May 1988

THRIFT INDUSTRY

Trends in Thrift Industry Performance: December 1977 Through June 1987

GAO/GGD-88-87BR

GAO

United States
General Accounting Office
Washington, D.C. 20548

General Government Division

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May 17, 1988

The Honorable William Proxmire
Chairman, Committee on Banking,
Housing and Urban Affairs
United States Senate

The Honorable Fernand J. St Germain
Chairman, Committee on Banking,
Finance and Urban Affairs
House of Representatives

In response to our legislative requirement to audit the Federal Home Loan Bank Board's Net Worth Certificate Program and our agreement to provide your committees with semiannual reports on the condition of thrift institutions, we have prepared information on recent and historical trends in the thrift industry.

As you are aware, the Net Worth Certificate Program was authorized by the Garn-St Germain Depository Institutions Act of 1982 and was created to provide regulatory net worth in the form of capital certificates to low net worth and insolvent thrift institutions. The legislative authority for the Net Worth Certificate Program expired in October 1986 but was reinstated by the Competitive Equality Banking Act of 1987. However, the Federal Home Loan Bank Board has not acted to reinstate the program and no new Net Worth Certificates have been issued since the Program's expiration. As a result, the primary emphasis of this briefing report is on the condition of the thrift industry. Our last comprehensive evaluation of thrift industry condition was published in September 1985.[1] In this briefing report we update that information through June 1987.

OBJECTIVES, SCOPE, AND METHODOLOGY

Recent congressional and public concerns about the condition of the thrift industry have focused on the dangers posed by insolvent thrifts to the health of the entire industry and to

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[1]Thrift Industry Restructuring and the Net Worth Certificate Program (GAO/GGD-85-79, Sept. 24, 1985).

the Federal Savings and Loan Insurance Corporation (FSLIC), which the Competitive Equality Banking Act of 1987 recapitalized. Therefore, in addition to presenting aggregate information for all FSLIC-insured thrifts, another objective of this briefing report is to describe the condition and performance of the group of thrifts with the greatest potential for failure. To accomplish this, we group the thrifts into three categories based on their net worth position. Using net worth measured on a Generally Accepted Accounting Principles (GAAP) basis, thrifts are divided into the following categories: (1) those with a GAAP net worth to assets ratio of less than or equal to zero (insolvents), (2) low net worth thrifts with a ratio between 0 and 3 percent, and (3) healthier thrifts with a ratio of 3 percent or more. Presenting the information in this way reveals differences between insolvent thrifts and their more healthy counterparts with respect to the structure of their assets and liabilities, as well as profitability and capitalization levels.

In reviewing the condition of the thrift industry, we used our data base consisting of the financial statements of all FSLIC-insured institutions provided to us by the Federal Home Loan Bank Board. From December 1977 through December 1983, the data are available semiannually; thereafter, they are available quarterly. We did not audit the financial report data, the preparation of the financial statements, or their transcription to computerized format. Our work, done between October 1987 and April 1988, was in accordance with generally accepted government auditing standards.

RESULTS

The appendix presents general information on the growth in industry assets and liabilities, and on changing thrift profitability and net worth levels over time. This is followed by more detailed information on the composition of thrift assets and liabilities and various thrift profitability measures for thrifts in each of the net worth categories we have defined.

In general, our review of the industry reveals the following trends:

-- Since year-end 1977, the total number of thrifts in the industry has declined from 4,055 to 3,191, while total thrift industry assets have grown from $434.3 billion to $1,202.8 billion at mid-year 1987. Over this same period, the average GAAP net worth to assets ratio has decreased from 5.70 to 3.50 percent. Industry return on assets, a measure of profitability, was -.55 percent in June 1987 compared to .79 at year-end 1979.

-- Although the thrift industry as a whole returned to profitability after the thrift crisis of 1981 to 1982, thrift profitability has again declined since the first quarter of 1986. This decline is largely a result of poor asset quality rather than narrow interest rate spreads as was the case in the early 1980s.

-- As of June 1987, as measured on a GAAP basis, there were 491 insolvent thrift institutions and an additional 463 low net worth institutions with a net worth to assets ratio between 0 and 3 percent. Largely as a result of the losses of these poorly capitalized and insolvent thrifts, the industry incurred net losses of $1.6 billion during the second quarter of 1987.[2]

-- There has been an overall decline in the industry's portfolio of mortgage assets as a percent of total assets and a rise in the holding of mortgage-backed securities relative to mortgage loans. This, along with a shift away from fixed rate to adjustable rate mortgages, has been the dominant mortgage asset portfolio change this decade.

-- The industry has become less reliant on deposits as a source of funds over the decade, with the share of brokered deposits rising. While holdings of Federal Home Loan Bank advances show only a moderate increase as a percent of thrift assets, other forms of borrowing have increased steadily.

The information contained in this briefing report was presented to the House Committee on Banking, Finance, and Urban Affairs and to the Subcommittee on Financial Institutions Supervision, Regulation, and Insurance.

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[2]In May 1987, thrifts were required to write off their prepaid insurance premiums which constituted the FSLIC secondary reserve. This write-off accounts for $823 million of second quarter losses.

At the request of the Chairman of the Senate Committee on Banking, Housing, and Urban Affairs, we did not obtain Federal Home Loan Bank Board comments.

We are sending copies of this report to FHLBB and interested congressional committees. Copies will also be made available to others upon request. If you have questions, please contact me at (202) 275-8678.

Craig A. Simmons
Senior Associate Director

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ABBREVIATIONS

ARM	Adjustable Rate Mortgage
CEBA	Competitive Equality Banking Act of 1987
CMO	Collateralized Mortgage Obligation
DIDMCA	Depository Institutions Deregulation and Monetary Control Act of 1980
FDIC	Federal Deposit Insurance Corporation
FASB	Financial Accounting Standards Board
FHLBank	Federal Home Loan Bank
FHLB	Federal Home Loan Bank Board
FSLIC	Federal Savings and Loan Insurance Corporation
GAAP	Generally Accepted Accounting Principles
ICC	Income Capital Certificate
MBS	Mortgage-Backed Security
NOW	Negotiable order of withdrawal
NIM	Net Interest Margin
NWC	Net Worth Certificate
RAP	Regulatory Net Worth

REMIC	Real Estate Mortgage Investment Conduit
ROA	Return on Assets
TAP	Tangible Net Worth

TRENDS IN THRIFT INDUSTRY PERFORMANCE: DECEMBER 1977 THROUGH JUNE 1987

NUMBER OF INSTITUTIONS OVER TIME BY NET WORTH CATEGORY

Over the last decade, the total number of thrifts declined from 4,055 to 3,191. Most of the decrease in the number of thrifts occurred from December 1977 through 1984. Renewed growth in the number of thrifts occurred throughout 1985 and early 1986. Since then, the decline has begun again, but at a slower pace than before. The number of insolvent thrifts increased during this same period, from 14 in December 1977, which represented .3 percent of the industry, to 491 in June 1987, 15 percent of the industry. The number of thrifts in the category of Generally Accepted Accounting Principles (GAAP) net worth greater than or equal to 3 percent of assets fell from 3,832, 95 percent of the industry, to a low of 1,792, or 57 percent of the industry in December 1984.[1] The number of thrifts in this category has since risen to 2,237 as of June 1987, which represents 70 percent of the industry.

There has been a 50 percent decline in the number of thrifts in the low net worth category since March 1984. Those no longer in this group have entered one of the other two categories or were merged, acquired, or liquidated.

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[1]Our measure of GAAP net worth is slightly overstated due to the inclusion of income capital certificates (ICC) in this measure. The Financial Accounting Standards Board (FASB) determined that ICCs were not to be included as part of net worth under GAAP unless exchanged with the Federal Savings and Loan Insurance Corporation (FSLIC) for cash. We could not determine which ICCs were in exchange for cash and which for FSLIC notes and therefore chose to err on the side of overstating net worth.

Table I.1:

Number of FSLIC-Insured Institutions
in Each Net Worth Category,
Year-End 1977 Through Midyear 1987

Time	Less than or equal to zero	Between zero and three percent	Greater than or equal to three percent	Total institutions
	Net worth categories			
December 1977	14	209	3,832	4,055
June 1978	15	215	3,821	4,051
December 1978	10	194	3,844	4,048
June 1979	11	200	3,829	4,040
December 1979	15	193	3,830	4,038
June 1980	16	241	3,764	4,021
December 1980	16	299	3,678	3,993
June 1981	21	456	3,439	3,961
December 1981	53	691	2,999	3,743
June 1982	156	916	2,461	3,533
December 1982	222	916	2,149	3,287
June 1983	246	936	2,024	3,206
December 1983	281	928	1,937	3,146
March 1984	321	954	1,864	3,139
June 1984	370	927	1,851	3,148
September 1984	417	896	1,824	3,137
December 1984	434	909	1,792	3,135
March 1985	455	903	1,802	3,160
June 1985	461	833	1,886	3,180
September 1985	462	787	1,975	3,224
December 1985	449	730	2,066	3,245
March 1986	447	674	2,130	3,251
June 1986	453	633	2,162	3,248
September 1986	445	598	2,191	3,234
December 1986	460	542	2,218	3,220
March 1987	467	483	2,253	3,203
June 1987	491	463	2,237	3,191

Source: Federal Home Loan Bank Board Semi-annual and Quarterly Financial Reports.

TOTAL ASSETS BY NET WORTH CATEGORY

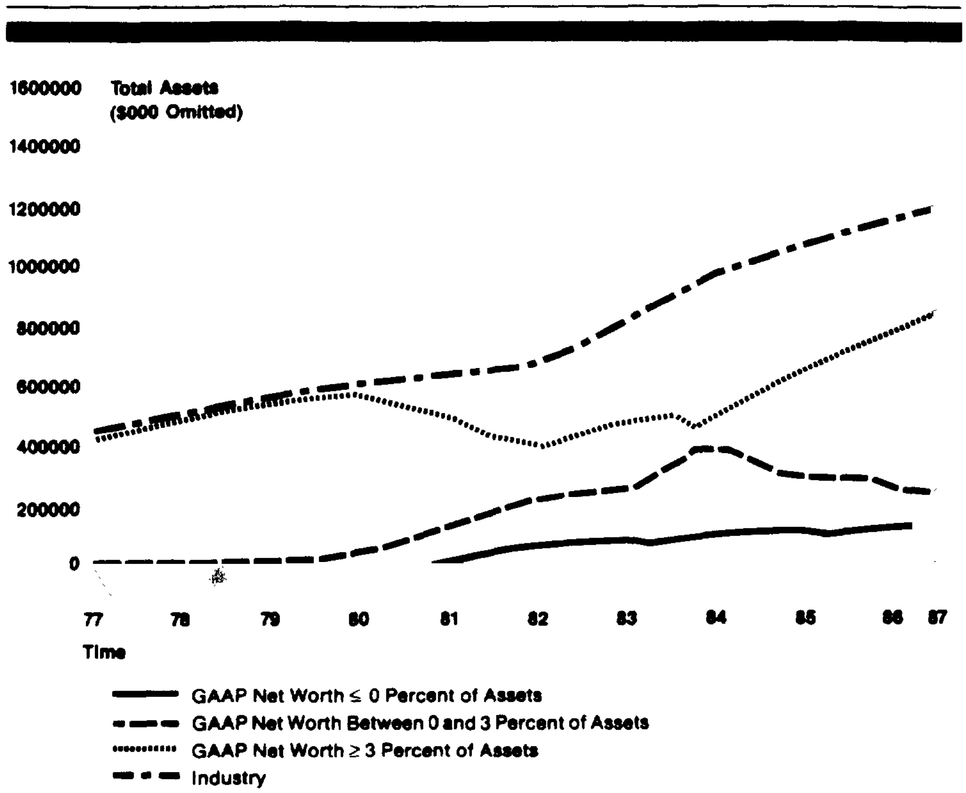
Total thrift industry assets have increased over the last decade but have grown at a declining rate since the fourth quarter of 1984. Although the dollar value of assets grew at an annual average rate of 11.7 percent between December 1977 and December 1986, after adjusting for inflation the rate of growth is more moderate, averaging 5.4 percent. Since the fourth quarter of 1984, most of the industry's asset growth has occurred in the healthier thrift category. The number of thrifts in this group has increased by 25 percent since the fourth quarter of 1984. The negative rate of growth of assets in the low net worth category of thrifts during this same period is the result of a 50 percent decline in the number of thrifts in this group.

Over the last decade, the thrift industry's holdings of mortgage assets has declined from 85.63 percent of total assets in December 1977 to 69.68 percent in June 1987. Over this same period, non-mortgage assets have increased from 14.37 percent of total assets to 30.32 percent. Commercial and consumer loans, direct investments, goodwill, repossessed assets, and deferred net losses are the non-mortgage assets that have displayed the greatest growth since December 1977. Mortgage-backed securities display the greatest growth among mortgage assets.

Detailed information on the components of mortgage assets are presented in tables I.2, I.3, and I.4 and figures I.5 through I.8. For non-mortgage assets, this information is presented in tables I.2 and I.5 and in figures I.9 through I.15.

Figure I.1:

Total Assets of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

TOTAL LIABILITIES BY NET WORTH CATEGORY

Industry liabilities have increased over the decade, growing at a declining rate since the fourth quarter of 1984. The current dollar value of liabilities has grown at an average annual rate of 11.9 percent over the decade.

The greatest liability growth has occurred in the healthier thrift category since the fourth quarter of 1984. This partly reflects the 25 percent increase in the number of thrifts in this group. A decline in total liabilities has occurred in the low net worth thrift category since the fourth quarter of 1984, which we attribute in part to a 50 percent decrease in the number of thrifts in this group.

Reliance on deposits as a source of funds has diminished, declining from 86.88 percent of total assets in December 1977 to 74.66 percent in June 1987. Other borrowed money[2] and reverse repurchase agreements[3] (reverse repos) have shown the greatest increase over this period. Other borrowed money has risen from .86 percent of total assets to 3.69 percent, while reverse repos have increased from .87 to 6.58 percent. Federal Home Loan Bank (FHLBank) advances[4] represented 4.49 percent of industry assets in December 1977 and rose to a high of 10.06 percent during the 1981 to 1982 thrift crisis. The ratio has declined since then. In June 1987, advances were 8.55 percent of assets. Detailed information on these components of liabilities are presented in table I.6 and figures I.16 through I.19.

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[2]Other borrowed money includes commercial bank loans, consumer retail repurchase agreements, and commercial paper issued.

