did occur in the cost of funds prior to 1979 reflect increases in the ceiling rates on S&L deposits as well as rapid growth in small-denomination CD's having relatively high ceilings, accompanied by slow growth in passbook savings accounts, which had low ceilings. Small-denomination CD's rose from 45 percent of the total in 1971 to 58 percent in 1978, while passbook savings accounts dropped from 55 to 38 percent during the same period.

After 1978, the cost of funds at S&L's became much more responsive to movements in short-term interest rates, although in 1979 the

increase lagged somewhat behind the rise in short-term interest rates. In 1980 and 1981, however, increases in S&L cost of funds matched those of short-term interest rates. Thus, as shown in Chart 6, the gap between short-term interest rates and the cost of deposits, after rising somewhat further in 1979, remained relatively unchanged in 1980 and 1981.

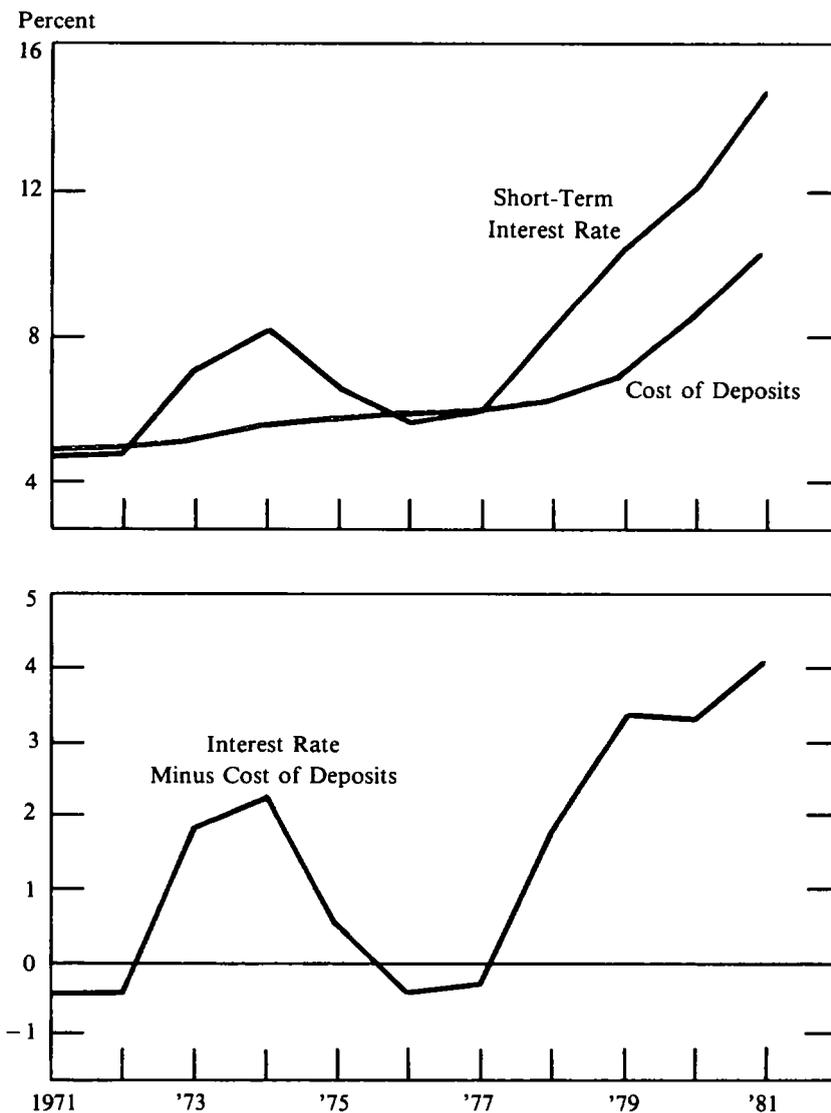
This increased responsiveness of the cost of funds to market rates, accompanied by a reduction in the stability of the sources of funds, was due to the introduction of shorter-term deposits with floating interest rate ceilings, and to the redistribution of S&L deposits away from passbook accounts and longer-term fixed-ceiling CD's into these new types of deposits. As a percentage of total deposits, passbook and fixed-ceiling certificates fell sharply after 1978, while floating rate deposits—6-month money market CD's and 2½-year certificates—increased (Chart 7). Also, large CD's—which are offered in denominations of \$100,000 or more and have no regulated rate ceilings—rose as a percentage of the total. The changing types and distribution of deposit accounts resulted in a massive shift from lower cost sources of funds (passbook deposits and fixed-ceiling certificates) to higher cost sources of funds (MMC's, 2½-year certificates, and large certificates). These higher cost sources of funds grew from 2 percent of deposits in 1978 to 64 percent at the end of 1981.

