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ECONOMIC COMMENTARY

Local Thrift Competition and Bank Earnings

by Paul R. Watro

Economic and legislative changes have clearly eroded differences between commercial banks and thrift institutions. Commercial banks traditionally offered a unique cluster of products that were not available from other institutions.

Because of the expanded powers of thrift institutions in the early 1980s, however, thrifts have been operating more like commercial banks, providing a wide range of financial services, including checking accounts and business loans.

As a result, banking regulatory agencies, such as the Federal Reserve System, the Federal Deposit Insurance Corporation, and the Office of the Comptroller of the Currency, are reevaluating some of their policies. For example, the Federal Reserve Board is currently reconsidering its policy of prohibiting bank holding companies from acquiring healthy thrift institutions and has solicited public comments.

Some of the Federal Reserve's previous concerns about banking organizations operating thrifts have apparently lessened with the removal of interstate barriers to geographic expansions by banks and with the elimination of statutory deposit-rate differentials between banks and thrifts.[1]

Also, deregulation, along with technological innovations and increased customer sophistication has fostered an expanding number of firms providing financial services and has intensified competition among banks and thrift institutions. These developments have made competitive assessments of bank mergers extremely difficult and open to considerable debate.

Bank regulators rely largely upon a structure-performance framework that implies that market structure (the number and size distribution of competitors in a market) is an important determinant of bank performance. With this line of reasoning, the fewer the number of competitors and the larger the share of the market controlled by the largest competitors, the greater the likelihood that firms will be able to charge prices above the costs of doing business and to generate profits above the competitive level. The traditional structuralist view is incorporated in the Justice Department's merger guidelines, which are used in various degrees by banking regulators when evaluating the possible anticompetitive impact of bank mergers.

Some analysts downplay the importance of market structure, reasoning that the structure itself may be a product of the competitive forces at work in the market. In this view, market concentration is unlikely to lead to collusion and excessive profits when barriers to entry are low. Supporters of this perspective argue that the threat of entry by firms outside of the market will exert competitive discipline on market participants, regardless of the actual number of competitors in the market.[2]

Banking agencies and the Justice Department are required by law to prevent bank mergers and acquisitions that would have substantially adverse effects on banking competition. The competitive assessment of regulators centers upon three factors: the product market, the geographical market, and the likely anticompetitive effects of the transaction (if any) within those markets.[3]

For antitrust purposes, the product market for banking has been defined by the Supreme Court to be a separate and distinct line of commerce. This landmark decision was made in 1963, reaffirmed in 1974, and was based upon the view that commercial banks provide local customers with an unique cluster of services that are not available from other depository institutions.[4] Since that time, however, sweeping changes have taken place in banking. For instance, thrift institutions can now offer the same services as commercial banks. Other nondepository institutions, such as securities brokerage firms, mortgage banking firms, insurance companies, and finance companies are providing a variety of financial services that are competing with bank products.

Regulators have reacted somewhat to these major developments. To various degrees, the existence of thrift institutions and other nonbank suppliers of financial services is being considered in regulatory assessments of competitive factors. Moreover, the Justice Department is apparently more lenient toward bank mergers than toward mergers in other industries, because the department apparently assumes the competitive influence of thrifts and other nonbank institutions, as well as the imprecise boundaries used to estimate geographical banking markets.[5]

This *Economic Commentary* discusses the importance of thrift competition and examines earnings differences between banks operating in markets with and without the presence of thrifts.[6] Bank earnings are used as a measure of overall competition for banking services in local markets. If

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1. For a discussion of Federal Reserve policy regarding the acquisition and operating of thrift institutions by bank holding companies, see Federal Register, Vol. 52, No. 186, September 1987, pp. 36041-36045.

2. See Gary Whalen, "Concentration and Profitability in Non-MSA Banking Markets," *Economic Review,* Federal Reserve Bank of Cleveland, Quarter 1, 1987, pp. 1-15.

3. For a discussion of the analyses used by regulators and Justice Department, see Robert E. Hauberg, Jr. "Mergers and Acquisitions: Trends in Competitive Analysis," *Banking Expansion Reporter,* Golembe Associates, Inc., Volume 6, Number 13, July 6, 1987, pp. 1, 9-17.

4. United States v. Philadelphia National Bank, 374, U.S. 321 (1963); and United States v. Connecticut National Bank, 418 U.S. 666 (1974).

5. Robert E. Hauberg, Jr., p. 13. Under the revised

the presence of thrifts does not alter bank earnings, it would be consistent with the view that thrifts are not as important as banks when gauging banking competition.

On the other hand, if bank earnings are significantly lower in markets with thrifts, then the actual level of overall competition for banking services in such markets is likely to be underestimated by not including thrifts as full competitors of banks. Such a finding, however, would not imply that thrift competition is equivalent to bank competition for all banking services.