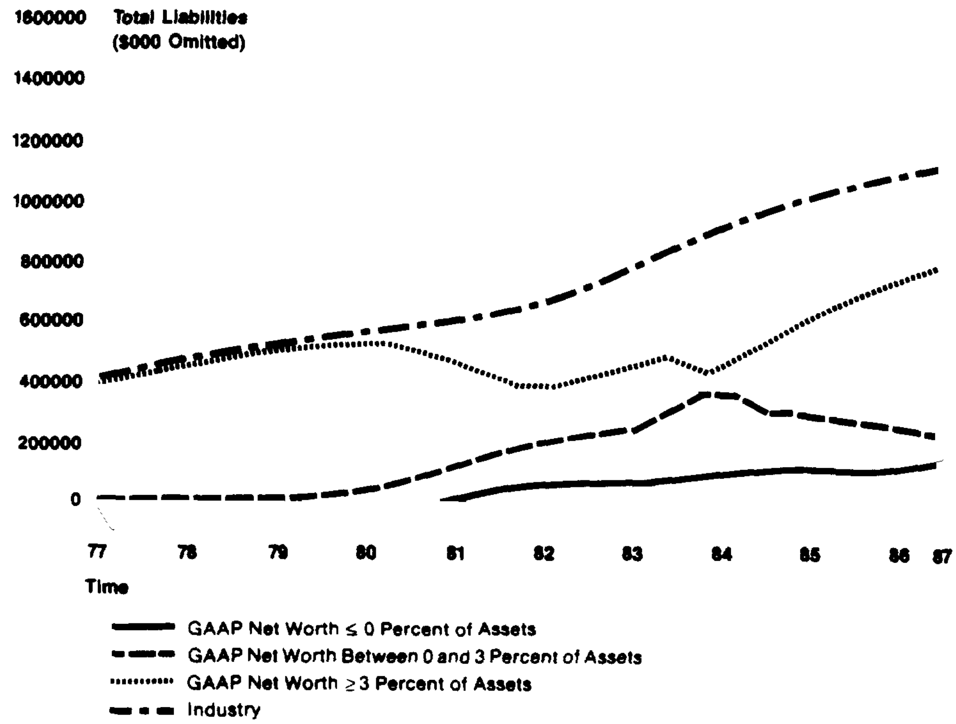
[3]A reverse repurchase agreement is an arrangement whereby an investor sells securities to a broker and at the same time agrees to repurchase these at a later date for a higher price. The broker is simply making a loan to the investor with the rate of interest being determined by the relative prices at which the securities are sold and repurchased. The broker will generally not loan the full value of the collateral to the investor, instead reserving a small percentage (usually 3 percent to 8 percent), referred to as the "haircut", as protection against the potential default by the investor. (Michael J. Giarla, <u>An Introduction to Risk Controlled Arbitrage</u>, Smith Breeden Associates, Aug. 1986, p. 1).

[4]FHLBank advances are loans from the district FHLBanks to member thrift institutions.

APPENDIX

Figure I.2:

Total Liabilities of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



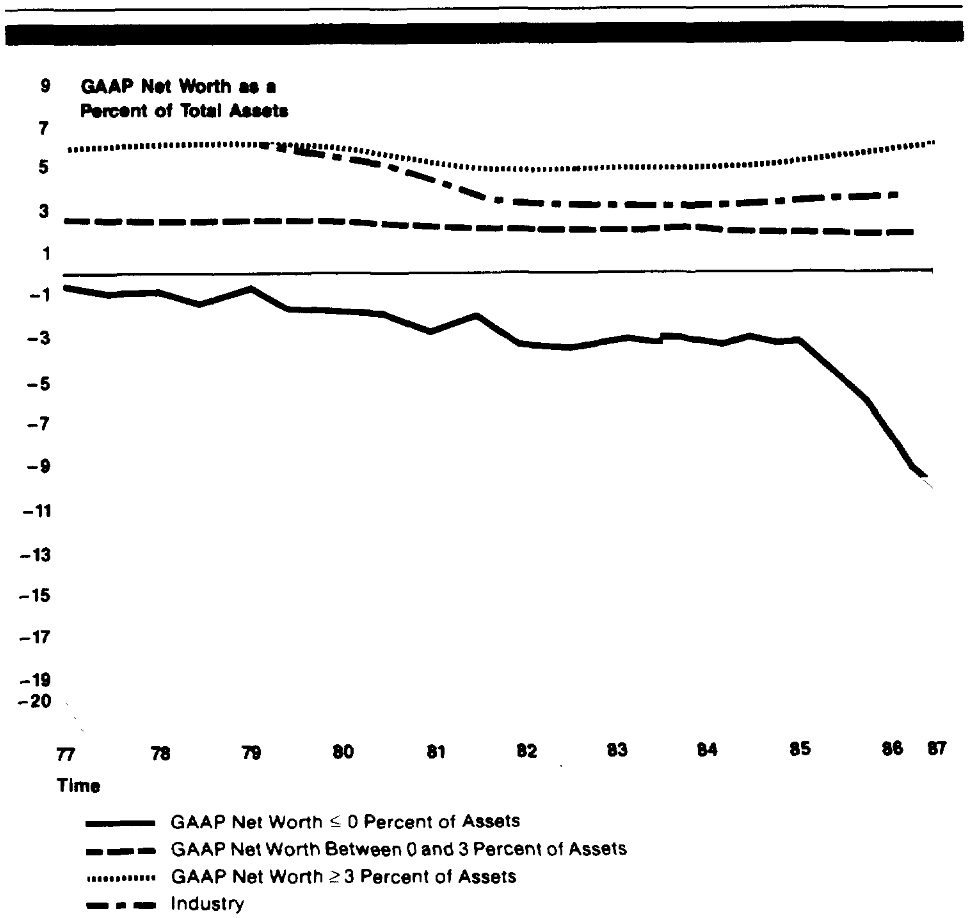
Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

GAAP NET WORTH BY NET WORTH CATEGORY

Industry GAAP net worth as a percent of total assets has increased over the past 3 years, although the current industry average of 3.50 percent does not approach the pre-thrift crisis level of nearly 6 percent. The improvement in the 1980s is due to the superior performance of the healthier thrifts and has occurred despite the insolvent thrifts' declining net worth ratio, which reached -10 percent in June 1987.

Figure I.3:

GAAP Net Worth of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

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RETURN ON ASSETS BY NET WORTH CATEGORY

The industry return on assets[5] (ROA) recovered following the thrift crisis of 1981 to 1982, though it has not regained the record levels it reached in the late 1970s. The assets of thrift institutions have a longer effective maturity than do their liabilities, with the result that asset yields adjust more slowly than do liability yields to changing interest rates. In the late 1970s, with their high concentration of fixed rate mortgages, thrifts faced substantial interest rate risk.[6] As interest rates rose in late 1980 through mid-year 1982, thrifts suffered widespread losses. The declining interest rates from mid-year 1982 through 1986[7] and the rise in thrifts' non-operating income[8] both aided the industry's return to profitability during this time.[9]

However, since the first quarter of 1986, profits have declined, with the industry showing losses in the fourth quarter of 1986 and the second quarter of 1987. The industry's ROA of -.55 in June 1987 is its lowest point since the 1981 to 1982 thrift crisis. This declining profitability since the first quarter of 1986 primarily reflects rising non-operating expenses[10] and declining non-operating income. These losses were particularly dramatic for the insolvents.

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[5]ROA is a measure of profitability equal to total net income divided by total net assets.

[6]R. Dan Brumbaugh Jr. and Andrew S. Carron, "Thrift Industry Crisis: Causes and Solutions", _Brookings Papers on Economic Activity_, 2:1987, p. 353.

[7]There was a brief upturn in interest rates from June 1983 through June 1984, then again at year-end 1986 through June 1987.

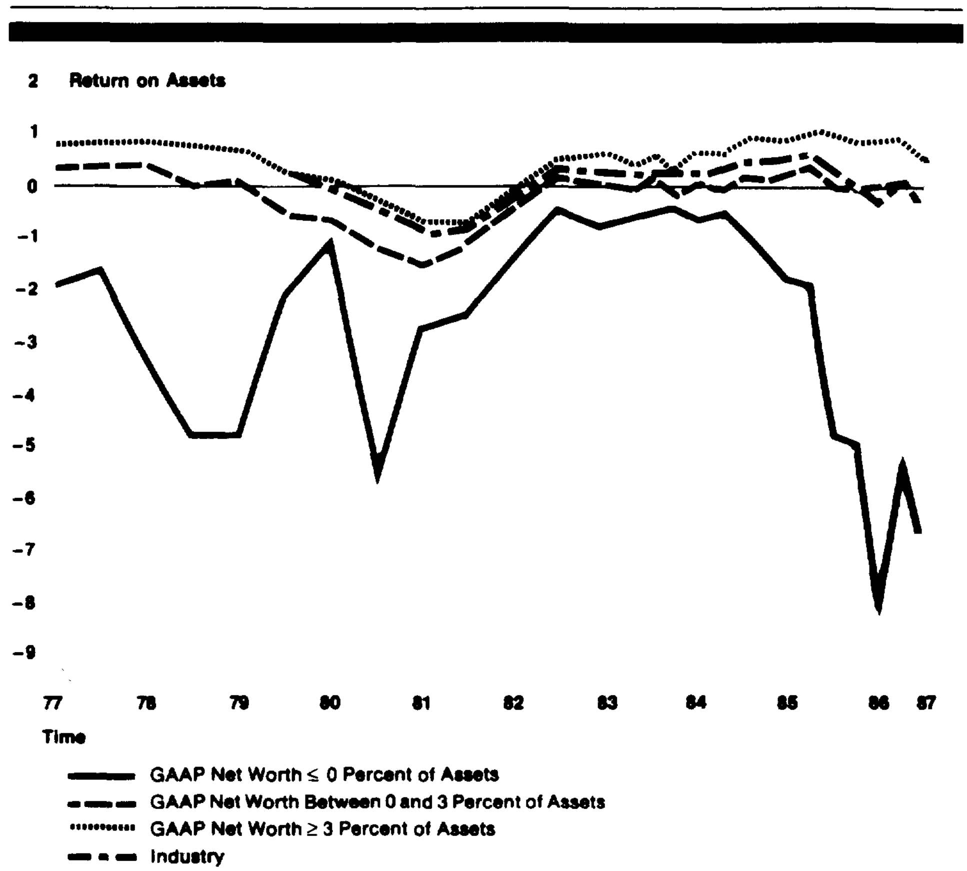
[8]Non-operating income consists of profit on the sale of loans, profit on the sale of foreclosed real estate, other repossessed property and real estate held, and investment securities, as well as the amortized deferred gains on loans and other assets held.

[9]A rise in total interest expense during the third and fourth quarters of 1984 contributed to a concurrent downturn in profitability.

[10]Non-operating expenses consist of the provision for losses on assets and the losses on the sale of assets.

Figure I.4:

Return on Assets of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

ASSET COMPOSITION BY NET WORTH CATEGORY AND FOR THE INDUSTRY

Though mortgage assets continue to dominate the industry's asset portfolio, as a percent of thrift industry assets, mortgage assets have declined over the decade from 85.63 in December 1977 to 69.68 in June 1987. This decline has been even more dramatic for the insolvents. Tables I.3 and I.4 and figures I.5 through I.8 document in greater detail the changing mortgage asset portfolio of the thrift industry and the thrifts in each net worth category.

Over the same period, non-mortgage assets have increased from 14.37 percent of total assets to 30.32 percent. Again, thrifts in the insolvent category display the greatest increase. The percent composition of non-mortgage assets in their portfolios rose from 18.01 in December 1977 to 40.01 in June 1987. Table I.5 and figures I.9 through I.15 present this detailed information for non-mortgage assets.

Table I.2:

Asset Composition of all FSLIC-Insured Institutions by Net Worth Category and for the Industry June 1987 (Mean values are expressed as a percent of total assets)

	Net worth categories (as a percentage of assets)			
	Less than or equal to zero	Between zero and three percent	Greater than or equal to three percent	Industry
Mortgage assets[a]	59.99	70.38	70.99	69.68
Residential construction loans	3.09	2.16	2.93	2.80
Non-residential construction loans	3.46	1.98	1.47	1.79
Mortgage loans on 1 to 4 dwelling units	28.85	31.70	39.93	37.11
Mortgage loans on 5 or more dwelling units	5.89	4.98	6.11	5.87
Acquisition and development loans	5.26	2.75	1.81	2.36
Mortgage-backed securities	8.69	21.44	14.13	14.97
Non-mortgage assets[b]	40.01	29.62	29.01	30.32
Commercial loans	2.51	1.54	1.87	1.88
Consumer loans	5.47	4.24	4.30	4.41
Direct investment	5.57	3.13	2.04	2.64
Liquid assets	4.60	5.02	5.58	5.36
Goodwill	1.93	2.45	2.15	2.18
Repossessed assets	7.40	2.00	.76	1.72
Investment securities	8.59	7.71	8.84	8.59
Deferred net losses	1.88	.51	.16	.41

[a]Mortgage asset components do not sum to total mortgage assets due to the exclusion of permanent non-residential mortgages, permanent mortgages on loans/contracts to facilitate sale of real estate owned, and permanent mortgages on accrued interest receivable on mortgage backed securities.

[b]Non-mortgage asset components do not sum to total non-mortgage assets due to the exclusion of fixed assets, financial futures/options, leased property, secured accounts receivable, and other factors.

Note: For definition of various assets see figures that follow as well as glossary.

Source: Federal Home Loan Bank Board Semiannual and Quarterly Financial Reports.

MORTGAGE ASSET COMPOSITION

Though mortgage assets as a percent of total assets have decreased from 85.63 percent in December 1977 to 69.68 percent in June 1987, mortgage assets continue to dominate thrifts asset portfolios.

Mortgage loans on the traditional thrift asset, 1 to 4 family dwelling units, have declined substantially from 69.81 to 37.11 percent of assets over the period examined, while thrift holdings of mortgage-backed securities (MBS) have increased from 2.91 to 14.97 percent of assets.[11] Although thrifts receive a lower yield on MBS than they would if they held the mortgage loans directly, MBSs do provide other advantages, including greater liquidity and ready collateral for borrowing purposes.

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[11]The MBSs to which we refer here are pass-through securities in which the holder of the security owns an interest in a pool of mortgage loans. A pay-through MBS, on the other hand, represents a debt obligation of the issuer which is secured by mortgage loans. It is not considered to be a mortgage asset of the security holder.

Table I.3:

Mortgage Asset Composition of
all FSLIC-Insured Institutions,
Year-End 1977 Through Mid-Year 1987
(Mean values are expressed as a percent of total assets)

Time	Total mortgage assets	Residential construction loans[a]	Nonresidential construction loans[a]	Mortgage to loans on units	Mortgage loans on 5 or more units	Acquis an develo loa
December 1977	85.63			69.81	6.94	0.
June 1978	86.07			70.11	6.88	0.
December 1978	85.90			69.94	6.77	0.
June 1979	85.36			69.64	6.54	0.
December 1979	85.66			69.57	6.35	0.
June 1980	84.82			68.33	6.13	0.
December 1980	84.25			67.83	5.91	0.
June 1981	84.28			67.59	5.73	0.
December 1981	83.01			66.18	5.54	0.
June 1982	80.83			63.10	5.47	0.
December 1982	77.29			58.22	5.59	0.
June 1983	75.14			54.17	5.67	1.
December 1983	74.65			52.01	6.13	1.
March 1984	74.10			49.79	6.49	1.
June 1984	74.20			49.07	6.61	2.
September 1984	74.07			48.44	6.65	2.
December 1984	72.24			46.64	6.64	2.
March 1985	72.36			45.99	6.71	2.
June 1985	71.78			45.65	6.93	2.
September 1985	72.10			44.86	7.04	2.
December 1985	71.09			43.96	7.19	2.
March 1986	70.64			42.76	7.19	2.
June 1986	70.53			41.69	7.11	2.
September 1986	70.21			40.93	7.07	2.
December 1986	69.83			40.03	7.09	2.
March 1987	69.50	2.89	2.00	37.46	5.89	2.
June 1987	69.68	2.80	1.79	37.11	5.87	2.

[a]Data was not available prior to 1987.

Notes: Columns 2:7 may not sum to column 1 due to rounding.

