Cyclical Swing or Secular Slide? Why Have New England's Banks Been Losing Money?

Robert Tannenwald

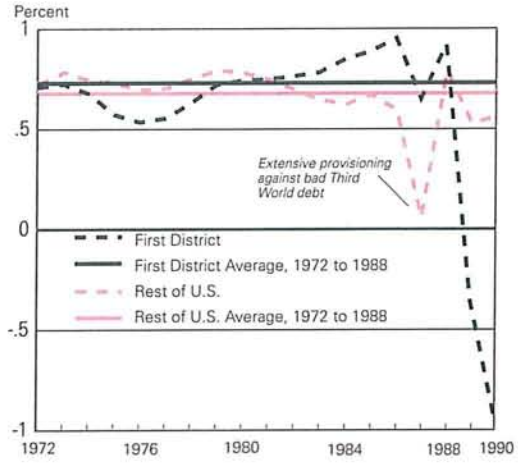
Economist, Federal Reserve Bank of Boston. *Mitchell Fournier and Lesley Eydenberg provided valuable research assistance.*

In 1989 New England's banking industry incurred its first annual deficit since the Great Depression. It has been losing money ever since. By contrast, the rate of return to banking in the rest of the nation has hovered near its 1972–88 average (Figure 1).

New England's banks have been losing money in large part because the region's economy, especially its real estate industry, has contracted sharply. As a result, an increasing proportion of borrowers have defaulted or fallen behind on their payments. The rising incidence of problem loans has decreased interest receipts; compelled banks to expand loan loss reserves; forced them to raise interest rates on deposits in order to retain funds; and increased their outlays for lawyers, accountants, and consultants to help renegotiate bad loans, dispose of foreclosed property, and comply with regulatory orders.

These expenses should decrease once the region's economy and real estate markets recover. Will they decrease sufficiently to restore the profitability of New England's banking industry to pre-recession levels? Some bankers, regulators, and consultants—the "cyclical swingers"—believe that they will. Others—the "secular sliders"—disagree. Although the secular sliders acknowledge that a shrinking economy and bad real estate loans are important causes of the region's banking woes, they also blame them partially on chronic imbalances in its banking markets. Deregulation, interest rate volatility, and changes in the technology of providing financial services have diminished the demand for traditional banking products and increased the competitiveness of banking. According to the secular sliders, the nation's banks as a whole have had difficulty adjusting to these changes. As a result, the supply of economic resources allocated to banking has become excessive relative to the industry's expected rate of return. Some secular sliders consider the degree of "overbanking," as this imbalance is often called, to be especially severe in New England. They advocate intraregional consolidation of large banking organizations in order to reduce the region's

Figure 1 *Return on Average Assets (ROA), First District and the Rest of the United States, All Commercial Banks, 1972 to 1990*



Source: Federal Deposit Insurance Corporation, *FDIC Reports on Condition and Income*; author's calculations.

excess banking capacity and to enhance banks' operational efficiency.

Are the secular sliders correct in asserting that secular factors have depressed the profitability of the nation's banking industry? If so, have these factors depressed the profitability of New England banking to an unusual degree? While addressing both questions, this study focuses on the second: the extent to which secular factors have exerted an especially large effect on the profitability of the region's banks. In evaluating this issue, the study estimates the "normal" rate of return—the rate of return that a bank would have earned given a "normal" incidence of problem loans—for large banks in both the region and the rest of the nation. The study finds no convincing evidence that secular factors have exerted a significant influence on the profitability of banking either in New England or in the nation as a whole.

Nevertheless, the sooner the depressing effect of bad loans on the profitability of New England's banks is eliminated the better. The region's banks need to accumulate sufficient capital to permit them to write off their bad loans, so that they can resume their operations unencumbered by extraordinary expenses.

I. The Secular Sliders' Case

As alluded to in the introduction, the structure, technology, and regulatory environment of the U.S. banking industry have changed over the past 20 years in ways that have increased its cost of funds and decreased demand for traditional banking services. According to the secular sliders, the industry has failed to contract sufficiently in response to these changes, resulting in growing excess capacity and declining profitability.

Secular Pressures on U.S. Banks

Competition between commercial banks and other financial institutions has intensified dramatically over the past two decades. Advances in computer technology have permitted the creation of money market mutual funds (MMMFs), which compete directly with banks for deposits but are subject to fewer regulatory restraints. The rapid rise in interest rates during the mid 1970s, in combination with interest rate ceilings imposed on banks, spurred the growth of these funds. Thrifts obtained authority to offer Negotiated Orders of Withdrawal (NOW) accounts over the course of the 1970s and early 1980s. The introduction of these interest-bearing, liquid accounts, along with the growth of MMMFs, broke commercial banks' monopoly on transactions balances. As interest rate ceilings were phased out, greater competition among banks as well as thrifts, MMMFs, and other nonbank financial institutions tended to raise banks' cost of funds.

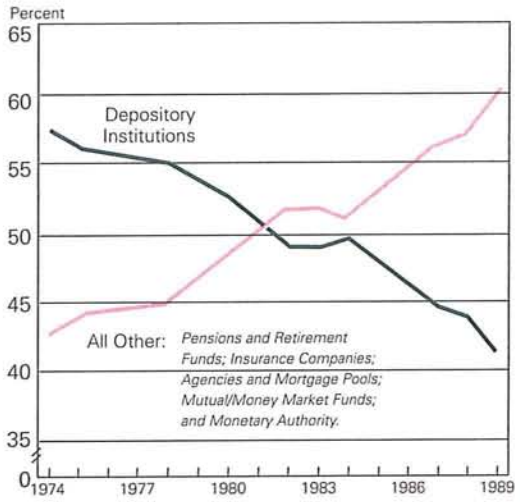
In addition, households now place a significant proportion of their savings into large, professionally managed funds, such as pension funds and thrift plans. New disclosure rules and advances in computer technology have enabled these funds to manage investments in publicly tradable securities. Large corporations are able to borrow directly from these funds. Consequently, neither households nor businesses need the intermediation of banks to the degree that they did 25 years ago (Davis 1986; Kaufman 1991; U.S. Department of the Treasury 1991).

Banks' Response to Changes in Their Environment

In the eyes of the secular sliders, the nation's commercial banks have responded to these secular pressures in shortsighted ways that have aggravated their long-term problems. First, they have increased the proportion of their portfolios invested in commer-

Figure 2

Financial Assets Held by Depository Institutions as a Percentage of Total Financial Sector, 1974 to 1989



Source: U.S. Department of the Treasury (1991, p. 3).

cial real estate loans and construction and development loans. Because commercial real estate values in many parts of the nation have fallen in recent years, this shift in asset mix has raised the incidence of problem loans, which in turn has caused the average credit rating of banks to deteriorate. The deterioration has further dissuaded uninsured savers from channeling their investments through banks, further increased banks' propensity for risk-taking, further increased their baseline level of nonperforming loans, further eroded their long-run profitability, and so on.

Second, commercial banks have increased the number of their branches in order to meet the competition for funds posed by thrifts and MMMFs. In so doing, they have attempted to attract deposits by providing the advantages of access and convenience to potential customers. A bias in branching restrictions favoring commercial banks over thrifts has encouraged this competitive strategy (Kimball 1978b).

