The Condition of Massachusetts Savings Banks and California Savings and Loan Associations

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Thrift institutions traditionally have funded their assets—principally long-term mortgages and bonds bearing fixed yields—by issuing shorter-term liabilities to depositors and creditors. This strategy enabled savings and loan associations and mutual savings banks to profit from the "traditional" 150 to 200 basis point gap between long-term and short-term interest rates. This "arbitrage" of short-term and long-term credit markets has been both lucrative and risky. As long as interest rates did not change, the thrifts had secured a comfortable margin between revenues and the cost of funds. When interest rates rose, however, thrifts risked paying rising yields on their liabilities while the yields on their assets increased more slowly; so, the margin, though attractive, was not secure.

From the early 1950s to the late 1970s, thrift institutions flourished with this strategy of borrowing short and lending long. Even though interest rates increased, sometimes sharply, during these three decades, federal deposit regulations constrained the increase in yields on deposits, and relatively few depositors withdrew funds from thrifts to earn the higher yields available in credit markets. Although thrifts often replaced lost deposits with more costly liabilities, the margin between revenues and the cost of funds (Chart 1) varied relatively little until recently because interest income also increased steadily as older mortgages matured to be replaced by new mortgages with higher yields. The swings in earnings before 1980 were certainly worrisome, but the thrift industry remained profitable. Many nonfinancial businesses would have envied this earnings performance.

During the late 1970s the protection offered by federal deposit regulations began to wane rapidly. The persistent gap between yields available in credit markets and yields offered to depositors by thrifts became too large to ignore. The managers of thrift institutions and federal regulators realized that thrifts would be threatened by massive withdrawals as depositors sought higher yields. In response to this threat thrifts began to offer customers nondeposit liabilities bearing competitive yields such as repurchase agreements, and federal regulators authorized thrifts to issue deposits bearing rates of interest linked to Treasury securities such as the money market certificate. As a result, the relatively sharp increase in credit market yields since 1979 has sharply increased the cost of funds for all thrifts so that the margin between interest income and the cost of funds now cannot

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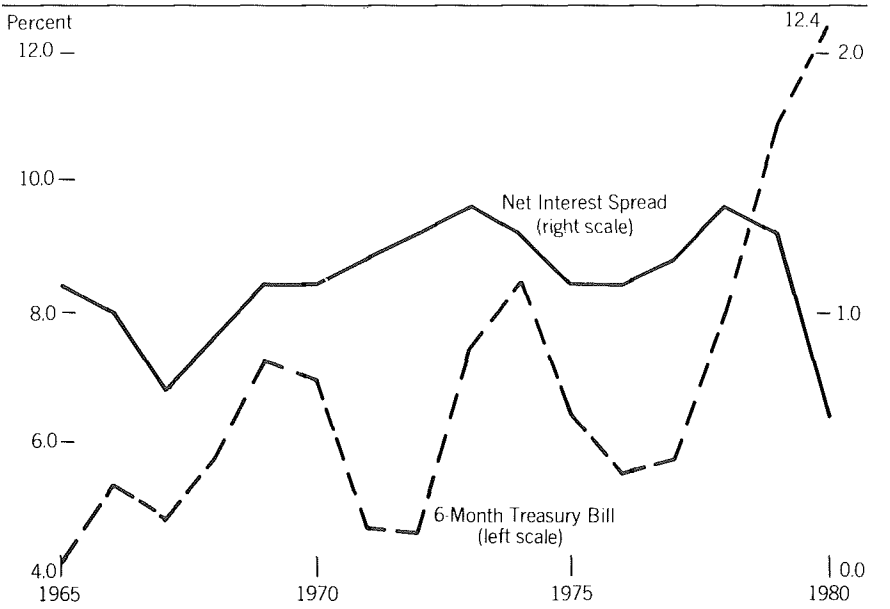
Chart 1 Net Interest Spread for All Savings Banks and Insured Savings and Loan Associations



Note: Net interest spread equals annual average interest income divided by assets less average annual interest expense divided by deposits and borrowings.

cover operating expenses for the average thrift institution. These recent changes in banking regulations suddenly have forced upon thrifts the accumulated costs of borrowing short and lending long for the past three decades.

The evolution of thrifts failed to keep pace with their changing environment during the 1970s, and the industry now cannot cope with the challenges posed by competing financial intermediaries. Only recently have legislators, regulators, and bank management seriously begun to appreciate the need for renegotiable mortgages and other variable rate mortgages. Even so, the rapidly growing popularity of the six-month and thirty-month deposits overshadows the prospect of replacing fixed yield mortgages with variable rate mortgages.[1] The relatively new money market and saver certificates of deposit generally have supplanted passbook accounts and term deposits originally authorized in the 1960s and early 1970s so the maturities of assets and liabilities are badly mismatched for the average thrift institution. Though the 1970s were trying times for bankers, in retrospect

[1]The recent deregulation of yields on deposits with maturities of four or more years may reverse this growing mismatch between the maturities of assets and liabilities. However, the popular money market, saver, and all savers certificates will prohibit a close matching of asset and liability maturities as long as thrifts specialize in mortgage lending unless thrifts begin issuing mortgages whose yields may be freely renegotiated every year or two.

much could have been done to fortify the thrift industry during that decade. By postponing this evolution, the thrifts and regulators assumed and lost a familiar bet: declining interest rates are just around the corner.

This paper reviews the past performance of Massachusetts mutual savings banks and California savings and loan associations by using principles of current value reporting. The Massachusetts mutual savings banks represent 35 percent of the nation's MSBs, accounting for 15 percent of all savings bank assets. The California savings and loan associations represent 4 percent of the nation's S&Ls, accounting for 20 percent of savings and loan assets. Together, these Massachusetts and California thrifts account for 19 percent of assets held by all domestic thrift institutions. Table 1 describes the recent balance sheet and income statements of the Massachusetts MSBs and California S&Ls, comparing their financial statements to those of the average thrift institution.

The results of this study suggest that the majority of thrifts will enter the 1980s in worse financial condition than their financial statements suggest. Perhaps two-thirds of the thrifts may be insolvent by 1990 unless interest rates soon drop much lower than Wall Street currently expects. Most that survive will not be able to grow or compete for household savings until the late 1990s unless prudent capital adequacy standards are relaxed.

Table 1
Summary of Financial Statements
December 1980 (in percent of assets)

	Massachusetts Savings Banks	California Savings and Loans	All Thrifts
Assets:	100	100	100
Mortgage Loans	66	83	80
Securities and Cash	27	9	13
Other Assets	7	7	7
Liabilities:	92	94	94
Total Deposits	91	75	83
Regular, Now, Notice, Club	42	17	23
Money Market Liabilities	28	42	39
Other	21	16	21
Borrowings	1	16	9
Other Liabilities	2	4	3
Net Worth (surplus):	8	6	6
Net Income to Assets (in basis points)	17	29	7

I. Current Value Reporting (CVR)

CVR essentially entails marking assets and liabilities to market. Many bankers genuinely believe that the conventional practice of reporting assets and liabilities at book value is more appropriate than CVR for banking: CVR seems to be synonymous with "liquidation value"; therefore, it should not apply to a going concern. The traditional appeal of conventional accounting practice arises from its use of objective numbers—the book values of mortgages or certificates of deposit, for example—not equivocal appraisals of security values. Nevertheless, CVR is attracting attention because book values no longer accurately describe the financial condition of thrift institutions.

An example of CVR appears in Table 2. Two hypothetical banks earn $2 million on $200 million of assets. At the beginning of the year, both banks held $195 million of mortgages yielding 8 percent, and both banks

Table 2
A Comparison of Current Value Reporting and Conventional Reporting for Two Thrift Institutions (in millions of dollars)

	Thrift A	Thrift B
Conventional Reporting		
Assets:	200	200
Mortgages (10 yr.)	195	0
Mortgages (2 yr.)	0	195
Real Estate	5	
Liabilities:	200	200
Deposits (1 yr.)	160	160
Deposits (5 yr.)	20	20
Net Worth (Surplus)	20	20
Net Income:	2	2
Current Value Reporting Adjustment		
Net Change in Market Value of Assets and Liabilities:	−11	−1
Net Change Assets less	−12	−2
Net Change Liabilities	−1	−1
CVR Net Worth (Surplus):	9	19
Conventional Net Worth (Surplus) plus	20	20
Net Change in Market Value of Assets and Liabilities	−11	−1

had $180 million of deposits yielding 6.5 percent. During the year the competitive deposit rate unexpectedly rose to 8 percent while mortgage yields unexpectedly rose to 9.5 percent.[2] I assume that no mortgages or deposits matured during the year so these higher interest rates have no immediate effect on net income. According to their conventional financial statements the two banks look almost identical.

Three-quarters of Bank A's liabilities will mature at the beginning of next year, raising the cost of its funds 113 basis points. Interest income will rise, at best, only 15 basis points. If Bank A attempts to maintain its market share of savings by paying competitive yields on deposits, then its surplus must decline significantly in coming years. Bank B is more fortunate. Though its cost of funds rises 113 basis points also, the yield on its assets will rise 150 basis points by the end of the second year. Bank B's losses during the second year will be much smaller than Bank A's losses, and in the third year Bank B's net worth will be growing once again while Bank A is still contending with substantial losses.

The conventional financial statement does not reflect the disparate fortunes of these two banks except as the profits and losses are realized. More and more thrift institution managers, recognizing the need for longer-run planning, are going beyond the limitations inherent in conventional financial statements by forecasting future net income and net worth using projections of interest rates. Another, essentially equivalent means of summarizing the financial condition of a thrift institution is to use CVR. By marking assets and liabilities to market, CVR discounts future interest income and future interest expense to the present.[3]

According to the CVR adjustments shown in Table 2, the present value of interest income for Bank A declined $12 million when interest rates rose. If Bank A had financed its assets with long-term liabilities, the present

[2]In this example, had the banks foreseen the rise in these interest rates when they were making the mortgage loans, they could have negotiated higher yields on the loans to cover the future increase in the cost of funds. The banks experienced losses because the rise in interest rates was unforeseen.

In general, 10-year mortgage loans would be written at yields exceeding yields on 2-year mortgages. The gap between these yields would be the price Bank B pays to "insure" its profit margin.

[3]Suppose that the 30-year mortgage yield exceeds the *expected average* annual yields offered by shorter-term securities over the next 30 years. This difference between long-term and short-term yields is a "liquidity premium," and it provides a thrift institution with a "profit margin" for borrowing short and lending long. As long as thrifts pay no more than prevailing yields for deposits and receive no less than prevailing yields on assets, they will be assured this "normal" profit margin over time. Because interest rates are volatile, however, no thrift will always pay prevailing yields on liabilities or always receive prevailing yields on assets. If assets (liabilities) yield less than prevailing rates of return, for example, the profit margin will decline (increase) until the low-yielding assets (liabilities) mature and are replaced by new assets (liabilities) bearing market yields. The present value of lost earnings due to the low-yielding assets is the discounted value of the difference between the market returns and the actual returns on assets, or the difference between market value and book value of assets. Similarly, the difference between market and book values of liabilities is the present value of the increased earnings temporarily offered by low-yielding liabilities. A thrift cannot escape the lower profit margin attending low-yield assets by selling them; a sale would only force the thrift to realize the present value of its lower earnings in the form of a capital loss.

value of interest expense also would have declined $12 million, and Bank A's net worth then would have increased by $2 million, its net income for the year. Instead, the bank has financed its assets with short-term deposits so the present value of its interest expense drops only $1 million. As a result, the net worth of Bank A drops $9 million. The bank's financial strategy produced a $2 million net income in the current year, but this strategy will force the bank to absorb future losses that reduce its current CVR net worth by $11 million.

Bank B matched the maturities of its assets and liabilities much more closely than did Bank A. Recognizing that unforeseen changes in interest rates could raise the cost of funds, this second thrift hedged itself by making short-term mortgage loans to accompany its short-term deposits. As a result, when interest rates rose, the present value of its interest income fell only $2 million while the present value of its interest expense fell $1 million. The net worth of Bank B drops only $1 million because its financial strategy generally allows asset yields to keep up with deposit yields.

