

TOP PERFORMING SMALL BANKS: MAKING MONEY THE OLD-FASHIONED WAY

*Benton E. Gup and John R. Walter**

Introduction

Average profit rates of small banks (assets less than \$100 million) declined in the 1980s, but about 2 percent had persistently high returns. Some have attributed persistent profits to collusion, risk-taking, or chance. In contrast, this study finds that consistently profitable small banks were those that stressed basic banking, in other words, acquiring low-cost funds and making high-quality investments.

Small bank average profitability declined in the 1980s for several reasons. Losses at many small banks, especially at those located in regions of the country beset with problems in the agricultural or oil industries, accounted for much of the decline. Some of the decline may have resulted from the increased competition in the retail loan and deposits markets. Federal legislation expanded the number of retail deposit products banks and thrifts could offer and deregulated interest rates on existing deposits while allowing thrifts to compete more effectively with banks for both deposits and loans. The specific acts were the Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA) and the Garn-St. Germain Depository Institutions Act of 1982.

In this study we compare small banks having persistently high profits to all small banks over the period 1982 through 1987. We identify differences in portfolio structure, income, and expense between the two groups of banks located throughout the country. Moreover, to determine how the factors associated with high performance may have differed from region-to-region, high performers and all small banks are grouped by region and compared on a regional basis.¹ Table I summarizes the significant differences

between the average high-performance small bank and the average small bank.

Theories of Persistent Profits

Mueller (1986) observed that in the long run, above- and below-average profits tend to converge toward the industry norm. Competition should eliminate abnormally high profits over time. Where *persistent* high profits occur, as they did at the 206 high-performance banks in our study, economists offer a variety of explanations, including the following four:

Collusion It has been argued that firms can maintain high profits by agreeing explicitly or tacitly to limit their competitive behavior. Collusion becomes more difficult as the number of competitors in a market increases; that is, as market concentration declines. We would expect the number of competitors in banking markets to be larger in more populated areas. Thus, if collusion is important to profitability, high-profit banks should be found more frequently in less populated areas. In our study, we defined a populated area as any metropolitan statistical area (MSA). While our data did show that non-MSA small banks were likelier to be persistently profitable than were MSA small banks, the difference was not significant. Therefore we find no evidence that collusion may have been responsible for the strong performance of the high-profit small banks. Using different proxies for market concentration, Kwast and Rose (1982) and Wall (1985) reached the same conclusion.

Greater Risk-Taking The consistently above-normal profits produced by the 206 high-performance small banks identified in our study cannot be explained by greater risk-taking since these banks operated in a less risky manner than average for all small banks. They had fewer loan losses than their peers, indicating that they were taking less credit risk. They were less dependent on debt financing because of stronger equity-to-assets ratios. Finally, they limited their credit and liquidity risks by holding more securities than did their peer group.

* Gup holds the Chair of Banking at The University of Alabama; Walter is an associate economist at the Federal Reserve Bank of Richmond. The authors wish to acknowledge the unflagging efforts of Richard K. Ko in the construction of the data base for this article.

¹ The regions are shown in Table II and are the same as those used by the Federal Deposit Insurance Corporation (FDIC) in its "Quarterly Banking Profile" (1989).

Table I

SUMMARY OF MAJOR FINDINGS OF STUDY**SIGNIFICANT DIFFERENCES BETWEEN HIGH-PERFORMANCE SMALL BANKS AND ALL SMALL BANKS:**

| <u>Area of Difference</u> | <u>High-Performance Small Banks vs. All Small Banks</u> |
|--|---|
| Interest Income/Total Assets High-performance small banks produced significantly more interest income relative to assets than the average for small banks while bearing less credit risk | Higher |
| Loans/Total Assets The high-performance small banks had a significantly lower ratio of loans to total assets than the average small bank, meaning that they bore less credit risk since loans generally are more risky than the other major category of assets held by banks—securities | Lower |
| Securities/Total Assets Higher ratio at high-performance banks indicating lower credit risk | Higher |
| Municipal Securities/Total Securities High-performance banks had more income to shelter so they made greater use of the tax advantage of municipals | Higher |
| Earning Assets/Total Assets | Higher |
| Interest Expense/Total Assets High-performance banks funded themselves at lower cost by emphasizing a traditional liability structure and a conservative capital structure | Lower |
| Demand Deposit/Total Liabilities High-performance banks made greater use of the most traditional of funding sources | Higher |
| Interest Expense/Interest-Bearing Liabilities High-performance banks made greater use of low-cost retail deposits to gather funds | Lower |
| Capital/Total Assets High-performance banks had a stronger or more conservative capital structure | Higher |
| Noninterest Expense/Total Assets High-performance banks held these expenses to a lower level indicating a more efficient use of resources | Lower |
| Assets/Employees High-performance banks required fewer employees per million dollars in assets | Higher |
| Salaries/Employees High-performance banks' employees were better paid | Higher |
| Loan Loss Provisions/Total Assets High-performance banks limited their lending and only lent to high-quality borrowers—restraining their credit risk | Lower |
| Loan Charge-Offs/Total Loans Lending to high-quality borrowers meant fewer loan charge-offs at high-performance banks | Lower |
| Nonperforming Loans/Total Loans Lending to high-quality borrowers meant high-performance banks carried fewer bad loans on their books | Lower |

FACTORS NOT SHOWING SIGNIFICANT DIFFERENCES BETWEEN HIGH-PERFORMANCE SMALL BANKS AND ALL SMALL BANKS:

| |
|---|
| Location in a Metropolitan Area |
| Bank Holding Company Affiliation |
| Loan Income/Total Loans |
| Securities Income/Total Securities |
| Loan Portfolio Composition |
| Loan Maturity |
| Noninterest Income/Total Assets High-performance small banks placed no more emphasis on these less traditional sources of income than the average small bank |
| Fee Income/Total Assets |
| Gains or Losses on Securities/Total Assets |

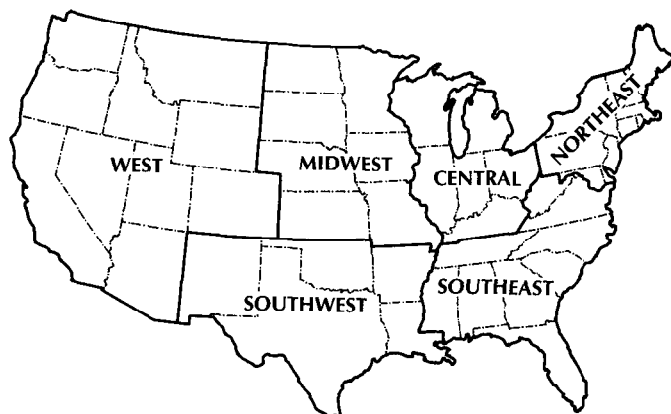
Table II
SMALL BANKS BY GEOGRAPHIC REGION, 1987^a

| Region ^c | All Banks | | High-Performance Banks ^b | |
|---------------------|-----------|--------|-------------------------------------|--|
| | Number | Number | As a Percent of All Small Banks | As a Percent of All High-Performance Banks |
| Northeast | 377 | 25 | 6.6 | 12.1 |
| Southeast | 1,196 | 54 | 4.5 | 26.2 |
| Central | 2,290 | 44 | 1.9 | 21.4 |
| Midwest | 2,841 | 34 | 1.2 | 16.5 |
| Southwest | 1,909 | 33 | 1.7 | 16.0 |
| West | 880 | 16 | 1.8 | 7.8 |
| Total | 9,493 | 206 | | 100.0 |
| Average | | | 2.2 | |

^a Small banks are those with end-of-year assets of \$100 million or less that were opened on or before December 31, 1982.

^b High-performance small banks have ROAs of 1.5 percent or more for all years, 1982-87.

^c For regions, see map below.



Unique Qualities These include leadership in the market, provision of services other firms cannot duplicate, having the dominant market share, or being first to arrive in the market. Perhaps one or more of these apply to the high-performance banks.