Evidence of Excess Banking Capacity in the Nation as a Whole

According to the secular sliders, the accumulation of excess capacity in the nation's banking industry is evident in its declining profitability and shrinking share of the nation's financial assets (Figure 2). The average ROA of U.S. commercial banks outside New England fell gradually but steadily from the late 1970s through 1986, then sharply in 1987 (Figure 3). The secular sliders assert that the increase in bank profitability during the late 1980s (Figure 1) does not indicate that this long-term decline has been reversed. Rather, it reflects an improvement in the nation's agriculture and energy industries and the quality of banks' Third World debt. Weakness in agriculture and energy and a decline in the quality of loans to Third World countries accelerated the deterioration in bank profitability during the middle of the decade. (Bank profitability dropped precipitously in 1987 because many large banks provisioned heavily against their bad Third World debt in that year.)

New England has more commercial bank and thrift offices per capita than the nation as a whole (Figure 4). Some secular sliders conclude from this fact that the region's chronic excess banking capacity is especially severe and is depressing its banks' profitability relative to that of its peers nationwide.[1]

II. Flaws in the Secular Slide Theory

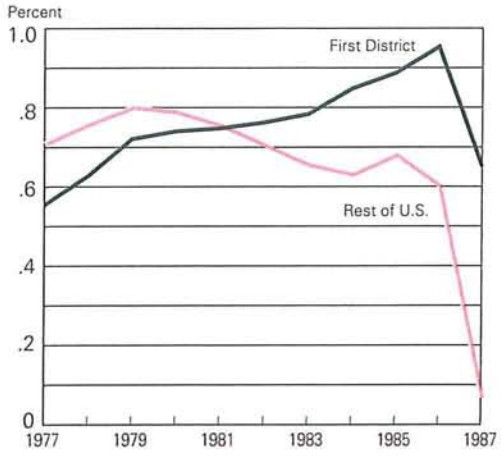
The evidence cited by the secular sliders to support their view of the banking industry in both the United States and New England is inconclusive. Other evidence suggests that the cyclical swingers' view is at least as plausible.

[1] As Ira Stepanian, Chairman and Chief Executive Officer of Bank of Boston, has put it (1991):

> Quite simply, there are just too many banks . . . chasing too few customers in New England, paying too much for deposits, charging too little for loans, inevitably reducing spreads, profits, and capital.
>
> Unless we find a way to reduce the number of banks [in New England] . . . we will continue to have too many unprofitable banks chasing relatively too few customers.

Figure 4 suggests that New England's high ratio of bank offices to population might be related to the sparseness of its population in certain states, especially Maine and Vermont. Both states, more sparsely populated than the nation as a whole, have consistently ranked among the top two in the region according to this ratio. Note, however, that Connecticut, which ranked third in the region according to this ratio in 1988, was the third mostly densely populated state in the nation in that year. Massachusetts, which accounts for almost one-half of New England's population, is also one of the most densely populated states in the country.

Figure 3 *Return on Average Assets (ROA), First District and the Rest of the United States, All Commercial Banks, 1977 to 1987*



Source: See Figure 1.

A Critique of the Secular Sliders' View of U.S. Banking

The declining trend in U.S. bank profitability between 1979 and 1987 displayed in Figure 3 could have been caused by cyclical forces and temporary shocks rather than by secular factors. The 1981–82 recession was the largest economic contraction that the nation has experienced since the Great Depression. During the mid 1980s, the profitability of small and mid-sized banks was constrained by the high rate of default among farmers, due in turn to drought and low prices for agricultural products. Over the same period, and especially in 1987, large banks (mainly money center institutions) were forced to make large contributions to their loan loss reserves because of their exposure to deteriorating Third World debt.

Bennett (1986) attempted to estimate the independent impact of cyclical factors, secular factors, and transitory economic shocks on U.S. bank profitability between 1976 and 1984. Although he found a mild secular decline in the profitability of money center and large regional banks during this period, he concluded that "once business cycle effects are taken into account, the evidence does not point to any massive recent decline in bank earnings."

If the secular trend in bank profitability has continued to be mildly declining or even flat since 1984, Bennett's results may indirectly support the secular slide theory. If banks have responded to secular pressures by knowingly increasing the riskiness of their portfolios, their long-run profitability should have been trending upward because they have been receiving rising risk premiums.[2] A flat or declining secular trend in profitability would imply that other long-run factors have been exerting an offsetting, downward effect on bank profitability.

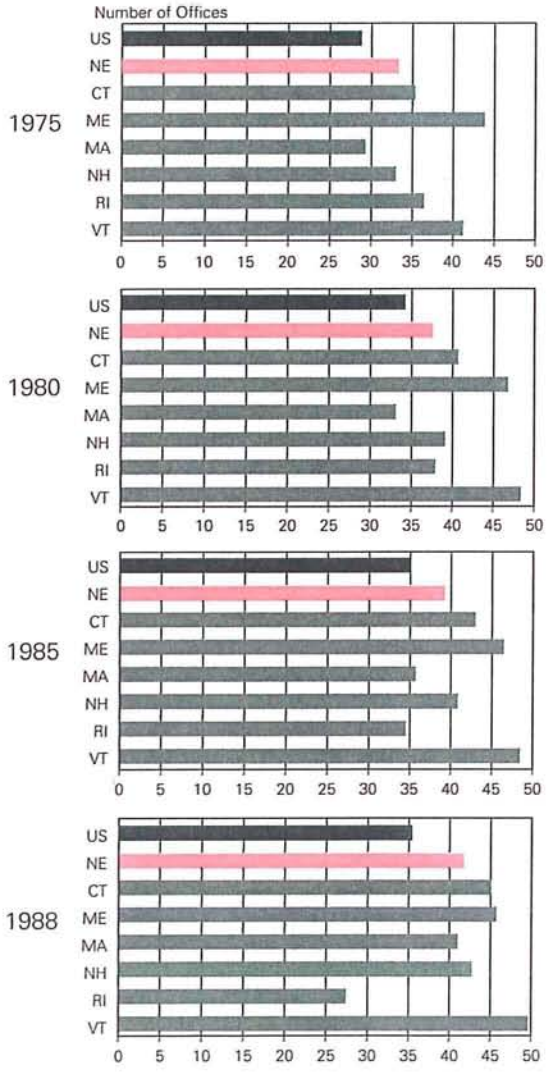
In hindsight, the recent volatility of real estate markets has taught bankers and regulators alike that construction and commercial real estate lending is, in fact, relatively risky. It is not clear, however, that bankers viewed such lending as especially risky when they greatly expanded the role of such loans in their portfolios. Before New England's recent real estate "bubble" burst, for example, the probability of a decline in real estate values was considered to be quite low. Unsecured commercial and industrial lending was perceived by many bankers to be at least as risky as construction and commercial real estate lending. Consequently, it is not clear that bankers have demanded increases in risk premiums on bank loans sufficient to compensate them for their higher risks. Therefore, one should not necessarily posit a recent upward secular trend in bank profitability. Nor should one conclude that the absence of such a trend indicates the presence of chronic excess capacity in the U.S. banking industry.

Even if bankers clearly foresaw the high risk of default associated with construction and commercial real estate lending, rapid expansion of such lending did not necessarily increase the riskiness of loan portfolios. While loans to firms in a volatile industry entail high credit risk, such loans can nonetheless reduce the riskiness of a portfolio if the industry's cycle is uncorrelated with the cycles of the other industries represented in the portfolio. By enhancing diversity, the loans to the volatile industry can reduce the long-run incidence of default for the portfolio as a whole. One could argue that banks diversified their portfolios by expanding their construction and commercial real estate lending, since construction and

[2] Greater riskiness implies higher average profitability only with the further widely held assumption that investors are risk-averse. In addition, as discussed later in the text, expanding the role of a loan category with a high risk of default does not necessarily increase the riskiness of one's portfolio if such expansion increases the portfolio's diversity.