With CVR, the net worth of Bank B exceeds that of Bank A by $10 million even though conventional accounting statements show that both have $20 million in net worth. Both these banks cannot be worth $20 million. If Bank A attempts to offer competitive deposit yields, it must liquidate assets to cover its interest expenses and other costs, thereby draining its surplus. The bank eventually must acquire an $11 million "capital infusion" to avoid a decline in its net worth-to-asset ratio. This $10 million difference in CVR net worth between the two banks is the present value of Bank A's lost earnings and lost opportunities for growth given the prevailing forecast of future interest rates that is embedded in the current yield curve.[4] It is a gamble to presume that future yields will depart fortuitously from this forecast to restore Bank A's earnings.

With conventional accounting, the financial conditions of two thrifts cannot be compared easily because the assets and liabilities in both banks' balance sheets are measured using different yardsticks. For example, if a bank originally paid $1 million for each of two securities, both due in 1990, one bearing an 8.25 percent coupon (bought in 1977) and the other bearing an 11.5 percent coupon (bought in 1979), both securities would be reported as $1 million assets on this year's balance sheet. Because the acquisition prices of these assets were dictated by prevailing interest rates when these securities were obtained, conventional financial statements measure each bank's net worth by a yardstick, unique to that bank, embodying an arbitrary blend of past credit market conditions. (It is highly unlikely that credit market conditions would allow both of these two nine-year securities to sell for $1 million at the same time.) These yardsticks are not only irrelevant for today's structure of interest rates but these differing yardsticks cannot allow us to compare the balance sheets of two different banks. CVR reports the current market value of assets and liabilities so that prevailing

[4]For a detailed discussion on the proper interpretation of term structure of interest rates see James C. Van Horne, *Financial Market Rates and Flows* (Englewood Cliffs, N.J.: Prentice Hall, 1978).

market conditions become a common standard of measurement. As deposit regulations are relaxed permitting more competition among banks and other financial institutions, the information provided by CVR will be essential for bank managers, creditors, regulators, and insurers.

Although CVR's critics claim that interest rates are volatile and, therefore, CVR financial statements will be everchanging, CVR's proponents welcome these revisions because they provide timely descriptions of each bank's competitive position. Critics also suggest that CVR encourages analysts to become myopic, to pay too much attention to temporary and fleeting credit market yields, but CVR's proponents reply that marking assets and liabilities to market encourages longer-run earnings analysis. For example, if the management of Bank A (shown in Table 2) did not use CVR or forecast future earnings by some other means, it might not comprehend the magnitude of the bank's potential problems. Those who read only conventional financial reports run the risk of overlooking the future consequences of current financial strategies.

In summary, CVR net worth provides a particularly useful measure of savings bank or savings and loan solvency. A bank with declining CVR net worth is confronted with the need to raise new capital, and should its CVR capital-asset ratio fall excessively, the bank's continuing ability to serve the public safely may be questioned.

II. The Performance of Massachusetts Savings Banks

Reported Net Worth

Charts 2 through 5 describe the earnings and net worth (total surplus) of the 163 savings banks that submitted annual reports to the Commissioner of Banks of the Commonwealth of Massachusetts from 1974 to 1980. Chart 2 shows the change in surplus during each fiscal year divided by year-end assets for all savings banks in Massachusetts. The third chart describes the distribution of this "net income" to asset ratio among the state's MSBs. The solid line in the center of the chart is the median ratio of net income to assets—half of the banks have a higher ratio, half have a lower ratio. The two dashed lines represent the median ratios for those having the highest and lowest return on assets—of all banks with net income-to-assets ratios exceeding the statewide median, half have ratios exceeding the upper dashed line, half have ratios falling between the upper dashed line and the central solid line. The two extreme dotted lines mark the minimum and maximum return on assets reported by Massachusetts MSBs in each year. Because net income (as defined here) includes extraordinary gains and losses on loans, securities, or equities, the returns for the two extreme banks are sizable and volatile. The remaining dot-dash lines describe the average return on assets of the top 16 and the bottom 16 Massachusetts MSBs in each year.

Chart 2 Ratio of Net Income to Assets
Massachusetts

Chart 3 Distribution of Net Income to Assets Ratios
Massachusetts

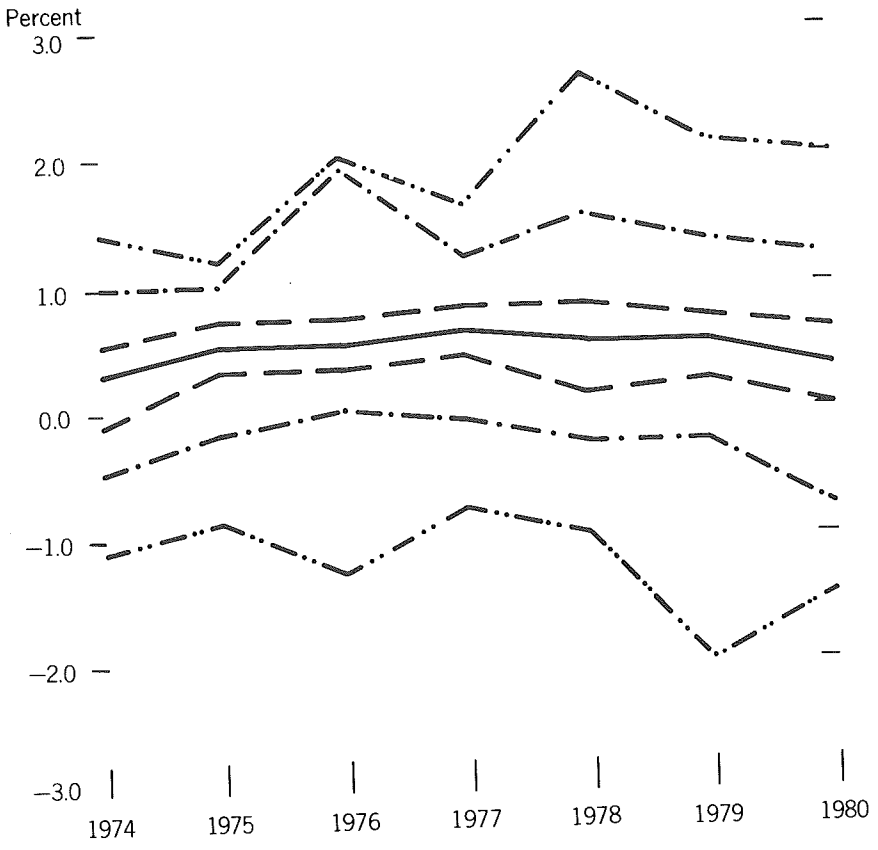


Chart 4 Ratio of Net Worth to Assets
Massachusetts

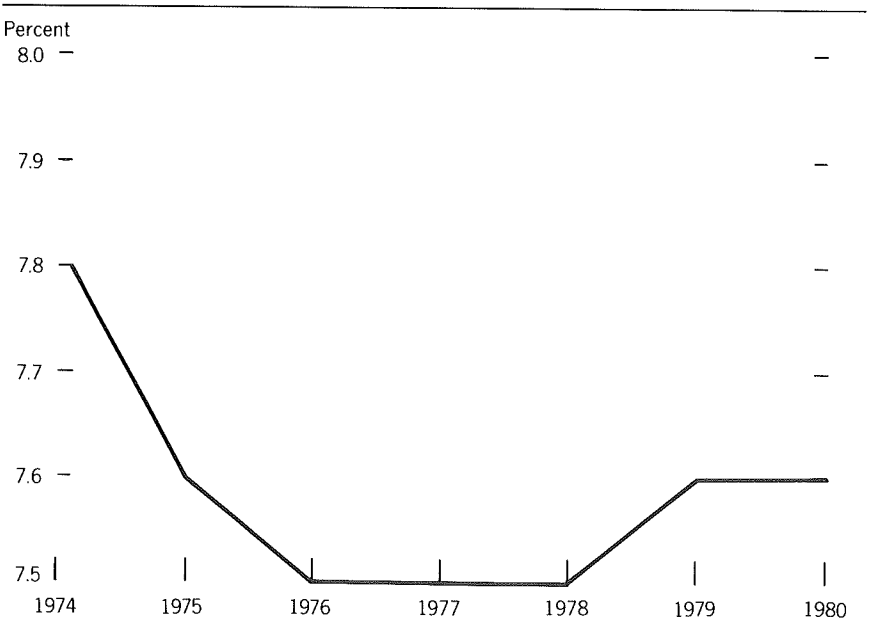


Chart 5 Distribution of Net Worth to Assets Ratio
Massachusetts

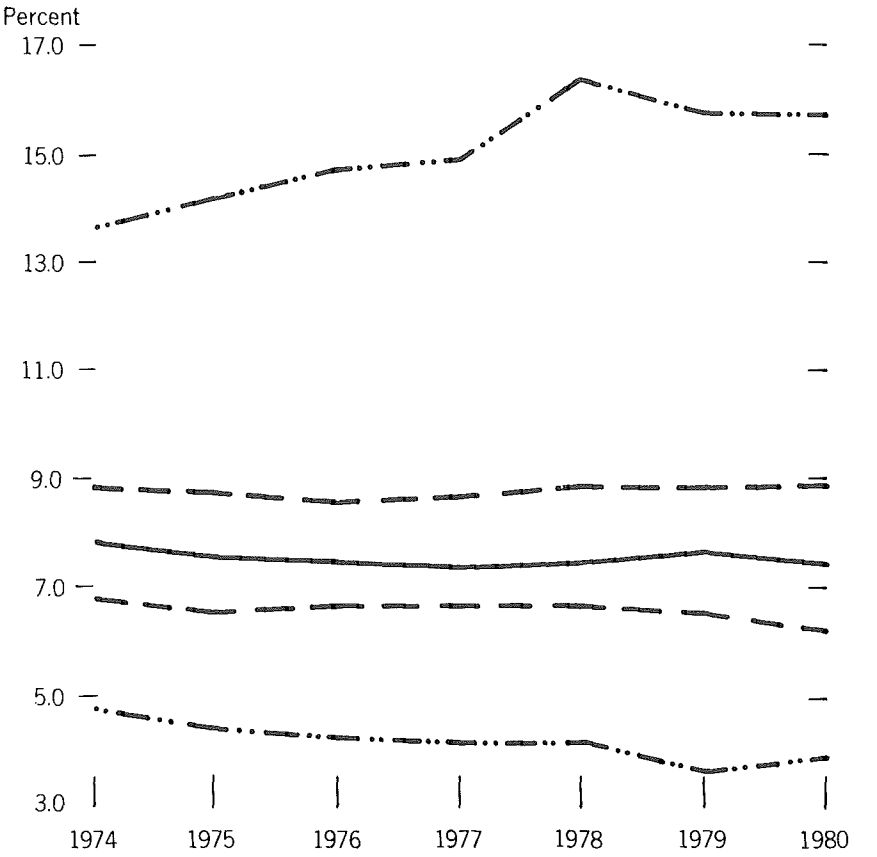


Chart 4 reports the aggregate ratio of surplus to the book value of assets for all Massachusetts MSBs, and the fifth chart describes the distribution of surplus to assets reported by these MSBs. The surplus of most Massachusetts MSBs is relatively high: more than three-quarters have surplus-asset ratios exceeding 6 percent in 1980, whereas the average net worth-to-asset ratio for all domestic thrift institutions was only 5 percent.

Unlike the capital positions of many thrifts, the surplus-asset ratio of Massachusetts MSBs did not decline much from 1974 to 1980. These Massachusetts banks did not maintain their position because of their high earnings, however, because their return on surplus averaged far less than bond yields during the late 1970s. The return on surplus did not even exceed the inflation rate or the growth rate of personal income in Massachusetts. These banks maintained their surplus positions because their deposits grew only 6 percent per year. The low rate of return on surplus would not have permitted these banks to maintain their market share of savings without experiencing declining surplus-to-asset ratios.