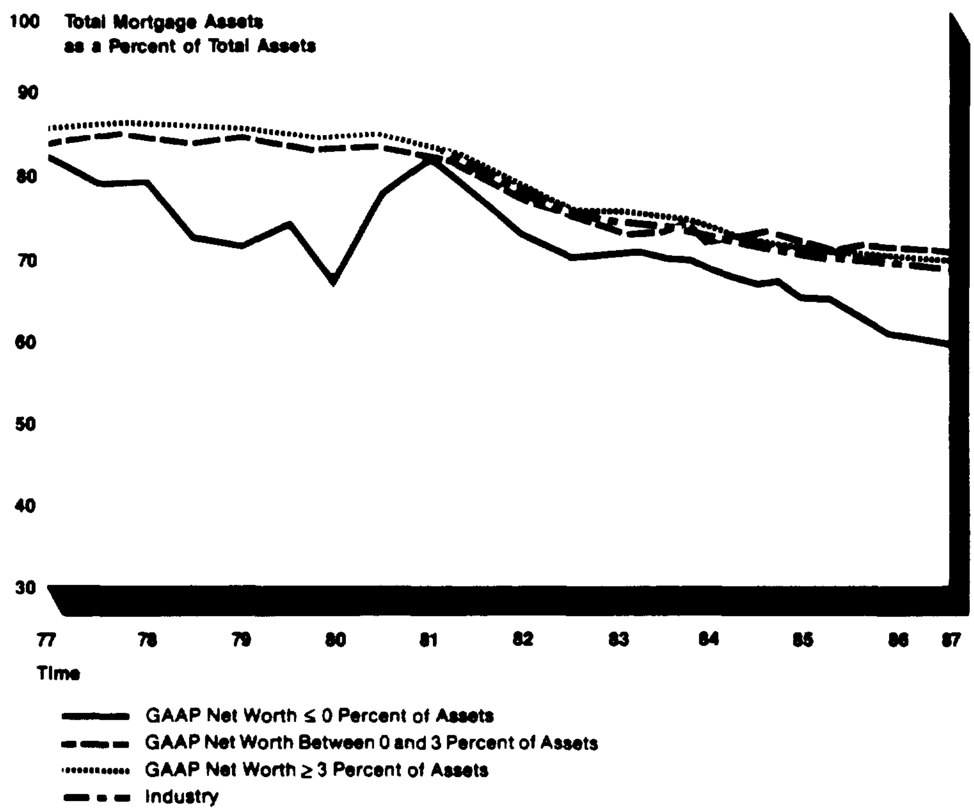
Source: Federal Home Loan Bank Board Semiannual and Quarterly Financial Reports.

MORTGAGE ASSET COMPOSITION BY NET WORTH CATEGORY

Over the last decade, insolvent thrifts have consistently held fewer mortgage assets as a percent of total assets than have the higher net worth thrifts. As of June 1987, insolvent thrifts were holding approximately 60 percent mortgage assets as a percent of total assets while thrifts in the other two net worth categories were holding slightly more than 70 percent.

Figure I.5:

Mortgage Asset Composition of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



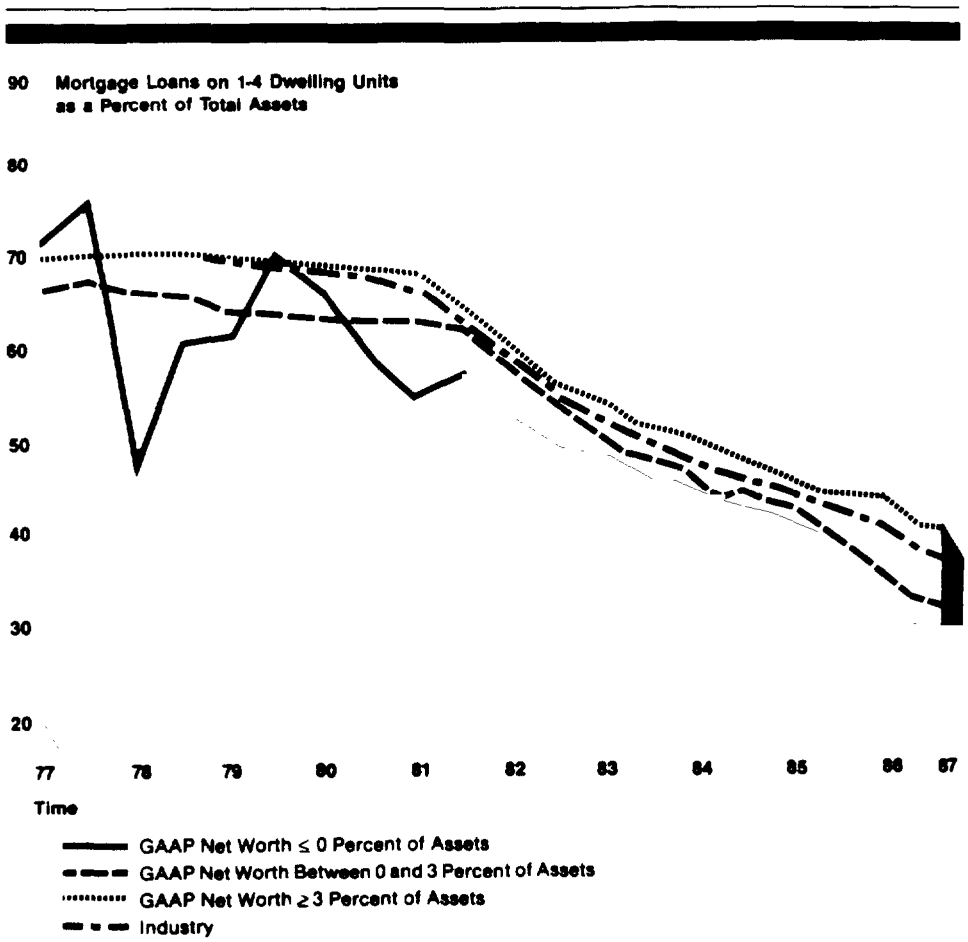
Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

MORTGAGE ASSET COMPOSITION: 1 to 4 FAMILY DWELLING UNITS BY NET WORTH CATEGORY

Since 1980 the insolvent thrifts have consistently held fewer mortgages on 1 to 4 family dwelling units as a percent of total assets than have the rest of the industry. As of June 1987, insolvent thrifts were holding 28.85 percent of their assets in this form, whereas the industry average was 37.11 percent. This type of mortgage loan has been the traditional asset of thrift institutions.

Figure I.6:

Mortgage Asset Composition: 1 to 4 Family Dwelling Units by Net Worth Category and Industry at FSLIC-Insured Thrifts, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

APPENDIX

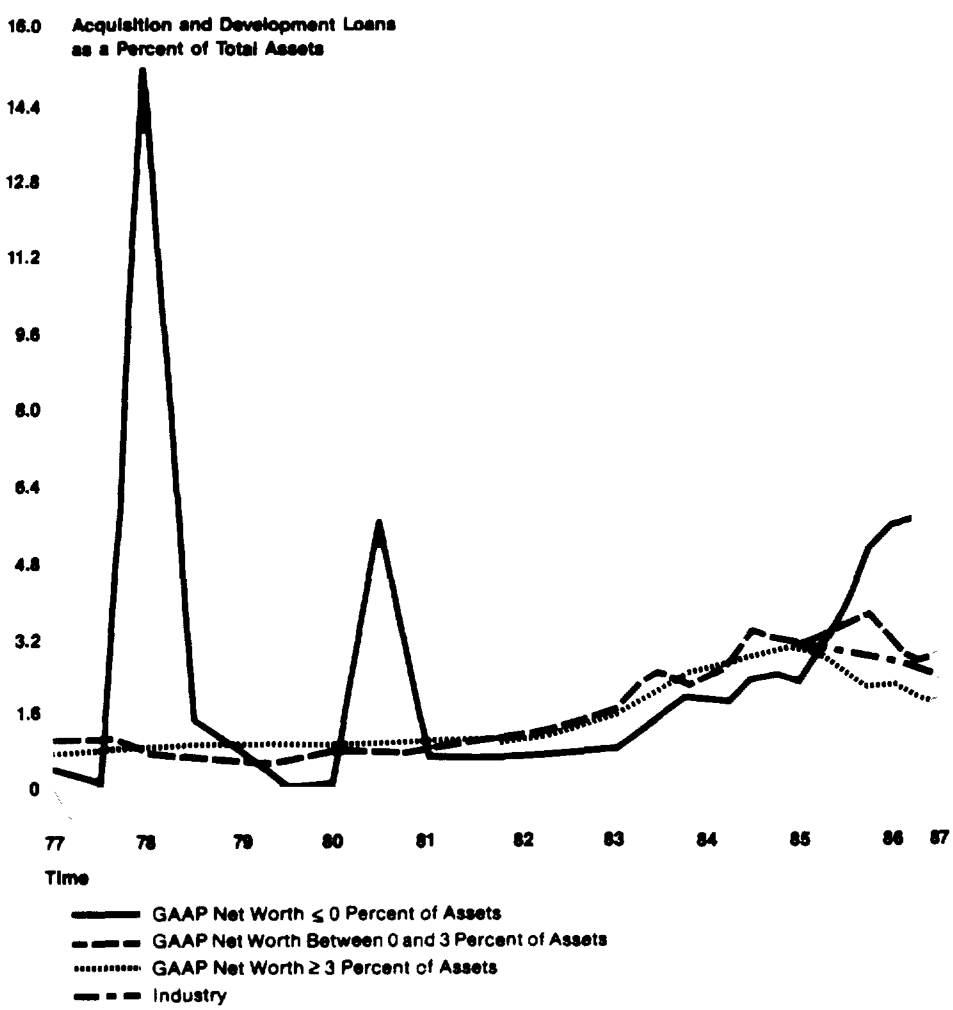
MORTGAGE ASSET COMPOSITION: ACQUISITION AND DEVELOPMENT LOANS BY NET WORTH CATEGORY

The industry's average holdings of acquisition and development loans as a percent of assets has hovered between 2 and 3 percent since 1984. Insolvent thrifts, whose holdings of these loans were 5.26 percent of assets in June 1987, have held more acquisition and development loans as a percent of assets than have the rest of the industry since mid-year 1986.[12]

[12]Prior to 1983, few thrifts were in the insolvent category. Therefore, the behavior of one or a few thrifts, either already insolvent or recently insolvent, could drastically alter the mean by their very large holdings of a particular asset. This accounts for the spikes prior to 1983 in various graphs for the insolvent thrifts in the remainder of this report. As the number of insolvent thrifts rose, it became harder for any one firm to dominate the group mean.

Figure I.7:

Mortgage Asset Composition: Acquisition and Development Loans of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

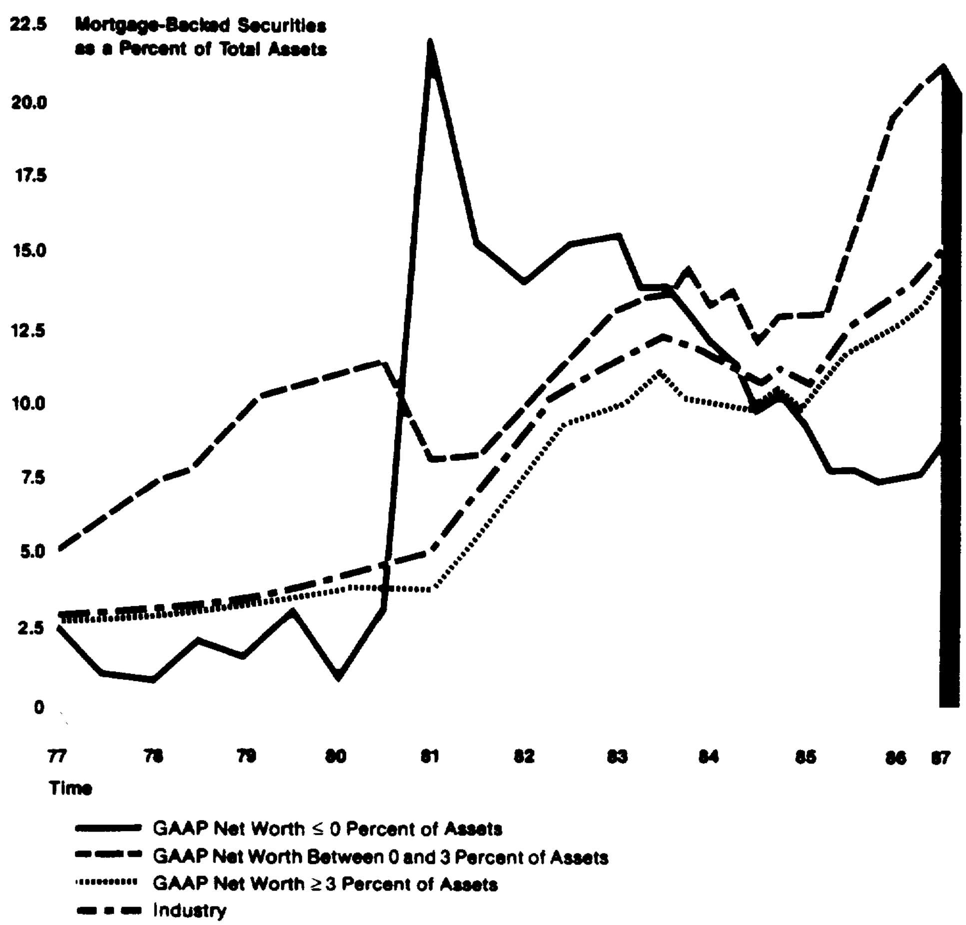
MORTGAGE ASSET COMPOSITION: MORTGAGE-BACKED SECURITIES BY NET WORTH CATEGORY

Since midyear 1984, low net worth thrifts have continuously held more mortgage-backed securities (MBS) as a percent of assets than has the rest of the industry. Their holdings were 21.44 percent of assets as of June 1987, whereas the industry average was 14.97 percent. The relatively larger holding of MBSs by the low net worth thrifts may be explained by their participation in risk-controlled arbitrage, a strategy for earning income using reverse repos collateralized by mortgage-backed securities. Insolvents have held considerably less MBSs than have the other thrifts since 1985. As of June 1987, their MBS holdings as a percent of assets was 8.69.

APPENDIX

Figure I.8:

Mortgage Asset Composition: Mortgage-Backed Securities of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

COMPOSITION OF PRIMARY MORTGAGES

The shift away from fixed rate mortgages to adjustable rate mortgages (ARM) has been one of the more dramatic changes in thrift asset portfolios over the period examined. As a percent of assets, fixed rate mortgages have declined from 86.02 percent in December 1977 to 38.52 percent in June 1987.

Federally chartered thrifts were first permitted to originate ARMs in 1981, although some state chartered institutions were authorized to originate them prior to that. Since the early 1980s, ARMs as a percent of thrift assets have steadily increased, reaching 30.59 in June 1987. Although ARMs as a percent of all conventional mortgage loans closed decreased from early 1984 until early 1987[13] as interest rates declined, thrift holdings of ARMs have continued to increase. A large portion of the fixed rate mortgages originated during this period were sold on the secondary market while thrifts chose to retain ARMs as a means of increasing their holdings of interest rate-sensitive assets.

[13]Stuart A. Gabriel, "Housing and Mortgage Markets: the Post-1982 Expansion", Federal Reserve Bulletin, Dec. 1987, p. 899.

Table I.4:

Composition of Primary Mortgages of
All FSLIC-Insured Institutions,
Year-End 1977 Through Midyear 1987
(Mean values are expressed as a percent of total assets except as indicated)

Time	Fixed plus adjustable rate mortgages[a]	Fixed plus adjustable rate mortgages	Fixed rate mortgages	Adjustable rate mortgages
December 1977	97.07	86.02	86.02	0.00
June 1978	96.87	86.04	86.04	0.00
December 1978	97.15	85.85	85.85	0.00
June 1979	97.19	85.29	85.29	0.00
December 1979	97.53	85.56	85.56	0.00
June 1980	98.05	84.68	81.03	3.65
December 1980	97.80	84.13	79.97	4.16
June 1981	97.79	84.00	78.86	5.13
December 1981	97.97	82.99	77.71	5.28
June 1982	97.70	81.47	75.75	5.72
December 1982	97.12	78.57	71.75	6.82
June 1983	96.09	76.10	68.77	7.33
December 1983	95.29	75.50	66.14	9.36
March 1984	94.24	74.16	57.66	16.49
June 1984	94.16	74.32	54.81	19.51
September 1984	94.05	74.12	52.20	21.92
December 1984	94.05	72.18	48.43	23.75
March 1985	93.92	72.12	47.03	25.08
June 1985	93.68	71.38	44.49	26.89
September 1985	93.69	71.60	43.56	28.03
December 1985	93.72	70.47	41.83	28.64
March 1986	93.85	69.92	40.75	29.18
June 1986	94.01	69.87	40.82	29.06
September 1986	94.17	69.54	40.22	29.32
December 1986	94.37	69.10	39.21	29.89
March 1987	94.57	68.84	38.48	30.36
June 1987	94.62	69.12	38.52	30.59

[a]As a percentage of gross mortgages. Gross mortgages are the sum of mortgage loans, contracts, and pass-through securities, including contra-assets.