In summary, the cost of deposits for S&L's—and therefore the expense ratio—has increased sharply in recent years, due to a sharp rise in short-term interest rates and to the greater responsiveness of the cost of funds to movements in market interest rates. This rise in the cost of deposits has been a major factor contributing to S&L losses.

Profitability—Summary

As shown above, the return on assets, ROA,

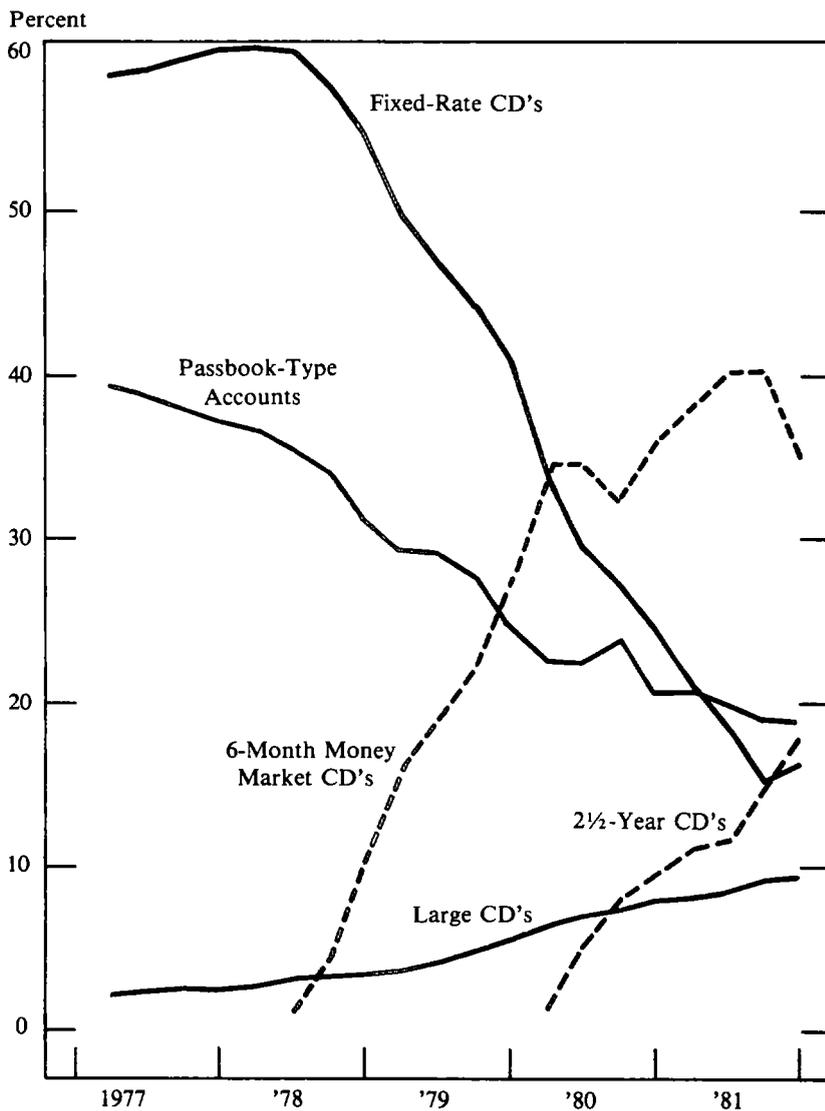
Chart 6
COST OF DEPOSITS AND RELATED MEASURES
OF INSURED SAVINGS AND LOAN ASSOCIATIONS
1971-81



SOURCE: U.S. Treasury.

NOTE: The short-term interest rate is the U.S. Treasury one-year constant maturity rate.
 The cost of deposits is the interest paid on deposits divided by average deposits.