Figure 4

Total Bank Offices per 100,000 Persons, the New England States, New England, and United States



Source: Federal Deposit Insurance Corporation; U.S. Bureau of the Census, *Statistical Abstract of the United States;* author's calculations.

real estate cycles generally differ from those of other industries.

The declining trend in the share of financial assets held by depository institutions shown in Figure 2 also does not necessarily reflect chronic excess capacity and declining long-term profitability. Boyd and Graham (1991) point out that many financial assets held by nonbank institutions produce profits for commercial banks. For example, banks receive fees for providing backup lines of credit for issues of commercial paper and for clearing the checks written against money market mutual funds. More importantly, an increasing proportion of a commercial bank's activity is not reflected in its balance sheet and therefore is not reflected in its assets. Examples include the servicing of loans sold in secondary markets and the issuance of standby letters of credit, options, and forward contracts. Boyd and Graham further note (p. 9) that the share of the nation's gross national product accounted for by both banks and nonbank institutions has grown steadily during the postwar period. Rather than declining, U.S. banks, as well as their nonbank competitors, have been growing faster than the economy as a whole.

Is Excess Banking Capacity Especially Large in New England?

New England's large number of bank offices per capita is a long-standing regional characteristic not necessarily indicative of a high degree of excess capacity. Alternative measures of the volume of resources devoted to banking show little or no difference between New England and the rest of the nation. Furthermore, the assertion that the region's banking industry suffers from unusually intense competition is inconsistent with the wide net interest margins that New England's banks typically enjoyed before the onset of their current problems.

New England's multiplicity of bank offices has historical roots. New England has had a large number of commercial bank and thrift offices per capita since at least 1860. In that year the region had 15 bank offices per 100,000 people, three times greater than the comparable figure for the United States as a whole (Lamoreaux 1991). If this ratio is an indicator of overbanking, New England has been relatively overbanked for at least 130 years.

During the first half of the nineteenth century, industrial entrepreneurship was the most important reason for the region's multiplicity of banks. America's industrial revolution, as well as its political revolution, started in the region. Entrepreneurs needed capital to finance their mills and factories. In order to meet this need, each entrepreneurial group attempted to establish its own bank. Politically influential groups were often successful, since in those days bank charters were granted directly by state

legislatures (Lamoreaux 1986).

Throughout the nineteenth century, especially during its latter half, New England's class and ethnic divisions also stimulated the proliferation of banks. Commercial banks tended to serve the middle and upper classes and lent to large and mid-sized businesses. Savings banks were established to lend to small businesses and to encourage thrift among low-income urban workers by providing them with stable (albeit low) rates of return on passbook savings accounts.[3] In addition, each ethnic group tended to establish its own exclusive set of depository institutions.

Thus, the high ratio of bank offices to population in New England originated in its inhabitants' desire for exclusiveness and ready access to bank services. As will be discussed later in this section, the region's multiplicity of banks may also reflect an attempt by its commercial banks to compete with nonbank financial institutions by providing superior access and convenience rather than superior prices. Whatever the historical reasons for the region's high number of bank offices per capita, the secular sliders argue that this characteristic is an inefficient anachronism that is diminishing the profitability of the region's banks.

What alternative measures of banking capacity show. While New England may have a large number of bank offices per capita, its banks spend relatively little per office on "non-interest expenses" such as labor, office space, machinery and equipment, materials, and consultants. Its large number of bank offices per capita, therefore, may indicate that its banking resources are dispersed rather than excessive. A better gauge of the region's excess banking capacity is the ratio of non-interest expense to total assets ("overhead" ratio). Some bankers and consultants who maintain that the nation as a whole is overbanked cite as evidence the steadily rising overhead ratio of the U.S. banking industry since the mid 1970s (Table 1).

Until the mid 1980s, New England's banking industry had a consistently higher overhead ratio than its counterparts nationwide in all size groups. Starting in 1986, however, the region's overhead ratios began to fall both absolutely and relative to those of the rest of the nation. By 1988, the regional ratio was virtually identical to the national ratio for all size groups.[4] This convergence raises the possibility that, while high overhead costs may have depressed the relative rate of return to banking in New England during the 1970s and early 1980s, the regional industry may have significantly narrowed or even eliminated this disadvantage between 1985 and 1988.

The decline in New England's overhead ratio, in both absolute and relative terms, may have had nothing to do with reduction in excess capacity or enhancement of operational efficiency. Instead it could have reflected an increased emphasis among banks outside of New England on nontraditional, fee-based activities such as fiduciary management, data processing, currency trading, and financial consulting. When banks devote labor, capital, and materials to such activities, they generate income but do not create financial assets. By contrast, financial intermediation generates both income and financial assets. Consequently, other things equal, one would expect a bank increasing its reliance on nontraditional activities simultaneously to increase its ratio of overhead to total assets.[5]

In fact, banks outside New England did increase their reliance on nontraditional activities between 1985 and 1988. Large banks outside the region raised their ratio of gross non-interest income to gross

[3] Welfling (1968, pp. 3–10). Boston's Provident Institution for Savings, still in operation today, was the first savings bank in the nation to receive a charter, in 1816. To this day, New England's thrifts rank among the most commercially active in the country. In 1987 thrifts acccounted for 45 percent of the assets owned by commercial bank and thrift institutions in the region, compared to 34 percent for the nation as a whole. Moreover, in that year, 71 percent of New England's thrifts were savings banks, as opposed to savings and loan associations (U.S. League of Savings Institutions 1988, p. 47). Savings banks have more latitude than savings and loans in the types of loans they can offer and the types of securities they can purchase (Teck 1968). In other regions of the country, with the exception of the mid-Atlantic states, savings banks play little role in the thrift industry.

State regulatory policy promoted the competitiveness of thrifts within the region. The region's state governments were among the first to give thrifts authority to offer NOW accounts. Massachusetts became the first state to do so, in 1972. As late as 1978, New England's depository institutions were the only ones in the nation with the authority to offer NOWS. Not until the passage of the Depository Institutions Deregulation and Monetary Control Act of 1980 were depositories in all other states similarly empowered. See Paulus (1975) and Kimball (1978a) for analyses of the impact of the authorization of NOW accounts on the profitability of commercial banks in New England.

[4] The drop in the overhead ratio of the region's small banks from 1987 to 1988 was precipitous and without precedent between 1976 and 1990 (Table 1). The fact that within this size group the region's overhead ratio was lower than that of the rest of the U.S. in 1988 therefore appears to have been an anomaly, not an indication of a sharp reduction in excess capacity or a dramatic improvement in operating efficiency.

New England's small banks accounted for only 1 percent of the region's total bank assets in 1988. The region's large and medium-sized banks accounted for 90 percent and 9 percent, respectively.

[5] See First Manhattan Consulting Group (1987) for further discussion of the impact of product mix on measures of operational efficiency.