Source: Federal Home Loan Bank Board Semiannual and Quarterly Financial Reports.

NON-MORTGAGE ASSET COMPOSITION

The Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) and the Garn-St Germain Act of 1982 gave federally chartered thrifts new and expanded asset powers, particularly in the area of consumer and commercial lending. An examination of thrift non-mortgage assets, which represented 30.32 percent of the industry's asset portfolio as of June 1987, indicates that in general, thrifts have not taken advantage of these new powers to a significant degree. Although both consumer and commercial lending have steadily increased over the period examined, these loans accounted for 4.41 and 1.88 percent of total thrift assets respectively as of June 1987.

Direct investment and liquid asset holdings account for 2.64 and 5.36 percent respectively of total thrift assets. Investment securities[14] are the dominant non-mortgage asset, comprising 8.59 percent of total non-mortgage assets as of June 1987.

Additional assets that comprise the industry's non-mortgage asset portfolio include goodwill, repossessed assets, and deferred net losses.

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[14] Investment securities include equity securities, collateralized mortgage obligations (CMOs), real estate mortgage investment conduits (REMICs) of the pay-through variety, and other investment securities and deposits. These may include below investment grade debt securities.

Table I.5:

Non-mortgage Asset Composition of All FSLIC-Insured Institutions, Year-End 1977 Through Midyear 1987
(Means values are expressed as a percent of total assets)

Time	Total non mortgage assets[a]	Commercial loans	Consumer loans	Direct investment	Liquid assets	Goodwill	Repossessed assets	Investment securities	Deferred net losses	Other non-mortgage assets
December 77	14.37	0.07	2.27	0.47	3.42	0.02	0.26	5.25	-0.08	2.69
June 78	13.93	0.10	2.07	0.48	3.26	0.02	0.23	5.30	-0.09	2.56
December 78	14.10	0.11	2.18	0.50	3.24	0.02	0.19	5.35	-0.11	2.62
June 79	14.64	0.16	2.22	0.54	3.45	0.02	0.16	5.46	-0.10	2.73
December 79	14.34	0.21	2.61	0.55	3.26	0.02	0.15	4.88	-0.09	2.75
June 80	15.18	0.24	2.69	0.62	3.48	0.03	0.16	5.30	-0.10	2.78
December 80	15.75	0.29	2.78	0.70	3.66	0.03	0.16	5.45	-0.10	2.78
June 81	15.72	0.10	2.82	0.79	3.52	0.04	0.18	5.43	-0.11	2.96
December 81	16.99	0.08	2.78	0.90	3.82	0.37	0.23	5.53	0.00	3.27
June 82	19.17	0.08	2.72	1.04	4.12	1.21	0.32	6.07	0.15	3.47
December 82	22.71	0.11	2.88	1.17	4.88	2.41	0.41	6.70	0.37	3.78
June 83	24.86	0.23	2.94	1.31	5.55	2.43	0.47	8.11	0.47	3.35
December 83	25.35	0.40	3.10	1.49	5.44	2.67	0.50	7.82	0.47	3.45
March 84	25.90	0.54	3.10	1.76	6.49	2.59	0.49	7.09	0.58	3.27
June 84	25.80	0.77	3.18	2.04	6.67	2.48	0.49	6.22	0.62	3.33
September	25.93	0.89	3.36	2.16	6.12	2.47	0.54	6.52	0.65	3.22
December 84	27.76	1.15	3.49	2.21	5.96	2.44	0.56	7.82	0.65	3.48
March 85	27.64	1.26	3.68	2.34	5.74	2.41	0.70	7.43	0.66	3.42
June 85	28.22	1.39	3.95	2.52	5.10	2.45	0.78	7.89	0.65	3.49
September 85	27.90	1.42	4.12	2.65	5.29	2.39	0.85	7.13	0.63	3.42
December 85	28.91	1.55	4.21	2.66	5.16	2.33	0.92	8.09	0.60	3.38
March 86	29.36	1.63	4.25	2.78	4.77	2.30	1.05	8.62	0.57	3.39
June 86	29.47	1.72	4.36	2.77	5.02	2.22	1.17	8.16	0.54	3.50
September 86	29.79	1.76	4.30	2.84	5.17	2.18	1.27	8.35	0.50	3.40
December 86	30.17	1.98	4.36	2.54	5.40	2.08	1.38	8.62	0.48	3.34
March 87	30.50	1.92	4.41	2.65	5.23	2.13	1.59	8.95	0.45	3.17
June 87	30.32	1.88	4.41	2.64	5.36	2.18	1.72	8.59	0.41	3.12

[a]Total non-mortgage assets equal total assets minus total mortgage assets. This figure is net of valuation allowances.

Note: Columns 2 through 10 may not sum to column one due to rounding.

Source: Federal Home Loan Bank Board Semiannual and Quarterly Financial Reports.

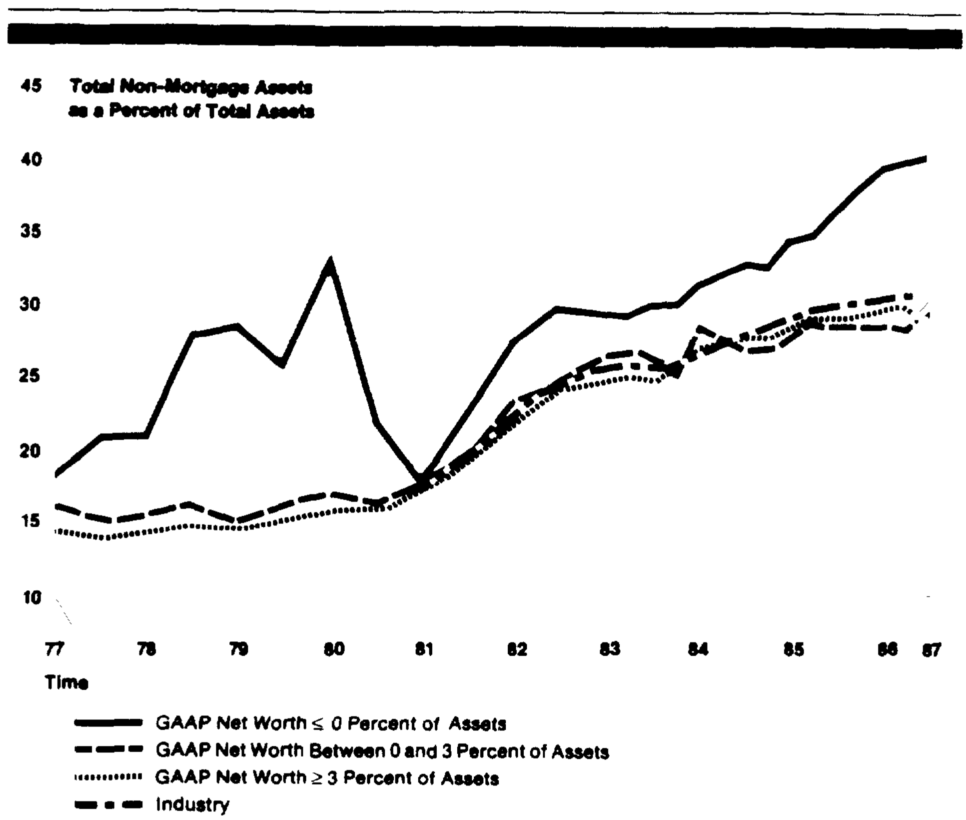
APPENDIX

NON-MORTGAGE ASSET COMPOSITION BY NET WORTH CATEGORY

Insolvent thrifts were holding 40.01 percent of their asset portfolio as non-mortgage assets in June 1987, while the other two net worth groups held non-mortgage assets equal to approximately 29 percent of assets. This difference is largely due to the insolvents' greater holdings of direct investments, repossessed assets, and deferred net losses (see figures I.12, I.13, and I.14 that follow).

Figure I.9:

Non-Mortgage Asset Composition of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



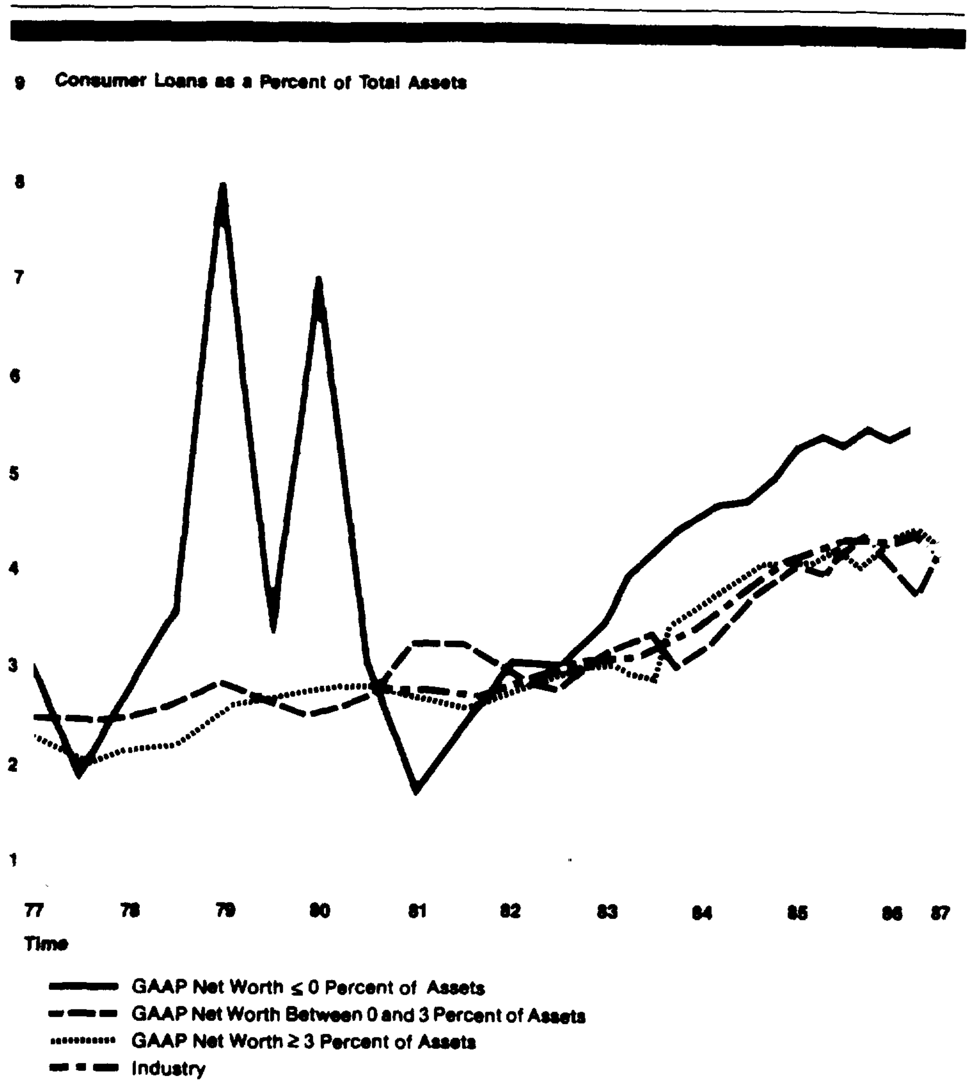
Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

NON-MORTGAGE ASSET COMPOSITION: CONSUMER LOANS BY NET WORTH CATEGORY

The thrift industry has displayed steady growth in consumer loan holdings as a percent of thrift assets over the decade. Since 1983, the insolvents have held a greater percent of consumer loans than have the other thrifts in the industry. As of June 1987, industry holdings of consumer loans as a percent of assets was 4.41 percent, compared to 5.47 for the insolvents.

Figure I.10:

Non-Mortgage Asset Composition: Consumer Loans of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



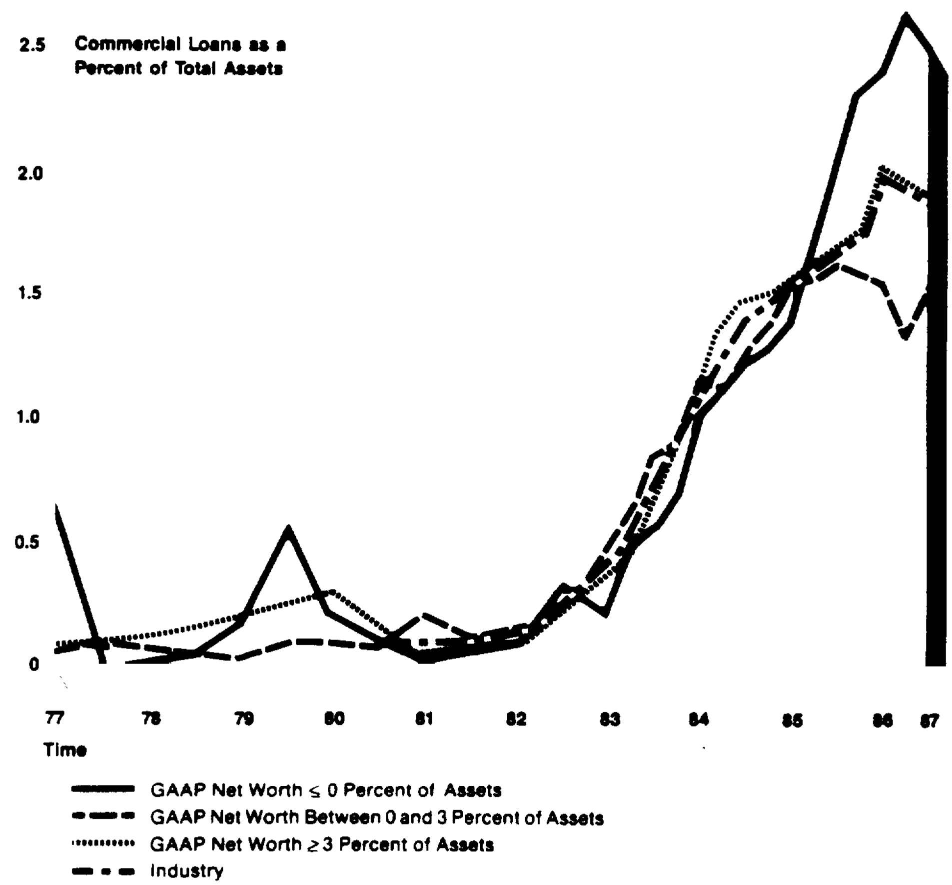
Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

NON-MORTGAGE ASSET COMPOSITION: COMMERCIAL LOANS BY NET WORTH CATEGORY

Though a steady climb in the commercial loan composition of thrifts' asset portfolio has characterized the industry since 1982, the industry average remains below 2 percent of total assets. Since 1986 insolvent thrifts have held a larger percent of their assets in commercial loans than have the rest of the industry. As of June 1987, 2.51 percent of the insolvents' asset portfolio consisted of commercial loans.

Figure I.11:

Non-Mortgage Asset Composition: Commercial Loans of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

NON-MORTGAGE ASSET COMPOSITION: DIRECT INVESTMENT BY NET WORTH CATEGORY

Compared to the other thrifts, insolvents have been holding a greater percent of their asset portfolio as direct investments[15] since 1986. The disparity between the industry average and the average for the insolvents has been widening. The industry average in June 1987 was 2.64 percent of total asset; for insolvents it was 5.57.