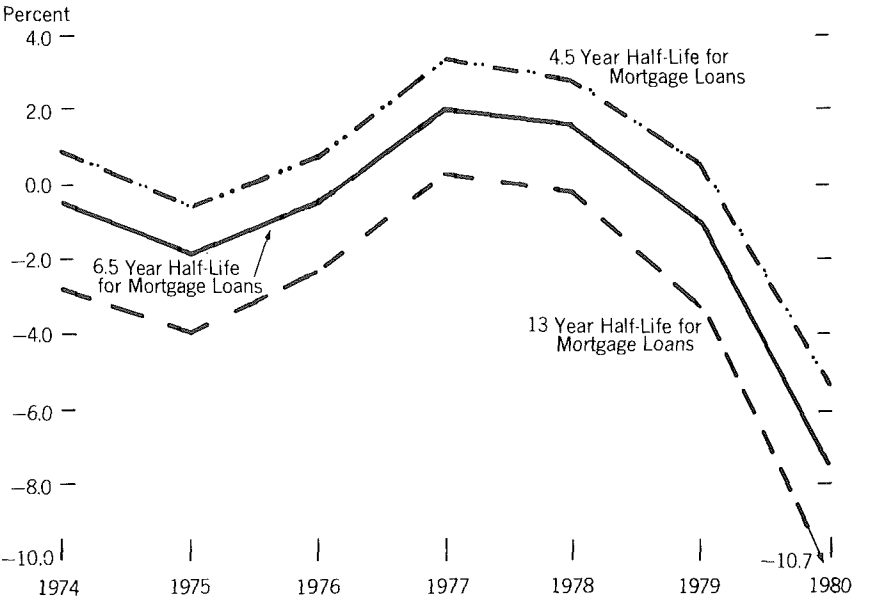
CVR Net Worth: Asset Revaluations Only

Charts 6 and 7 describe the ratio of CVR net worth to the market value of assets for the Massachusetts savings banks. For these charts, CVR net worth is the difference between the market value of assets and the book value of liabilities. These two charts, therefore, describe the capital position of these MSBs assuming they paid competitive yields on their liabilities. Of course, these banks had issued certificates of deposit thereby locking depositors into liabilities with a fixed yield so these charts underestimate capital positions.

Chart 6 shows the aggregate surplus-asset ratio for the state's MSBs for three different rates of mortgage turnover: 5, 10, or 15 percent of the mortgage loans are *prepaid* each year (regardless of remaining maturity).[5] Although mortgage loans commonly are written for 25 or 30 years, many loans are paid much sooner when borrowers sell their houses, refinance their loans, or prepay the loan principal. During the 1970s many commonly assumed that the effective maturity of an average mortgage loan ranged from 7 to 12 years. Future experience may not match the past, of course. Many analysts now suspect that the effective maturity of mortgage loans could be greater in the 1980s than it was in the 1970s. Because of slow economic growth, high current mortgage yields (relative to outstanding mortgage yields), "wrap-around" financing, and the "assumption" of some old loans by new borrowers, old mortgages are now cherished as "assets" by borrowers. Those who once believed that a mortgage portfolio had a 4½-year half-life (15 percent turnover) may foresee a 6½-year half-life in the 1980s (10 percent turnover); others who were less optimistic to begin with

[5]In other words, the turnover of the entire mortgage portfolio is roughly 8, 13, or 18 percent because scheduled mortgage payments include a payment of principal that averages roughly 3 percent of the outstanding balances over the life of the loan. I also assume that the rate of prepayment is not related to mortgage yields. If low-yielding mortgages turn over more slowly than loans with high yields, I have overestimated the market value of seasoned loans.

Chart 6 Ratio of CVR Net Worth to Assets - Asset Revaluations Only
Massachusetts



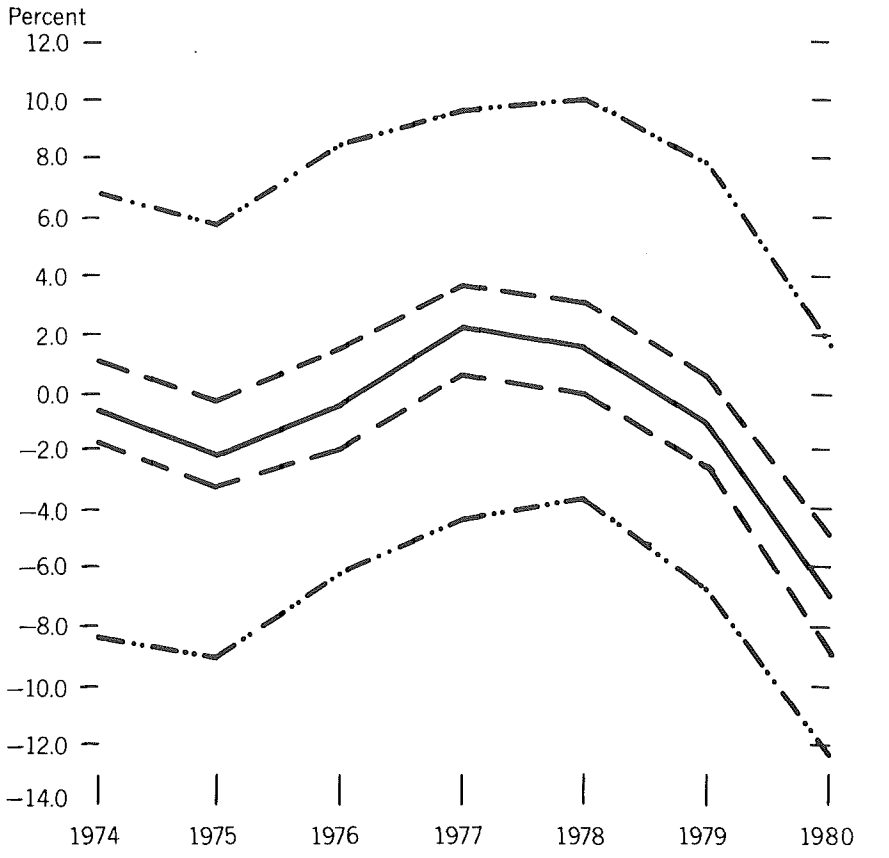
may now expect only a 13-year half-life (5 percent turnover) for mortgage loans. Chart 7 shows the distribution of CVR net worth among the MSBs assuming that 10 percent of the outstanding mortgage loans are prepaid each year.

According to Charts 6 and 7, Massachusetts MSBs could not have begun paying competitive yields on *all* their deposits at any time during the past seven years without depleting their accumulated surplus; more than three-quarters of these banks eventually would have become insolvent. In other words, whatever the assumed rate of mortgage turnover, no savings bank investing two-thirds of its assets in long-term mortgages could have afforded to adopt the strategy of financing these assets with short-term certificates at any time during the last seven years. Less than 10 percent of Massachusetts MSBs have had high CVR net worth throughout the period. These banks owe their success to relatively high yields on their mortgage loans and, most importantly, to their investing assets mostly in short-term loans and securities.

CVR Net Worth: Revaluation of Liabilities

Massachusetts MSBs have not financed their assets exclusively with short-term liabilities; therefore, marking only the banks' assets to market

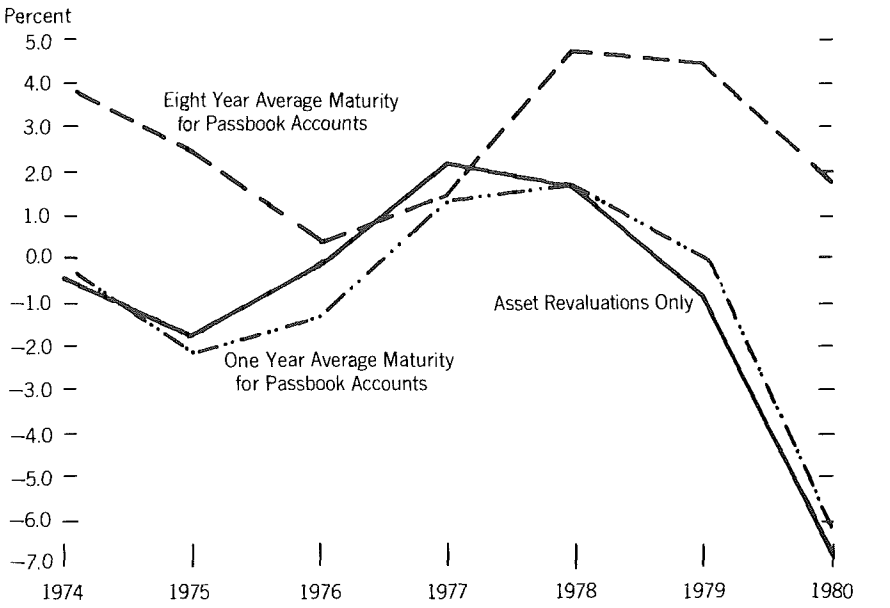
Chart 7 Distribution of CVR Net Worth to Asset Ratios - Asset Revaluations Only Massachusetts



understates their CVR surplus. In 1980, for example, less than one-third of the assets of Massachusetts MSBs were financed by money market certificates, saver certificates, jumbo certificates, repurchase agreements, or other short-term loans (see Table 1). When interest rates increase, banks benefit by having secured liabilities at fixed yields just as they are harmed by having locked up some of their assets in fixed yield mortgages.

Unlike the previous charts, Charts 8, 9, and 10 describe CVR surplus-asset ratios after revaluing both the assets and the liabilities of each savings bank. The market value of term accounts depends on the average maturity of outstanding deposits, the yields on these deposits, and the yields on government securities with the same maturity. A service cost is added to the

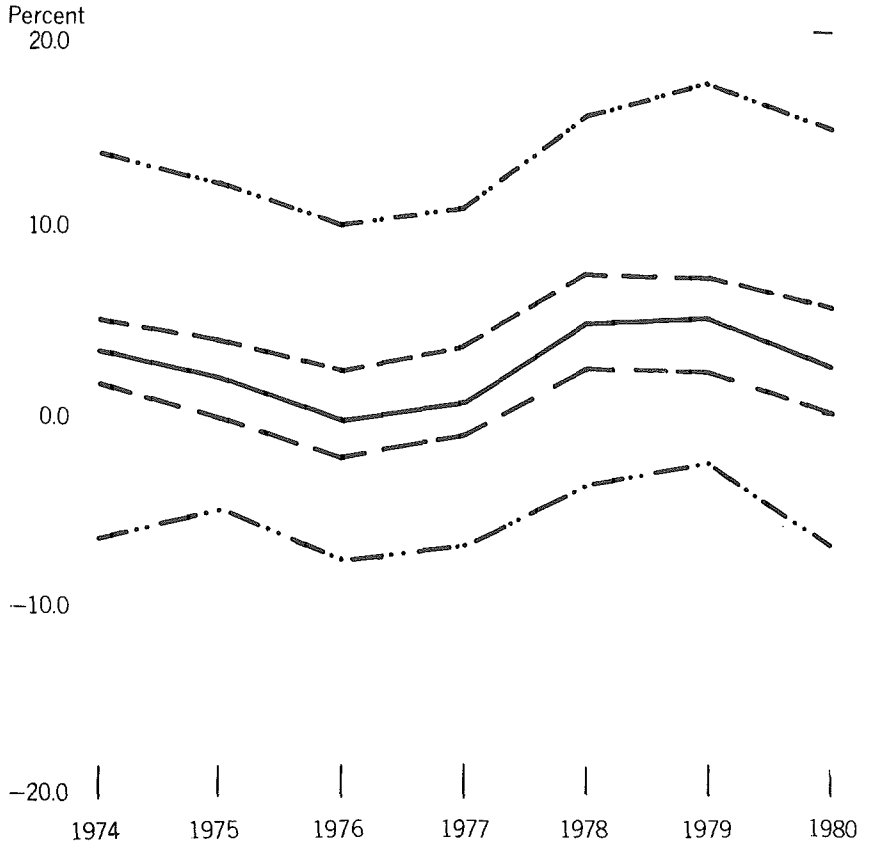
Chart 8 Ratio of CVR Net Worth to Assets - Asset and Liability Revaluations Massachusetts



yield paid on each account before marking it to market because the convenience of an account would attract many depositors even if its yield were not as great as that offered by government securities. Of course, the expense of providing this service to depositors may also deter a bank from paying yields that match those on governments. So the "effective yield" on deposits exceeds the stated interest rate for both depositors and the banks; for savings banks, this "effective yield" is the sum of interest expense and the cost of servicing the account. The various term deposits are revalued separately. The market value of deposits and borrowed money with less than one year to maturity equals the book value of these liabilities.