Table 1
Overhead Ratio or Non-Interest Expense as a Percentage of Total Assets of Commercial Banks, by Size Group, First District versus the Rest of the United States, 1976 to 1990

	Large Banks		Medium Banks		Small Banks	
Year	First District	Rest of United States[a]	First District	Rest of United States	First District	Rest of United States
1976	2.94	2.38	3.96	2.86	3.74	2.73
1977	2.89	2.39	3.83	2.83	3.63	2.71
1978	3.01	2.44	3.84	2.85	3.61	2.79
1979	3.04	2.48	3.98	2.97	3.49	2.88
1980	3.19	2.58	4.03	3.05	3.65	3.01
1981	3.47	2.73	4.26	3.16	3.89	3.09
1982	3.72	2.89	4.40	3.24	4.08	3.19
1983	3.61	2.96	3.79	3.16	3.93	3.17
1984	3.73	3.10	3.64	3.17	3.77	3.24
1985	3.81	3.22	3.30	3.21	4.87	3.36
1986	3.52	3.23	3.24	3.22	4.35	3.37
1987	3.47	3.34	3.16	3.20	4.65	3.38
1988	3.29	3.28	3.19	3.22	3.21	3.35
1989	3.37	3.31	3.38	3.28	4.12	3.36
1990	3.96	3.39	3.68	3.22	5.23	3.41

Note: Large = Banks with total assets greater than $300 million.
Medium = Banks with total assets greater than $50 million but less than or equal to $300 million.
Small = Banks with total assets less than or equal to $50 million.

[a]Excludes money center banks for purposes of comparability.

Source: Federal Deposit Insurance Corporation, *Reports on Condition and Income*. Data for 1976 through 1983 are estimates based on source data and author's calculations. Data for other years are reported in the source.

interest income from 0.143 to 0.185. The comparable ratio for New England's large banks remained constant at 0.160. The real estate boom during this three-year period induced the region's banks to expand their lending activity much more rapidly than their counterparts in the rest of the country. As a result, growth in their interest income kept pace with growth in their non-interest income.

One way of avoiding the bias resulting from differences among regions in product mix is to compare New England's banks with their counterparts nationwide in terms of their ratio of overhead to income instead of assets. For this calculation, income should include net interest income and non-interest receipts in order to exclude one-time gains and losses and items whose value is heavily influenced by the discretion of accountants and regulators, such as provisioning.[6] The resulting "adjusted" overhead ratio answers the following question: how much does a bank spend on overhead in order to generate a dollar of net interest income or non-interest receipts?

The results using the adjusted overhead ratio (Table 2) are similar to those using the unadjusted ratio. From the mid 1970s to the mid 1980s, New England's banking industry had a much higher adjusted ratio than its peers in the rest of the nation in all size groups. These differences narrowed rapidly between 1984 and 1987. In 1987 the adjusted ratio for the region's large banks was actually lower than that of its peers in the rest of the nation. The same was true for the region's medium-sized banks from 1986 through 1988.

[6] One important item not included in the denominator of the adjusted overhead ratio is interest payments on "performing nonperforming" loans. Although regulators classify such a loan as nonperforming, the borrower is still able to pay some interest on a current basis. These payments are recorded as reductions in principal outstanding rather than interest receipts on banks' income statements. Consequently, data on these payments are not readily available.

The incidence of "performing nonperforming" loans was higher in New England than in the rest of the nation during the latter half of the 1980s. Consequently, the omission of payments on such loans from the denominator of the adjusted overhead ratio biases upward the adjusted overhead ratio of New England's banks more than that of banks in the rest of the nation. The elimination of the gap between the regional and national adjusted ratios between 1985 and 1988, despite this bias, further weakens the secular sliders' case.

Table 2
Adjusted Overhead Ratio,[a] First District versus the Rest of the United States, Commercial Banks, by Size Group, 1976 to 1990

	Large Banks		Medium Banks		Small Banks	
	First District	Rest of United States[b]	First District	Rest of United States	First District	Rest of United States
1976	0.708	0.669	0.788	0.701	0.794	0.681
1977	0.731	0.675	0.776	0.686	0.781	0.669
1978	0.717	0.658	0.739	0.657	0.736	0.642
1979	0.689	0.655	0.706	0.640	0.699	0.621
1980	0.708	0.667	0.729	0.647	0.702	0.621
1981	0.746	0.687	0.719	0.662	0.694	0.627
1982	0.737	0.692	0.729	0.668	0.719	0.652
1983	0.736	0.695	0.726	0.669	0.747	0.668
1984	0.712	0.695	0.705	0.665	0.743	0.683
1985	0.709	0.675	0.668	0.668	0.797	0.687
1986	0.696	0.679	0.680	0.690	0.747	0.725
1987	0.674	0.684	0.676	0.683	0.780	0.726
1988	0.671	0.658	0.668	0.676	0.746	0.720
1989	0.707	0.697	0.672	0.655	0.788	0.690
1990	0.808	0.651	0.766	0.667	0.867	0.720

Note: Size groups defined in note at foot of Table 1.
[a]Defined as non-interest expense/(non-interest receipts plus net interest income).
[b]Excludes money center banks for purpose of comparability.
Source: See Table 1.

The adjusted ratio reported in Table 2 fails to control for the bias resulting from the rapid growth in assets experienced by New England's banks between 1985 and 1988. Many of the region's banks relaxed their credit controls during this period, permitting them to "churn out" a large volume of assets per dollar of overhead. These economies of scale were short-term in nature, not long-term reductions in excess capacity or lasting improvements in operating efficiency.

In order to control for this possibility, the adjusted ratios presented in Table 2 were recalculated with the constraint that between 1985 and 1988 net interest income grew only as fast as non-interest expense. The details of these calculations and their results are reported in Appendix I. Even bound by this severe constraint, New England's adjusted ratios improved relative to the nation's, although not as much as in the absence of this constraint.

A large gap reemerged between the region's overhead ratio (no matter how measured) and that of the rest of the nation in 1990 (in 1989 for small banks). In theory, this development could indicate a sudden long-run increase in excess banking capacity or a reduction in operational efficiency within the region. Cyclical swingers would argue that the overhead ratio of the region's banks has been temporarily raised by unusually high overhead expenses and low net interest income resulting from the high percentage of loans past due. The composition of recent increases in non-interest expenses suggests that they are, in fact, related to the rising incidence of nonperforming loans. Call Reports filed with the Federal Deposit Insurance Corporation provide statistics on three categories of non-interest expense: compensation to labor, expenses of premises and fixed assets, and "other" non-interest expenses. Extraordinary outlays made by banks during periods of extreme financial stress—fees for consultants, lawyers, and accountants; advertising; travel—are concentrated in the "other" non-interest expense category. Among the First District's large banks, "other" non-interest expenses as a percentage of total assets increased by 49 basis points between 1988 and 1990, compared to only 8 basis points among their peers in the rest of the nation.

Why have New England's banks generally enjoyed such wide net interest margins? If New England's bank-

Table 3
Net Interest Margin,[a] First District versus the Rest of the United States, Commercial Banks, by Size Group, 1976 to 1990

	Large Banks		Medium Banks		Small Banks	
Year	First District	Rest of United States[b]	First District	Rest of United States	First District	Rest of United States
1976	3.18	2.89	4.14	3.51	4.08	3.55
1977	3.00	2.86	4.04	3.57	4.04	3.57
1978	3.28	3.01	4.30	3.77	4.29	3.84
1979	3.47	3.07	4.71	4.00	4.49	4.08
1980	3.43	3.07	4.54	4.06	4.61	4.23
1981	3.40	3.10	4.99	4.08	5.00	4.28
1982	3.69	3.23	5.02	4.13	4.99	4.25
1983	3.51	3.22	4.28	3.98	4.41	4.09
1984	3.46	3.25	4.21	3.96	4.08	4.01
1985	3.73	3.43	4.16	4.00	4.08	4.13
1986	3.57	3.37	4.00	3.84	3.80	3.90
1987	3.61	3.44	3.96	3.86	3.54	3.87
1988	3.32	3.51	3.85	3.90	3.40	3.87
1989	3.09	3.14	4.06	4.07	3.97	4.00
1990	2.87	3.54	3.70	3.95	4.10	3.86

Note: Size groups defined in note at foot of Table 1.
[a]Defined as (gross interest income − gross interest expense)/total assets.
[b]Excludes money center banks for purposes of comparability.
Source: See Table 1.

ing industry is suffering from excess capacity, why have the region's banks traditionally enjoyed wider net interest margins than their peers in the rest of the nation? (See Table 3.) Net interest margin is the ratio of net interest income to total assets. Competition tends to narrow this margin, as banks compete for funds by raising rates on deposits and for borrowers by lowering rates on loans.