Stochastic Process Persistent profits may result from historical chance. The basic idea of the stochastic process, as explained by Alchian, is that "where there is uncertainty, people's judgments and opinions, even when based on the best available evidence, will differ; no one of them may be making his choice by tossing coins; yet the aggregate set of actions of the entire group of participants may be indistinguishable from a set of individual actions, each selected at

random."² According to this theory the high-performance banks in this study may have selected, by chance, the management, investment, and lending policies that turned out to be very profitable during the 1980s. To test if this was so, the average ROA for the 206 high-performance small banks and all small banks were calculated for each year between 1970 and 1981. The average for the high-performers was considerably above the average for all small banks for each of the twelve years, indicating that the high performers of the 1980s produced supernormal profits during the 1970s as well. Chance alone is an unlikely explanation of almost two decades of persistently high profits.

Prior Empirical Research

Several other analysts have attempted to pinpoint factors associated with bank profitability. A study of bank profitability in the 1970s by Kwast and Rose (1982) included large banks from throughout the nation. The authors determined that neither pricing, operating costs, market concentration, or macroeconomic effects were responsible for the higher earnings of some banks. They hypothesized, instead, that differences in regional factors, portfolio make-up, or managerial abilities must explain the better earnings of high-performance banks. Wall (1985) examined small and mid-sized banks over the period 1972 to 1981 to identify factors important to bank profits. Wall found that consistently profitable banks had lower interest and noninterest expenses than did their less profitable counterparts because of more capital, more demand deposits, slightly lower rates paid on liabilities overall, greater holdings of securities, and more efficient management. Wall concluded that interest and noninterest income at consistently profitable banks was no

higher than at less profitable banks, and that asset size, number of branches, and market concentration did not explain higher earnings. Wall's findings on the factors associated with small and mid-sized bank profits in the 1972 through 1981 period differ little from our findings for small banks in the 1980s.

Methodology

Data for our study came from the Reports of Condition and Income (call report), a detailed financial

² Alchian (1950), p. 216. Alchian is an excellent background source for understanding the issues involved in stochastic growth. Also see Nelson and Winter (1982) and Steindl (1965).

statement filed quarterly by banks with their regulators. A set of income, expense, and portfolio ratios were calculated for all small U.S. banks established in 1982 or before. Ratios were then averaged across all small banks and all high-performance small banks throughout the nation for each year from 1982 through 1987.

Because economic conditions varied from region to region, ratios for both groups of banks were also computed on a regional basis. For each of the six years, the average ratios, regional and national, for high-performance small banks and all small banks were compared using a standard t test to determine statistically significant differences (see Table III). A difference between the ratios of high-performance small banks and all small banks is considered to be due to factors other than chance if the t statistic is significant at the 5 percent level. Regional patterns in the ratios are identified and discussed.

The same banks are included in the high-performance group for each year of the study while the number of banks in the all-small-banks category varies. The all-small-banks category, for any given year, includes all banks throughout the nation that had assets less than \$100 million at the end of that

year and had been established in 1982 or before.³ The number of banks in this category declined each year, from 12,353 in 1982 to 9,493 in 1987 as the banks grew in asset size, merged, or failed. To be included in the high-performance subset a bank must have had no more than \$100 million in assets and must have produced a return on assets (ROA) greater than 1.5 percent for each of the six years from 1982 through 1987. Banks with ROAs greater than 1.5 percent have very strong profits. Banks established after 1982 could not have had high ROA in that year, so are excluded from the high-performance group by our convention that requires high ROA in every year. There are 206 high-performance banks. They are listed in Table IA in the appendix.

The period 1982-87 is used in this study for two reasons. First, it offers the most recent extended period since the passage of DIDMCA and the Garn-St. Germain Act. Second, it provides an interval long enough to be sure that luck or accounting choices alone did not influence the selection of the high-performance small banks.

³ Unless otherwise stated, the phrase *all small banks* or *average small bank* should be assumed to include only those banks meeting these two requirements.

Table III

COMPARISON OF SELECTED RATIOS: HIGH-PERFORMANCE BANKS VERSUS ALL SMALL BANKS

| | 1982 | | | | | | 1983 | | | | | | 1984 | | | | | | | | | | |
|----|------|----|----|----|----|--------|------|----|----|----|----|--------|------|----|----|----|----|--------|----|----|----|----|----------------------------|
| | NE | SE | CN | MW | SW | W U.S. | NE | SE | CN | MW | SW | W U.S. | NE | SE | CN | MW | SW | W U.S. | | | | | |
| 1 | | P | P | | P | P | P | P | P | P | P | | P | | na | na | na | na | na | na | na | 1 | Interest Income/Assets |
| 2 | N | N | N | N | | | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | 2 | Interest Expense/Assets |
| 3 | N | | | | | | | N | | | | | | | | | | | | | | 3 | Noninterest Income/Assets |
| 4 | N | | N | | N | N | N | N | | N | | N | N | | N | | N | N | N | | | 4 | Noninterest Expense/Assets |
| 5 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | 5 | Loan Loss Provision/Assets |
| 6 | | | | | | | N | | | | | | | | | | | | | | | 6 | Securities Gains/Assets |
| 7 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | 7 | Return on Assets |
| 8 | | N | N | N | N | N | N | | N | N | N | N | N | | N | N | N | N | N | N | | 8 | Loans/Assets |
| 9 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | 9 | Securities/Assets |
| 10 | P | P | P | P | P | | P | P | P | P | P | | P | P | P | P | P | | P | | P | 10 | Equity/Assets |
| 11 | N | N | N | N | N | | N | N | | N | | N | | | | | | | | N | | 11 | Total Assets |

na indicates that data were not available.

P indicates that the mean for the ratio for the high-performance small banks (h.p.s.b.) exceeded that for all small banks and was statistically significantly different at the 1 percent level.

P indicates that the mean for the ratio for the h.p.s.b. exceeded that for all small banks and was statistically significantly different at the 5 percent level.

Blank space indicates that there was no significant difference between h.p.s.b. and all small banks for the ratio.

N indicates that the mean for the ratio for all small banks exceeded that for the h.p.s.b. and was statistically significantly different at the 1 percent level.

N indicates that the mean for the ratio for all small banks exceeded that for the h.p.s.b. and was statistically significantly different at the 5 percent level.

SEE TABLE IIA IN APPENDIX FOR RATIO AND T STATISTIC VALUES.

Characteristics of High-Performance Small Banks

Table II shows that high-performance small banks were not distributed proportionately throughout the country. The Northeast had the highest, and the Midwest the lowest, proportion of high-performance small banks relative to all small banks. During the 1982 through 1987 period, there were substantial differences in regional economic performance which likely caused some of the corresponding regional differences in the proportion of high-performance small banks. Slumping prices for energy, real estate, and farm commodities had adverse effects on the Southwest, Midwest, and Central regions, while strong economic growth was occurring in the Northeast and Southeast through the period.

Although not shown in Table II, approximately 30 percent of high-performance small banks were headquartered in or near large population centers, represented here by metropolitan statistical areas (MSAs), while the figure averaged a slightly higher 33 percent for all small banks. Only in 1982 and 1983 were the differences statistically significant when small banks, high-performance versus total, were

compared for the nation. When tested by region and across years, only in the Southwest were high-performance small banks significantly less likely to be located in MSAs.

The asset size of the average high-performance small bank was \$40.8 million in 1987 compared with \$37.5 million for all small banks. Asset size of the average high-performance small bank increased by 56 percent from 1982 through 1987, while the asset size of the average small bank increased by only 20 percent. The percentage of high-performance and all small banks that were subsidiaries of bank holding companies (BHCs) increased through the period. In 1987, 46 percent of high-performance and 66 percent of all small banks were subsidiaries of BHCs. A test was performed to determine if the difference in BHC affiliation between the two groups of banks was statistically significant across the years. For the nation as a whole the difference was significant, but statistically significant regional differences were not found except in the Northeast and Southwest regions. Firm conclusions about the relationship between BHC ownership and profits based on these data are difficult to draw.

| | 1985 | | | | | | | 1986 | | | | | | | 1987 | | | | | | | |
|----|------|----|----|----|----|---|------|------|----|----|----|----|---|------|------|----|----|----|----|---|------|----|
| | NE | SE | CN | MW | SW | W | U.S. | NE | SE | CN | MW | SW | W | U.S. | NE | SE | CN | MW | SW | W | U.S. | |
| 1 | P | P | P | | P | | P | P | P | P | P | P | P | P | P | P | P | P | P | | P | 1 |
| 2 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | 2 |
| 3 | | | | | | | | | | | | | | | | | | | | | | 3 |
| 4 | N | | N | | N | N | N | N | | N | | N | N | N | N | | N | | N | N | | 4 |
| 5 | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | N | 5 |
| 6 | | N | | | | | | | N | | | N | N | N | | | | | | | | 6 |
| 7 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | 7 |
| 8 | | N | N | N | N | N | N | N | N | N | N | N | | N | N | N | N | N | N | | N | 8 |
| 9 | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | 9 |
| 10 | P | P | P | P | P | | P | P | P | P | P | P | P | P | P | P | P | P | P | P | P | 10 |
| 11 | | | | | | | | | | | | | | | | | | | | | | 11 |