Chart 8 compares the aggregate CVR surplus-to-asset ratio from Chart 6 (the solid line for which assets alone have been marked to market assuming a 6½ year half-life for mortgage loans) with two measures of the surplus-to-asset ratio after liabilities have also been marked to market. The dashed line and the corresponding distribution of net worth shown in Chart 9 assume that the average "maturity" of passbook accounts is eight

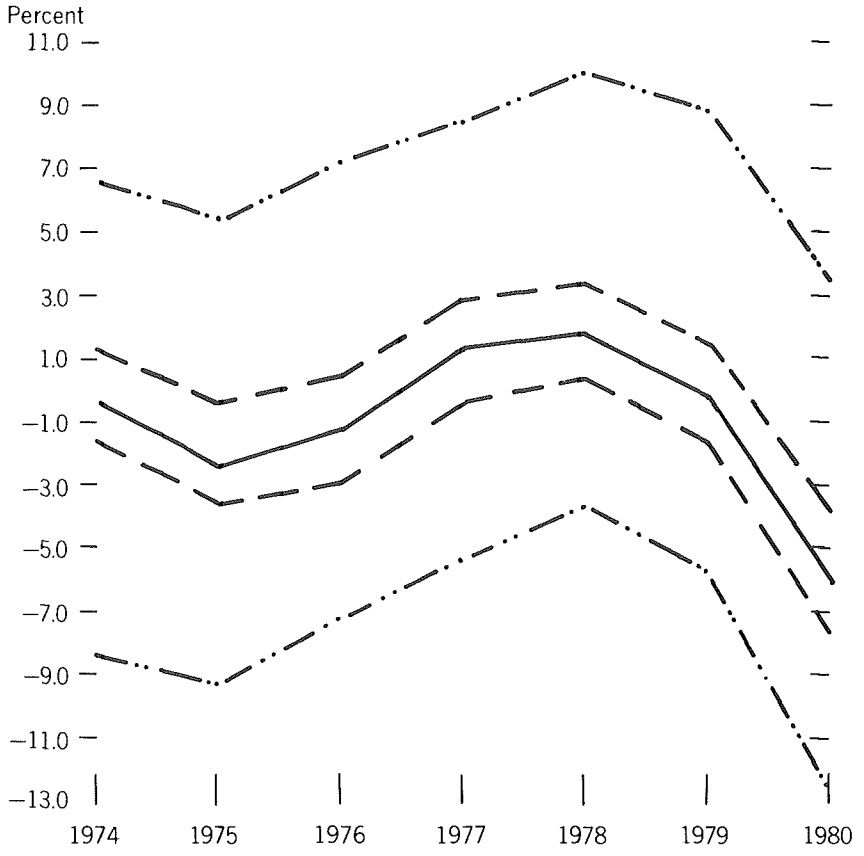
Chart 9 Distribution of CVR Net Worth Assets - Asset and Liability Revaluations - Massachusetts - Passbook Maturity at 8 Years



years.[6] The dotted line and the corresponding distribution of net worth shown in Chart 10 assume that all passbook accounts will be converted to (or replaced by) money market certificates, saver certificates, or repurchase agreements within one year.

[6]The gradual deregulation of passbook yields is not taken into account in these estimates. If the deregulation, begun in 1981, does bring passbook yields up to market yields by 1986, the dashed line should be lowered in all years. If deregulation proceeds only slowly at first so that passbook yields jump to match market yields mainly in 1985 or 1986, then the dashed line should drop half the distance to the dotted line by 1980.

Chart 10 Distribution of CVR Net Worth to Assets - Asset and Liability Revaluations - Massachusetts - Passbooks at Book Value



If existing passbook accounts have an eight-year "maturity," the average 1980 surplus-to-asset ratio of the savings banks shown in Charts 8 and 9 was about 2 percent, and about 25 percent of the banks had zero or negative CVR surplus. If existing passbook accounts soon will be converted to accounts bearing market yields, the average 1980 surplus-to-asset ratio shown in Charts 8 and 10 was about −6, and about 96 percent of the banks had zero or negative CVR surplus. The truth, of course, lies somewhere between these two extremes. Passbooks are not yet extinct. From 1978 to 1980 passbook balances declined from 60 percent of deposits to 47 percent of deposits in Massachusetts, and passbook balances probably will account for at least 10 percent of bank liabilities by 1988. Nevertheless, the continuing deregulation of passbook yields required by the Monetary Control Act of 1980 will eliminate the benefit of relatively inexpensive yields on passbook liabilities by 1986. Accordingly, approximately 50 percent of Massachusetts savings banks probably had zero or negative CVR surplus in 1980.

III. The Performance of California Savings and Loan Associations

Reported Net Worth

Charts 11 through 14 describe the financial condition of the 190 insured savings and loan associations reported in the 1980 *Combined Financial Statements* of the Federal Home Loan Bank Board from 1974 to 1980. These are comparable to the first four charts for Massachusetts savings banks, and they tell much the same story; the earnings on surplus of most California S&Ls were too small to support an adequate growth of surplus. Whereas the surplus-to-asset ratios of Massachusetts banks generally remained near 8 percent throughout the late 1970s because of slow deposit growth, in California the net worth-to-asset ratio fell from nearly 7 percent to almost 5.5 percent during the late 1970s. Surplus grew, on average, 10 percent per year in California from 1974 to 1980 while deposits grew 12 percent.[7]

Charts 12 and 14 show that some California S&Ls reported net income-to-asset ratios as high as 4.2 percent in 1980 and these same institutions boasted net worth-to-asset ratios as high as 50 percent. These exceptional institutions are essentially mortgage banking firms; they are few in number (there are less than 10) and they are relatively small. They accept few deposits and borrow sparingly because they are managing small portfolios of generally liquid assets as they originate and resell mortgage loans earning commissions and fees.

[7]The average return on surplus (net income divided by surplus) was approximately 6 percent for Massachusetts MSBs; the average return on total net worth in California was about 11 percent. (The difference in the net worth-to-asset ratios between these two sets of thrifts accounts for only part of this discrepancy in returns, about 1 percentage point.) The California stock associations, unlike mutuals, divided their earnings between stockholders (dividends) and the association (retained earnings).

Chart 11 Ratio of Net Income to Assets
California

Chart 12 Distribution of Net Income to Assets Ratios
California

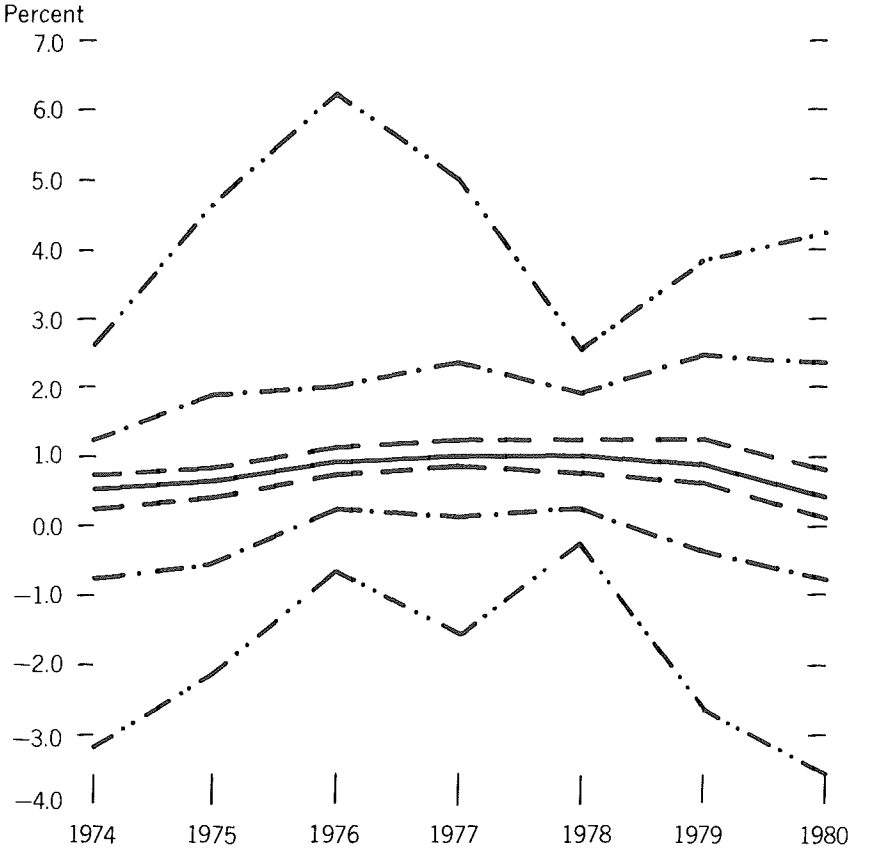


Chart 13 Ratio of Net Worth to Assets
California

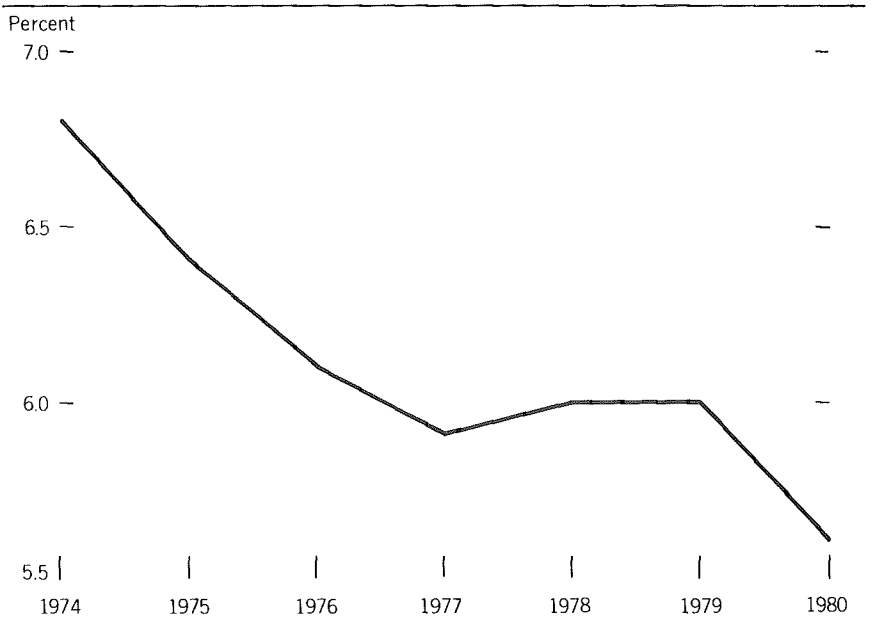
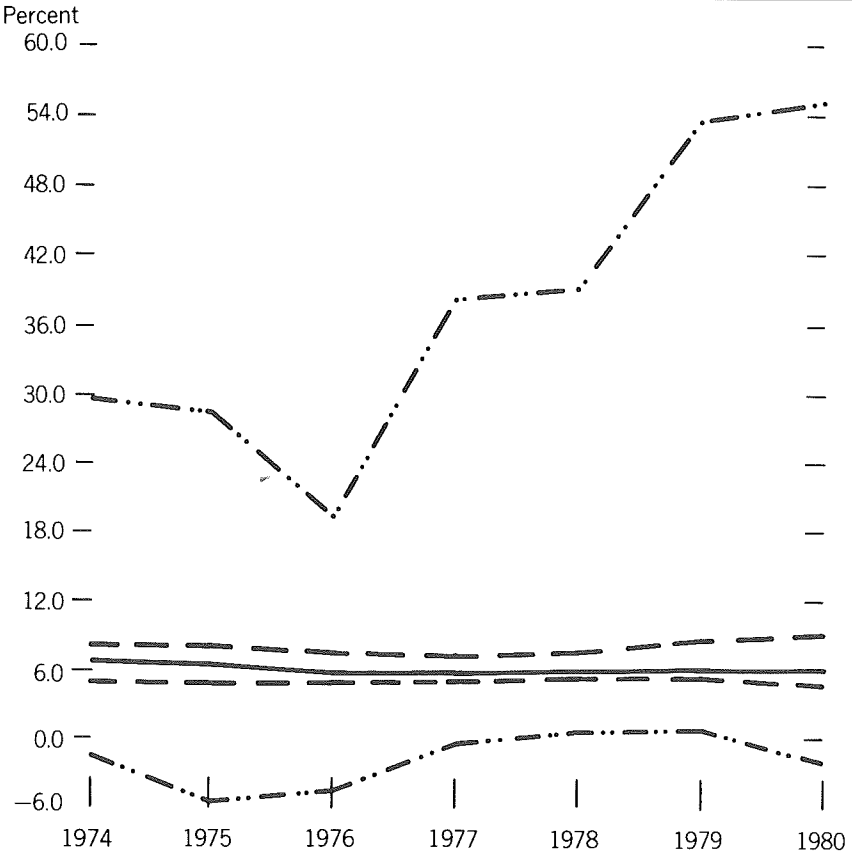