Perhaps New England's multiplicity of bank offices reflects a competitive strategy on the part of the region's commercial banks to win customers by providing superior access and convenience. According to this view, the region's banks have purposely targeted customers willing to accept low interest rates on their deposits or high interest rates on their loans in return for the opportunity to bank at a branch close to their home or business. In other words, the region's banks have catered to customers willing to pay higher prices for ready access to convenient banking services. Several characteristics of New England tend to support this explanation. First, New England's commercial banks have been exposed to relatively intense competition from thrifts, credit unions, money market mutual funds, and life insurance companies.[7] However, as already suggested above, biases in branching restrictions throughout the nation favoring commercial banks have encouraged them to meet this competition by branching. This bias has been especially severe in New England.[8]

Furthermore, some evidence suggests New Englanders' preference for accessible banking services is still strong. Demand deposits have traditionally played a large role in the liability mix of the region's banks, indicating a strong preference among New

[7] The intensity of competition from thrifts is discussed in footnote 3. The region's commercial banks have been especially sensitive to competition from MMMFs and insurance companies for two reasons. Both types of institutions are heavily represented in New England and therefore compete with its large banks for the same labor pool. In addition, the region's commercial bankers have been conditioned by the aggressiveness of its thrifts to compete vigorously with nonbank competitors.

[8] As early as 1979, four of the region's six states imposed no restrictions whatsoever on the branching of banks within their borders ("statewide branching"). None were "unit banking" states—those that allowed no bank branching whatsoever. By comparison, 27 percent of the other states and the District of Columbia were unit banking states, while only 40 percent permitted unlimited statewide branching (U.S. Department of the Treasury 1981, pp. 44–52).

Englanders for liquidity (Appendix II). Liquidity is complementary to accessibility in that frequent deposits and withdrawals require frequent trips to the bank. New England's preference for both liquidity and accessibility may be partially attributable to the large percentage of its population that is 65 years or older.[9] Compared to other age groups, the elderly are more conservative in their saving habits and tend to make frequent withdrawals because they live, in part, off their savings. Traveling to and from the bank is physically demanding for many of them.[10]

III. A More Direct Test of the Secular Slide Theory: Comparing Normal Rates of Return

The secular slide theory can be tested more directly. Suppose that one could control for the effects of New England's recent boom-bust economic cycle and concomitant deterioration in credit quality on the profitability of its banks. How profitable would they have been in 1989 and in 1990 in the absence of these effects? That is, what would their "normal" rate of return have been?[11] Would it have been less than that of their peers in the rest of the nation? An affirmative answer would strengthen the secular sliders' case.

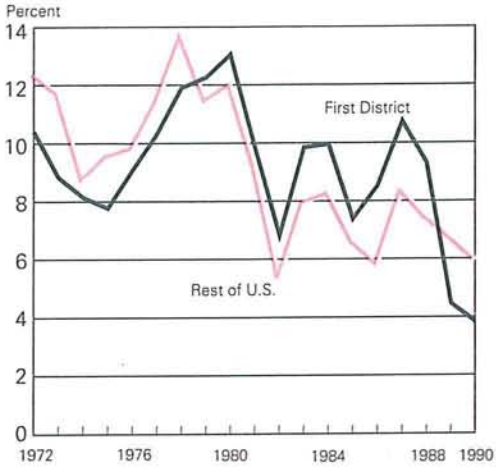
New England's Economy and the Profitability of Its Banks: The Past Two Decades

As suggested by Figures 5 and 6, the relative profitability of New England's banks has been strongly correlated with the relative rate of growth of its economy. From 1972 through 1978, the rate of growth in the region's inflation-adjusted personal income was considerably slower than that of the nation as a whole. During this period, the rate of return to the region's banking industry, as measured by ROA, averaged 20 basis points below that earned by banks nationwide. This gap closed rapidly between 1978 and 1982, when the region's rate of economic growth, buoyed by the "high tech revolution" and an increase in defense spending, significantly exceeded the nation's. By 1983, the ROA of the region's banks exceeded that of their peers nationwide in every size group.

The years 1983 through 1988 were extremely profitable, both absolutely and relative to banking nationwide, for New England's banking industry. Over the course of these six years, the region's economy, bolstered by growth in construction, real estate, and other financial services, expanded at an annualized rate of 6 percent, compared to only 4 percent for the national economy. Largely as a result, the average annual ROA of New England's banks was 21 basis points above the nation's during this interval. The relative profitability of the region's small and mid-sized banks was especially high in 1985 and 1986, when many other parts of the nation were suffering from a slump in agriculture and energy

Figure 5

Annual Rate of Change in Personal Income, First District and the Rest of the United States, 1972-1990



Source: U.S. Bureau of Economic Analysis, author's calculations.

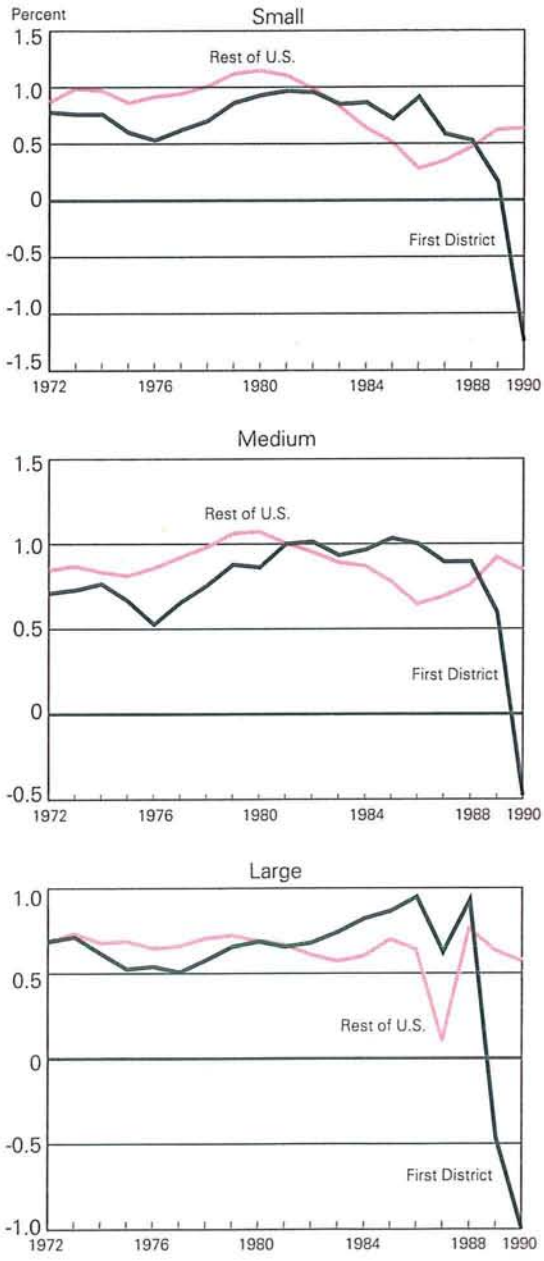
[9] In 1988, 13.4 percent of New England's population was 65 years of age or older, compared to a nationwide average of 12.4 percent. Only the North Central and Mid-Atlantic regions had higher percentages of elderly in their population (U.S. Bureau of the Census 1990).