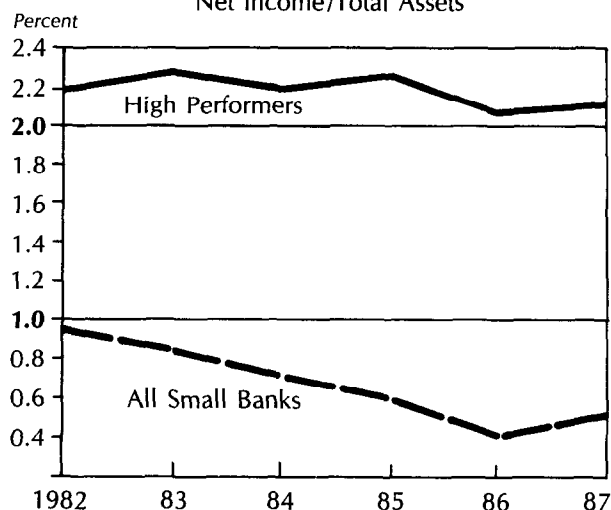
How The High Performers Did It

The high-performance small banks identified in this study differed from the average small bank in several ways. They depended more on low-cost demand deposits, invested more in securities (especially long-term and municipal securities), made more high-quality loans, and were more highly capitalized. As a result, the high-performance small banks produced higher interest income, lower interest expense, lower noninterest expenses, and lower provision for loan losses than did the average small bank. The high-performance small banks did not differ significantly from the average small bank in interest income from loans and securities, in loan portfolio makeup, in noninterest income, or in income from securities gains. There was little variation among regions in how the high-performance small banks operated. As shown in the chart, average ROA for the 206 high performers exceeded 2 percent in every year and was fairly stable, while average ROA for all small banks declined in every year except 1987 and ended the period at .51 percent.

Interest Income Except for one or two years' observations for three regions, high-performance small banks produced significantly more tax-equivalent interest income relative to assets than the average for all small banks (see Table III, line 1).⁴ Among the major categories of income and expense, higher interest income was second only to lower interest expense as a contributor to the earnings differential of the high-performance banks across the years and regions of the study. Averaged for the six years of the study, high-performance small banks' interest income relative to assets was 58 basis points higher than the average small bank's. Wall (1985) found that higher interest income was not associated with higher profits for small and medium-sized banks between 1972 and 1981. Greater pressure on interest expense resulting from deregulation in the early 1980s of rates paid on deposits may have made interest income more important to profitability for our study period. Interest income relative to assets depends on the earnings per dollar of the various types of interest-

⁴ The interest income on most securities issued by local and state governments is exempt from federal income taxes. These securities, therefore, pay lower rates of interest than taxable securities of equivalent risk and maturity. To put the tax-exempt income on a basis comparable to the pretax return on taxable securities, or on a tax-equivalent basis, an adjustment is made to income from state and local securities. For banks with positive profits before taxes, income from state and local securities is increased by $t/(1-t)$ times the lesser of profits before taxes or interest earned on state and local securities, where t is the bank's marginal federal tax rate.

ROA OF SMALL BANKS
Net Income/Total Assets



earning assets, their proportions in the asset portfolio, and the proportion of nonearning assets to all assets.

LOANS The difference between loan income relative to total loans at the high-performance small banks and at the average small bank was not significant for most regions across years or for the national average except in 1982 and 1983. As shown on line 8 of Table III, the ratio of total loans to total assets was significantly lower for high performers than for all small banks. In the Southwest and Midwest where agriculture and oil industry problems were prevalent, the high performers eschewed lending, especially in the later years of the study. While at the national level the high-performance small banks differed statistically from the average of all small banks in terms of loan composition, the regional data do not corroborate this finding. The high performers in the West and Midwest made fewer commercial and industrial loans than average for small banks in those regions and high-performance small banks in the Southeast made more loans to individuals than average for small banks in that region. Other regions show no consistent differences in portfolio makeup. There was no difference in the maturities of loans made by high performers and all small banks.

SECURITIES High-performance small banks had a much higher ratio of securities to total assets than did all small banks (Table III, line 9). The difference was statistically significant across all regions and all years in the study. High-performance banks also had more municipal securities than their counterparts, accounting for most, but not all, of the higher

securities-to-assets ratios of high-performance banks. Municipal securities are generally tax-exempt and pay tax-adjusted rates comparable to other securities only for those holders with high marginal tax rates. As a bank's net income increases, its ability to make use of the tax-free income these securities generate increases. Accordingly, high-income banks would be expected to hold more municipal securities than less profitable banks.

At the national level the ratio of taxable securities to total assets was higher at the high-performance small banks than at the average small bank for the years 1982 through 1984 only. On a regional basis, the difference was consistently significant only for the Southwest, probably because of the lack of good lending opportunities in depressed oil industry areas of the region.

On average the high-performance banks generally had more securities with maturities greater than one year than did their counterparts. The difference was significant for the nation across all years but only consistently different for three of the regions in all the years.

High-performance small banks did not consistently earn more on securities than did all small banks. Securities income relative to total securities was significantly greater at the high-performance small banks than at the average small bank in some years but not in others at the national level and varied from region to region across the years. In addition, there was no significant difference between securities gains and losses relative to assets between high-performance small banks and all small banks (Table III, line 6). Securities gains or losses are realized when a bank sells a security, prior to the maturity of the security, for a price different than that paid to purchase it.⁵

EARNING ASSETS-TO-TOTAL ASSETS The national average proportion of earning assets-to-total assets at high-performance small banks was 91.4 percent in 1987 compared with 90.4 percent at the average small bank. High-performance small banks' earning assets-to-total assets ratio exceeded the average small banks' ratio significantly in every year from 1982 through 1987 at the national level and for most regions across the years. This accounts for some of the higher interest income relative to assets of the high performers. Examples of nonearning assets are buildings, equipment, cash, and foreclosed real estate.

⁵ For additional information on the relationship between market rates of interest and securities prices see Gup, Fraser, and Kolari (1989), Chapters 2 and 5.

Interest Expense Interest expense relative to assets in 1987 was 3.9 percent for the average of all high-performance small banks in the nation and 4.6 percent for the average of all small banks. The difference was significant across all regions and years with the exception of the Southwest and West regions in 1982 (Table III, line 2). Among the major income and expense categories, interest expense was the largest contributor to higher ROA at the high-performance banks. Interest expense relative to assets depends on the proportion of liabilities that are interest-paying, the rates paid on the interest-paying liabilities, and the level of the capital-to-assets ratio.

DEMAND DEPOSITS TO TOTAL LIABILITIES The major liability not paying interest is demand deposits. The high-performance small banks had a lower level of interest expense relative to assets than the average small bank, in part because they had more demand deposits. The difference between the ratio of demand deposits to total liabilities for high-performance small banks and that of the average small bank was significant in all years for the nation and for varying regions across the years.

RATES PAID ON INTEREST-BEARING LIABILITIES Interest expense relative to interest-paying liabilities was lower at the high-performance small banks than at the average small bank. The difference was significant across most regions and at the national level for all six years and accounted for one-third to one-fourth of the total difference in interest expense relative to assets. For the national average, the high-performance banks were able to gather a higher proportion of their liabilities from passbook and statement savings, normally the least costly of the interest-bearing liabilities, and were less dependent on expensive large certificates of deposit (CDs) than average for all small banks throughout the nation. Again, the regional data are not consistent in their support of this finding. High performers made greater use of savings only in the Northeast and Central regions and lower use of large CDs in only the Southwest and West regions. Other regions show no consistent patterns.