Chart 14 Distribution of Net Worth to Assets Ratio
California



CVR Net Worth: Asset Revaluations Only

Charts 15 and 16 report the ratios of CVR net worth to the market value of assets for California S&Ls. Liabilities have not been revalued, so these charts, like the comparable savings bank charts (6 and 7), assume that the associations have begun paying competitive yields on all their deposits. The S&Ls fare much better than the MSBs when assets alone were marked to market because the return on mortgage assets is about 100 basis points greater in California, and I have assumed that roughly 30 percent of California mortgage loans are variable rate mortgages.[8] In 1980, the reported net worth-to-asset ratio for the California S&Ls dropped from 5.5 percent to −3 percent when assets alone were revalued.

CVR Net Worth: Revaluation of Liabilities

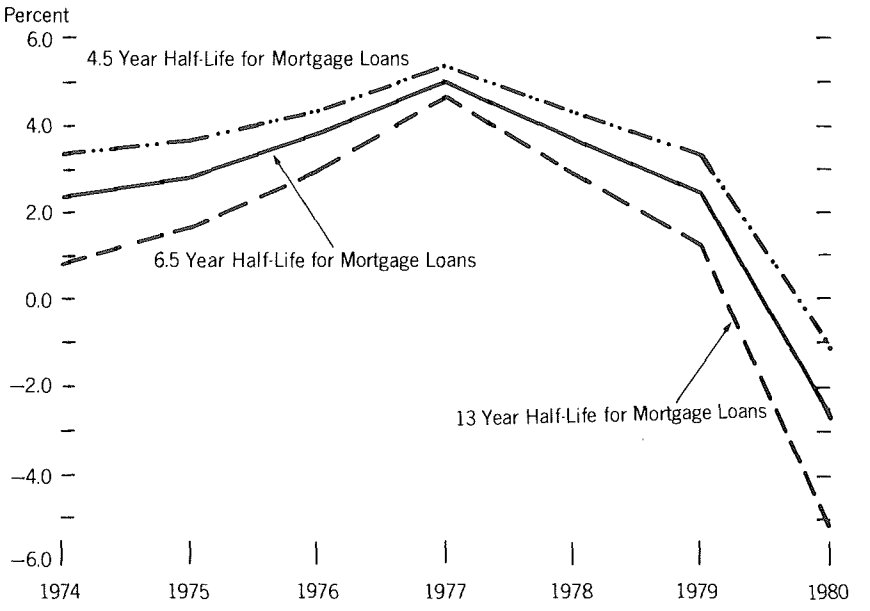
Charts 17 through 19 describe CVR net worth-to-asset ratios for California S&Ls after both assets and liabilities have been marked to market. According to Chart 17, 1980 CVR net worth rises from approximately −3 percent of assets to zero if passbooks have one-year "maturities"; this net worth ratio rises to about 2 percent of assets if passbooks have eight-year "maturities."

These adjustments to CVR net worth are not the same as those for the MSBs shown in Chart 8. When assets alone were marked to market, the 1980 CVR net worth-to-asset ratio for the MSBs dropped almost 15 percentage points, for the S&Ls this ratio dropped only 8 percentage points. For the MSBs, the reported time deposit-to-asset ratio was almost 20 percent in 1980 while this ratio for the S&Ls was only 13 percent. Another significant difference between these two groups of thrifts is that passbooks, club accounts, 90-day notice accounts, and NOW accounts represented more than 40 percent of assets for Massachusetts MSBs whereas these accounts represented only about 16 percent of assets in California S&Ls.[9] Accordingly, if these accounts provide a continuing source of relatively inexpensive funds, in 1980 the MSBs benefited by almost a 10 percentage point increase in CVR surplus to assets while the S&Ls benefited by only 5 percentage points.

[8]In fact this is a generous assumption. Only 30 state-chartered S&Ls actively issued VRMs, and of these 30, the top 10 S&Ls accounted for more than three-quarters of the variable rate loans. VRMs now represent slighly more than 40 percent of the mortgage loans of these 10 S&Ls and approximately 20 percent of mortgage loans held by California S&Ls. For most associations VRMs account for a negligible share of mortgage loans. There is one other qualification to this conclusion: mortgage loans are assumable in California, they are not generally assumable in Massachusetts.

[9]Massachusetts MSBs are not typical of the savings bank industry. New York MSBs, for example, have a low ratio of passbooks to assets matching that of the California S&Ls.

Chart 15 Ratio of CVR Net Worth to Assets - Asset Revaluations
California



The CVR net worth-to-asset ratio for the S&Ls shown in these last three charts is generally comparable to the surplus-to-asset ratio for the MSBs. The relatively large discounts on the MSB mortgage loans and securities are matched by the benefits of their high ratio of relatively inexpensive passbook and term accounts to total assets and their relatively high book surplus-to-asset ratios.

If the existing passbook accounts of the California S&Ls have eight year "maturities," the average 1980 net worth-to-asset ratio shown in Charts 17 and 18 was about 2 percent, and about one-third of the associations had zero or negative CVR net worth. If existing passbooks are soon converted to other accounts with higher yields, then the average 1980 net worth-to-asset ratio shown in Charts 17 and 19 was about zero, and one-half of the associations had zero or negative CVR net worth. From 1978 to 1980, passbook balances declined from about 25 percent of assets to 16 percent of assets in California, and they probably will account for at least 10 percent of association assets by 1988. The continuing deregulation of passbook yields, however, will eliminate the benefit of relatively inexpensive passbook liabilities by 1986. Consequently, between one-third and one-half of California S&Ls probably had zero or negative net worth in 1980.[10]

[10]See footnotes 6 and 8.

Chart 16 Distribution of CVR Net Worth to Asset Ratios - Asset Revaluations Only California

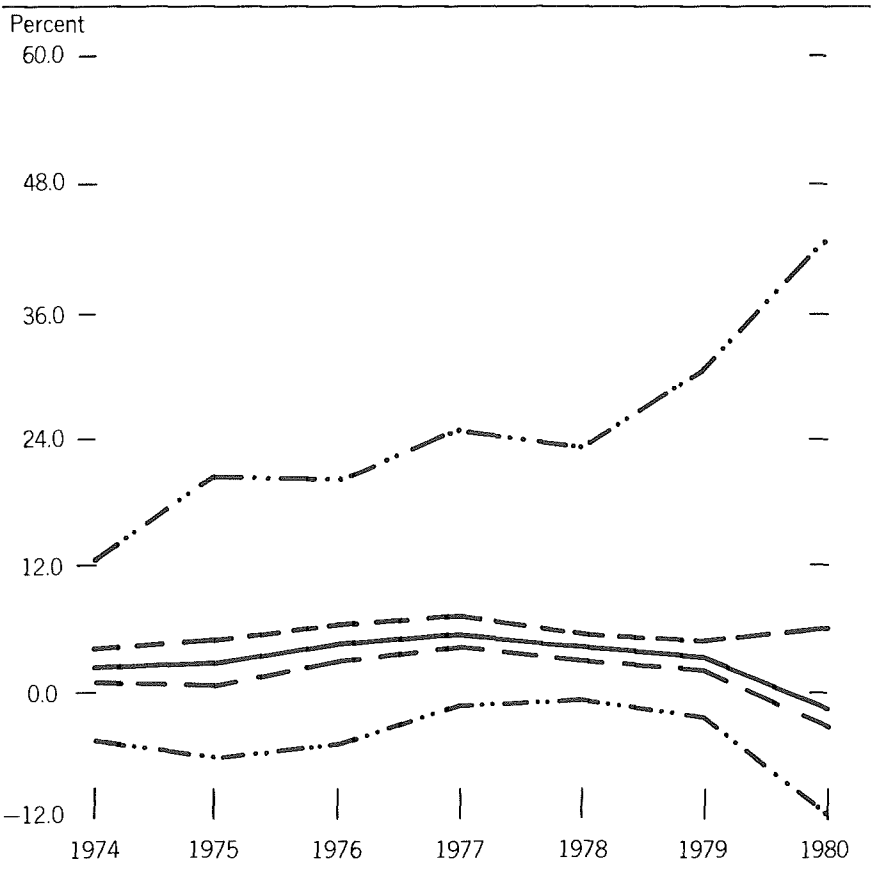


Chart 17 Ratio of CVR Net Worth to Assets - Asset and Liability Revaluations California

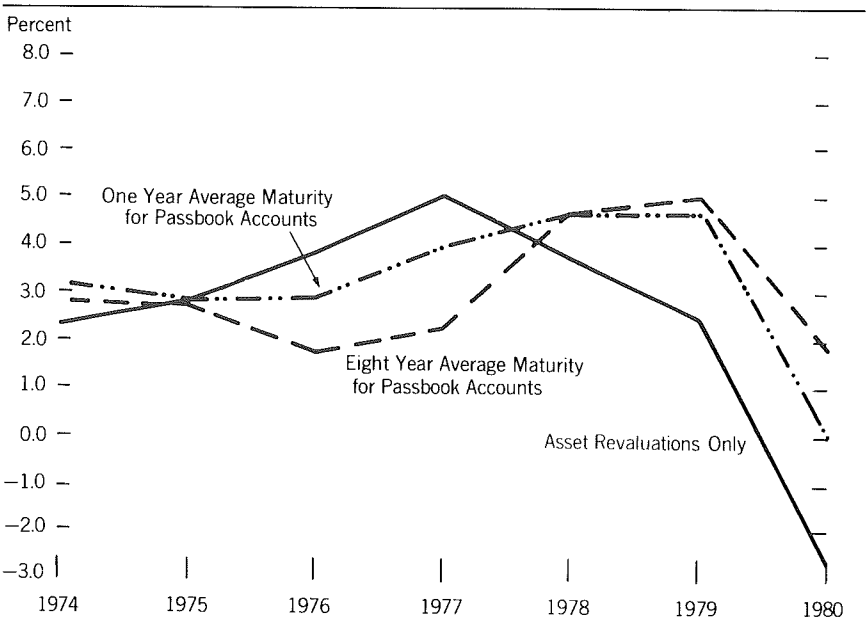


Chart 18 Distribution of CVR Net Worth Assets - Asset and Liability Revaluations - California - Passbook Maturity at 8 Years