[10] The popularity of Money Market Deposit Accounts (MMDAs) in New England may be a further indication of this preference.

[11] In estimating the normal average rate of return of each size group, in both New England and in the rest of the nation, this study assumes that the normal riskiness of the size group's portfolio in any given year is equivalent to that of the size group's members nationwide less those located in New England and Texas. This assumption is implicit in the method by which the normal asset mix of each peer group is estimated in a given year, explained in the text.

Figure 6

Return on Average Assets (ROA), First District and the Rest of the United States, by Size of Commercial Bank,[a] 1972 to 1990



[a]See note at foot of Table 1 for definition of size group.
Source: See Figure 1.

extraction industries. (Neither plays a significant role in New England's economy.[12]) The relative profitability of the region's large banks peaked in 1987, when many of their peers in other regions were compelled to provision heavily against bad Third World loans. (In general, these loans play a smaller role in the portfolios of New England's large banks than in those of large banks nationwide.[13])

As stated in the introduction, the profitability of New England's banking industry has plummeted during the last two years, both absolutely and relative to that of the national industry. This development has coincided with a dramatic slowing of the rate of growth in the region's economy in general and its real estate industry in particular. The personal income of New Englanders increased by only 8 percent between the fourth quarter of 1988 and the fourth quarter of 1990, while that of the rest of the nation increased by 14 percent. Over the same period, the value of new construction contracts awarded within the region shrank by 38 percent, compared to only 3 percent in the rest of the nation.

A Model of the Links between Economic Conditions and Bank Profitability

In order to control for the effects of recent extreme economic fluctuations on the profitability of New England's banks, one needs a model of how these effects have been transmitted. Such a model is depicted in Figure 7.

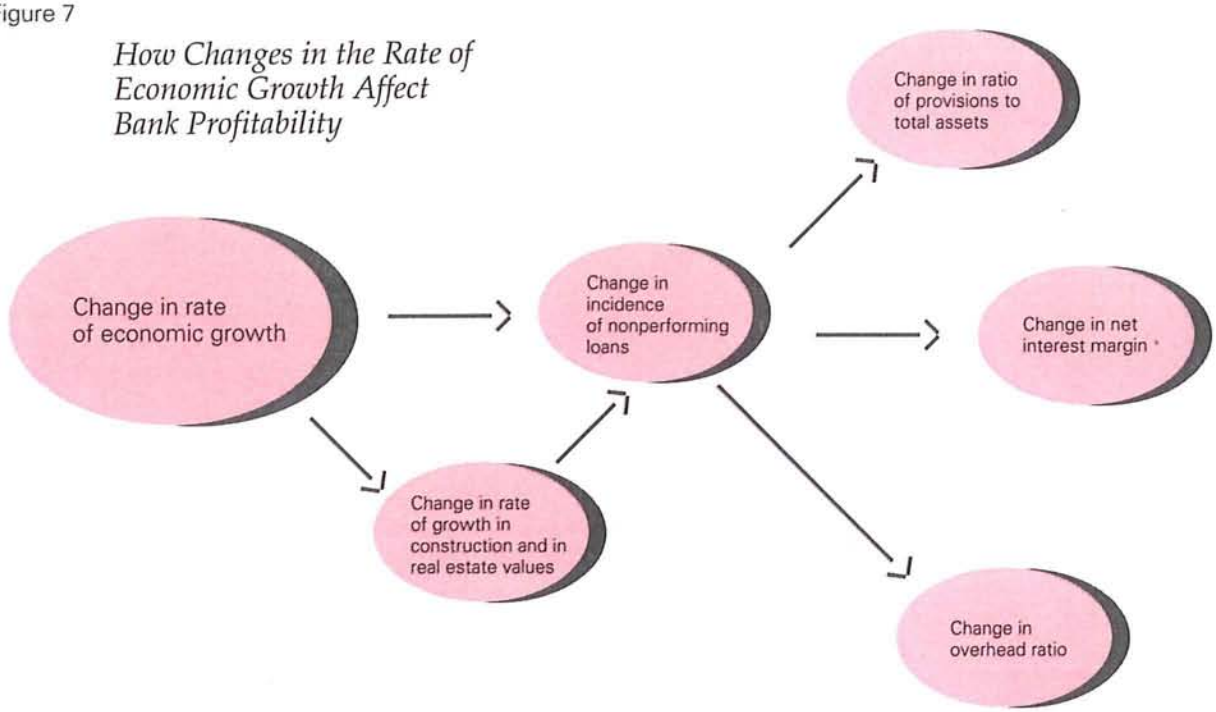
Description of the model. During the 1980s, banks in both New England and the rest of the nation expanded the proportion of their asset portfolios allocated to loans in general and to construction and commercial real estate loans in particular. These increases were especially large in New England because the region's rapid rate of economic growth stimulated construction and raised real estate values. Since construction and commercial real estate loans are relatively risky, their greater role in asset portfo-

[12] In 1986, agricultural loans accounted for 6.85 percent of the total assets of small banks outside of New England. The comparable figure for small banks within New England was 0.26 percent. In that year, agricultural loans accounted for 2.2 percent of all assets of mid-sized banks outside of New England. The comparable percentage within the region was 0.17 percent. The discrepancy between New England and the rest of the nation was even greater in earlier years, when U.S agriculture was more profitable.

[13] In 1987, 1.24 percent of the assets of large banks outside of New England consisted of loans to foreign governments. The comparable percentage for New England's large banks was 0.99.

Figure 7

How Changes in the Rate of Economic Growth Affect Bank Profitability



lios raised the incidence of nonperforming loans at the region's banks. The incidence of nonperforming loans in all loan categories rose sharply after the region's economy began to contract in 1989 and in 1990.

As mentioned, this deterioration in credit quality has influenced several components of bank profitability. Banks have been compelled to increase their provisions to loan reserves. They have lost interest income and have incurred high interest expenses in order to discourage deposit runoff. They have incurred extraordinary non-interest expenses in order to obtain help in dealing with their extraordinary credit problems.

Model estimation. The data available to estimate the correlations hypothesized in the model are extremely limited. The Federal Deposit Insurance Corporation collects data on nonperforming loans only from the large banks that it insures (those with total assets in excess of $300 million). It has been collecting such data only since 1982 and has been describing them by type of loan only since 1987. Data on nonperforming loans are further limited in that they are not finely partitioned by loan type. All real estate loans, including construction and development, commercial real estate, residential real estate, and farm real estate, are lumped together into one category. These components differ considerably in their riskiness. Moreover, their relative importance in the loan mix of New England's commercial banks has changed dramatically during the last five years. Because the estimates of the normal profitability of large banks presented in Tables 4 and 5 are necessarily rough, they should be interpreted cautiously.