Chart 7
DISTRIBUTION OF DEPOSITS OF
INSURED SAVINGS AND LOAN ASSOCIATIONS
1977-81



SOURCE: Federal Home Loan Bank Board.

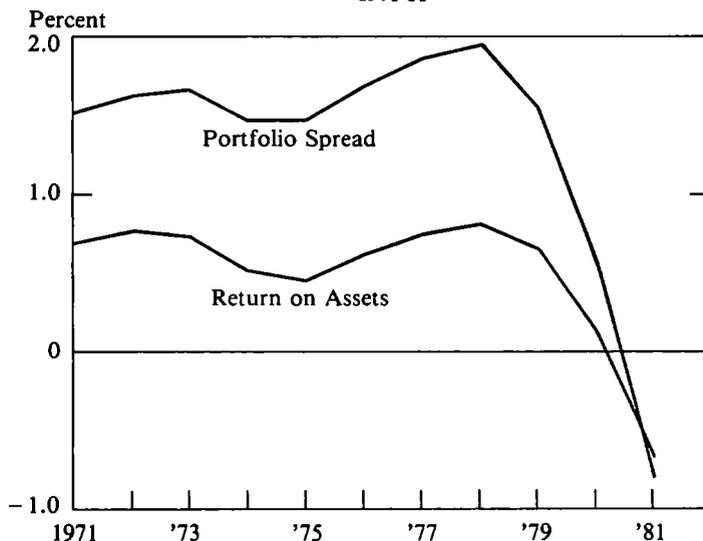
equals the gross return on assets minus the expense ratio. Also, it has been shown that, for S&L's, the gross return on assets parallels the return on mortgage portfolios, and the expense ratio parallels the cost of deposits. It follows that movements in ROA parallel movements in ROM minus the cost of deposits, which may be referred to as the portfolio spread. The general correspondence between ROA and the portfolio spread is shown in Chart 8.

The behavior of the portfolio spread—and therefore of ROA—depends on the behavior of the contract spread, which is the return on new mortgages minus the short-term interest rate, and the extent that the portfolio spread responds to changes in the contract spread. As shown in Chart 9, before 1979 the portfolio spread was not responsive, on a year-to-year basis, to fluctuations in the contract spread. This unresponsiveness reflects the fact that

ROM did not respond quickly to changes in RNM, and the cost of deposits did not respond quickly to changes in short-term interest rates. After 1978, however, movements in the portfolio spread followed more closely the sharp downward trend in the contract spread. This was due to the reduced responsiveness of ROM to RNM and to the greater responsiveness of the cost of funds to short-term interest rates.

The contract spread depends on the behavior of the market spread—the average rate on new commitments for conventional first mortgages on new homes minus the short-term rate of interest—and on the extent that the contract spread responds to movements in the market spread. Before 1980, the contract spread followed very closely changes in the market spread (Chart 9). In 1980 and 1981, however, the contract spread continued in a downward trend, while the market spread rose rather

Chart 8
THE RETURN ON ASSETS (ROA) AND THE PORTFOLIO SPREAD
OF INSURED SAVINGS AND LOAN ASSOCIATIONS
 1971-81



NOTE: The portfolio spread is the return on mortgages minus the cost of deposits.
 Return on assets is net after-tax income divided by average total assets.

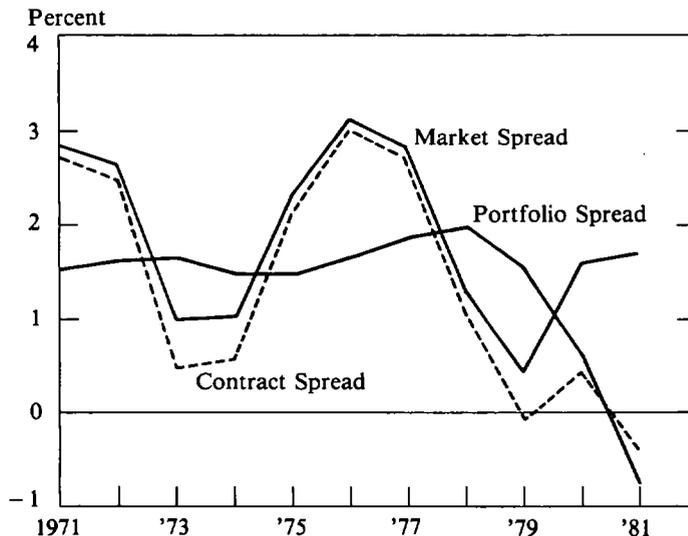
sharply. This was due to the failure of RNM to respond to the market interest rate on new mortgages, reflecting the inability of S&L's to close new loans at the market rate on mortgages.