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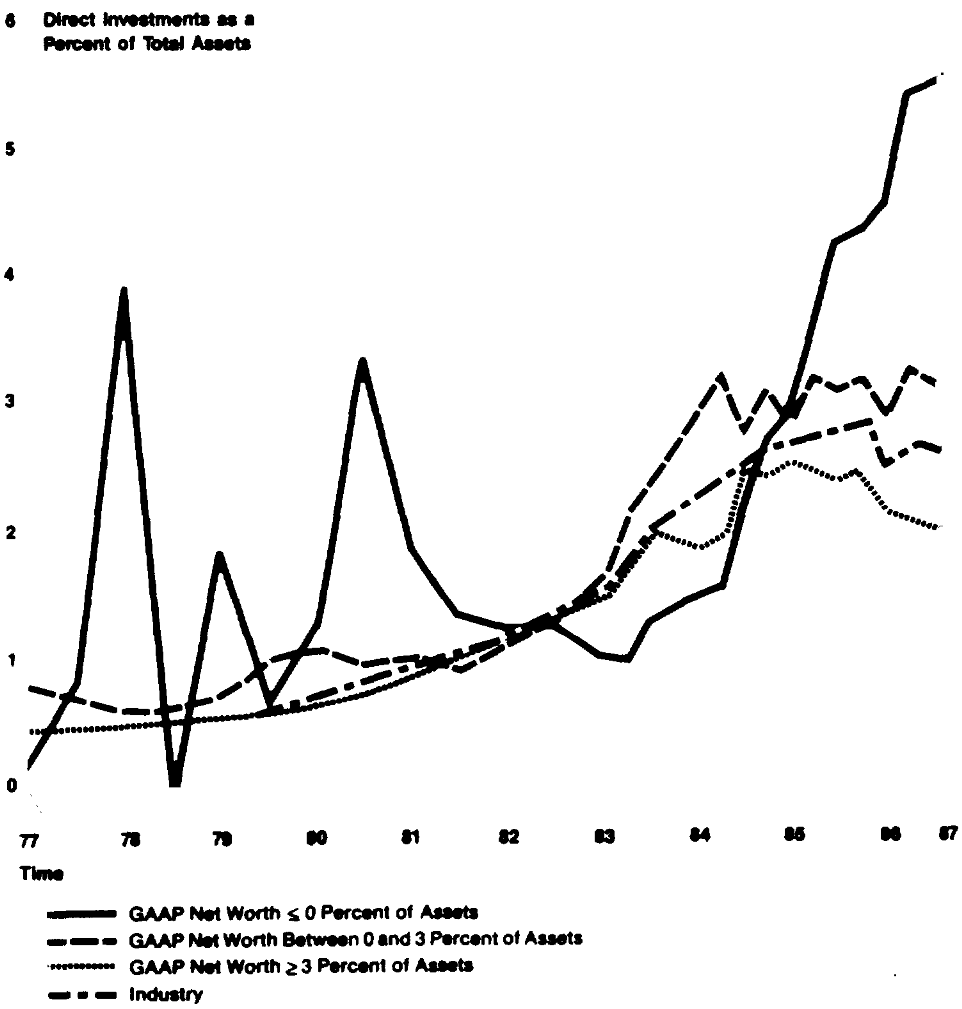
[15]Direct investment refers to assets other than those used for ordinary thrift operations and to property obtained from loan foreclosures that are directly owned and managed by the thrift. These assets are primarily real estate related. They include land held for development or resale and equity on service corporations that own and manage real estate and that provide real estate related services to the public.

Figure I.12:

Non-Mortgage Asset Composition: Direct Investment of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

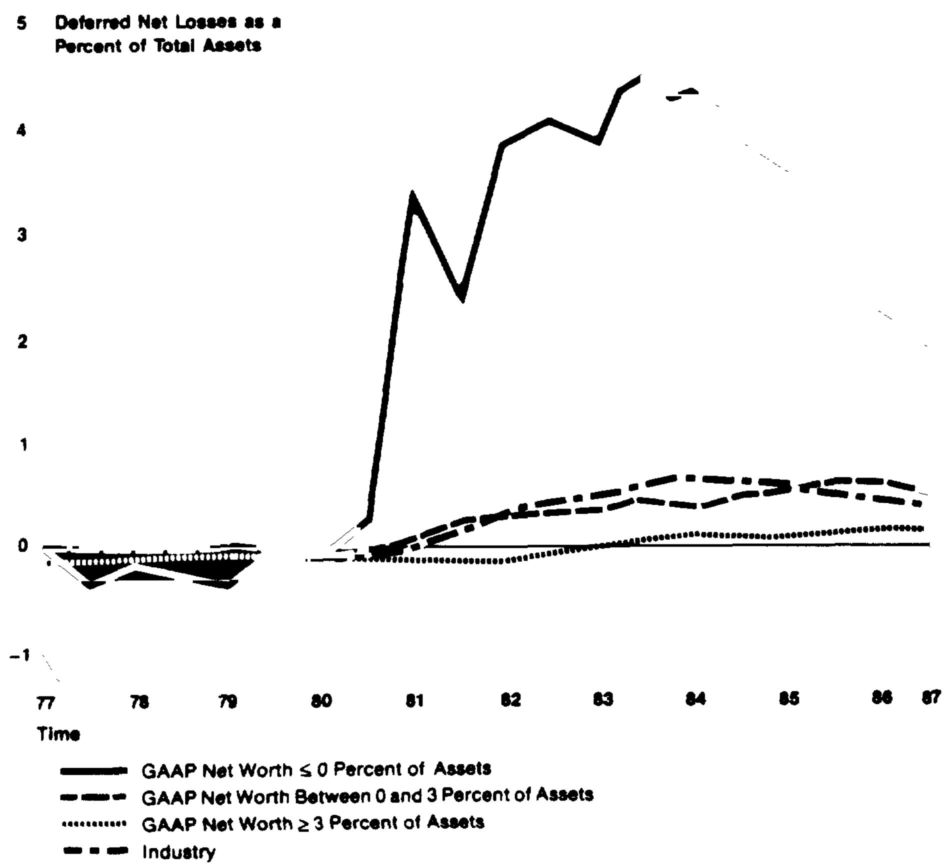
NON-MORTGAGE ASSET COMPOSITION: DEFERRED NET LOSSES BY NET WORTH CATEGORY

Deferred net losses[16] have assumed increasing importance in the asset portfolio of insolvent thrifts since the recession and thrift crisis of 1981 to 1982. Since 1985 the deferred net losses to asset ratio has declined for thrifts in the insolvent category, though it remains significantly higher for them than for the thrifts in the other two net worth categories. The ratio comprised 1.88 percent of assets for the insolvents at June 1987 and .41 percent for the industry.

[16]Deferred net losses are an asset of thrift institutions. Until year-end 1987, a FHLBB regulation permitted FSLIC-insured institutions to defer overtime any losses (or gains) incurred on the sale of certain assets. After year-end 1987, such losses (or gains) are to be treated as expense (or income) items in the quarter in which they occur.

Figure I.13:

Non-Mortgage Asset Composition: Deferred Net Losses of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

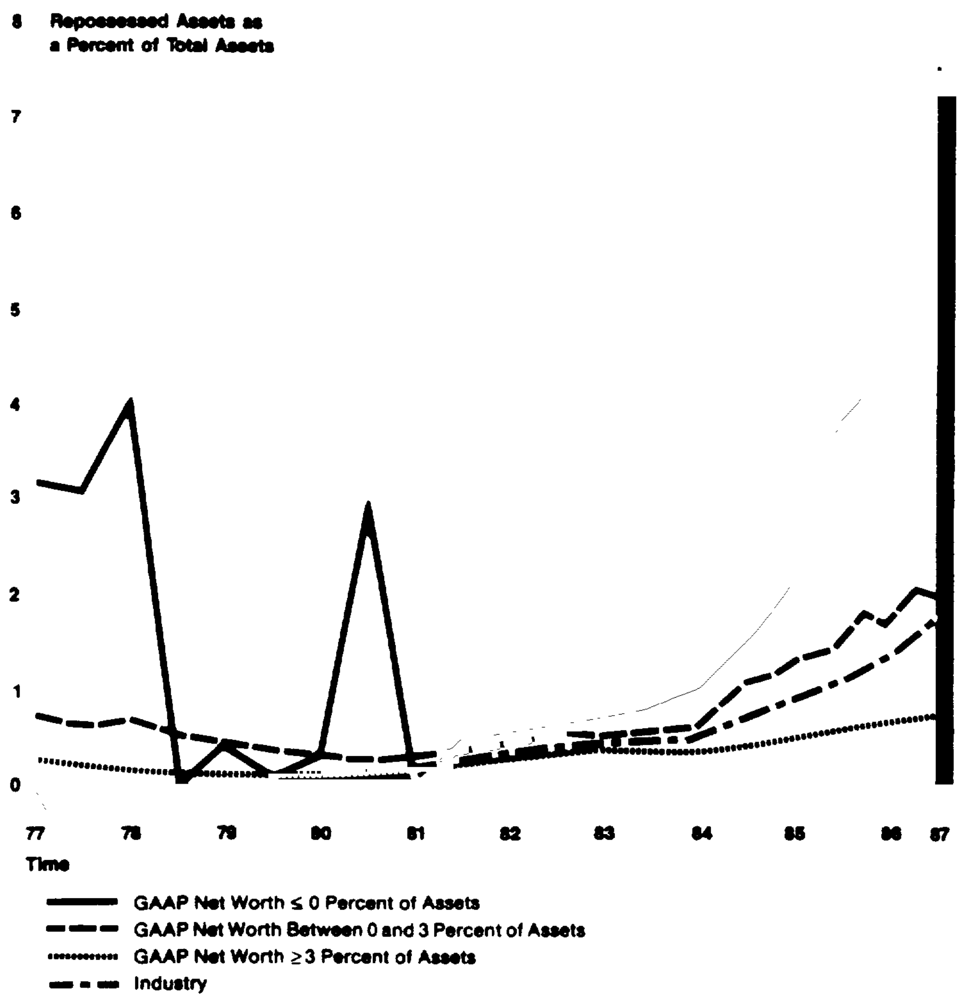
NON-MORTGAGE ASSET COMPOSITION: REPOSSESSED ASSETS BY NET WORTH CATEGORY

Repossessed assets[17] in the insolvent thrifts' asset portfolio have grown steadily since 1982. As of June 1987, they comprised 7.40 percent of the assets of the insolvent thrifts. Repossessed assets comprised less than 2 percent of the asset portfolio for the rest of the industry as of June 1987.

[17]Repossessed assets include foreclosed real estate and real estate in judgments well as other repossessed property, such as mobile homes, automobiles, and other chattel to which a marketable title has been or will be acquired. The figure is reported net of depreciation allowances.

Figure I.14:

Non-Mortgage Asset Composition: Repossessed Assets of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



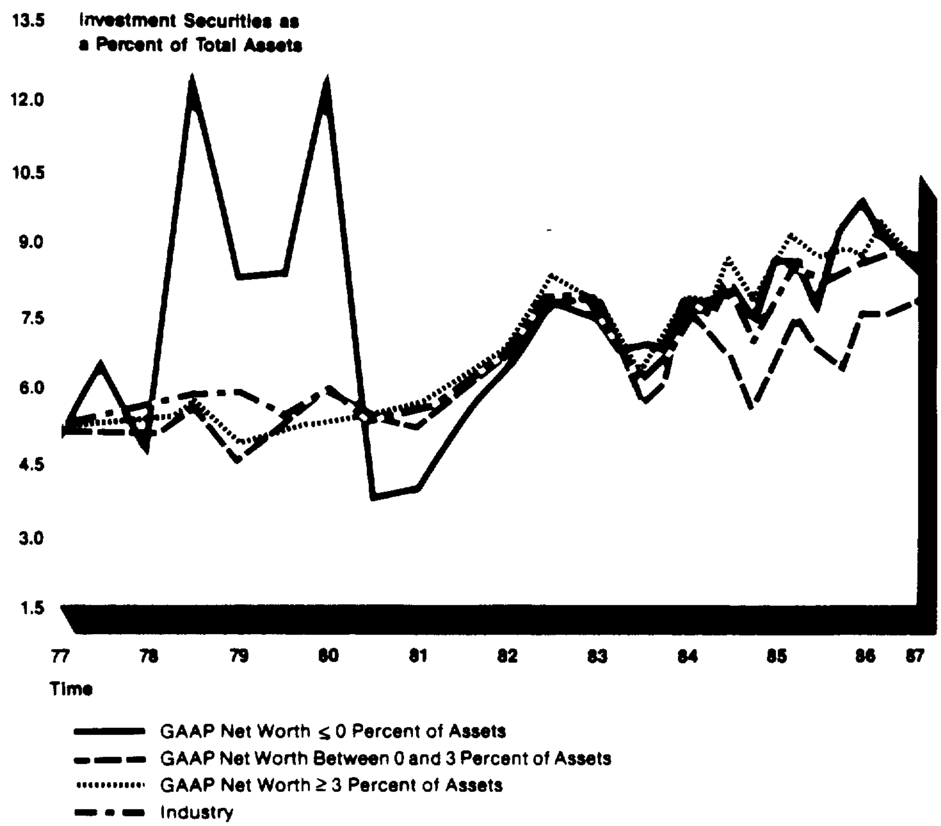
Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

NON-MORTGAGE ASSET COMPOSITION: INVESTMENT SECURITIES BY NET WORTH CATEGORY

For the industry, investment security holdings as of June 1987 were 8.59 percent of assets. The insolvent and healthier thrifts held 8.59 and 8.84 percent respectively. Low net worth thrifts, whose holdings of investment securities were 7.71 percent in June 1987, have held less than the industry average since midyear 1984.

Figure I.15:

Non-Mortgage Asset Composition: Investment Securities of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

SOURCES OF FUNDS

The industry's reliance on deposits as a source of funds has decreased over the last decade from 86.88 percent of total assets in December 1977 to 74.66 percent in June 1987. The reduced use of deposits reflects diminished reliance on small deposits, with the ratio of small to large deposits declining from 9.62 percent in December 1977 to 6.90 percent in June 1987. During this same period, the use of FHLBank advances, reverse repurchase agreements, and other borrowed money as a source of funds has risen.

Table I.6:

Sources of Funds of
All FSLIC-Insured Institutions,
Year-End 1977 Through Midyear 1987
(Mean values are expressed as a percent of total assets)

Time	Small deposits	Large deposits	Total deposits[a]	FHLBank advances	Reverse repurchase agreements	Other borrowed money	Other liabilities[b]	GAAP net worth
December 77	78.70	8.18	86.88	4.49	0.87	0.86	1.29	5.70
June 78	NA	NA	NA	5.25	1.09	0.87	1.38	5.73
December 78	75.84	8.69	84.53	6.36	1.18	0.89	1.37	5.77
June 79	NA	NA	NA	6.40	1.29	1.15	1.52	5.75
December 79	72.57	10.32	82.89	7.24	1.16	1.49	1.53	5.80
June 80	NA	NA	NA	7.13	1.13	1.35	1.67	5.70
December 80	75.89	6.71	82.60	7.71	1.40	1.39	1.54	5.47
June 81	NA	NA	NA	8.50	1.64	1.61	1.76	5.06
December 81	80.11	7.54	87.65	9.76	1.39	2.67	1.72	4.34
June 82	NA	NA	NA	10.06	1.55	2.90	1.91	3.59
December 82	71.62	8.52	80.14	9.30	1.70	3.24	1.91	3.12
June 83	NA	NA	NA	7.66	2.03	2.16	1.97	3.11
December 83	71.08	10.85	81.93	7.03	2.77	2.28	1.97	3.23
March 84	70.99	11.10	82.09	6.54	3.58	1.92	1.87	3.20
June 84	69.21	11.65	80.86	7.00	4.41	1.79	2.00	3.08
September 84	68.42	11.69	80.11	7.48	4.84	1.72	2.00	2.95
December 84	68.56	11.66	80.22	7.33	4.72	2.03	1.83	2.93
March 85	69.40	11.35	80.75	7.22	4.12	2.07	1.90	2.96
June 85	70.08	10.65	80.73	7.50	3.39	2.10	2.10	3.18
September 85	69.48	10.31	79.79	7.82	3.67	2.42	2.09	3.23
December 85	68.76	10.15	78.91	7.89	4.14	2.65	2.04	3.39
March 86	68.70	10.40	79.10	7.57	3.98	2.73	2.15	3.48
June 86	67.53	10.14	77.67	7.90	4.76	2.98	2.24	3.47
September 86	67.21	10.06	77.27	8.02	4.77	3.12	2.25	3.61
December 86	66.39	10.01	66.40	8.59	5.01	3.26	2.18	3.57
March 87	66.59	9.69	76.28	8.26	5.30	3.54	2.03	3.62
June 87	65.21	9.45	74.66	8.55	6.58	3.69	2.10	3.50

[a]Total deposits are the sum of small and large deposits.