Key assumptions. The normal ratio of nonperforming loans to total assets, for large banks in both the region and the rest of the nation, was assumed to equal the comparable ratio for the rest of the nation's large banks excluding money center banks and large banks domiciled in Texas. Money center banks were excluded, as they are in all the comparisons of large banks presented in this article, because their balance sheets are unique. Texas banks were excluded because of their extraordinarily high incidence of nonperforming loans in general and energy loans in particular. The period over which the average ratio of nonperforming loans to total assets was computed is 1982 through 1988 excluding the year 1987. The incidence of nonperforming loans in 1987 was unusually high among large banks throughout the nation—

Table 4

Estimates of Normal Rate of Return[a] (ROA) for Banks with Total Assets Greater than $300 Million excluding Money Center Banks, First District versus the Rest of the United States less Texas, 1989*

	Actual		Normal	
	First District	Rest of United States less Texas	First District	Rest of United States less Texas
As a Percentage of Total Assets:				
Nonperforming loans	2.28	2.33	2.16[b]	2.16[b]
Provisions against loan losses	1.81	.87	.86[c]	.86[c]
Net interest income	3.09	3.22	3.09[d]	3.22[d]
Non-interest expense	3.37	3.26	3.37[d]	3.26[d]
Net income before taxes and extraordinary items (normal rate of return)	(.52)	.92	.43	.93

[a] Measured as net income before taxes and extraordinary items as a percentage of total assets.

[b]The average value for nonperforming loans as a percentage of total assets for the United States less the First District and Texas for the years 1982 to 1986 and 1988. See text and the Appendix for further methodological details.

[c]Assumes a ratio of provisions to nonperforming assets of 0.4.

[d]It was assumed that, because the actual ratio of nonperforming loans to total assets was so close to the normal ratio for both the First District and the rest of the United States less Texas, no adjustment to the actual value of net interest income or non-interest expense was necessary in the computation of normal rate of return.

Source: Federal Deposit Insurance Corporation, *Reports on Condition and Income* and author's calculations.

especially outside of New England—because of a sharp deterioration in the performance of loans to Third World nations.

The estimated normal incidence of nonperforming loans, 2.16 percent of total assets (Tables 4 and 5), is high for New England's large banks by the standards of the 1980s. From 1982 to 1988, the ratio of nonperforming loans to total assets for the region's large banks averaged only 1.35 percent. However, the extraordinarily rapid rate of economic growth in New England during this six-year period kept the incidence of nonperforming loans unusually low. The region's long-run potential growth rate is much lower.[14] One would expect, therefore, that even under normal conditions the incidence of nonperforming loans among the region's banks will be higher in the future.

The normal ratio of provisions to nonperforming assets for both the region and the rest of the nation was assumed to be 0.4, resulting in an assumed normal ratio of provisions to total assets of 0.4 × 2.16 percent, or 0.86 percent. Between 1982 and 1988 the average ratio of provisions to nonperforming assets for both the region and the rest of the nation was approximately 0.3. It was assumed that the normal ratio is now higher than this historical average because of stricter regulatory requirements and the secular trend toward investment in increasingly risky assets.[15]

In 1989, the actual ratio of nonperforming loans to total assets for large banks in both New England and the rest of the nation less Texas was not significantly different from the estimated normal ratio of 2.16 percent. In 1990 the actual ratio for the rest of the nation less Texas was, by coincidence, equal to 2.16 percent. Consequently, it was assumed that an abnormally high incidence of nonperforming loans af-

[14] Demographers estimate that the average annual long-run growth rate of New England's working-age population during the 1990s will be 0.5 percent. If productivity grows at an average annual rate of between 0.5 percent and 1 percent, the estimated average annual rate of economic growth is between 1 and 1.5 percent.

[15] The assumed normal ratio of provisions to nonperforming assets affects only the absolute values of estimated normal rates of profit, not the estimated normal rate of profit of New England's banks relative to that of banks in the rest of the nation.

Table 5
Estimates of Normal Rate of Return[a] (ROA) for Banks with Total Assets Greater than $300 Million excluding Money Center Banks, First District versus the Rest of the United States less Texas, 1990*

	Actual		Normal	
	First District	Rest of United States less Texas	First District	Rest of United States less Texas
As a Percentage of Total Assets:				
Nonperforming loans	4.44	2.16	2.16[b]	2.16[b]
Provisions against loan losses	1.95	1.04	.86[c]	.86[c]
Net interest income	2.87	3.59	3.59–3.73[d]	3.59[e]
Non-interest expense	3.96	3.39	3.56–3.43[f]	3.39[e]
Net income before taxes and extraordinary items (normal rate of return)	(1.00)	.80	1.28–1.42	.98

Source: Federal Deposit Insurance Corporation, *Reports on Condition and Income* and author's calculations.

[a] Measured as net income before taxes and extraordinary items as a percentage of total assets.

[b]The average value for nonperforming loans as a percentage of total assets for the United States less the First District and Texas for the years 1982 to 1986, and 1988. See text and the Appendix for further methodological details.

[c]Assumes a ratio of provisions to nonperforming assets of 0.4.

[d]The lower bound is the actual net interest margin earned by large U.S. commercial banks less the First District and Texas (money center banks excluded). The upper bound is this net interest margin plus 14 basis points, the average difference between this net interest margin and that earned by large First District Banks from 1984 through 1988.

[e]It was assumed that, because the actual ratio of nonperforming loans to total assets was so close to the normal ratio for both the First District and the rest of the United States less Texas, no adjustment to the actual value of net interest income or non-interest expense was necessary in the computation of normal rate of return.

[f]The upper boundary of this range is the average for large First District Commercial banks for 1984 through 1988. The lower boundary is the average for 1986 through 1988. By way of comparison, the 1984–1988 average for large U.S commercial banks (money center banks excluded) less the First District and Texas is 3.17.

fected net interest income and non-interest expense only in New England in 1990. Otherwise, normal net interest margin and normal overhead ratio were assumed to equal their actual values.

The normal ratio of net interest income to total assets for New England's large banks in 1990 was estimated according to two alternative rules. Under the "low" rule, this ratio was assumed to equal that actually earned by large banks in the rest of the nation less Texas. Under the "high" rule, the regional ratio was assumed to equal that earned by large banks in the rest of the nation less Texas plus 14 basis points. This spread is the average difference in the ratio earned by large First District banks and that earned by large banks in the rest of the nation less Texas between 1984 and 1988.

The normal ratio of non-interest expense to total assets for New England's large banks in 1990 was also estimated according to two alternative rules. According to the "high" rule, this ratio was assumed to equal the region's average for 1984 through 1988. According to the "low" rule, this ratio was assumed to equal the region's average for 1986 through 1988. The "low" rule implicitly assumes that New England's large banks successfully improved their operational efficiency relative to that of their nationwide peers during the 1986–88 period.

Estimates of the "Normal" Profitability of New England's Banks

As reported in Table 4, the normal ROA before taxes and extraordinary items (ROA*) earned by the region's large banks in 1989 was estimated at 0.43 or 50 basis points lower than that estimated for their peers in the rest of the nation. Very different results were found for 1990 (Table 5). In that year, the estimated normal ROA* in the region exceeded that in the rest of the nation by between 30 and 44 basis points, depending on the rules used for estimating normal net interest margin and normal overhead ratio. The average estimated normal ROA* for the

region for both years combined is between 0.85 and 0.92, only 3 to 10 basis points below the average estimated normal ROA* for the rest of the nation less Texas. This difference is insignificant given the imprecision of the estimation techniques.

IV. Summary and Policy Implications

The severity of New England's recession and the collapse of its real estate markets have inflicted heavy losses on the region's banking industry. Banks in all size groups have shared these losses. However, their profitability will recover as the regional economy resumes its growth and real estate values eventually rebound from their depressed levels.

The region's banks, like their counterparts in the rest of the nation, have been subject to secular forces over the past 15 to 20 years that have intensified the competitiveness of their industry and reduced the demand for their traditional products. Evidence of a resulting significant decline in the profitability of the nation's banks is inconclusive. Furthermore, this author has found no evidence that New England's banks have been less adept at adjusting to these forces or that their profitability relative to that of their peers nationwide has suffered accordingly. When the impact of the region's unusually high incidence of nonperforming loans is controlled for, as shown in the estimates above of "normal" profitability, the average underlying rate of return earned by large banks in the region over the past two years has been approximately the same as that earned by large banks in the rest of the nation.