In summary, the sharp 1979-81 decline in the portfolio spread—and therefore in ROA and in the level of profits—was due mainly to (1) the increased responsiveness of S&L cost of deposits to the sharp increase in short-term interest rates that occurred during the period, (2) the reduced responsiveness of ROM to the increase that occurred in the return on new mortgages, and (3) the reduced responsiveness of the return on new mortgages to the rise that occurred in the market interest rate on mortgages.

THE FUTURE PROFITABILITY OF THE SAVINGS AND LOAN INDUSTRY

The huge losses suffered by the savings and loan industry in 1981 reflect the seriousness of the problems facing the industry today. S&L's are unable to earn market rates of return on a substantial percentage of their assets due to their long-term nature and slow turnover. At the same time, the increased use of new short-term variable-rate deposit instruments in a high-interest-rate environment has greatly increased the cost of S&L deposits. As a result, there has been a large divergence between the portfolio and market spreads, with the portfolio spread decreasing sharply even though the market spread has remained relatively

Chart 9
PORTFOLIO SPREAD AND RELATED MEASURES
OF INSURED SAVINGS AND LOAN ASSOCIATIONS
1971-81



NOTE: The market spread is the average rate on new commitments for conventional first mortgages on new homes minus the U.S. Treasury one-year constant maturity rate.

The portfolio spread is the return on mortgages minus the cost of deposits.

The contract spread is the return on new mortgages minus the U.S. Treasury one-year constant maturity rate.

favorable.

A variety of short-term and long-term proposals have been made to remedy these problems. Some of these proposals are presented below along with a discussion of their potential impact on industry profitability.

Short-Run Solutions

Many observers contend that the key to helping the ailing savings and loan industry is for the level of interest rates to fall. It is argued that a drop in rates would increase the portfolio spread, as the cost of deposits would decline. At the same time, ROM would continue on an upward trend, since it is unlikely that the mortgage interest rate would decline enough to cause the return on new mortgages to fall below the current return on the S&L mortgage portfolio. Also, a drop in interest rates would likely be accompanied by a rise in the mortgage turnover rate, followed by an expansion in the volume of new mortgage loans.

While the argument that a drop in interest rates would enhance S&L profitability is no doubt valid, the extent of any increase in the portfolio spread would be limited by a number of factors. For example, the decline in the cost of funds would be limited if depositors responded to the decline in interest rates by rolling over their maturing short-term deposits into longer term deposits in order to avoid a reduction in the return on their savings. Also, the increase in ROM would be limited if individuals holding high-rate mortgages refinanced their mortgages as the mortgage rate dropped.

Thus, even if there is a decline in the level of interest rates, the profitability problems of the savings and loan industry would not be ended. For this reason, there would likely be continued efforts on the part of federal regulatory authorities to implement programs designed to assist troubled S&L's. These programs include

direct cash infusions by the FSLIC and the FDIC, accounting manipulations of net worth, and merger into other depository institutions.

Income capital certificates (ICC's) and purchase accounting methods are two tools used to accomplish these ends. ICC's are used to boost a deteriorating S&L's net worth in order to keep the net worth to total assets ratio above the level viewed as critical.¹² The FSLIC purchases ICC's from an S&L and in turn gives it cash or promissory notes, either of which is applicable to net worth. Mergers are facilitated by the use of purchase accounting methods, under which the assets and liabilities of the acquired S&L are given a fair market value. The difference between assets and liabilities—a revaluation of net worth—is then subtracted from the price paid for the S&L. The difference between purchase price and revalued net worth is known as goodwill, and it can be amortized over a period as long as 40 years. The newly acquired assets are written down to fair market value on the acquiring S&L's balance sheet, but then accrue to their previous book value over a period of years. The accrual period can be made shorter than the amortization period, and the discount accrual will create a positive impact on the acquiring S&L's net income in the early years. S&L's claim that this accounting technique should be available to associations not involved in mergers in order to enhance reported profits, but a leading industry accountant has suggested that this may not be a proper approach.¹³

¹² Currently, regulators and legislators believe that S&L's should maintain a minimum 2 percent net worth-to-total assets ratio.