CAPITAL-TO-ASSETS RATIO The average high-performance small bank had a significantly greater equity-to-assets ratio than the average for all small banks (Table III, line 10). That is, the high-performance banks had more capital than did their counterparts. The difference was significant across all regions in all years except for the West and was significant at the national level for all years. Since equity funds do not pay interest, they do not add to interest expenses, so that higher ratios of equity-

to-assets tended to lower interest expense-to-assets ratios. Because one method of increasing equity is to retain earnings, banks that maintain consistently high-earnings can be expected to have more capital than the average bank.

Noninterest Income and Expense With the exception of the Northeast region in 1982 and 1983, non-interest income from fees and other sources was never, in the period under study, significantly different at the high performers than at small banks in general (Table III, line 3). High-performance small banks apparently did not make fee income a priority.

The high-performance banks had lower noninterest expense relative to assets than did their counterparts except in the Southeast and Midwest regions (Table III, line 4). Relative to assets, the difference averaged 37 basis points for the 1982-87 period. Non-interest expense includes salaries expense, bank premises and fixed asset expenses, and a category reported on the call report as "other noninterest expense," including legal fees, deposit insurance fees, advertising expenses, management fees paid to parent BHCs, and other expenses. Bank premises and fixed assets expenses and other noninterest expenses were significantly lower at high-performance small banks, though salaries expense was not. Assets per employee also were higher at high-performance banks. However, higher average salaries at those banks made salaries relative to assets about the same as at the typical small bank. A lower noninterest expense-to-assets ratio could indicate more efficient management. But it is difficult to tell simply from call report data what, if anything, was being managed more efficiently.

As mentioned previously, a smaller percentage of high-performance small banks were BHC subsidiaries than was the case for all small banks. Since management fees paid to parent BHCs are an expense faced only by BHC subsidiaries, banks not owned by BHCs might tend to show up more frequently in the high-performance group. Management fees are included in other noninterest expenses on the call report. Small BHC subsidiary banks had only a five basis points higher other noninterest expense in 1987 than did small banks without a holding company affiliation. This difference is so small it is not likely to have biased the selection of high-performance small banks in favor of non-BHC banks.

Provision for Loan Losses For every region in every year and for the national averages for every year, provision for loan losses relative to assets was significantly lower at high-performance small banks than at the average small bank (Table III, line 5). Provision for loan losses relative to assets was, on average

for the six years of the study, 49 basis points lower at the high-performance banks. By substituting investments in securities for lending, that is, by holding fewer loans relative to assets, the high-performance banks decreased the proportion of the asset portfolio subject to credit risk and therefore lowered their level of loan losses relative to assets. In addition, the high-performance banks made higher quality loans. They had significantly fewer charge-offs and nonperforming loans relative to total loans than other banks, suggesting that the high performers lent to low-risk borrowers. While many small banks in depressed regions were having serious problems with their loan portfolios, some banks in those same regions were able to prosper. For example, 20 of the 206 high-performance small banks were located in Texas, where many banks were having trouble producing profits. As of 1987, there were 1,066 small banks in Texas, so that 1.9 percent were high-performance, close to the national average.

Conclusion

While the average small bank's profits were fairly low and falling for most of the 1982 through 1987 period, there were 206 banks, out of 9,493 small banks (assets of \$100 million or less) operating in 1987, that had a return on assets of 1.5 percent or more in each of those six years. Although there were fewer high-performance small banks in geographic regions that had economic difficulties, high-performance banks were found in all regions. High-performance small banks seemed to choose similar strategies in all regions.

The high-performance banks did not engage in exotic financial activities. Instead, they did a very good job of basic banking—acquiring funds at low cost and making high-quality, profitable investments. Wall (1985) found much the same for the 1972 through 1981 period. Our study provides evidence that the deregulation of the early 1980s did not change the methods for producing profits at small banks.

The high-performance small banks earned abnormally high returns for long periods. On the contrary, economic theory suggests that abnormally high profits should be short-lived. Other banks, seeking higher returns, will engage in similar activities and drive down returns to the industry norms. The high-performance banks we studied were able to maintain persistent profits in the face of competition. Importantly, the high-performance banks were able to acquire funds at lower cost than their competition through demand and other low-cost deposits. How they were able to attract these deposits in the face of competition is a subject that deserves further research.

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APPENDIX

Table IA

HIGH-PERFORMANCE SMALL BANKS

| Bank | City | State | Bank | City | State |
|--|---------------|-------|---|---------------|-------|
| Brunswick Bank & Trust Co. | Manalapan TWP | NJ | First National Bank in Sylacauga | Sylacauga | AL |
| Community Bank of Bergen City | Maywood | NJ | National Trust Co. of Ft. Myers | Ft. Myers | FL |
| Putnam County National Bank of Carmel | Carmel | NY | Peoples Bank of Graceville | Graceville | FL |
| National Bank of Coxsackie | Coxsackie | NY | Peoples State Bank | Groveland | FL |
| First National Bank of Dryden | Dryden | NY | Springfield Commercial Bank | Springfield | FL |
| National Bank of Florida | Florida | NY | Capital City Second National Bank | Tallahassee | FL |
| First National Bank of Hermon | Hermon | NY | Wilcox County State Bank | Abbeville | GA |
| Bank of Millbrook | Millbrook | NY | Braselton Banking Co. | Braselton | GA |
| National Bank of Stamford | Stamford | NY | Bank of Camilla | Camilla | GA |
| First National Bank of Wyoming | Wyoming | DE | First National Bank of Polk County | Cedartown | GA |
| First National Bank of Tuckahoe | Tuckahoe | NJ | Merchants & Farmers Bank | Comer | GA |
| Citizens National Bank of Ashland | Ashland | PA | Commercial Bank | Crawford | GA |
| East Prospect State Bank | East Prospect | PA | Bank of Danielsville | Danielsville | GA |
| Citizens National Bank of Lansford | Lansford | PA | Darien Bank | Darien | GA |
| New Tripoli National Bank | New Tripoli | PA | Fairburn Banking Co. | Fairburn | GA |
| Union Bank & Trust Co. | Pottsville | PA | Citizens Bank | Folkston | GA |
| Summit Hill Trust Co. | Summit Hill | PA | Bank of Hazlehurst | Hazlehurst | GA |
| Guaranty Deposit Bank | Cumberland | KY | Hinesville Bank | Hinesville | GA |
| Harlan National Bank | Harlan | KY | Wilkinson County Bank | Irwinton | GA |
| Jackson County Bank | McKee | KY | Bank of La Fayette | La Fayette | GA |
| First State Bank | Manchester | KY | Farmers & Merchants Bank | Lakeland | GA |
| Farmers & Trades Bank | Mt. Olivet | KY | Security State Bank | McRae | GA |
| Baltic State Bank | Baltic | OH | Pembroke State Bank | Pembroke | GA |
| Custar State Bank Co. | Custar | OH | First State Bank | Stockbridge | GA |
| Corn City State Bank | Deshler | OH | Farmers & Merchants Bank | Summerville | GA |
| Junction City Banking Co. | Junction City | OH | Bank of Thomson | Thomson | GA |
| Farmers National Bank of Plain City | Plain City | OH | Darby Bank & Trust Co. | Vidalia | GA |
| Farmers Bank | West Union | OH | First National Bank of West Point | West Point | GA |
| Valley National Bank | Freeport | PA | First National Bank in Deridder | Deridder | LA |
| Peoples National Bank of Rural Valley | Rural Valley | PA | Bank of Sunset & Trust Co. | Sunset | LA |
| National Capital Bank of Washington | Washington | DC | Citizens Bank & Trust Co. of Grainger Co. | Rutledge | TN |
| Centreville National Bank of Maryland | Centreville | MD | Abingdon Bank & Trust Co. | Abingdon | IL |
| Caroline County Bank | Greensboro | MD | First Trust & Savings Bank | Albany | IL |
| Bank of Southern Maryland | La Plata | MD | Algonquin State Bank | Algonquin | IL |
| New Windsor State Bank | New Windsor | MD | District National Bank of Chicago | Chicago | IL |
| Bank of Ocean City | Ocean City | MD | Irving Bank | Chicago | IL |
| Bank of Currituck | Moyock | NC | National Bank of N. Evanston | Evanston | IL |
| Avery County Bank | Newland | NC | First National Bank of Fairmount | Fairmount | IL |
| Bank of Heath Springs | Heath Springs | SC | First Bank & Trust Co. | Palatine | IL |
| Latta Bank & Trust Co. | Latta | SC | Reynolds State Bank | Reynolds | IL |
| Dorn Banking Co. | McCormick | SC | First National Bank of Schiller Park | Schiller Park | IL |
| Bank of Ridgeway | Ridgeway | SC | Tiskilwa State Bank | Tiskilwa | IL |
| Bank of York | York | SC | Vermont State Bank | Vermont | IL |
| Middleburg National Bank | Middleburg | VA | Auburn State Bank | Auburn | IN |
| First & Citizens Bank | Monterey | VA | Rockville National Bank | Rockville | IN |
| Tazewell National Bank | Tazewell | VA | Iowa State Bank | Calmar | IA |
| Bank of Waverly | Waverly | VA | Ossian State Bank | Ossian | IA |
| Farmers Bank | Windsor | VA | Palmer State Bank | Palmer | IA |
| Lincoln National Bank of Hamlin | Hamlin | WV | Home State Bank | Royal | IA |
| First Clark National Bank of Northfork | Northfork | WV | Solon State Bank | Solon | IA |
| First State Bank & Trust Co. | Rainelle | WV | State Bank of Hesperia | Hesperia | MI |
| Western Greenbrier National Bank | Rainelle | WV | Cleveland State Bank | Cleveland | WI |
| Bank of War | War | WV | Citizens Bank | Delavan | WI |
| Citizens Bank | Fayette | AL | Kilbourn State Bank | Milwaukee | WI |
| First National Bank of Fayette | Fayette | AL | Palmyra State Bank | Palmyra | WI |
| Peoples Bank of Greensboro | Greensboro | AL | Sharon State Bank | Sharon | WI |
| Peoples Bank | Red Level | AL | Bank of South Wayne | South Wayne | WI |