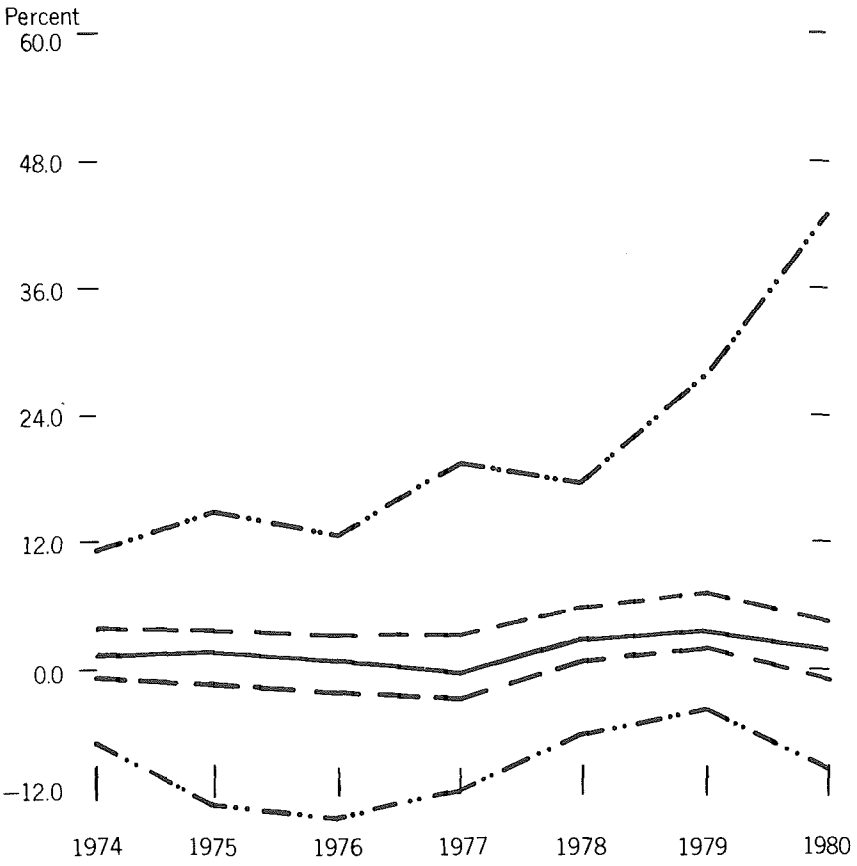
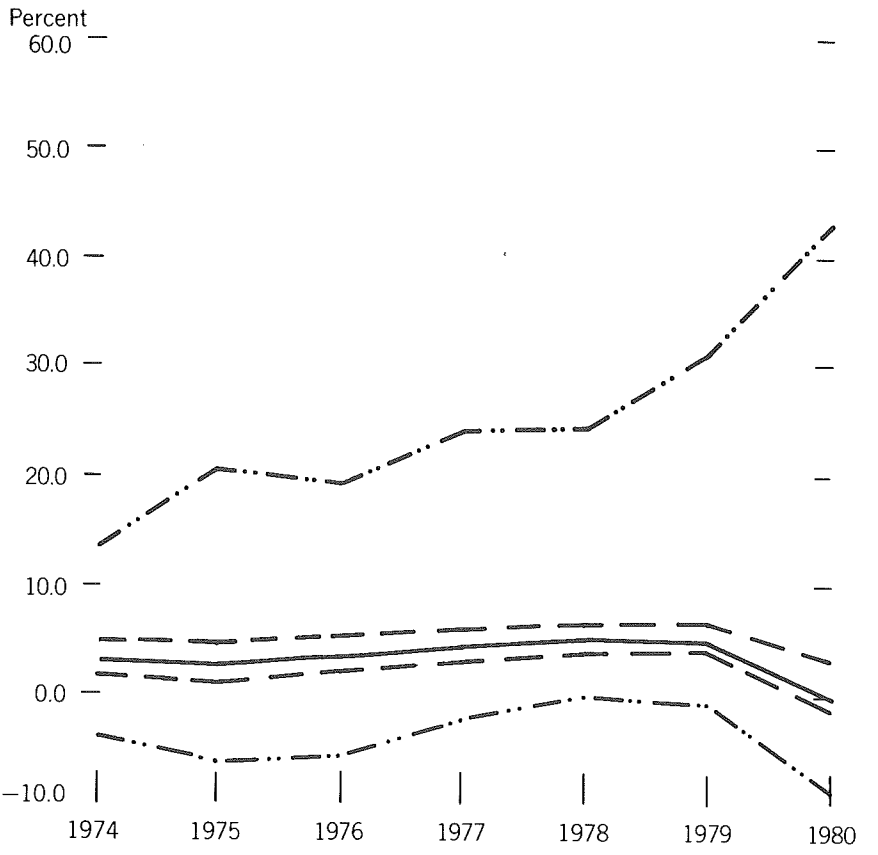


Chart 19 Distribution of CVR Net Worth to Assets - Asset and Liability Revaluations - California - Passbooks at Book Value



IV. The Performance of Thrifts in the First Half of 1981

As bleak as the financial condition of Massachusetts savings banks and California savings and loans may appear in the foregoing charts, 1980 was not the nadir for the thrift industry. Instead, 1980 will be remembered for introducing the industry to the financial strains that would attend the sharp, across-the-board rise in interest rates in 1981.

Table 3 summarizes the conventional financial statements of Massachusetts MSBs, California S&Ls, and all thrift institutions for the first half of 1981. Perhaps the most remarkable feature of the table is the "profit" reported by the Massachusetts MSBs. In 1981, most thrifts were rolling over a sizable share of their liabilities represented by money market certificates, repurchase agreements, jumbo certificates of deposit, bank loans, and similar short-term liabilities bearing money market yields. The average cost of these funds rose from about 11 percent to 13 or 14 percent from late 1980 to the first half of 1981. At the same time, the average return on mortgages held by all thrifts rose less than 50 basis points so most thrifts have begun reporting substantial losses. Because the Massachusetts MSBs benefit from an unusually high share of relatively inexpensive passbook balances in

Table 3
Summary of Financial Statements First Half 1981 (in percent of assets)

	Massachusetts Savings Banks	California Savings and Loans	All Thrifts
Assets:	100	100	100
Mortgage Loans	66	81	76
Securities and Cash	26	8	13
Other Assets	8	11	11
Liabilities:	92	94	97
Total Deposits	90	72	81
Regular, Now, Notice, Club	40	14	19
Money Market Liabilities	37	48	46
Other	13	10	16
Borrowings	2	18	10
Other Liabilities	3	4	5
Net Worth (surplus):	8	6	4
Net Income to Assets (annual rate, in basis points)	14	−38	−49
CVR Net Worth (surplus):			
Passbooks, One-year maturity	−12	−7	−10
Passbooks, Eight-year maturity	−1	−3	−5

their liabilities and because these banks tend to rely less on borrowed money, short-term certificates of deposit with money market yields, and repurchase agreements as sources of funds, these MSBs reported a 14 basis point return on assets in the first half of 1981. These earnings do not signify that these MSBs are inherently "profitable" while other thrifts are losing money. The cost of liabilities in Massachusetts undoubtedly will rise in the future (as older term accounts mature and passbook balances are converted to higher yielding accounts) so that the return on assets of these MSBs will match more closely the returns reported by other thrifts. For the first half of 1981, however, Massachusetts MSBs reported earnings of 14 basis points on assets rather than a loss of 40 or 50 basis points principally because of their substantial cushion of passbook balances.

The lower lines of Table 3 summarize CVR net worth for Massachusetts MSBs, California S&Ls, and all thrifts. In 1981, because of the substantial increase in interest rates, the aggregate CVR net worth-to-asset ratio for the entire thrift industry falls between −5 percent and −10 percent. Unless interest rates soon decline far more than Wall Street currently expects, the prospective losses for about two-thirds of all thrift institutions will exhaust their reported net worth before 1990. The reported net worth-to-asset ratio for most of the remaining thrifts will drop very close to zero during the 1980s. These remaining institutions will not be able to grow without receiving new capital unless regulations essentially abolish capital adequacy standards.

V. Conclusion

The current average CVR net worth-to-asset ratio for all thrifts is approximately −7 percent, and the figures in Table 3 imply that an $80 billion to $120 billion subsidy is required to raise the thrift industry's CVR net worth to 6 percent. In other words, the present value of a subsidy that covers the thrifts' current and prospective losses will cost $80 billion to $120 billion. A less ambitious subsidy, simply maintaining the net worth of the thrift industry near zero, would cost about $30 billion to $50 billion.

These estimates of the cost of the subsidy do not take into account the newly authorized all savers certificate. It is not likely that this tax-exempt deposit will reduce the U.S. Treasury's expected cost of assisting the thrifts. If depositors convert maturing money market certificates to these new all savers accounts, the lower cost of funds will reduce the thrifts' losses and the Treasury's prospective subsidy, but the all savers certificate also reduces the Treasury's tax revenue.[11] The cost of the all savers subsidy only grows larger if passbook depositors switch to these new tax-exempt certificates or if commercial banks issue a significant volume of all savers certifi-

[11]Assuming money market certificates bear average yields of 15 percent for the coming year and the comparable all savers yield is 10.5 percent, then for each $100 that is shifted from a money market certificate to an all savers certificate, thrifts (and eventually the Treasury) save $4.50. Assuming that the marginal tax rate of the average depositor shifting the $100 is 40 percent, the Treasury loses $6.00 in tax revenue. Thus, in this example, the Treasury must "spend" $1.33 for every $1.00 it subsidizes the thrifts by means of the all savers certificate.

cates. By using all savers certificates, the total cost of assisting the thrifts could increase by one-fourth, ranging from $100 billion to $150 billion.[12]

This subsidy also will become more expensive if failing thrifts must be liquidated rather than sold or subsidized for their losses. A liquidation would entail the government's assumption of thrift institution assets while depositors are paid in full. Under these circumstances, the net worth-to-asset ratio of MSBs and S&Ls should be calculated by marking only assets to market—the benefit of financing low-yielding assets with low-cost deposits is lost. Accordingly, the cost of the subsidy could exceed $200 billion if failing thrifts were liquidated.

At the moment, all of these figures are forecasts of events to come. An unexpectedly sharp decline in interest rates or a surprisingly active housing market could prevent widespread failures of mutual savings banks and savings and loan associations; nevertheless, the thrift industry's net worth will decline during the next five years. The two samples of Massachusetts savings banks and California savings and loans show there is a wide gap between the healthiest and weakest thrifts, and probably less than one-third of all thrifts are potentially insolvent if interest rates decline 400 or 500 basis points. If yields do not decline more than is expected currently, as many as two-thirds of all thrifts are potentially insolvent, and the remaining one-third will be too weak to safely compete with other financial institutions until the late 1990s.

[12]According to October data, for every $100 deposited into all savers certificates $25 was shifted from passbooks into all savers and $67 was shifted into all savers accounts at commercial banks. Continuing the example described in footnote 11, these data suggest the Treasury must "spend" $3.00 for every $1.00 it subsidizes thrifts in 1982, and if all savers balances average about 12 percent of thrift institution liabilities in 1982, the total cost of the overall subsidy (of which the all savers is only a part) rises 25 percent.

APPENDIX

Current Value of Liabilities

Term accounts were revalued according to the following formula

$$CV = ((1 + rn)/(1 + rm))^{M} BK,$$

where CV and BK denote current value and book value,
rn is the nominal account yield equaling the applicable ceiling rate plus 50 basis points,
rm is the market yield equaling a Treasury yield of comparable maturity (M),
M is the average maturity of the term balances.

Term accounts were initially classified into four categories: two-year, three-year, five-year, and seven-year accounts. The average maturity of balances in each category is calculated from net deposit flows. The yield explicitly includes the implicit charges thrifts must bear for servicing these accounts, assumed to be 50 basis points.