[b]Other liabilities include accrued interest payable, dividends payable on permanent reserve or guaranty stock, accrued taxes and insurance, deferred net gains (losses) on future/options hedging liabilities, deferred federal and other income taxes, and other liabilities.

Note: Only year-end data were available for small and large deposits prior to March 1984.

APPENDIX

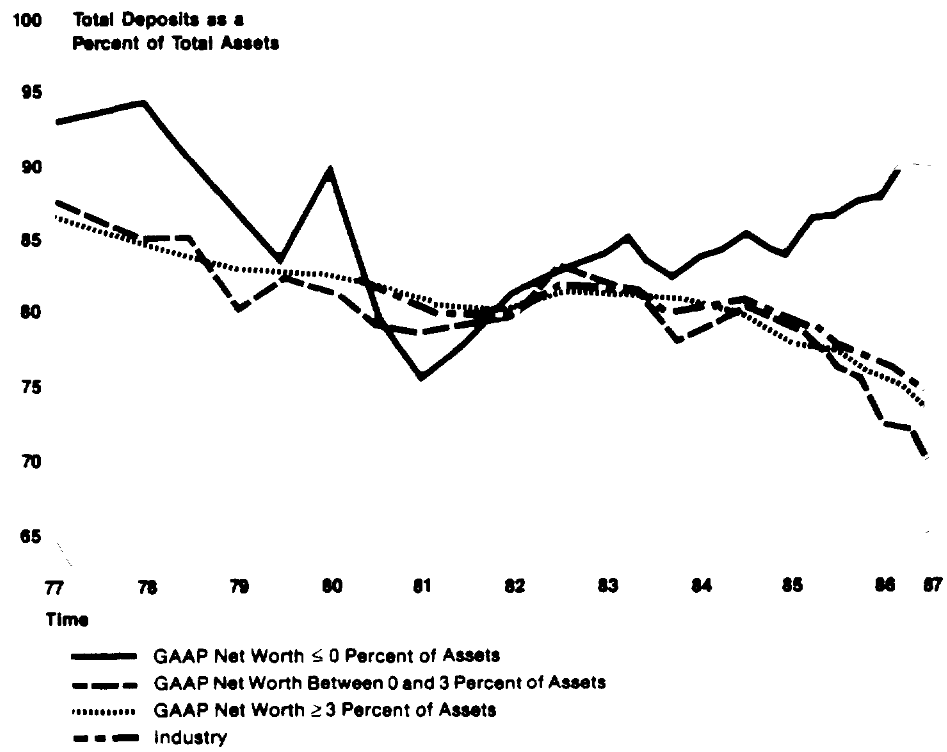
SOURCES OF FUNDS: TOTAL DEPOSITS BY NET WORTH CATEGORY

For most of the decade[18], the insolvents' reliance on deposits as a source of funds has been greater than the industry's, whose deposit to asset ratio averaged approximately 80 percent over the decade. Since the thrift crisis of 1981 to 1982, this ratio has increased for the insolvents. For the rest of the industry, it has declined. As of June 1987, the deposit to total asset ratio for the industry was 74.66 percent; for the insolvents it was 89.54 percent.

[18]During the 1981 to 1982 thrift crisis, the insolvents' deposit to asset ratio declined to 75.6 percent while the industry average remained approximately 80 percent.

Figure I.16:

Sources of Funds: Total Deposits of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

SOURCES OF FUNDS: ADVANCES BY NET WORTH CATEGORY

During the thrift crisis of 1981 to 1982, FHLBank advances holdings as a percent of total assets reached 10.06 percent for the industry and 16.67 percent for the insolvents. By March 1984, the industry ratio had declined to a low of 6.54 percent. Since then, advances holdings have increased for thrifts in all net worth categories. In June 1987, the advances to total asset ratio was approximately 8.55 percent for the industry and 10.87 percent for the insolvents.

Insolvents rely more heavily on advances as a source of funds than do other thrifts. For poorly capitalized institutions, advances may represent a lower cost source of funds than would otherwise be available to these problem thrifts in the market.[19]

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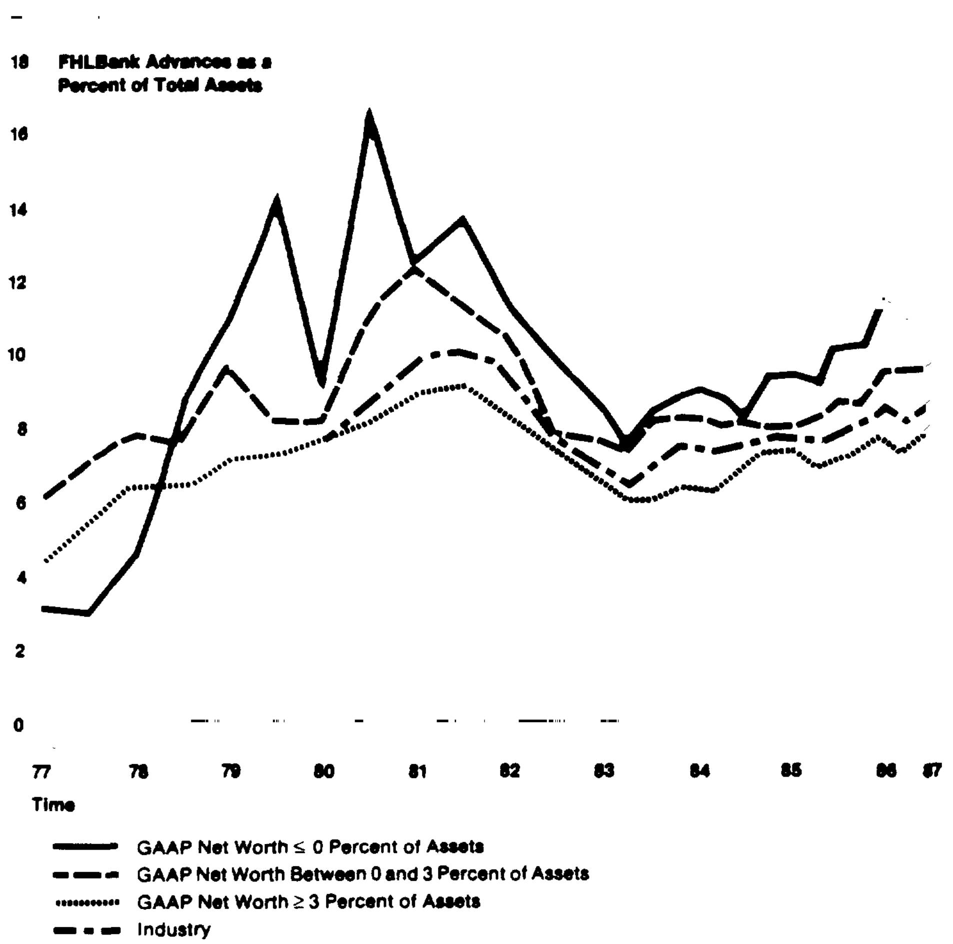
[19] In general, FHLBank advances are fully collateralized. However, in some cases FSLIC has guaranteed the repayment of an advance to the FHLBanks on behalf of low net worth and insolvent thrifts. In the past, some advances were made on the basis of the FSLIC guarantee alone. Currently, the FHLBanks require that even FSLIC guaranteed advances be fully collateralized.

Figure I.17:

Sources of Funds: Advances of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

APPENDIX

SOURCES OF FUNDS: REVERSE REPURCHASE AGREEMENTS BY NET WORTH CATEGORY

The industry use of reverse repos (see footnote 3) has increased as a percent of total assets from .86 to 6.58 over the period examined. As of June 1987, reverse repos represented 64.07 percent of total thrift borrowings other than advances.

Low net worth thrifts and the larger institutions, those with assets greater than $1 billion, are the greatest users of reverse repos. As of June 1987, the low net worth thrifts' holdings of this source of funds as a percent of total assets was 10.87 percent. For the industry, this ratio was 6.58 percent.

Currently, some institutions are engaging in a strategy known as risk-controlled arbitrage. This is a highly leveraged strategy utilizing reverse repo transactions, typically short term. The collateral to borrow these short-term funds is usually mortgage-backed securities, a long-term asset.[20] Therefore, active participation in the mortgage-backed securities market would be expected from those thrifts that are actively engaged in risk-controlled arbitrage.

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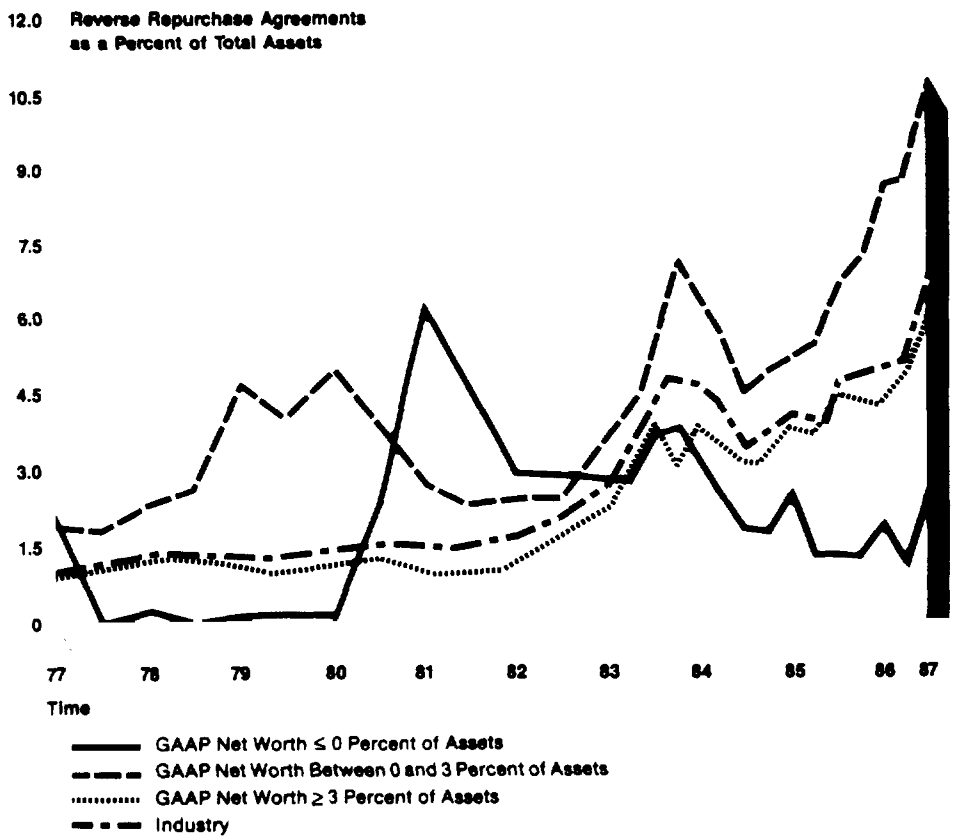
[20] Edward A. Hjerpe III, "Risk-Controlled Arbitrage is not Risk Free", Outlook of the Federal Home Loan Bank System, May/June 1987, pp. 20 to 23.

Figure I.18:

Sources of Funds: Reverse Repurchase Agreements of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

DEPOSIT COMPOSITION: BROKERED DEPOSITS BY NET WORTH CATEGORY

The industry has come to depend more upon brokered deposits[21] as a source of funds since late 1981. For the insolvents and low net worth thrifts, there has been volatility in the brokered deposits to asset ratio since 1982.[22] The insolvents' holdings of brokered deposits as a percent of total asset grew from 1.37 in March 1986 to 5.11 in June 1987. The low net worth thrifts experienced a sharp climb in the growth of this source of funds immediately following the thrift crisis, after which their reliance on brokered deposits declined. As of June 1987, the percent of their assets held as brokered deposits was 3.59. The healthier thrifts display a sharp but stable upward trend with a slight decline since 1986. The industry average holdings of brokered deposits as a percent of total assets was 4.07 in June 1987.

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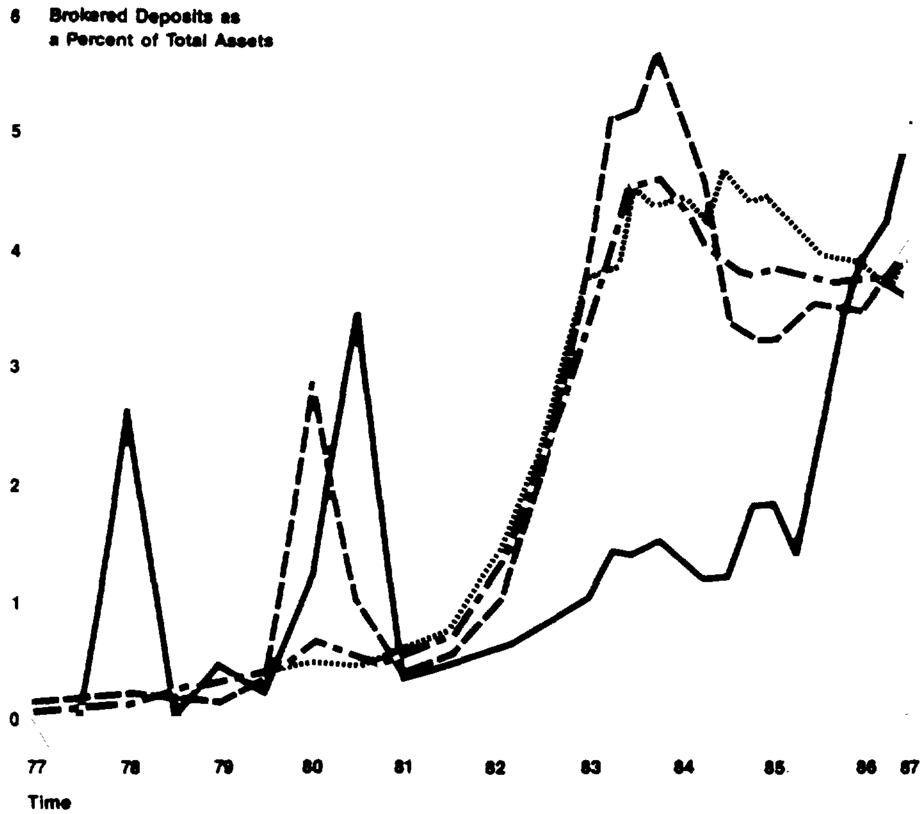
[21]Brokered deposits are deposits received from brokers or dealers for the account of others.

[22]The variability in this ratio from 1977 to 1981 is accounted for by the explanation given in footnote 13. Apart from these early spikes, notable variation occurred in the brokered deposit to asset ratio.