| Bank | City | State | Bank | City | State |
|---|-------------------|-------|-------------------------------------|-----------------|-------|
| Stoughton State Bank | Stoughton | WI | Citizens Bank & Trust Co. | Smithville | MO |
| First National Bank of Altheimer | Altheimer | AR | Ashton State Bank | Ashton | NE |
| Farmers & Merchants Bank | Des Arc | AR | State Bank of Du Bois | Du Bois | NE |
| Leachville State Bank | Leachville | AR | First National Bank of Friend | Friend | NE |
| Smackover State Bank | Smackover | AR | First National Bank of Hooper | Hooper | NE |
| Egyptian State Bank | Carriers Mills | IL | First State Bank | Randolph | NE |
| Bank of Christopher | Christopher | IL | State Bank of Riverdale | Riverdale | NE |
| State Bank of Farina | Farina | IL | State Bank of Table Rock | Table Rock | NE |
| First National Bank of Staunton | Staunton | IL | Bank of Talmage | Talmage | NE |
| Fort Knox National Bank | Fort Knox | KY | First National Bank of West Point | West Point | NE |
| Fredonia Valley Bank | Fredonia | KY | American Exchange Bank | Lindsay | OK |
| Poole Deposit Bank | Poole | KY | Bank of Locust Grove | Locust Grove | OK |
| Sacramento Deposit Bank | Sacramento | KY | Park State Bank | Nicomar Park | OK |
| Peoples Bank | Shepherdsville | KY | First National Bank of Pryor | Pryor | OK |
| Iuka Guaranty Bank | Iuka | MS | Vian State Bank | Vian | OK |
| Bank of Okolona | Okolona | MS | Farmers State Bank | Pine Bluffs | WY |
| First National Bank of Pontotoc | Pontotoc | MS | Western Commerce Bank | Carlsbad | NM |
| Mechanics Savings Bank | Water Valley | MS | Citizens Bank | Tucumcari | NM |
| Citizens Bank | Dexter | MO | First National Bank of Albany | Albany | TX |
| Bank of Wellsville | Wellsville | MO | Farmers State Bank | Bertram | TX |
| First Bank of Coon Rapids | Coon Rapids | MN | First State Bank | Big Sandy | TX |
| Farmers State Bank | Lester Prairie | MN | First State Bank | Columbus | TX |
| Town & Country Bank—Maplewood | Maplewood | MN | Medina Valley State Bank | Devine | TX |
| Farmers State Bank | Rothsay | MN | Dilley State Bank | Dilley | TX |
| First WE Savings Bank of St. Louis Park | St. Louis Park | MN | First National Bank in Falfurrias | Falfurrias | TX |
| Northern State Bank | Thief River Falls | MN | First State Bank | Frankston | TX |
| Peoples State Bank | Warren | MN | First National Bank of Hebronville | Hebronville | TX |
| Farmers State Bank | Conrad | MT | Border Bank | Hidalgo | TX |
| Sargent County Bank | Forman | ND | Citizens National Bank of Hillsboro | Hillsboro | TX |
| Stock Growers Bank | Napoleon | ND | Industry State Bank | Industry | TX |
| First Western Bank | Wall | SD | Muenster State Bank | Muenster | TX |
| Security National Bank of Durand | Durand | WI | First National Bank of Odonnell | Odonnell | TX |
| Security State Bank | Ladysmith | WI | First State Bank | Premont | TX |
| Firstbank of Gunbarrel NA | Boulder County | CO | Peoples State Bank | Rocksprings | TX |
| Metropolitan State Bank | Commerce City | CO | Citizens Bank | Rusk | TX |
| Century Bank & Trust Co. | Denver | CO | First State Bank | Rusk | TX |
| Omnibank Southeast | Denver | CO | Eisenhower National Bank | San Antonio | TX |
| Haxtun Community Bank | Haxtun | CO | First State Bank | Three Rivers | TX |
| State Bank of Wiley | Wiley | CO | First National Bank in Coachella | Coachella | CA |
| Fort Riley National Bank | Fort Riley | KS | Bank of Montreal California | San Francisco | CA |
| Miners State Bank | Frontenac | KS | First Bank of San Luis Obispo | San Luis Obispo | CA |
| Gypsum Valley Bank | Gypsum | KS | Torrance National Bank | Torrance | CA |
| First National Bank of Howard | Howard | KS | First National Bank of Ely | Ely | NV |
| Citizens State Bank | Moundridge | KS | Pioneer Trust Co. | Salem | OR |
| Farmers State Bank | Winona | KS | Barnes Banking Co. | Kaysville | UT |
| Bank of Leeton | Leeton | MO | First National Bank of Morgan | Morgan | UT |