Liabilities bearing market yields and initial maturities of one year or less were not revalued. Federal Home Loan Bank advances were assumed to have an average remaining "maturity" of one and one-half years. Debentures and other long-term liabilities were assumed to have a seven-year remaining maturity. These last two categories of loans were revalued using the duration formula (see James C. Van Horne (footnote 4)).

Passbook, Club, NOW, and Notice accounts were all classified as passbooks. The cost of servicing passbooks equals total deposit-taking expenses less .005 times term balances. The average servicing fee per dollar of passbook balance averages about 3.5 percent in 1980. Assuming an eight-year maturity (M) the formula above is used to revalue passbook accounts (in 1980 rn = 5.5 percent plus 3.5 percent).

Current Value of Assets

Only mortgage loans and securities held by savings banks were marked to market. For mortgages, the average portfolio yield is used to calculate an average annual payment for the entire mortgage loan portfolio (C) using a 27-year amortization formula. Then the following formula is used to mark these loans to market:

$$CV = \sum_{i=1}^{27} C(1 - X)^{i-1}/(1 + rm)^{i} + X(1 - X)^{i-1}P_i/(1 + rm)^{i},$$

where CV denotes current value,
X the rate of prepayment of loans (5, 10, or 15 percent),
rm the current mortgage rate, and
P_i is the outstanding principal i years hence according to the amortization formula's schedule.

The current value of the loan portfolio is the discounted value of interest payments, scheduled principal payments, and prepayments of principal. Savings bank securities were revalued according to the duration formula. In 1980, the most common average maturity of a savings bank portfolio fell between three and four years; for some banks, this average maturity was as great as eight years.

Discussion

James L. Pierce*

Richard Kopcke's paper reaches a gloomy conclusion concerning the condition of the thrift industry. While I share some of his concerns, I believe that the situation is not as dire as Kopcke indicates. Before turning to my reasons for less pessimism, I think it is important to make some general comments about the thrift industry.

I have attended a number of conferences over the years that have been concerned with "saving" the thrift industry. I always concluded from the conferences that the concerns were blown far out of proportion to the size of the problem. To the extent that problems did exist, deregulation would solve them. Now, I do want to go on record as recognizing that the thrift industry is faced with a sizable problem. The first years that the thrift industry as a group has actually experienced losses were 1980–81. While this phenomenon is not unusual in other industries, it is unheard of for thrifts.

One is tempted to shake a finger and tell the industry that it, in conjunction with government regulators, created much of the problem that exists today. Rather than shake my finger, I shall briefly outline the structural characteristics of the industry that have helped produce the situation described in Kopcke's paper.

The first structural characteristic is that the industry is growth-oriented. Although regional differences have allowed California and the Sunbelt to grow more rapidly than New England, it is always presumed that the thrift industry should grow. Not only should capital be sufficient to maintain current levels of operation, but also to sustain the high rates of growth that have been achieved in the past. The second characteristic is that historically, and certainly currently, thrift institutions are highly leveraged. Because of their high degree of leverage, thrift institutions are not well suited to experiencing interest rate risk. A thrift institution would never lend to anyone as leveraged as a thrift institution. The next characteristic is that the thrift industry is not highly diversified. It is hard to think of a less diversified set of financial firms both in assets and liabilities than thrift institutions. The next characteristic is that thrift institutions have learned to depend upon regulators and Congress to protect them from the outside world and from changing economic conditions. The final characteristic is that most thrifts are reactive institutions and are not known for their innovative fervor.

This is a very different list from what one normally sees. The standard argument made by Kopcke and many others is that thrifts encounter problems because they lend long and borrow short. The magnitude of the risk associated with borrowing short and lending long is not unrelated to the

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characteristics I have listed. It is one thing to borrow short and lend long when an institution has a large amount of net worth. It is quite another thing to engage in this activity with little or no net worth. Similarly, borrowing short and lending long is a dangerous activity when assets and liabilities are undiversified, and when an industry is unable or unwilling to change with economic conditions.

It must be stressed that the problem that thrift institutions are now facing did not result from the term structure of interest rates per se. The problem comes not from the fact that interest rates have risen dramatically in recent years but rather from the fact that they rose unexpectedly. The thrift industry, and everyone else, has made very large errors in predicting future interest rates. The term structure of interest rates has not, over the last 15–20 years, been an accurate predictor of the future level of interest rates. This failure has had unfortunate consequences for the thrift industry, and it casts considerable doubt on Kopcke's calculations.

Perhaps one more observation is in order before turning to these calculations. The regulators caused great problems for thrift institutions by authorizing money market certificates paying market interest rates while keeping low interest rate ceilings on longer-term liabilities. I cannot think of a worse instrument than these certificates for highly leveraged institutions that are facing the risks of borrowing short and lending long. The considerable progress that had been made with respect to lengthening the maturity of liabilities was totally undone with money market certificates. California thrifts, where growth was more rapid than in New England, are loaded with money market certificates. The heavy use of these certificates explains the losses at many institutions in the West. Institutions in New England demonstrate some of the benefits of not growing. Many institutions in these states find themselves in less of a bind because they issued fewer certificates.

Now, let me turn to some specific comments on Kopcke's paper. I believe that the basic thrust of the paper is correct. Kopcke asserts that one has to be forward-looking when assessing the financial condition of a firm. One cannot be forward-looking with book value because it simply represents what has happened in the past. The relevant measure of the value of an institution is how it will fare in the future. He quite correctly points out that book value is not an adequate measure for assessing balance sheets of thrift institutions. We all know that thrift institutions carry large amounts of mortgage loans paying interest rates below market. We also know that thrift institutions have liabilities with fixed maturities whose interest rates are below market, although thanks to the money market certificate these liabilities are insignificant at many institutions.

Unfortunately, it simply is not obvious what one should do with the accounting when we depart from book value. We can all agree that using book value has deficiencies, but when we abandon book value what do we do? Kopcke has made an attempt to answer this question, but I have serious reservations about his technique. Let me begin by pointing out an anomaly of current value reporting as he measures it. We do have an objective measure of the value of the California S&Ls that are stock associations. The

market has put a value on their net worth which is equal to the value of their shares. These values are positive, indicating that the market has a different expected discounted present value for the earnings of these firms than does Kopcke. There is something anomalous about a technique that concludes that there is negative net worth, when the market is saying no. He does know which California associations are stock institutions. I recommend that Kopcke compare his calculations of present value to market values. These comparisons may reveal some interesting conclusions concerning his present value accounting.

The basic problem with Kopcke's technique is that he does not, as I understand it, adequately allow for the time profile of future interest rates or of future portfolios of thrift institutions. This is not the forum to get into the intricacies of expected future interest rates and their revisions, but a few comments are in order. One has to worry about the whole time path of the income that will be earned on mortgage loans. This includes not only existing loans but also mortgage loans that will be granted in the future at future interest rates. One also has to be concerned with the whole time profile of the liabilities that will be issued in the future at future interest rates. Kopcke did try to make an allowance for the rollover of mortgage loans. This is important because there is a flow of repayment from the paydown of principal on mortgage loans as well as from the prepayment of loans. He assumed that this money is relent as mortgage loans, i.e., that thrifts will not diversify in the future. The interest rate at which these funds will be lent is the 25-year interest rate that will prevail in the future, not today's 25-year interest rate. So, for example, the funds from a mortgage loan that is repaid three years from now, will be reinvested in a mortgage loan at a 25-year interest rate, 3 years in the future. For present value accounting, one has to predict what the interest rate on new mortgage loans will be three years in the future. We need the 25-year rate, 3 years in the future which means that we need the current interest rate on 30-year loans. In general one has to have a very long time period of analysis. If we have to worry about future revisions in the mortgage rate 20 years in the future, we need 50 years of mortgage interest rate data to do this calculation. Kopcke does not have it. The same is true for liabilities. As money market certificates mature, some will be reissued at the then prevailing six-month interest rates for the next 20–30 years. These data are implicit in the term structure of interest rates, but so far as I can figure out, Kopcke did not use these implicit forward rates.

On top of these issues, we have the problem of passbook accounts. Kopcke tried to solve the problem by assuming that they have a maturity. This is a poor approach. One has to guess at the speed with which the regulators will decontrol the interest rate on passbook accounts, not the maturity. These accounts have no effective maturity because they are payable on demand. When the regulators get nice to customers who are holding passbook accounts and let the interest rate rise, the interest cost for all these accounts will presumably increase. In general, we have to guess how quickly the interest rate ceilings on various accounts will be decontrolled and we also have to guess at the composition of the liabilities of thrift institutions

in the future. In order to do present value accounting, the analyst has to predict not only future interest rates, but also future government policy actions and the future compositions of the asset and liability portfolios of thrift institutions. This is a tall order.

While it may be possible to take account of some of the issues that I have raised, we are still left with the problem of growth. I have heard for years that the thrift industry is broke. The present discounted values of mortgage portfolios are negative and thrifts are bankrupt. Very few of them have gone broke. Why not? In part they have been bailed out. Largely, however, thrift institutions have grown very rapidly and been able to make enough money on the margin with new mortgage loans to stay afloat. So, in order to do Kopcke's current value calculations, it is necessary to make an assumption about growth: how rapidly will institutions issue liabilities to acquire assets, and what will be the future spread of interest rates for assets and liabilities. Again, one can only guess.

I shall conclude these comments with one more criticism. Kopcke points out that the malaise of thrift institutions has to do with the fact that they, and the market in general, have been lousy forecasters of future interest rates. Time and time again the market has said interest rates are at an all-time peak, and are going to fall. The market, through the term structure of interest rates, the thrift industry, economists, and everyone else have all proved to be poor forecasters of the future level of interest rates. If the term structure of interest rates had provided accurate forecasts over the last 15 years, then the thrift industry would not be in its current mess. An institution would not have granted 8 percent mortgage loans several years ago, because it would have predicted that interest rates would rise in the future. It would have insisted on 10, 12, 15 percent or whatever would have been required to make the lending profitable. Kopcke's technique requires the use of the term structure of interest rates. The technique is appropriate only if the term structure of interest rates accurately predicts future interest rates. Thus, the very problem that Kopcke has isolated in terms of why these thrifts are in trouble is then incorporated into his analysis to show they are in trouble. He cannot have it both ways. This along with the many assumptions that must be made about future growth and the future compositions of portfolios gives me greater pause in accepting the use of current value accounting. There is simply no analytic basis for believing Kopcke's figures on the size of the potential bailout. I applaud Kopcke's attempt at present value accounting as an academic exercise. I fear, however, that figures such as Kopcke's might be used to rationalize some unnecessary and ill-advised policy actions.

Discussion

Elliott G. Carr*

Although I do disagree with some of Dick Kopcke's treatment of statistics, some of his assumptions and some of his "blanket" conclusions, and I do believe he casts Massachusetts savings banks in too dismal a light, I do not quarrel with the general thrust of his work and do not believe I would be making the most meaningful possible comments if I produced a laundry list of criticisms.

Instead, I intend to use the Kopcke paper as a point of departure, by indicating several ways in which I believe the paper does not go far enough in terms of the urgent need to see the situation as a whole and thereby get control of events pertaining to thrift institutions rather than being controlled by them.

I. First, by focusing on comparatively healthy examples, the paper if anything understates the national problem that thrifts represent.

Although I am not familiar with California savings and loans, Massachusetts savings banks are clearly among the healthiest thrift institutions in the nation. As of June 30, 1981, their general reserves were 7.8 percent compared to a national average of 6.2 percent for savings banks and considerably less for savings and loan associations. For the six months ending that date, my calculation of net *operating* earnings for Massachusetts savings banks was .30 percent (versus Kopcke's *net* earnings of .14 percent), compared to −.62 percent for all savings banks and −.49 percent for all savings and loans. Both of these positive "gaps" between Massachusetts savings banks and other thrifts are growing.