¹³ Donald Zellmer, chairman of the Savings and Loan Committee of the American Institute of Certified Public Accountants, states that although he approves of the market-to-market concept, he is against a one-time writedown of assets that would be charged to net worth. See Karen Slater, "Key Thrift Accountant Backs Change," *American Banker*, May 4, 1982. For an excellent discussion of savings

Long-Term Solutions

There are two general approaches that have been discussed for developing longer run solutions for the savings and loan industry.¹⁴ The first approach focuses on providing S&L's with the proper tools to remain specialized mortgage lenders. To be effective, these tools would enable S&L's to maintain a pre-1978 position with respect to the portfolio and market spreads; in other words, they would allow S&L's to remain profitable in the face of fluctuating interest rates. This would be accomplished by bringing the maturity of mortgages more in line with the maturity of liabilities so that the return on mortgages would move with the cost of deposits, leaving the portfolio spread unchanged. By increasing the use of variable-rate and variable-term mortgages as well as financial futures, S&L's will be able to reduce the effective maturity of their asset portfolios. They could make greater use of long-term, fixed-rate liabilities, and deposit instruments in order to lengthen the maturity of liabilities and obtain a more certain long-term source of funds.¹⁵

and loan accounting methods and potential beneficial revisions, see the Task Force Report, pp. 24-42.

¹⁴ Some of the more recent studies which discuss the future of the savings and loan industry are Andrew Carron, "The Plight of the Thrift Institutions," The Brookings Institution, 1982; The President's Commission on Housing *Interim Report*, 1982; Joe Stillwell, "The Savings and Loan Industry: Averting Collapse," Cato Institute for Policy Analysis, February 15, 1982; and the *Report of the Task Force on Savings and Loan Portfolio Profitability*.

¹⁵ For a detailed description of variable-rate and variable-term mortgages, see Bronwyn Brock, "Mortgages with Adjustable Interest Rates Improve Viability of the Thrift Industry," Federal Reserve Bank of Dallas, *Voice*, February 1981, pp. 2-4. For a discussion of the use and risk of financial futures, see Robert L. Rosen, "Interest Rates, Default, and Basis Risk in Hedging Fixed-Rate Conventional Mortgages," Federal Home Loan Bank Board *Journal*, November 1981. For a discussion of mortgage-backed, or pay-through bonds, see the *Report of the Task Force on Savings and Loan Portfolio Profitability*, pp. 78-83.

The second longer term approach for solving S&L problems is to allow and encourage S&L's to diversify their assets and compete in the financial markets they feel would be profitable. S&L's could then invest in a short-term asset portfolio matched by short-term liabilities, or they could choose to match asset and liability maturities in a longer term range. In either case, the portfolio spread would remain relatively stable even though interest rates varied. Allowing S&L's to diversify their portfolios would make them more competitive in the growing financial services field. The implication to the economy is the loss of specialized institutions and the availability of funds for specialized purposes. However, diversification would allow S&L's to more ably compete with commercial banks, money market mutual funds, and the growing financial services conglomerates which are offering a complete slate of financial services in a relatively unregulated atmosphere.¹⁶

SUMMARY

The financial health of the nation's savings and loan associations has declined sharply since 1978, with the industry suffering a loss in 1981 greater than the gain enjoyed in any single previous year. The primary reasons for this drop in profitability are in the inability of savings and loan associations to earn market rates of return on new mortgages, the slow turnover of older, lower yielding mortgages, and the rapid escalation in the cost of deposits due to a greater responsiveness to increases in short-term interest rates.

In response to the losses experienced by savings and loan associations, a number of short- and long-run solutions have been implemented

¹⁶ Some of the financial services are various types of insurance, brokerage accounts, money market funds, credit and debit card accounts, and cash management.

or proposed. The short-run solutions—mergers, the use of income capital certificates, and purchase accounting methods—rely in part on a decline in the general level of interest rates. Longer term solutions would provide savings and loan associations with the tools needed to

remain specialized mortgage lenders or would broaden their ability to compete in other financial markets. To be effective, it is important that long-term solutions enable savings and loan associations to remain profitable in a wide range of financial environments.