Table IIA

| 1982 | NORTHEAST | | | SOUTHEAST | | | CENTRAL | | |
|-------------------------------------|-------------------|------------------|---------------------|-----------|----------|------------|----------|----------|-------------|
| | High ^a | All ^b | T Stat ^c | High | All | T Stat | High | All | T Stat |
| INTEREST INCOME/ASSETS ^d | 11.22 | 11.14 | (.29) | 12.20 | 11.68 | (3.91)*** | 11.87 | 11.39 | (2.77)*** |
| INTEREST EXPENSE/ASSETS | 5.25 | 6.18 | (-2.92)*** | 5.92 | 6.82 | (-4.36)*** | 6.18 | 7.13 | (-4.05)*** |
| NONINTEREST INCOME/ASSETS | 0.36 | 0.70 | (-2.37)** | 1.52 | 0.78 | (1.01) | 0.55 | 0.50 | (.36) |
| NONINTEREST EXPENSES/ASSETS | 2.64 | 3.59 | (-4.69)*** | 3.63 | 3.53 | (.18) | 2.55 | 2.95 | (-2.16)** |
| LOAN LOSS PROV/ASSETS | 0.14 | 0.28 | (-3.57)*** | 0.18 | 0.45 | (-7.93)*** | 0.10 | 0.35 | (-8.55)*** |
| SEC. GAINS/ASSETS | -0.09 | -0.01 | (-1.08) | -0.05 | -0.02 | (-1.30) | -0.07 | 0.00 | (-1.36) |
| RETURN ON ASSETS | 1.94 | 1.00 | (14.85)*** | 2.26 | 0.93 | (8.59)*** | 2.06 | 0.85 | (15.45)*** |
| LOANS/ASSETS | 48.01 | 50.58 | (-1.04) | 36.76 | 47.48 | (-6.27)*** | 37.22 | 48.17 | (-6.12)*** |
| SECURITIES/ASSETS | 36.45 | 27.92 | (3.42)*** | 43.85 | 31.00 | (6.99)*** | 45.91 | 32.17 | (6.99)*** |
| EQUITY/ASSET | 12.96 | 9.11 | (5.34)*** | 12.97 | 9.48 | (5.00)*** | 12.50 | 8.79 | (6.27)*** |
| TOTAL ASSETS (000) | \$31,892 | \$41,903 | (-2.79)*** | \$27,044 | \$33,149 | (-3.01)*** | \$26,250 | \$33,173 | (-2.77)*** |
| 1983 | | | | | | | | | |
| INTEREST INCOME/ASSETS ^d | 10.71 | 10.30 | (2.02)** | 11.38 | 10.62 | (7.16)*** | 11.05 | 10.45 | (3.56)*** |
| INTEREST EXPENSE/ASSETS | 4.63 | 5.48 | (-3.45)*** | 5.05 | 5.85 | (-5.03)*** | 5.26 | 6.19 | (-4.70)*** |
| NONINTEREST INCOME/ASSETS | 0.39 | 0.51 | (-2.44)** | 1.57 | 0.77 | (.99) | 0.57 | 0.51 | (.48) |
| NONINTEREST EXPENSES/ASSETS | 2.63 | 3.25 | (-3.88)*** | 3.70 | 3.43 | (.38) | 2.46 | 2.91 | (-2.85)*** |
| LOAN LOSS PROV/ASSETS | 0.09 | 0.23 | (-4.66)*** | 0.24 | 0.52 | (-5.83)*** | 0.11 | 0.40 | (-10.54)*** |
| SEC. GAINS/ASSETS | 0.00 | 0.01 | (-.36) | 0.02 | 0.00 | (.99) | 0.00 | 0.01 | (-.16) |
| RETURN ON ASSETS | 2.06 | 1.04 | (10.80)*** | 2.22 | 0.88 | (10.53)*** | 2.15 | 0.84 | (20.55)*** |
| LOANS/ASSETS | 46.63 | 49.78 | (-1.26) | 36.01 | 47.03 | (-6.24)*** | 36.60 | 48.02 | (-6.16)*** |
| SECURITIES/ASSETS | 38.02 | 31.08 | (2.66)** | 45.40 | 33.57 | (6.26)** | 46.60 | 34.66 | (6.04)*** |
| EQUITY/ASSET | 13.26 | 8.85 | (5.95)*** | 13.47 | 9.02 | (7.23)*** | 12.98 | 8.69 | (6.73)*** |
| TOTAL ASSETS (000) | \$35,496 | \$45,107 | (-1.91) | \$29,973 | \$35,578 | (-2.50)** | \$29,298 | \$35,035 | (-2.04)** |
| 1984 | | | | | | | | | |
| INTEREST INCOME/ASSETS | NA | NA | | NA | NA | | NA | NA | |
| INTEREST EXPENSE/ASSETS | 5.01 | 5.87 | (-3.59)*** | 5.37 | 6.18 | (-5.31)*** | 5.59 | 6.55 | (-5.07)*** |
| NONINTEREST INCOME/ASSETS | 0.42 | 0.87 | (-1.73) | 1.56 | 1.09 | (.62) | 0.62 | 0.55 | (.41) |
| NONINTEREST EXPENSES/ASSETS | 2.59 | 3.54 | (-3.14)*** | 3.54 | 3.70 | (-.26) | 2.48 | 2.92 | (-2.71)*** |
| LOAN LOSS PROV/ASSETS | 0.13 | 0.22 | (-3.41)*** | 0.24 | 0.48 | (-5.44)*** | 0.14 | 0.43 | (-7.14)*** |
| SEC. GAINS/ASSETS | 0.03 | -0.02 | (.97) | -0.02 | -0.01 | (-.38) | 0.01 | -0.01 | (.72) |
| RETURN ON ASSETS | 2.06 | 1.04 | (10.76)*** | 2.15 | 0.89 | (11.79)*** | 2.06 | 0.80 | (18.31)*** |
| LOANS/ASSETS | 48.34 | 52.53 | (-1.53) | 38.40 | 48.87 | (-5.41)*** | 39.51 | 50.05 | (-5.50)*** |
| SECURITIES/ASSETS | 36.49 | 28.70 | (2.96)** | 44.16 | 32.10 | (6.02)** | 43.10 | 32.42 | (5.32)*** |
| EQUITY/ASSET | 13.60 | 8.96 | (6.83)*** | 13.80 | 9.60 | (6.16)*** | 12.88 | 8.68 | (7.11)*** |
| TOTAL ASSETS (000) | \$39,067 | \$47,037 | (-1.54) | \$33,599 | \$37,349 | (-1.47) | \$32,231 | \$36,457 | (-1.21) |
| 1985 | | | | | | | | | |
| INTEREST INCOME/ASSETS ^d | 10.84 | 10.21 | (3.65)*** | 11.21 | 10.61 | (5.59)*** | 10.72 | 10.25 | (2.88)*** |
| INTEREST EXPENSE/ASSETS | 4.66 | 5.33 | (-3.00)*** | 4.94 | 5.64 | (-5.18)*** | 5.07 | 5.92 | (-4.86)*** |
| NONINTEREST INCOME/ASSETS | 0.40 | 1.11 | (-1.87) | 1.71 | 1.18 | (.57) | 0.63 | 0.55 | (.51) |
| NONINTEREST EXPENSES/ASSETS | 2.46 | 3.74 | (-3.24)*** | 3.74 | 3.86 | (-.15) | 2.41 | 2.94 | (-3.49)*** |
| LOAN LOSS PROV/ASSETS | 0.12 | 0.28 | (-3.93)*** | 0.26 | 0.54 | (-6.61)*** | 0.15 | 0.62 | (-13.25)*** |
| SEC. GAINS/ASSETS | 0.05 | 0.07 | (-.34) | 0.01 | 0.06 | (-4.39)*** | 0.07 | 0.07 | (.11) |
| RETURN ON ASSETS | 2.19 | 1.14 | (9.43)*** | 2.22 | 1.02 | (9.17)*** | 2.14 | 0.79 | (21.41)*** |
| LOANS/ASSETS | 47.15 | 52.33 | (-1.77) | 40.17 | 49.88 | (-4.95)*** | 40.34 | 48.87 | (-4.32)*** |
| SECURITIES/ASSETS | 38.23 | 29.32 | (3.19)*** | 43.64 | 31.36 | (5.94)*** | 41.91 | 32.57 | (3.67)*** |
| EQUITY/ASSET | 13.98 | 9.18 | (7.04)*** | 14.12 | 9.89 | (4.98)*** | 13.34 | 8.69 | (7.84)*** |
| TOTAL ASSETS (000) | \$43,197 | \$49,477 | (-1.22) | \$36,820 | \$38,624 | (-.56) | \$35,181 | \$38,171 | (-.83) |
| 1986 | | | | | | | | | |
| INTEREST INCOME/ASSETS | 10.03 | 9.34 | (3.46)*** | 10.32 | 9.69 | (4.43)*** | 10.03 | 9.42 | (4.31)*** |
| INTEREST EXPENSE/ASSETS | 4.10 | 4.65 | (-2.79)*** | 4.30 | 4.91 | (-5.09)*** | 4.50 | 5.23 | (-4.54)*** |
| NONINTEREST INCOME/ASSETS | 0.38 | 1.22 | (-1.37) | 1.54 | 1.32 | (.28) | 0.60 | 0.54 | (.37) |
| NONINTEREST EXPENSES/ASSETS | 2.35 | 3.77 | (-2.28)** | 3.52 | 3.97 | (-.68) | 2.37 | 2.93 | (-3.42)*** |
| LOAN LOSS PROV/ASSETS | 0.10 | 0.24 | (-5.26)*** | 0.29 | 0.50 | (-5.40)*** | 0.21 | 0.54 | (-8.72)*** |
| SEC. GAINS/ASSETS | 0.12 | 0.10 | (.27) | 0.04 | 0.11 | (-6.02)*** | 0.12 | 0.12 | (.14) |
| RETURN ON ASSETS | 2.10 | 1.08 | (9.48)*** | 2.08 | 0.99 | (9.63)*** | 2.05 | 0.77 | (24.30)*** |
| LOANS/ASSETS | 45.77 | 53.09 | (-2.48)** | 41.48 | 50.00 | (-4.35)*** | 40.45 | 48.06 | (-3.84)*** |
| SECURITIES/ASSETS | 35.84 | 26.74 | (3.15)*** | 38.76 | 30.04 | (4.25)*** | 39.78 | 32.38 | (3.43)*** |
| EQUITY/ASSET | 13.77 | 9.27 | (6.34)*** | 13.77 | 9.92 | (6.25)*** | 13.61 | 8.68 | (7.92)*** |
| TOTAL ASSETS (000) | \$49,113 | \$50,730 | (-.32) | \$41,093 | \$40,797 | (.09) | \$37,820 | \$39,696 | (-.52) |
| 1987 | | | | | | | | | |
| INTEREST INCOME/ASSETS ^d | 9.43 | 8.94 | (2.99)*** | 9.60 | 9.07 | (3.95)*** | 9.16 | 8.77 | (3.03)*** |
| INTEREST EXPENSE/ASSETS | 3.81 | 4.35 | (-3.31)*** | 3.93 | 4.47 | (-5.28)*** | 4.06 | 4.71 | (-4.26)*** |
| NONINTEREST INCOME/ASSETS | 0.39 | 1.46 | (-1.32) | 4.46 | 1.33 | (.85) | 0.60 | 0.54 | (.41) |
| NONINTEREST EXPENSES/ASSETS | 2.43 | 4.06 | (-2.02)** | 5.67 | 3.86 | (.65) | 2.41 | 2.93 | (-2.96)*** |
| LOAN LOSS PROV/ASSETS | 0.09 | 0.21 | (-4.20)*** | 0.26 | 0.46 | (-4.36)*** | 0.18 | 0.37 | (-5.60)*** |
| SEC. GAINS/ASSETS | 0.07 | 0.04 | (.62) | 0.04 | 0.02 | (1.07) | 0.05 | 0.03 | (.66) |
| RETURN ON ASSETS | 2.02 | 1.07 | (10.84)*** | 2.49 | 0.96 | (2.97)*** | 1.89 | 0.81 | (19.77)*** |
| LOANS/ASSETS | 50.41 | 58.04 | (-2.72)** | 44.28 | 52.18 | (-3.87)*** | 42.25 | 49.83 | (-3.24)*** |
| SECURITIES/ASSETS | 35.33 | 25.42 | (3.32)*** | 37.38 | 29.89 | (3.72)*** | 39.52 | 32.86 | (3.08)*** |
| EQUITY/ASSET | 14.37 | 9.67 | (6.89)*** | 15.46 | 10.00 | (3.60)*** | 14.00 | 8.88 | (7.86)*** |
| TOTAL ASSETS (000) | \$52,300 | \$53,223 | (-.17) | \$43,519 | \$41,679 | (.57) | \$40,679 | \$40,631 | (.01) |