The Strength of Thrift Competition

Thrift institutions compete aggressively with commercial banks, particularly since the early 1980s with the advent of product and price deregulation for depository institutions. With their expanded powers, thrifts can and often do offer essentially the same banking services as commercial banks. Yet banking agencies and the Justice Department do not generally treat thrifts as banks when assessing the competitive effects of proposed bank mergers.

For example, the Federal Reserve Board usually counts thrift deposits only at half their actual market level whereas bank deposits are counted at their full market level. In essence, the Federal Reserve is assuming that the competitive influence of a thrift is much less than that of an equal-size bank in the market.[7] This assumption stems from the fact that many thrifts are not active business lenders and that business loans account for a very small portion of their total loans.[8]

However, some banks also make relatively few commercial and industrial loans, yet regulators consider all banks equally according to their deposits in the relevant market area.[9] Moreover, thrifts that are not presently extending business loans still provide banks with potential competition for these loans.

Other factors also support the inclusion of thrifts as full competitors of banks. Thrifts often are deposit-rate leaders in markets. The removal of interest-rate ceilings on deposits gave banks and thrifts freedom to compete for deposits on the basis of rates.[10]

Deposit-rate surveys, including a detailed study by Mahoney, McLaughlin, O'Brien, and White, show that thrifts consistently offer higher average rates than banks on retail deposit accounts, especially on longer-term certificates of deposit (CDs).[11] Over the period examined (October 1983 to December 1985), thrifts paid nearly 70 basis points more than banks on retail CDs with maturities of over six months, which was much greater than the 25 basis-point differentials allowed under deposit-rate regulation.

The authors suggested several explanations for the higher deposit rates paid by thrifts. Compared to banks, thrifts hold more longer-term assets, so they have an incentive to pay higher rates on longer-term liabilities in order to match maturities and reduce interest-rate risk.

Thrifts also have traditionally relied much more heavily on retail time and savings deposits and have tended to cater to more interest-rate-sensitive customers. In contrast, banks have depended more on noninterest-bearing demand deposits and on customers who have been willing to accept more heavily subsidized services as compensation for lower deposit rates.

In addition to these differences between banks and thrifts, capital requirements are lower at thrifts, which may give them a cost advantage over banks.[12] Simple cartel theory suggests that cost differences between firms reduce the incentive for collusion. From this perspective, thrifts might actually be a greater competitive force in the market today than additional banking organizations, particularly in markets with only a few competitors.

Sample and Method Used

The impact of thrift competition on bank earnings is examined using recent data for a sample of 314 banks located in 14 states.[13] These banks are headquartered in the eastern half of the country and operate in one- and two-bank rural markets where they generate all or most of their deposits. The sample was limited to those banks to minimize the effects of regional economic conditions and nondepository competition and to isolate the effects of additional competitors on bank profitability.

Banks west of the Mississippi River have generally been greatly affected by the depressed energy and farm sectors of the economy. These sectors have been largely responsible for the record number of bank failures in recent years; the vast majority of the more than 600 bank failures since 1981 have taken place west of the Mississippi. Moreover, a study on small-bank earnings by Nejezchleb found that profitability correlated strongly with regional economic conditions.[14] For example, in 1985 small banks east of the Mississippi had return on assets at about the same level or modestly below their 1981 levels. In contrast, aggregate earnings for banks west of the Mississippi were at least 50 percent below 1981 levels.

The sample was restricted to one-and two-bank markets that are approximated by counties. Thrifts do not operate in many of these areas, and other nonbank competitors, such as mortgage and finance companies, are often absent in small rural markets.[15] The sample allows a direct earnings comparison between banks operating in markets with and without the presence of a thrift, as well as between banks operating in markets with and without another bank. The sample included only those banks operating offices within a single county, so that the presence of a thrift in an area could be related to profits earned in that market.

Bank earnings are measured by their average return on assets for 1985 and 1986. A two-year average was used to reduce the variability of earnings from year to year. For each grouping, the mean value of bank earnings was computed with a "t" test employed to determine if differences were statistically significant between the various groups. Earnings of sample banks were also compared to earnings of nonsample banks. Although the sample was designed to isolate the effects of local thrift competition on bank profitability

Department of Justice Merger Guidelines, any market in which the postmerger Herfindahl-Hirschman Index (concentration measure) is over 1800, the department is likely to challenge a merger that increases the Index by more than 50 points unless other factors indicate that the merger would not substantially lessen competition. However, the Department of Justice has informed regulators that a bank merger generally will not be challenged in the absence of other factors indicating an anticompetitive effect unless the postmerger HHI is at least 1800 and the merger increases the HHI by at least 200 points. The HHI is calculated by adding the squared market share of each competing institution.