Figure I.19:

Deposit Composition: Brokered Deposits of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



GAAP Net Worth ≤ 0 Percent of Assets
GAAP Net Worth Between 0 and 3 Percent of Assets
GAAP Net Worth ≥ 3 Percent of Assets
Industry

Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

COMPONENTS OF PROFITABILITY AS OF JUNE 1987 BY NET WORTH CATEGORY AND FOR THE INDUSTRY

The industry's ROA of -.55 in June 1987 was its lowest point since the 1981 to 1982 thrift crisis. It is dominated by the steadily worsening performances of the insolvents, whose declining profitability reflects a deterioration in all the components of profitability, particularly the net non-operating margin. Net non-operating losses are largely a result of the provision for losses on assets and losses on the sale of assets.

Table 1.7:

Components of Profitability for all FSLIC-Insured Institutions, by Net Worth Category and Industry, June 1987

(Mean values are expressed as a percentage of total assets)

	Net worth categories (as a percentage of assets)			
	Less than zero	Zero to three percent	Greater than three percent	Industry
Return on assets[a]	-7.43	-.59	.53	-.55
Net interest margin	-.60	1.34	2.17	1.71
Net non-interest operating margin	-2.14	-1.17	-1.11	-1.23
Net non-operating margin	-4.68	-.64	-.22	-.78

[a]The sum of net interest margin, net non-interest operating margin, and net non-operating margin does not equal return on assets due to the exclusion of income taxes.

Notes: For definitions of each component, see the figures that follow.
All figures are annualized.

NET INTEREST MARGIN

Owing to the declining interest rates from midyear 1982 through 1986, the industry's net interest margin (NIM)[23] recovered following the 1981 to 82 thrift crisis.[24] However, the industry has not re-attained the pre-crisis margin of nearly 2 percent.

The NIM for the insolvent thrift category declined from .57 in June 1985 to -.60 in June 1987. Over the same period, the NIM rose from .96 to 1.34 for the low net worth category of thrifts and from 1.59 to 2.17 for the healthy category of thrifts.

The rise in interest rates during the first quarter of 1987 had not exerted a discernible impact on NIM as of June 1987.

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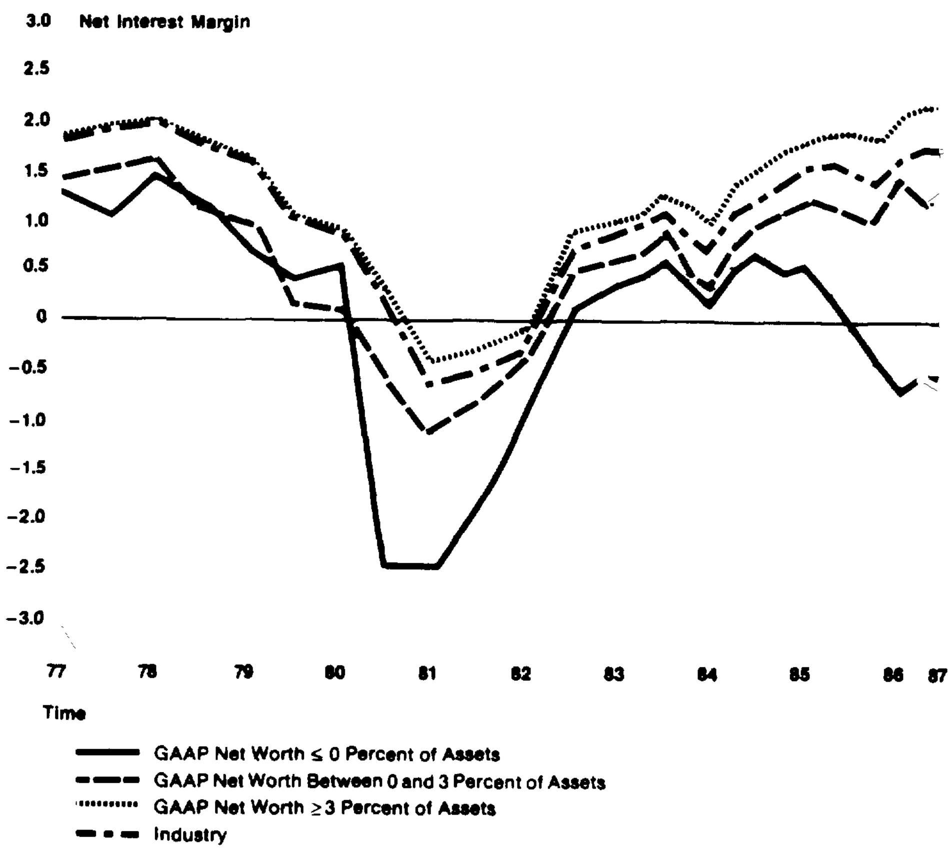
[23]Net interest margin is an annualized figure equal to interest income minus interest expense divided by total assets.

[24]A brief downturn in NIM from June 1984 to December 1984 occurred following the brief upturn in interest rates from June 1983 to June 1984.

Figure I.20:

Net Interest Margin of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

NET NON-INTEREST OPERATING MARGIN BY NET WORTH CATEGORY

There has been an overall decline in the industry's net non-interest operating margin[25] since 1985. For the insolvent thrifts, this decline has been sharper than for the rest of the industry. Prior to 1985, the net non-interest operating margin averaged approximately -.75 percent. In June 1987, this margin was -1.23. The widening gap since 1985 reflects both rising operating expenses and declining operating income net of interest.

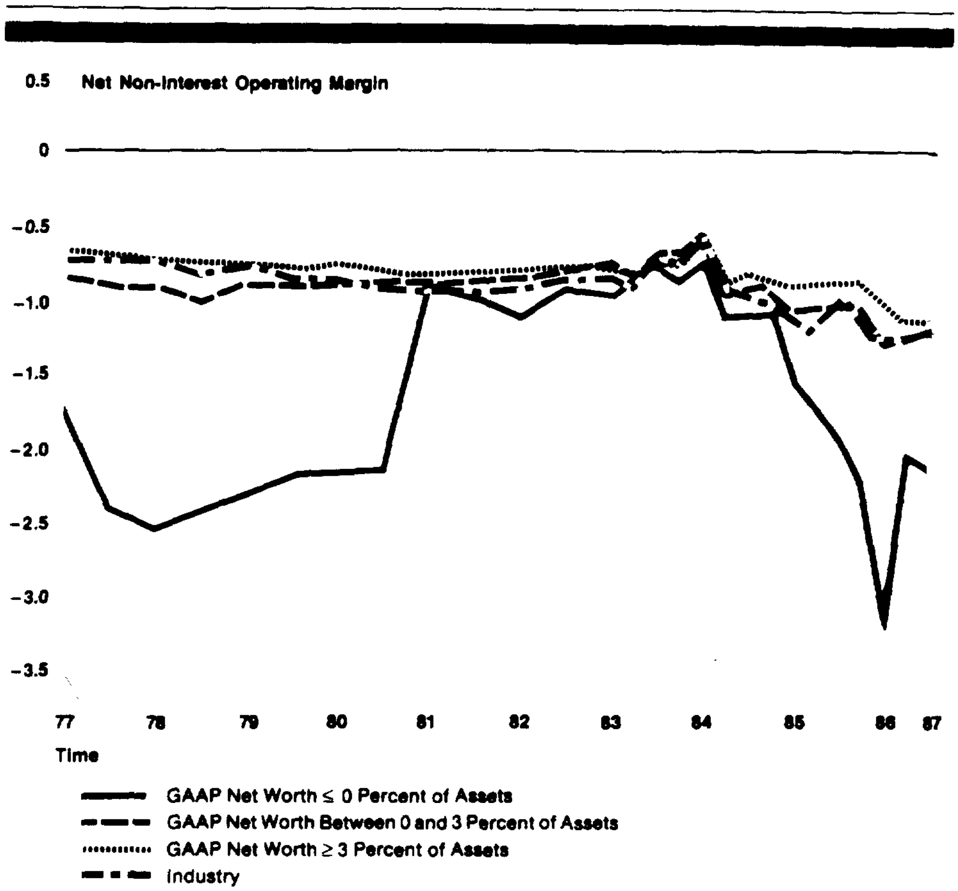
[25]Net non-interest operating margin is calculated as the difference between operating income net of interest and operating expenses divided by total assets.

Operating income net of interest includes loan servicing fees and charges as well as amortization of deferred gains on futures/options hedging activities.

Operating expenses include directors', officers', and employees' fees and compensation; legal expenses; furniture, fixtures, equipment, and automobile expenses; marketing expenses; loan servicing fees; amortization of deferred losses on futures/options hedging activities; and other costs.

Figure I.21:

Net Non-Interest Operating Margin of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

NET NON-OPERATING MARGIN BY NET WORTH CATEGORY

The industry's net non-operating margin[26] recovered following the 1981 to 1982 thrift crisis and recession, reaching .68 percent in December 1982, its highest point during the decade. Since the first quarter of 1986, the net non-operating margin has declined considerably, becoming negative, primarily because of the severely worsening performance of the insolvent thrifts. The net non-operating margin of insolvent thrifts was -4.68 percent in June 1987. For the healthier thrifts and the low net worth thrifts, these percentages were -.22 and -.64 respectively.

Since the first quarter of 1986, non-operating expenses, which had been rising, began to exceed non-operating income, which had begun declining at that time. This coincides with the industry's decline in profitability that began in the first quarter of 1986. Net interest margin has been fairly stable since end-of-year 1985, despite rising interest rates in the first and second quarter of 1987. Since net non-operating losses are largely a result of the provision for losses on assets and losses on the sale of assets, this suggests that the current problem facing the thrift industry is one of poor asset quality rather than narrow interest rate spreads.

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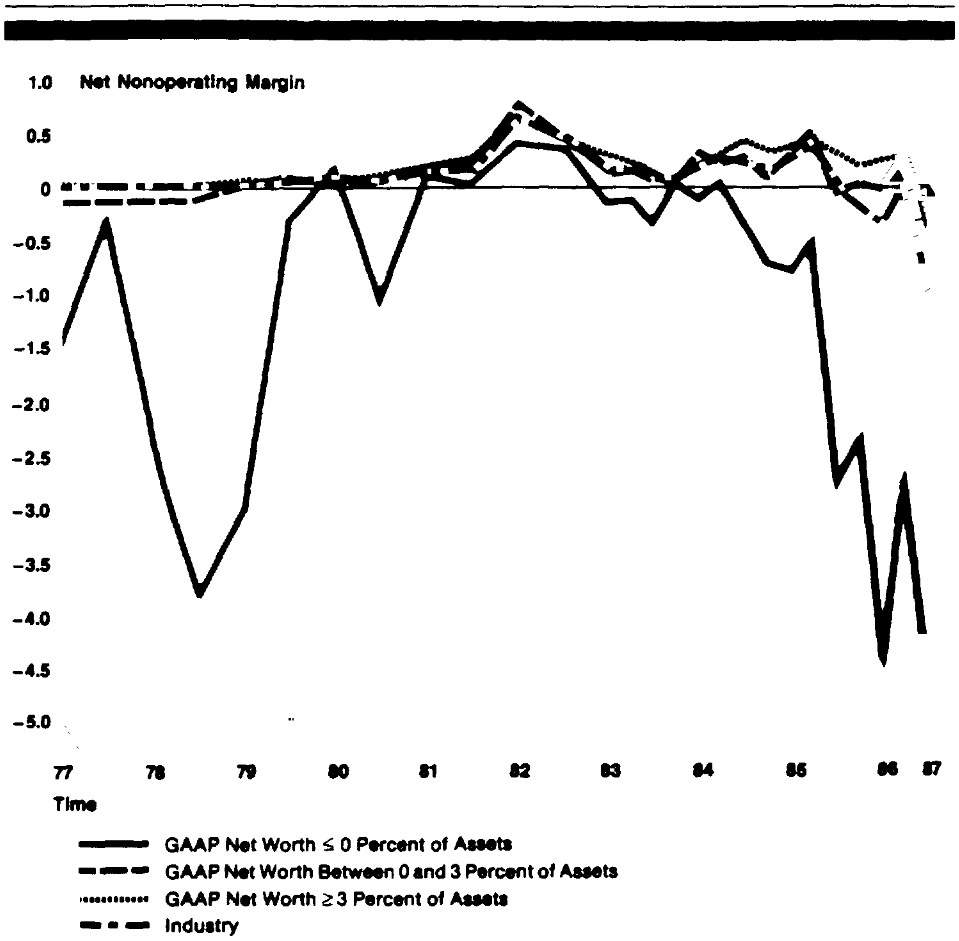
[26]The net non-operating margin is calculated as the difference between non-operating income and non-operating expenses divided by total assets.

Non-operating income consists of profits on the sale of loans, foreclosed real estate, other repossessed property and real estate held, and other profits on the sale of investment securities, as well as the amortized deferred gains on loans and other assets held.

Non-operating expenses consist of the provision for losses on assets and losses on the sale of assets.

Figure I.22:

Net Nonoperating Margin of FSLIC-Insured Thrifts by Net Worth Category and Industry, Year-End 1977 Through Midyear 1987



Note: Years below the horizontal axis are indicated at each year's end, except 1987 which is indicated at midyear.

THRIFT PROFITABILITY BY NET WORTH CATEGORY AND ASSET SIZE

During the second quarter of 1987, the thrift industry sustained an average return on assets (ROA) of -.55 percent. The -7.43 percent return on assets for the 491 insolvent thrifts and the -.59 return on assets for the 463 low net worth thrifts contributed to the negative industry figure. The industry losses of $1.65 billion reflected the $2.42 billion losses incurred by the insolvent thrifts and the $346 million losses of the low net worth thrifts. Together, this weak segment comprises 30 percent of the total number of thrifts in the industry.

For the historical perspective on numbers of institutions as well as ROA and NIM by net worth category, see table I.1 and figures I.4 and I.20.

Table I.8:

Thrift Profitability
by Net Worth Category and Asset Size,
Second Quarter of 1987
(dollars in millions)

	Asset Size				
	Less than $50M	$51-100M	$101-500M	$501M-1B	Greater $1B
GAAP net worth					
Less than zero percent					
Number of thrifts	103	107	225	33	23
Net income ($)	-63	-235	-770	-732	-619
Average ROA (%)[a]	-8.09	-12.32	-6.20	-12.00	-5.4
Average NIM (%)	0.12	-0.16	-0.24	-0.44	-1.4
Between zero percent and three percent					
Number of thrifts	80	98	195	41	49
Net income ($)	-4	-5	-32	-77	-229
Average ROA (%)	-0.66	-0.26	-0.30	-1.06	-0.5
Average NIM (%)	1.92	1.88	1.56	0.76	-0.3
Greater than three percent					
Number of thrifts	717	524	731	113	152
Net income ($)	29	52	230	93	710
Average ROA (%)	0.59	0.56	0.60	0.46	0.5
Average NIM (%)	2.76	2.52	2.40	1.80	1.0
Total					
Number of thrifts	900	729	1,151	187	224
Net income (%)	-38	-187	-571	-715	-138
Average ROA (%)	-0.59	-1.45	-0.92	-2.14	-0.
Average NIM (%)	2.32	2.04	1.72	0.80	0.

[a]Second quarter 1987 annualized figure.

Source: Federal Home Loan Bank Board Semiannual and Quarterly Financial Reports

THRIFT NET WORTH BY NET WORTH CATEGORY AND ASSET SIZE

The healthier institutions, those with a GAAP net worth to assets ratio greater than or equal to 3 percent, showed a 6.12 percent GAAP net worth to assets ratio in June 1987. For insolvent thrifts, this ratio was much lower, -10.14 percent, and for thrifts in the low net worth category, it was 1.73 percent. The industry average of 3.50 percent reflects the combined influence of the low net worth and insolvent institutions, which account for 30 percent of the industry's assets.

As of June 1987, assets for the insolvent thrifts totaled $130.23 billion and GAAP net worth was negative $13.21 billion. These figures raise concerns about the health of the thrift industry and potential demands on the FSLIC insurance fund.

For an historical perspective on total assets by net worth category and GAAP net worth as a percent of assets also by net worth category, see figures I.1 and I.3.