II. Similarly, the paper, like this entire conference, focuses on thrifts alone. Although thrifts do represent an extreme example, this nation has gone through a revolution in interest rates that has left much of its entire financial system undercapitalized. My office, making many assumptions, recently ran a market valuation analysis of the assets of all thrifts, commercial banks, and life insurance companies in the country. We came up with a negative capital position of over $300 billion. The figures are not reliable enough for me to present here, but I suggest the conclusion is inescapable.

Certainly in Massachusetts where the assets of thrifts exceed those of commercial banks, the general thrust of a Kopcke-like analysis of all banking industries, including commercial banks, would disagree only in degree from that which he uncovered.

Given the magnitude of the problem, even when the deposit insurance funds are added to the analysis, they represent a very small fig leaf to cover an enormous potential exposure.

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This omission is significant in that it means many of the most publicized safety nets expected to protect the public from failing thrifts could be relatively insignificant. Neither the deposit insurance funds nor the entire commercial banking industry have the financial resources to stop a massive wave of thrift failures and, wishful thinking of the Treasury Department aside, it is almost inevitable that unless rates fall soon, the Treasury will have to backstop one or more of the funds.

III. The third way in which the paper does not go far enough is its concentration primarily on the aggregate assets of the thrifts studied. This omission is significant in that it fails to focus as much of a spotlight as is necessary on the cause of most thrift institution problems—fixed rate mortgage lending. Mutuality is not the problem. Small size is not the problem. In most instances, management is not the problem. Even specialization is not the problem. Mortgage lending and the extent to which politics have forced mortgage lenders from market reality are the problems. A more detailed Kopcke-like analysis broken into several subcategories of assets would show that the greater the proportion of mortgages in a thrift institution's portfolio, the bigger the problem. Indeed, one of my criticisms of the paper is that it fails to evaluate the considerable comparative advantage which personal loans, equities, and other short-term securities represent to Massachusetts savings banks in contrast to the savings and loan saturation, and occasionally even oversaturation (mortgages in excess of 100 percent of deposits) with mortgages.

Massachusetts savings banks are living and vivid testimony in support of the Pratt bill, testimony which Kopcke ignores. Despite operating in the region of the country characterized by the worst disintermediation and the lowest mortgage rates, their comparative performance has been excellent *because* they have more personal loans, more equities, more short-term bonds and even a small start into corporate lending. (Furthermore, Massachusetts savings banks were writing variable rate mortgages (VRMs) as early as California savings and loans, another reason why the comparative gap between these savings banks and other thrifts is growing, not diminishing, as one would expect if the high ratio of passbooks was the sole reason for the comparatively favorable experience, as Kopcke implies.)

On the liability side, as Kopcke adequately discusses, all thrift institutions have demonstrated a remarkable ability to attract and retain below market rate deposits.

IV. A fourth need to move beyond the Kopcke analysis is the necessity of examining the profit and loss statements of thrift institutions in as much detail as the balance sheets.

The profit and loss statements of thrift institutions occupy an unenviable position that for two years has fluctuated several hundred basis points below market rates. For example, for the first six months of 1981, the rate of return on deposits for all savings banks was 10.40 percent and the interest paid to depositors was 9.06 percent while short-term rates fluctuated 250 to 700 basis points higher in a 13 to 16 percent range.

Shifting analysis to this aspect of the financial status of thrifts results in the unfortunate conclusion that healthy thrifts are not all that much better off than the less healthy.

V. A fifth way in which the paper could have moved further, which the paper itself suggests, is its static nature. As noted, only time will tell the magnitude of the thrift institution capital shortfall, which is heavily dependent on how fast interest rates fall, how far, and for how long. But with a computer it would be relatively simple to develop a series of reliable projections.

- For example, if short-term rates come down to 5 percent and stay there, there is no "problem."
- If the current consensus economic forecast is correct, interest rates go down somewhat, then up somewhat, then who knows which way, the "problem" as Kopcke estimates, may well be in the $80 to $120 billion range, although I would not agree that the size of the "problem" of necessity must become the size of a "bailout" as he implies, or that every bank which is part of the problem will fail without assistance.
- If this nation encounters a fifth cycle of ever rising interest rates in a couple of years, probably thereby making us into another totally indexed "banana" economy, the "problem" may well be in excess of $500 billion.

By "problem" I mean the ultimate capital shortfall which will have to be funded by one of four sources.

1. The future earnings of thrift institutions and the continued presence therein of below market rate regular deposits if the institutions continue in operation, the preferred solution for all parties.
2. The deposit insurance funds, Federal Reserve System, and/or the U.S. Treasury.
3. Depositors, in the highly inconceivable event that both the thrift institutions and the deposit insurance funds are allowed to fail. Anyone who understands the political process knows that Congress will not allow that to happen.
4. National Steel Corporation and other parties willing to inject capital.

One begins to see the evolution of who is going to fund how much of the "problem" in the recent package arranged whereby National Steel Corporation through Citizens Savings and Loan Association "bought" two other weak savings and loans. National Steel injected $75 million, but the FSLIC, by reportedly guaranteeing the spread on the portfolio for the next 10 years, took upon itself the risk of which way interest rates move. Public estimates place the value of the guarantee at $10 million a month, or potentially many hundred million over 10 years, reinforcing the view that, despite the deferral of the FSLIC's role, it is not many such settlements down the road before the insurance funds are into the Treasury.

VI. Since I am a representative of savings banks, one other aspect of the Kopcke paper concerns me. Although the paper repeatedly shares the onus for the current status of thrifts on regulators and the institutions

themselves, it fails to adequately evaluate the extent to which the unfortunate status of thrift institutions clearly results from the unique interplay of politics and economics as they influence thrifts.

In the Massachusetts savings banks, we could probably have handled the economics of the last 20 years and come through with a much stronger financial status if we had not had to cope with legislative and regulatory obstacles as well as economics.

For example, let me cite my Association's major interfaces with such forces. Kopcke gives us too little credit here, and I am happy to have the chance to restate the record.

- In 1969 many Massachusetts savings banks, not being insured by the FDIC nor therefore subject to Regulation Q, raised the rates on regular deposits as high as 5½ percent. (Does that number sound familiar?) As a result, federal legislation was introduced to subject the industry to Regulation Q. One industry in one state was thus up against all federal regulators, the American Bankers Association, and the U.S. League. We won, but only at the price of being forced under similar ceilings at the state level.
- In 1970 for the first of 12 straight years, the industry sought state legislative authority to offer demand deposits, the goal being diversification. For the first 11 straight years we lost, the legislators having been convinced by commercial bank stories about our "greed."
- In 1972, convinced of the futility of legislative efforts to expand thrift powers, we started NOW accounts on the basis of a "creative" legal opinion. Soon a bill was filed in Congress to outlaw such accounts. We won that fight too, but at the expense of being placed under Regulation Q.

Several current prominent members of the House Banking Committee led the fight to ban NOWs; however, since their bill lost they have been taking credit for this innovation. Until the congressional fight was over, the Massachusetts Banking Commissioner took away the branching rights of savings banks to express her displeasure with NOWs.

- In 1974 we petitioned our legislature for variable rate mortgages. That bill did not pass, so we sent out another "creative" legal opinion saying they were legal anyway. Some of our banks have offered them ever since. (As I have already implied, I believe Kopcke produces a distorted Massachusetts-California comparison by underestimating the Massachusetts impact of VRMs, while if anything overstating the California impact.)

It is also time that someone researched the records of congressional hearings to dig out the hostile remarks made by key members of Congress, again including several presently in positions of influence, whenever efforts were made at the federal level to authorize VRMs at a time when it would have done some good.

- In 1980 we successfully sought introduction of a Senate amendment to the Financial Institutions Act, opening up demand deposits and corporate loans to federally chartered thrifts. While the regulators

stood on the sidelines, the amendment was emasculated in conference by the House side.

- Every year, as we seek modest legislative expansion of powers to offer alternatives to the mortgage vise through personal loans and corporate loans, we experience another round of commercial bank attacks. Two weeks ago, the Independent Bankers Association of Massachusetts again called us "greedy" when a Pratt-like powers bill was introduced.

I cite this history as a way of suggesting that it takes a lot of gall for anyone in Washington to be critical of the financial position of Massachusetts savings banks. We have been trying for 10 years to take actions to avoid our current predicament, and our two largest impediments have been "official" Washington and the commercial bank industry. Now, through the FDIC, the plan seems to be to put major portions of the savings banking industry into the commercial bank industry—probably primarily at government expense, even though that agency has yet to actively support the need for broader thrift powers.

The federal reaction to the financial status of thrifts remains a five-ring circus, five being the number of members of DIDC.

- Until very recently, while one federal agency, the Federal Reserve Board, shaped the high interest policies that doomed thrifts (such a result was clearly an unfortunate side effect, not the intent of its policies), another, the Federal Home Loan Bank Board, with the encouragement of Congress, cajoled and coerced such institutions to make fixed rate mortgages. These two agencies should have got their act together long ago.
- While the Federal Reserve worked at great length to subject thrifts to reserve requirements, not until the horse was out of the barn did they turn to the real threat to the money supply, money market funds.
- While one agency, again the Fed, increases the record profits of some commercial banks through below market loans at the discount rate, another, the Federal Home Loan Bank System increases the red ink of savings and loans through far higher rates on their advances. The two continue to tell conflicting stories concerning which is responsible for the differing impact.
- While the FSLIC, through steps such as creative accounting, provides as much support as possible to troubled savings and loans, most of whom have done little to help themselves avoid the current predicament, the FDIC discriminates against savings banks, which made far more efforts to avoid their current problems, by failing to provide similar assistance.
- Much like feeding more cocaine to an addict, the All Savers Act continues to encourage and coerce thrifts to make mortgages. Even the Pratt Bill, one of the more enlightened proposals ever concerning thrifts, ties some powers, albeit minor ones, to the level of mortgage lending.

- As recently as two years ago, the FDIC, under congressional prodding, turned down a savings bank branch on the basis of inadequate community reinvestment—translation insufficient mortgage lending—a classic illustration of wrong way regulating at the wrong time.
- Finally, DIDC eliminates special notice accounts, seemingly through oversight; announces an increase in passbook rates then later, as a result of pressure, postpones it to look at its impact on earnings; announces an illegal phase-out plan for ceilings; hastily does away with a longstanding prohibition against paying commissions on bank deposits; and takes every other possible step to give the appearance of being more interested in getting somewhere in a hurry than in knowing where it is going.

As a result, the thrifts increasingly perceive several of the leading financial figures in the current administration as hostile and vindictive, two sentiments which they return. Just the atmosphere we need to work out the financial problems of thrifts!

What then are the appropriate steps that must be taken?

1. Through steps such as making the Kopcke model universal and dynamic, we need to recognize and accept the magnitude and future potential of this nation's capital deficit problem, as illustrated by thrift institutions.
2. All of the federal agencies need to immediately cease taking steps, potentially at their own ultimate expense, to aggravate the problem, such as tying All Savers to more mortgage loans or raising the ceiling on regular savings accounts.
3. We need to establish a "workout" period, which could be of considerable duration. During such a period, special "workout" procedures should be provided. For example, although the Kopcke paper clearly demonstrates the need for current value accounting procedures, which must become a goal for thrifts and all other financial institutions, during the interim "workout" period deferred accounting procedures for asset losses could be provided universally.

Such a period, if administered carefully, could spread the impact of the capital deficiency, whoever is to bear it, over a longer period of time and substantially increase the opportunity to alleviate the problem in periods of lower interest rates, whether they be temporary or permanent.

We hope that many of the other speakers on this program have useful suggestions about steps that could be taken in part of this period.

The creation and success of such a period, and the number of thrift institutions which can be brought through it, will reduce the extent to which government funds are required.

Thus far, most of the government's timing concerning thrift institutions has been horrible. In hindsight Regulation Q was put in at a poor time, and weakened and phased out at a poor time. An abrupt change to market value accounting would represent another wrong step at the wrong time.

With enlightened management of a transitional period, far more than one-third, indeed far more than two-thirds, of Massachusetts savings banks can survive to become viable and competitive institutions by 1990.