6. Researchers have generally found that thrift competition does not significantly alter bank earnings, but these studies were generally conducted prior to deregulation or used data prior to 1983. For the purpose of this article, thrifts refer only to federally insured savings and loan associations and savings banks.

7. The Federal Reserve has given thrift competition more weight in approving a few recent proposed mergers. See, for example, the decision to approve the acquisition of Chester Bank in Chester, Connecticut by the Hartford National Corporation of Hartford, Connecticut, *Federal Reserve Bulletin,* September 1987, pp. 720-723.

8. Although virtually all commercial banks have

while accounting for the number of banks in the market, other factors may affect bank earnings. Consequently, we also use regression analysis to account for other factors, such as bank size and market growth, when estimating the effects of the presence of thrifts on bank earnings.

Table 1 — Bank Earnings and Market Competitors

	Average Percent Return on Assets		
	Mean	Range	Observations
Total Sample	1.18	-0.69 to 3.17	314
Thrifts	1.10	-0.69 to 2.12	185
Thrifts, two banks	1.10	-0.69 to 2.12	174
Thrifts, one bank	1.10	-0.02 to 1.63	11
No thrifts	1.30	-0.05 to 3.17	129
No thrifts, two banks	1.23	-0.05 to 3.17	89
No thrifts, one bank	1.45	0.45 to 2.73	40
Two banks	1.15	-0.69 to 3.17	263
One bank	1.37	-0.02 to 2.73	51

Table 2 — Earnings Differences Across Markets

	Difference in percent return on average assets
Thrifts versus no thrifts	-0.20[a]
Thrifts, two banks versus no thrifts, two banks	-0.13[c]
Thrifts, one bank versus no thrifts, one bank	-0.35[b]
Thrifts, one bank versus no thrifts, two banks	-0.13
Two banks versus one bank	-0.22[a]

a. Denotes statistical significance at the 1 percent level.
b. Denotes statistical significance at the 5 percent level.
c. Denotes statistical significance at the 10 percent level.

Table 3 — Earnings Differences Between Sample and Nonsample Banks

	Average percent return on assets	
	Nonsample banks[a]	Difference[b]
Total sample	0.85	-0.34
No thrifts	0.84	-0.46
No thrifts, two banks	0.92	-0.31
No thrifts, one bank	0.78	-0.66

a. Nonsample banks are all other banks of similar size and located in the same states as the sample.
b. Difference equal to nonsample bank earnings minus sample bank earnings. All differences are statistically significant at the one percent level.
SOURCES: Data for the above tables were derived from reports of Income and Condition, Board of Governors of the Federal Reserve System; DataBook, FDIC; and Summary of Savings Accounts by Geographic Area, Federal Home Loan Bank Board.

Findings

The earnings of the sample banks and various comparisons of those earnings are presented in tables 1 through 4. Table 1 shows the range and average earnings of the total bank sample broken down by the number and type of competitors. Despite the use of a two-year average, individual bank earnings varied widely. Nevertheless, average returns on assets were consistently lower for the group of banks located in markets with thrift competition. For instance, banks earned 1.10 percent on assets in markets with thrifts, regardless of the number of banks. In contrast, the sample banks earned 1.45 percent on assets in markets without any thrifts or other banks.

We show average earnings differences between groups and denote which ones are statistically significant in table 2. As expected, earning differences were significantly lower for the group of banks faced with thrift competition. Banks in two-bank markets also earned lower profits than banks in one-bank markets. Further sample breakouts by the number and type of competitors also yielded anticipated results.

None of the findings suggest that a thrift provides a bank with less competition than another bank. In fact, bank earnings were actually lower in one-bank markets with thrift competition than in two-bank markets without thrift competition.[16] Earnings differences between groups, however, could be due to other factors rather than the number or type of competitors. For example, bank size could affect earnings if larger banks have an advantage over smaller banks.

We took "bank size" into account in two ways. First, we compared bank earnings of the sample banks without thrift competition to the earnings of all other similar-size banks in the same states. Table 3 shows that nonsample banks earned substantially lower returns than the sample banks. Average earnings of similar-size banks were between 31 and 66 basis points below the average earnings of the sample banks operating in markets without any thrifts. The earnings differences between the nonsample banks and sample banks may be due to many factors, including the fact that the nonsample banks typically operate in more competitive markets.