^a Mean for all high performance banks, in percent terms unless otherwise stated.

^b Mean for all small banks, in percent terms unless otherwise stated.

^c *** indicates high performance and all banks are statistically significantly different at the 1 percent level.

** indicates high performance and all banks are statistically significantly different at the 5 percent level.

^d INTEREST INCOME/ASSETS is stated on a taxable-equivalent basis.

| MIDWEST | | | SOUTHWEST | | | WEST | | | U.S. | | |
|----------|----------|-------------|-----------|----------|-------------|----------|----------|-------------|----------|----------|-------------|
| High | All | T Stat | High | All | T Stat | High | All | T Stat | High | All | T Stat |
| 12.36 | 12.00 | (1.61) | 12.20 | 11.64 | (2.77)*** | 12.09 | 11.15 | (2.84)** | 12.03 | 11.61 | (5.24)*** |
| 5.74 | 7.32 | (-3.69)*** | 6.00 | 6.54 | (-1.84) | 4.80 | 5.78 | (-1.91) | 5.79 | 6.84 | (-8.50)*** |
| 0.48 | 0.51 | (-.21) | 0.75 | 0.78 | (-.24) | 0.91 | 0.90 | (.03) | 0.83 | 0.65 | (.94) |
| 2.62 | 2.92 | (-1.22) | 2.74 | 3.41 | (-4.45)*** | 3.55 | 4.84 | (-2.41)** | 2.97 | 3.33 | (-2.16)** |
| 0.19 | 0.38 | (-3.85)*** | 0.20 | 0.49 | (-5.17)*** | 0.15 | 0.60 | (-6.72)*** | 0.16 | 0.42 | (-14.78)*** |
| -0.08 | -0.02 | (-1.61) | -0.03 | -0.01 | (-.92) | -0.12 | 0.01 | (-1.67) | -0.07 | -0.01 | (-3.36)*** |
| 2.39 | 1.10 | (8.93)*** | 2.22 | 1.13 | (14.11)*** | 2.36 | 0.36 | (10.74)*** | 2.20 | 0.95 | (22.72)*** |
| 40.60 | 50.57 | (-4.80)** | 38.45 | 49.57 | (-4.87)*** | 45.25 | 55.69 | (-3.28)*** | 39.79 | 49.83 | (-11.44)*** |
| 43.32 | 32.48 | (4.92)*** | 42.94 | 26.82 | (7.20)*** | 31.25 | 18.83 | (3.12)*** | 42.18 | 29.56 | (13.37)*** |
| 14.81 | 9.06 | (5.09)*** | 12.68 | 9.67 | (4.94)*** | 15.44 | 12.21 | (1.33) | 13.31 | 9.47 | (10.18)*** |
| \$18,851 | \$25,193 | (-2.59)** | \$25,633 | \$34,003 | (-3.38)*** | \$31,017 | \$27,156 | (.71) | \$26,193 | \$31,131 | (-4.44)*** |
| 11.61 | 10.92 | (2.76)*** | 11.50 | 10.52 | (3.43)*** | 11.06 | 10.41 | (1.87) | 11.26 | 10.61 | (8.35)*** |
| 5.02 | 6.42 | (-3.84)*** | 5.14 | 5.72 | (-3.06)*** | 4.11 | 5.23 | (-2.81)** | 4.98 | 5.98 | (-9.98)*** |
| 0.53 | 0.52 | (.08) | 0.80 | 0.82 | (-.13) | 1.09 | 1.02 | (.31) | 0.88 | 0.66 | (1.03) |
| 2.69 | 2.91 | (-.82) | 2.63 | 3.39 | (-3.82)*** | 3.31 | 4.63 | (-4.12)*** | 2.94 | 3.26 | (-1.67) |
| 0.22 | 0.54 | (-3.50)*** | 0.32 | 0.72 | (-4.26)*** | 0.18 | 0.63 | (-6.57)*** | 0.20 | 0.53 | (-12.60)*** |
| -0.02 | 0.01 | (-1.97) | -0.01 | 0.02 | (-1.06) | -0.04 | 0.01 | (-1.10) | 0.00 | 0.01 | (-1.42) |
| 2.42 | 0.91 | (14.17)*** | 2.45 | 0.85 | (14.73)*** | 2.50 | 0.48 | (5.42)*** | 2.28 | 0.84 | (28.69)*** |
| 39.91 | 50.84 | (-5.16)*** | 37.44 | 50.66 | (-5.43)*** | 45.43 | 57.98 | (-3.11)*** | 39.03 | 50.20 | (-12.22)*** |
| 45.14 | 34.36 | (4.90)*** | 44.59 | 28.00 | (7.02)*** | 32.73 | 20.01 | (3.99)*** | 43.60 | 31.55 | (12.31)*** |
| 16.20 | 9.03 | (5.15)*** | 13.38 | 8.94 | (8.67)*** | 16.22 | 9.50 | (2.01) | 13.99 | 8.97 | (11.83)*** |
| \$20,759 | \$26,394 | (-1.61) | \$29,313 | \$36,836 | (-2.62)** | \$34,796 | \$31,218 | (.63) | \$29,247 | \$33,257 | (-3.21)*** |
| NA | NA | | NA | NA | | NA | NA | | NA | NA | |
| 5.33 | 6.81 | (-3.93)*** | 5.57 | 6.45 | (-5.02)*** | 4.45 | 5.90 | (-3.42)*** | 5.33 | 6.45 | (-11.15)*** |
| 0.79 | 0.60 | (.91) | 0.79 | 0.87 | (-.63) | 1.15 | 1.12 | (.17) | 0.94 | 0.77 | (.78) |
| 2.69 | 2.91 | (-.92) | 2.68 | 3.42 | (-3.62)*** | 3.38 | 4.63 | (-2.78)*** | 2.91 | 3.32 | (-2.34)** |
| 0.24 | 0.91 | (-10.38)*** | 0.29 | 0.87 | (-9.61)*** | 0.02 | 0.80 | (-4.99)*** | 0.20 | 0.68 | (-19.64)*** |
| -0.02 | 0.00 | (-1.02) | -0.01 | 0.00 | (-.19) | -0.03 | 0.00 | (-1.09) | 0.00 | -0.01 | (.15) |
| 2.35 | 0.62 | (11.11)*** | 2.13 | 0.64 | (19.30)*** | 2.68 | 0.44 | (5.77)*** | 2.19 | 0.71 | (28.91)*** |
| 40.00 | 51.64 | (-5.33)*** | 38.10 | 53.30 | (-6.14)*** | 46.52 | 59.60 | (-2.40)** | 40.69 | 52.01 | (-11.93)*** |