Table I.9:

Thrift Net Worth
by Asset Size and Net Worth Category,
June 1987
(dollars in millions)

	Asset Size				
	Less than $50M	$50-100M	$100-500M	$500M-1B	Greater tha $1B
GAAP Net Worth					
Less than Zero Percent					
Total assets ($)	3.13	7.62	49.67	24.20	45.41
Percent of total assets	0.26	0.63	4.13	2.03	3.78
GAAP net worth ($)	-0.47	-0.96	-4.65	-4.35	-2.78
GAAPNW/Assets (%)	-14.89	-12.65	-9.35	-17.82	-6.12
Between Zero Percent and 3 Percent					
Total assets ($)	2.42	7.11	43.21	28.97	154.75
Percent of total assets	0.20	0.59	3.59	2.41	12.87
GAAP net worth ($)	0.05	0.13	0.78	0.47	2.66
GAAPNW/Assets (%)	1.93	1.81	1.80	1.62	1.72
Greater than Three Percent					
Total assets ($)	19.91	37.08	154.74	80.44	543.96
Percent of total assets	1.66	3.08	12.87	6.69	45.22
GAAP net worth ($)	1.53	2.45	9.61	5.54	32.05
GAAPNW/Assets (%)	7.68	6.61	6.21	6.88	5.89
Total					
Total assets ($)	25.46	51.81	247.62	133.80	744.12
Number of total assets	2.12	4.31	20.59	11.12	61.87
GAAP net worth ($)	1.11	1.62	5.74	1.66	31.93
GAAPNW/Assets (%)	4.36	3.12	2.32	1.24	4.29

Source: Federal Home Loan Bank Board Semiannual and Quarterly Financial Reports.

THRIFT NET WORTH, PROFITABILITY, AND INSOLVENCIES, BY FHLBANK DISTRICT

As of June 1987, 157 thrifts or 32 percent of the thrifts in the Dallas district were insolvent. GAAP net worth as a percent of assets averaged -2.26 for the Dallas district institutions compared to an average of 3.50 percent for the industry.

Average annualized ROA was negative for the second quarter of 1987 for the thrifts in five FHLBank districts: Chicago, Des Moines, Dallas, Topeka, and Seattle. The Dallas district ROA of -5.38 percent was largely responsible for the negative industry figure of -.55 percent.

Table I.10

Thrift Net Worth, Profitability, and Insolvencies by FHLBank District, June 1987

District	GAAP net worth ratio[a]	Return on assets[b]	Number of insolvent thrifts	Total thrifts in district
Boston	6.91	0.48	2	98
New York	4.40	0.33	27	234
Pittsburgh	4.47	0.47	7	192
Atlanta	4.61	0.16	61	611
Cincinnati	4.58	0.34	30	358
Indianapolis	4.01	0.25	20	165
Chicago	5.53	-0.18	57	342
Des Moines	2.36	-0.37	33	190
Dallas	-2.26	-5.38	157	488
Topeka	2.57	-0.74	44	169
San Francisco	3.96	0.05	33	229
Seattle	3.24	-0.42	20	115
Total	3.50	-0.55	491	3,191

[a]Equal to GAAP net worth divided by total assets.

[b]Second quarter 1987 annualized figure.

Source: Federal Home Loan Bank Board Semiannual and Quarterly Financial Report.

NET WORTH AND INCOME CAPITAL CERTIFICATES: SUM AND NUMBERS OF HOLDERS

The Garn-St Germain Depository Institutions Act of 1982 authorized FHLBB to establish a program to increase the net worth of qualifying low net worth institutions. The primary purpose of the program was to raise the net worth of troubled thrifts to the required minimum in order to avoid a FSLIC takeover. Under the program, Net Worth Certificates (NWC)[27] are issued by thrift institutions to FSLIC in exchange for a FSLIC promissory note. Thrifts may include NWCs as part of their net worth under Regulatory Accounting Principles (RAP).

In the past, Income Capital Certificates (ICC)[28] were an additional tool used to augment the net worth position of low net worth thrifts. ICCs were issued by thrifts to FSLIC in exchange for a FSLIC note or cash. While ICCs may be included in net worth under RAP, they may be included in GAAP net worth only if exchanged for cash. In April 1987, the ICC program was discontinued and thrifts may no longer issue new ICCs.

The number of thrifts reporting holdings of NWCs increased from 16 at year-end 1982 to a high of 125 in March 1986. The number then declined to 114 in June 1987. The dollar value of NWCs reported fell from a high of $1.11 billion in December 1983 to $311.5 million in June 1987.

ICCs have been less widely used than NWCs. In June 1987, 28 thrifts held ICCs, down from 40 in December 1985. However, at $1.47 billion in June 1987, down from $2.42 billion in December 1985, the dollar value of ICCs outstanding is greater than NWCs . The legislative authority for the NWC program expired in October 1986. Since then, no new NWCs have been issued by thrifts. Although CEBA authorizes FSLIC to provide capital assistance in the form of purchases of capital instruments from thrifts, the FHLBB has not acted to reinstate the NWC program or any other capital certificate program.

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[27]The Garn-St Germain Act created NWCs. A NWC is a special security issued by a depository institution with a net worth deficiency and then exchanged for a promissory note from FDIC or FSLIC. The institution agrees to redeem its NWC if and when it returns to profitability and can make all required allocations to net worth.

[28]Income capital certificates are certificates issued to FSLIC by institutions seeking supplementary net worth. The recipient agrees to pay back the loan, plus interest, when and if it gets into a better position. FSLIC conceived of and operated the program that issues the certificates.

Table I.11:

Net Worth and Income Capital Certificates:
Sum and Numbers of Holders at
all FSLIC-Insured Thrifts,
Year-End 1977 Through Midyear 1987
(dollars in Millions)

	Total net worth certificates		Income capital certificates		Total sum of holders
Time	Number of holders	Sum($)	Number of holders	Sum($)	Holding either or both
December 1982	16	472.3			16
June 1983	49	580.1			49
December 1983	82	1,005.6			82
March 1984	74	136.7	16	712.5	88
June 1984	80	147.3	15	705.0	93
September 1984	83	162.2	18	758.0	100
December 1988	88	193.0	20	828.1	107
March 1985	95	237.5	19	806.9	112
June 1985	109	345.0	22	1,325.9	129
September 1985	119	382.3	30	1,484.0	146
December 1985	124	427.9	40	2,419.8	160
March 1986	125	441.8	39	2,433.7	161
June 1986	122	424.7	40	2,397.3	160
September 1986	121	413.4	37	1,978.7	157
December 1986	118	396.9	35	1,839.9	152
March 1987	118	395.5	31	1,748.9	148
June 1987	114	311.5	28	1,471.2	141

Accrued net worth certificates	Capital certificates that will be issued by the institution to FSLIC at the end of the current reporting period. Only those institutions that have received written assurance of NWC purchases from their Supervisory Agent may make such accruals.
Acquisition and development loans (ADC loans)	Permanent mortgages on developed building lots, acquisition and development of land, and unimproved land.
Adjustable rate mortgages	Refers to first mortgage loans whose interest rates may be periodically adjusted during the life of the mortgage. Also referred to as a variable rate mortgage.
Appraised equity capital	The excess of appraised value over book value of office land, buildings and improvements of the insured institution, or of any of its subsidiaries. The appraisal is a "one time only" appraisal as permitted by the institution's principal regulator and may be counted as net worth.
Assets	Total thrift assets consist of mortgage loans and contracts, non-mortgage loans, repossessed assets, real estate investments, liquid assets, fixed assets, and "other" assets.
Brokered deposits	Deposits received from brokers or dealers for the account of others.
Commercial loans	Secured (though not by a pledge of real estate) or unsecured loans made to a business for commercial purposes. They include construction loans and overdrafts to commercial demand deposits.

Competitive Equality Banking Act of 1987	A Comprehensive banking bill signed into law August 1987 that has as its cornerstone the recapitalization of the Federal Savings and Loan Insurance Corporation (FSLIC). Other key provisions include nonbank bank and savings and loan holding company law changes, a moratorium on additional bank powers until March 1, 1988, and forbearance provisions for capital recovery of weak institutions.
Consumer loans	Loans made to individuals for any non-business purpose except the construction or purchase of real estate. They include loans on deposits, home improvement loans, education loans, consumer auto loans, other closed-end consumer loans, credit card and other open-end consumer loans, credit card and other open-end consumer credit, and mobile home loans.
Contra assets	Contra-assets to mortgage or non-mortgage loans consist of loans in process, unearned discounts and deferred loan fees, and specific reserves and valuation allowances. Contra-assets are subtracted from the gross value of mortgage or non-mortgage loans values to obtain net values.
Deferred losses	Deferred net losses are an asset of thrift institutions. Until year-end 1987, a FHLBB regulation permitted FSLIC-insured institutions to defer overtime any losses (or gains) incurred on the sale of certain assets. After year-end 1987, such losses (or gains) are to be treated as expense (or income items in the quarter in which they occur.
Deposits	Passbook accounts, transaction accounts, certificates of deposits, and other deposits.

Depository Institutions Deregulation and Monetary Control Act of 1980	Legislation which created the Depository Committee, which is made up of the heads of the federal financial regulatory agencies. The committee was charged with phasing out ceilings on all interest rates offered by financial institutions by 1986. Other provisions increased FSLIC and FDIC insurance for all accounts from $40,000 to $100,000, gave the Federal Reserve authority to set reserve requirements on short-term accounts at all depository institutions, extended the federal override of state usury ceilings on various loans, and authorized NOW accounts nationwide.
Direct investment	Refers to assets other than those used for ordinary thrift operations and property obtained from loan foreclosures that are directly owned and managed by the thrift. These assets are primarily real estate related. They include land held for development or resale and equity on service corporations that own and manage real estate and that provide real estate related services to the public.
Expense	FSLIC-insured institutions report their expenditures either as operating expense, interest charges, or nonoperating expense.
Fixed-rate mortgage	Mortgage loans that have neither a variable rate nor a balloon payment but rather an interest rate that does not change over the term of the loan.

GAAP net worth	The sum of preferred stock; permanent, reserve, or guaranty stock; paid-in surplus; income capital certificates if exchanged with FSLIC for cash; reserves; retained earnings; and net undistributed incomes; minus deferred net losses (gains) on loans and other assets sold. These items are recognized under the Generally Accepted Accounting Principles (GAAP) defined by the Financial Accounting Standards Board.
Garn-St. Germain Depository Institutions Act of 1982	Legislation which gave the Federal Savings and Loan Insurance Corporation new power to deal with financially troubled institutions. Authorized an emergency federal assistance program to help qualifying FSLIC-insured institutions survive a period of severe economic pressure. Removed all differences between savings and loan associations and savings banks in the kinds of business activities in which they may engage. Expanded thrift asset powers in areas of commercial and consumer lending. Ended the interest rate differential under which thrift institutions had been authorized since 1966 to pay a slightly higher interest rate than commercial banks. Permitted thrifts to offer various accounts with a floating market rate of interest to attract savings.
Income	FSLIC-insured institutions report their earnings as operating or nonoperating income.
Income capital certificates	Certificates issued to FSLIC by institutions seeking supplementary net worth. The recipient agrees to pay back the loan, plus interest, when and if it gets into a better position. FSLIC conceived of and operated the program that issues the certificates.

Insolvent	Value of liabilities exceeds the value of assets according to some accounting standard, such as Regulatory Accounting Principles (RAP), Generally Accepted Accounting Principles (GAAP), or some other measure. That is, net worth (or capital) is negative.
Intangible assets	Includes purchased servicing and goodwill, which is the premium over book value of an institution's asset that an acquiring institution pays during merger or acquisition.
Liabilities	Consist of deposits, borrowings, and other liabilities.
Liquid assets	Assets readily convertible to cash without significant cost. In this report, liquid assets include cash, demand deposits, and U.S. government and agency securities.
Low net worth thrifts	Thrifts whose GAAP net worth is greater than or equal to 0 percent and less than 3 percent of total assets.
Mortgage loan	An advance of funds to a borrower secured by the pledge of real estate; the pledge ends when the debt is discharged. They are typically the principal asset of a thrift and may be guaranteed by the Federal Housing Administration or the Veterans' Administration. Where not guaranteed, they are called conventional loans.

Mortgage-backed security	Any of a variety of investment securities representing shares in a pool of mortgage loans. They are often guaranteed by the Government National Mortgage Association (Ginnie Mae) or are privately insured. These securities are designed to appeal to investors that would not normally hold mortgages for investment. Mortgages can be prepaid and, thus, the actual maturity is not under the control of the investor. Mortgage-backed securities have a predetermined maturity that is not affected by the mortgagees' action. Moreover, the yield and the value of the security are known to the investor, reducing uncertainty and making the investment more attractive.
Mutual capital certificates	A long-term debt security issued by a federal mutual institution and subordinated to all other claims on assets. It is not covered by federal insurance of accounts and may be counted as net worth for regulatory purposes.
Net interest margin	Total net interest income divided by total assets.
Net mortgage loans and contracts	Gross mortgage loans and contracts less contra-assets to mortgage loans and contracts.
Net worth certificates	Created by the Garn-St Germain Act, this certificate is a special security issued by a depository institution with a net worth deficiency. It is then exchanged for a promissory note from the FDIC or FSLIC and the institution agrees to redeem its NWC if and when it returns to profitability and can make all required allocations to net worth.

Non-operating expense	The provision for losses on assets and losses on the sale of real estate, investment securities, loans, and other assets.
Non-operating income	Profit earned from the sale of real estate, investment securities, loans, and other assets.
Operating expense	Costs incurred on the normal operation of a savings institution. They consist of directors' fees; officers' and employees' compensation; legal expenses; directors', officers', and employees' expenses; office occupancy expenses; furniture, fixtures, equipment, and automobile expenses; advertising; commissions and fees paid; amortization of goodwill and of deferred losses; and other operating expenses.
Operating income	Income arising from the normal operation of savings institutions. It consists of interest earned; fees received; amortized deferred gains; and net income received from real estate net income received from real estate owned, from service corporations and subsidiaries, and from leasing operations.
Other borrowed money	Consists of loans from commercial banks, consumer retail repurchase agreements, overdrafts in an institution's demand deposit assets, commercial paper issued, subordinated debentures not qualifying for net worth, mortgage-backed bonds issued, and other borrowings.
Pass-through security	A security backed by a pool of underlying loans. The security holder owns an equity interest in the loan bundle that backs it and receives a proportionate share of the cash flow that these loans generate.

Pay-through security	An interest bearing debt obligation of the issuer with a fixed maturity date. The debt is secured by loan collateral, and the interest payments do not necessarily match the cash flow of the underlying loans.
Permanent, reserve, or guaranty stock	Par value of common stock outstanding
Regulatory net worth	The sum of preferred stock; permanent, reserve, or guaranty stock, paid-in surplus, qualifying mutual capital certificates; qualifying subordinated debentures; appraised equity capital; net worth certificates; accrued net worth certificates; income capital certificates; reserves; undivided profits (retained earnings); and net undistributed income.
Return on assets	A measure of profitability equal to total net income divided by total assets.

Reverse repurchase agreement	A reverse repurchase agreement (reverse repo) is an arrangement whereby an investor "sells" securities to a broker and at the same time agrees to repurchase them at a later date for a higher price. The broker is simply making a loan to the investor with the rate of interest being determined by the relative prices at which the securities are sold and repurchased. The broker will generally not loan the full value of the collateral to the investor, instead reserving a small percentage (usually 3 to 8 percent), referred to as the "haircut", as protection against the potential default by the investor. (Michael J. Giarla, An Introduction to Risk Controlled Arbitrage, Smith Breeden Associates, Aug. 1986, p. 1)
Valuation allowances	Reserves established for uncollectible interest and probable future loan losses. Valuation allowances are subtracted from gross assets to obtain a net asset figure that brings assets in line with book value.

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