We also took bank size, as well as market growth and credit unions, into account through regression analysis. Bank profitability was regressed on bank deposit size, the deposit share held by credit unions, market growth, a dummy variable indicating if the market had one or two banks, and the number of thrifts in the market. We substituted

business lending experience, one-fifth of all banks had commercial and industrial loans accounting for less than 5 percent of their total assets as of year end 1986. Jim Burke, Stephen Rhoades and John Wolken; "Thrift Institutions and Their New Powers," *The Journal of Commercial Bank Lending;* June 1987, p. 51.

9. One could argue that thrifts have a tax incentive to maintain a very large share of assets in qualifying assets such as mortgages, to receive favorable tax treatment over banks. However, the tax reform act of 1986 reduced the qualifying level from 82 percent to 65 percent, which gave thrifts more leeway to be active business lenders and still maintain their favorable tax status.

10. Depository institutions are still prohibited from paying interest on demand deposits.

11. Patrick Mahoney, Mary McLaughlin, Paul O'Brien, and Alice White, "Responses to Deregulation: Retail Deposit Pricing from 1983 through 1985," Staff Study 15, Board of Governors of the Federal Reserve System, Washington, D.C. January 1987.

12. In the early 1980s, thrift regulators reduced capital requirements because of the financial plight of the industry. On the other hand, thrifts have been paying higher premiums for deposit insurance than banks since 1985.

Table 4 — Regression Results for Bank Earnings

Explanatory Variable	Variable to be explained: Average percent return on assets	
	First Regression	Second Regression
Bank deposit size	Positive[a]	Positive
Bank dummy (2 banks = 1; 1 bank = 0)	Negative[a]	Negative[a]
Number of thrifts in market	Negative[a]	NI
Deposit share held by thrifts	NI	Negative[b]
Deposit share held by credit unions	Positive	Positive
Market deposit growth (1982 to 1985)	Positive	Negative

NI — not included

a. Denotes statistical significance at the 5 percent level.

b. Denotes statistical significance at the 1 percent level.

SOURCE: Reports of Income and Condition, Board of Governors of the Federal Reserve System; Data Book, FDIC; Summary of Savings Accounts by Geographic Area, Federal Home Loan Bank Board, and the Rand McNally Credit Union Directory.

the deposit share held by thrifts for the number of thrifts to determine if their competitive strength was related directly to their market position.

It has been claimed that smaller institutions may not be viable competitors in a less-regulated environment. If larger banks realize economies of scale or have some other advantages over smaller competitors, then bank size would have a positive influence on earnings.

Credit unions are active competitors for consumer deposits and loans, and their presence and concentration in a market may exert downward pressure on bank earnings. Regardless of competitive conditions, banks would be expected to earn higher profits in markets with stronger demand. We used market deposit growth from 1982 to 1985 to account for demand differences across markets.

The statistical results, as determined by regression analysis, are presented in table 4. These findings are consistent with the t-test results and support the view that the thrift institutions exert strong competitive pressures on banks. When other factors, such as bank size, market growth, and credit union competition, were taken into account, along with the number of banks in the market, the presence of thrifts in the local area still had a negative and significant impact on bank earnings. We also found that banks in markets where thrifts held a larger share of the deposits earned significantly lower returns on assets.

Conclusion

This *Economic Commentary* looks at the role of thrifts as competitors to banks. However, we do not examine the issue of banking market contestability. Our findings suggest that regulators could be underestimating the actual competition for banking services in local areas by not adequately accounting for competitors of banks when evaluating the competitive effects of bank mergers. In some markets thrifts might properly be regarded as full competitors of banks. While our bank sample is limited to markets with no more than a few competitors, the presence and the relative size of a thrift in those markets had a strong and similar effect on bank earnings as a competing bank in those markets. Banks operating in markets with at least one thrift or in markets with another bank earned significantly lower profits than other sample banks. Also, earnings were substantially lower at nonsample banks, which typically operate in markets with a greater number of thrifts and banks.

We found no evidence to support the view that thrift competition is inferior to bank competition—at least in terms of impact on bank earnings. Although the competitiveness of thrifts could vary widely over the many products and services provided by banks, the presence of thrifts in local banking markets is exerting downward pressure on bank earnings.

13. We found usable observations in the following states: Alabama, Arkansas, Florida, Georgia, Illinois, Indiana, Kentucky, Michigan, Mississippi, Pennsylvania, South Carolina, Virginia, West Virginia, and Wisconsin. Arkansas banks were included in the sample because their earnings were relatively stable, and many Arkansas banks met our other sample criteria.

14. Lynn A. Nejezchleb, "Declining Profitability at Small Commercial Banks: A Temporary Development or a Secular Trend?" *Banking and Economic Review,* Federal Deposit Insurance Corporation, June 1986, pp. 9-21.

15. The competitive influence of banks located outside of these markets is generally considered weak compared to the threat of entry in larger banking markets.

16. This earnings difference, however, was statistically insignificant.

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