| 44.30 | 32.75 | (4.98)*** | 44.47 | 25.40 | (7.88)*** | 31.89 | 18.91 | (3.05)*** | 42.12 | 29.61 | (12.50)*** |
| 16.77 | 8.99 | (5.20)*** | 14.28 | 8.63 | (7.11)*** | 18.64 | 8.79 | (1.80) | 14.52 | 8.91 | (10.06)*** |
| \$22,585 | \$27,188 | (-1.30) | \$32,190 | \$38,749 | (-2.08)** | \$37,433 | \$33,669 | (.65) | \$32,224 | \$34,693 | (-1.78) |
| 10.72 | 10.46 | (1.29) | 11.34 | 10.57 | (4.17)*** | 11.49 | 10.47 | (1.77) | 11.02 | 10.44 | (7.02)*** |
| 4.66 | 6.13 | (-4.41)*** | 5.13 | 5.92 | (-4.78)*** | 3.91 | 5.40 | (-3.80)*** | 4.84 | 5.87 | (-11.19)*** |
| 0.75 | 0.60 | (.67) | 0.78 | 0.92 | (-1.19) | 1.03 | 1.20 | (-.96) | 0.96 | 0.81 | (.61) |
| 2.63 | 2.97 | (-1.42) | 2.64 | 3.59 | (-5.44)*** | 3.34 | 4.75 | (-4.67)*** | 2.91 | 3.41 | (-2.36)** |
| 0.30 | 1.31 | (-18.82)*** | 0.48 | 1.18 | (-8.98)*** | 0.31 | 1.08 | (-9.55)*** | 0.26 | 0.95 | (-27.99)*** |
| 0.09 | 0.11 | (-.81) | 0.02 | 0.09 | (-1.62) | 0.09 | 0.08 | (.32) | 0.05 | 0.08 | (-3.06)*** |
| 2.27 | 0.41 | (18.45)*** | 2.17 | 0.40 | (23.77)*** | 2.80 | 0.08 | (5.39)*** | 2.24 | 0.60 | (29.36)*** |
| 37.54 | 48.69 | (-3.93)*** | 38.36 | 53.43 | (-5.87)*** | 44.84 | 58.56 | (-2.45)** | 40.69 | 50.94 | (-9.56)*** |
| 44.27 | 33.36 | (4.38)*** | 43.30 | 24.28 | (7.45)*** | 34.52 | 18.64 | (3.59)*** | 41.95 | 29.51 | (11.75)*** |
| 16.94 | 8.91 | (5.24)*** | 14.28 | 8.53 | (10.42)*** | 18.24 | 8.39 | (2.04) | 14.75 | 8.88 | (11.05)*** |
| \$24,331 | \$27,804 | (-.98) | \$35,030 | \$39,644 | (-1.10) | \$39,851 | \$34,294 | (.98) | \$35,131 | \$35,715 | (-.35) |
| 9.80 | 9.33 | (2.16)** | 10.56 | 9.50 | (5.39)*** | 9.97 | 9.34 | (2.45)** | 10.10 | 9.44 | (9.83)*** |
| 4.06 | 5.31 | (-4.45)*** | 4.51 | 5.22 | (-7.18)*** | 3.53 | 4.57 | (-3.06)*** | 4.25 | 5.12 | (-12.38)*** |
| 0.71 | 0.60 | (.45) | 0.79 | 0.90 | (-1.04) | 1.04 | 1.35 | (-1.18) | 0.90 | 0.84 | (.31) |
| 2.66 | 3.01 | (-1.50) | 2.62 | 3.68 | (-6.53)*** | 3.45 | 4.77 | (-3.09)*** | 2.84 | 3.45 | (-2.32)*** |
| 0.37 | 1.23 | (-12.11)*** | 0.52 | 1.56 | (-12.23)*** | 0.24 | 1.17 | (-11.61)*** | 0.29 | 1.00 | (-26.49)*** |
| 0.14 | 0.19 | (-.87) | 0.08 | 0.21 | (-3.81)*** | 0.05 | 0.15 | (-3.29)*** | 0.09 | 0.16 | (-4.09)*** |
| 1.99 | 0.25 | (23.75)*** | 2.12 | -0.13 | (25.28)*** | 2.08 | 0.03 | (14.62)*** | 2.07 | 0.40 | (40.60)*** |
| 35.76 | 45.11 | (-3.27)*** | 37.27 | 50.95 | (-5.24)*** | 43.92 | 45.46 | (-2.09) | 40.35 | 48.94 | (-7.88)*** |
| 44.81 | 35.35 | (3.65)*** | 42.87 | 23.78 | (7.21)*** | 34.34 | 19.35 | (3.10)*** | 39.94 | 29.73 | (9.27)*** |
| 16.89 | 8.57 | (5.54)*** | 14.78 | 8.11 | (9.88)*** | 18.31 | 8.12 | (2.16)** | 14.77 | 8.66 | (12.12)*** |
| \$26,345 | \$28,981 | (-.72) | \$36,847 | \$39,930 | (-.74) | \$42,840 | \$36,337 | (1.09) | \$38,388 | \$36,888 | (.90) |
| 9.03 | 8.61 | (2.23)** | 9.47 | 8.81 | (4.23)*** | 9.35 | 8.87 | (1.82) | 9.35 | 8.78 | (8.60)*** |
| 3.65 | 4.66 | (-4.17)*** | 4.04 | 4.70 | (-7.11)*** | 3.25 | 4.09 | (-2.89)** | 3.86 | 4.59 | (-11.24)*** |
| 0.70 | 0.62 | (.40) | 0.72 | 0.90 | (-1.61) | 1.20 | 1.21 | (-.05) | 1.67 | 0.83 | (.86) |
| 2.63 | 2.97 | (-1.36) | 2.52 | 3.63 | (-7.30)*** | 3.51 | 4.72 | (-2.52)** | 3.41 | 3.41 | (0.00) |
| 0.28 | 0.64 | (-4.87)*** | 0.41 | 1.29 | (-12.05)*** | 0.30 | 0.91 | (-6.30)*** | 0.25 | 0.69 | (-17.70)*** |
| 0.00 | 0.02 | (-1.80) | 0.04 | 0.04 | (-.03) | 0.03 | 0.03 | (.29) | 0.04 | 0.03 | (.85) |
| 1.95 | 0.56 | (20.12)*** | 1.96 | -0.14 | (26.94)*** | 2.05 | 0.11 | (13.84)*** | 2.10 | 0.51 | (11.56)*** |
| 36.61 | 45.25 | (-2.77)*** | 35.52 | 49.56 | (-5.22)*** | 45.60 | 55.49 | (-1.70) | 42.02 | 49.55 | (-6.27)*** |
| 44.34 | 37.67 | (2.11)** | 45.45 | 27.79 | (6.21)*** | 35.91 | 22.78 | (3.33)*** | 39.92 | 31.68 | (7.39)*** |
| 17.61 | 8.81 | (5.69)*** | 14.61 | 8.04 | (10.01)*** | 19.24 | 8.35 | (2.13)** | 15.53 | 8.81 | (10.45)*** |
| \$27,038 | \$29,767 | (-.73) | \$39,661 | \$39,823 | (-.04) | \$45,566 | \$36,664 | (1.48) | \$40,799 | \$37,482 | (1.81) |