The relatively large number of bank offices per capita in New England is not necessarily an indication that New England is overbanked. Rather, it may reflect a conscious strategy on the part of the region's banks to win customers by providing superior access and convenience. This explanation is consistent with the wide net interest margins that New England banks have traditionally enjoyed, the intense competition that they have encountered from mutual savings banks and nonbank financial organizations, the regulatory incentives within the region to meet this competition by branching, and the apparently strong preference of New Englanders for access and convenience in banking. Other measures of the volume of resources devoted to banking in New England and the efficiency with which these resources have been used suggest that New England is no more overbanked than the rest of the nation.

Nevertheless, the overhang of bad loans carried by New England's banking industry has made it unprofitable, both absolutely and relative to banking in the rest of the nation. The region's banks need to build capital to absorb the losses associated with loan charge-offs. The sooner they rid their balance sheets of these loans, the sooner the additional costs associated with these loans will disappear. Once these extraordinary costs are eliminated, the underlying profitability of New England banking will reemerge.

Appendix I: Alternative Methods of Calculating Adjusted Overhead Ratio

As noted in the text, many New England banks relaxed their credit standards between 1985 and 1988, contributing to the rapid increase in the volume of bank assets and, therefore, net interest income, during this period. This development, as opposed to reduction in capacity or improvement in efficiency, may have contributed to the reduction of the region's adjusted overhead ratios. In order to control for this possibility, the adjusted overhead ratios of the region's large banks were recalculated under the assumption that net interest income increased only as fast as noninterest expense. The revised calculations and their results are presented in the following table:

Appendix Table I

Banks with Assets Greater than $300 Million (Large Banks), First District, 1985 to 1988

$000

	Non-Interest Expense (1)	Non-Interest Income (2)	Net Interest Income (Actual) (3)	Net Interest Income (Constrained) (4)
1985	3,262,111	1,404,718	3,193,996	3,193,996
1986	3,881,417	1,644,388	3,930,818	3,800,216
1987	4,520,041	2,007,633	4,699,771	4,425,232
1988	5,115,630	2,456,170	5,162,069	5,002,372

	Adjusted Overhead Ratio (1)/[(2) + (3)]	Constrained Adjusted Overhead Ratio (1)/[(2) + (4)]
1985	.709	.709
1986	.696	.713
1987	.674	.703
1988	.671	.685

Appendix II

Appendix Table II

Liability Mix of Commercial Banks, First District versus the Rest of the United States, by Size Group, 1972 to 1990

Percent of Total Liabilities

	Large Banks (Money Center Banks Excluded)					
	First District			Rest of the United States		
	Demand Deposits	Time and Savings Deposits	Other Liabilities	Demand Deposits	Time and Savings Deposits	Other Liabilities
1972	40.29	28.98	30.73	34.80	36.57	28.63
1973	37.17	34.71	28.12	31.88	40.08	28.04
1974	33.34	38.51	28.15	29.79	40.66	29.56
1975	33.07	38.60	28.33	29.49	41.95	28.57
1976	29.64	36.22	34.14	26.96	38.91	34.14
1977	27.58	35.43	36.99	26.59	38.27	35.15
1978	26.52	36.22	37.27	25.71	38.55	35.74
1979	24.49	35.66	39.85	24.04	36.89	39.07
1980	23.12	36.17	40.71	23.15	36.70	40.15
1981	21.39	37.72	40.89	19.95	39.73	40.32
1982	18.89	39.11	42.00	17.07	43.17	39.76
1983	18.66	40.52	40.82	17.11	45.46	37.43
1984	18.70	33.18	48.13	16.62	35.06	48.32
1985	19.21	47.28	33.50	16.64	47.10	36.26
1986	19.27	48.72	32.01	17.22	47.27	35.50
1987	16.31	51.72	31.97	16.20	48.87	34.93
1988	13.34	51.99	34.67	15.13	50.82	34.05
1989	12.21	52.79	35.00	14.20	52.54	33.26
1990	11.76	56.18	32.06	13.64	54.80	31.56

Appendix Table II *continued*

Liability Mix of Commercial Banks, First District versus the Rest of the United States, by Size Group, 1972 to 1990

Percent of Total Liabilities

	Medium Banks					
	First District			Rest of the United States		
	Demand Deposits	Time and Savings Deposits	Other Liabilities	Demand Deposits	Time and Savings Deposits	Other Liabilities
1972	45.64	40.41	13.95	37.32	49.95	12.72
1973	42.82	43.06	14.13	34.83	51.57	13.60
1974	40.10	45.55	14.35	32.68	53.08	14.24
1975	37.66	48.44	13.90	31.72	54.48	13.81
1976	34.91	52.97	12.12	30.58	57.68	11.73
1977	33.38	54.78	11.84	29.92	58.43	11.65
1978	32.32	55.20	12.47	29.45	58.46	12.09
1979	29.90	54.90	15.20	27.98	59.02	13.00
1980	28.57	55.30	16.14	26.53	60.16	13.31
1981	25.67	57.75	16.58	21.90	64.01	14.09
1982	22.80	61.19	16.01	18.91	66.69	14.40
1983	20.88	65.79	13.34	17.37	69.96	12.68
1984	19.91	48.58	31.51	16.33	52.71	30.95
1985	18.61	69.24	12.15	15.76	72.16	12.08
1986	17.75	70.31	11.94	15.56	72.73	11.71
1987	14.90	71.94	13.17	14.67	73.58	11.75
1988	12.35	74.31	13.34	14.00	74.23	11.77
1989	10.72	75.73	13.55	13.39	74.50	12.11
1990	9.80	78.57	11.63	12.58	75.59	11.84

Appendix Table II *continued*

Liability Mix of Commercial Banks, First District versus the Rest of the United States, by Size Group, 1972 to 1990

Percent of Total Liabilities

	Small Banks					
	First District			Rest of the United States		
	Demand Deposits	Time and Savings Deposits	Other Liabilities	Demand Deposits	Time and Savings Deposits	Other Liabilities
1972	43.39	55.61	1.00	36.82	52.13	11.05
1973	41.10	57.95	0.95	35.81	52.92	11.27
1974	38.46	60.31	1.22	33.95	54.30	11.74
1975	35.68	63.04	1.29	32.00	56.29	11.71
1976	33.39	65.07	1.54	30.78	59.22	10.00
1977	32.19	66.46	1.34	29.86	60.07	10.08
1978	30.78	67.59	1.64	29.64	59.98	10.38
1979	27.89	69.91	2.19	28.19	60.79	11.03
1980	26.21	71.26	2.53	25.98	62.72	11.31
1981	23.74	72.90	3.36	20.68	67.29	12.03
1982	21.74	75.05	3.22	17.91	69.68	12.41
1983	20.69	77.84	1.47	15.89	72.31	11.80
1984	19.11	79.68	1.20	14.76	54.00	31.24
1985	18.14	81.05	0.81	13.91	74.62	11.46
1986	18.17	81.27	0.56	13.55	75.46	11.00
1987	15.77	83.67	0.56	13.02	76.10	10.88
1988	13.21	85.43	1.36	12.65	76.37	10.98
1989	11.37	85.89	2.75	12.30	76.62	11.07
1990	10.60	87.37	2.03	11.83	76.83	11.35

Source: Federal Deposit Insurance Corporation, *Reports on Condition and Income.*

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