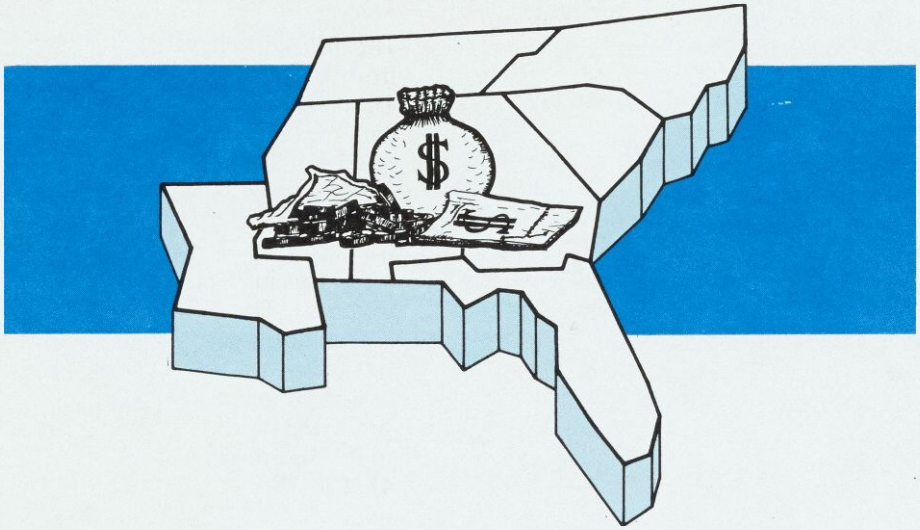
Commercial Bank Profitability in 1983



Although commercial bank profitability fell across the nation and in the Southeast, southeastern banks continued to outperform the rest of the nation in 1983. That trend was unevenly distributed, however, with Georgia banks enjoying the highest profit margins and banks in Mississippi and Tennessee suffering relatively low profit levels.

Overall commercial bank profitability declined again in 1983, continuing a trend evident since 1979.[1] The drop in profitability is apparent in all three profitability measures used in this study: return on assets, return on equity and adjusted net interest margin.[2] Return on assets fell from 0.81 percent in 1979 to 0.67 percent in 1983, return on equity fell from 13.91 percent in 1979 to 11.23 in 1983 and adjusted net interest margins fell from 3.91 percent in 1979 to 3.57 in 1983.

The profitability decline from 1982 to 1983 appears to reflect both a rise in loan loss provisions and a sharper drop in interest revenue than interest expenses. The increase in bank loan losses is typical at this stage of an economic recovery; loan loss provisions usually peak in the first year of a recovery. The falling bank interest revenues and expenses reflected a general decline in market rates of interest. Interest expenses may have fallen less than revenues due to the continuing deregulation of the rates banks pay on deposits.

For the second year in a row, the decline in profitability was greatest among banks with total assets below $25 million. These banks' return on assets fell from 1.20 in 1981 to 1.02 percent in 1982 and fell again to 0.88 percent in 1983. Thus, their return on assets has fallen by 25 percent from 1981 to 1983.[3] Other banks fared somewhat better in 1983, with banks in the $100 to $500 million category posting slight improvements in their returns on assets and equity.

Banks in the six southeastern states also experienced somewhat lower profitability on average in 1983 than in 1982.[4] They continued, however, to do better than banks in the rest of the nation. Southeastern banks achieved a return on assets of 0.94 percent and a return on equity of 13.09 percent in 1983. The average bank in five of the six states saw little change from 1982 to 1983 in its return on assets, but banks in Louisiana had a much lower return on assets than they did in 1982. Louisiana banks appear to have escaped harm from the state's energy industry slump in 1982, but the problems seem to have caught up with them in 1983.

Profitability Measures

The three profitability measures used in this study generally tell the same story about declining bank profits, but there are significant differences in what they measure.[5] The adjusted net interest margin ratio is calculated by subtracting a bank's interest expense from its interest revenue net of loan losses and dividing that result by its interest earning assets. The interest revenue from tax exempt securities is grossed up by the bank's marginal tax rate to keep from penalizing banks that hold substantial portfolios of state and local securities to reduce their tax burden. Loan losses are subtracted from interest expense so that banks that make low-risk loans at low interest rates are placed on a more equal footing with those that make high-risk loans involving high interest income. That ratio measures the spread between the bank's interest income and its interest expense. It would be roughly analogous to a business' profit margin. The return on assets ratio, obtained by dividing a bank's net income by its assets, provides a handy gauge of how well a bank's management is using its assets. The ratio return on equity is calculated by dividing a bank's net income by its shareholders' equity. That is the most important figure to a bank's shareholders because it tells them what the bank is earning on their investment.

Differences in these ratios can be seen by examining the change in the profitability measure between 1982 and 1983 for southeastern banks with assets in excess of $1 billion. The adjusted net interest margin for these banks fell from 4.7 percent in 1982 to 4.4 percent in 1983, indicating a drop in the margin banks were earning on their funds (Table 7). These banks' return on assets edged up, however, from 0.91 percent to 0.92 percent (Table 11). The discrepancy between the fall in adjusted net interest margins and the rise in return on assets is due to changes in the bank's non-interest revenues and expenses. The rise in return on assets was relatively modest compared to the large southeastern banks' increase in return on equity, with that figure climbing from 14.96 percent in 1982 to 15.29 percent in 1983 (Table 12). The relatively greater increase in bank return on equity reflects a fall in the capital-to-asset ratio at these banks. Return on equity will increase if a bank has constant earnings (as measured by return on assets) that are spread over a smaller capital base (as measured by the capital-to-asset ratio).

Banks' Adjusted Net Interest Margins

The 1983 results show significant declines in adjusted net interest margins that were explained only partially by increased loan loss provisions. The adjusted net interest margins of all banks fell from 3.71 percent in 1982 to 3.57 in 1983 (Table 1). Furthermore, each margin for the six size categories of banks also fell, all size categories experiencing larger loan losses and all except the very largest experiencing reduced interest spreads.[6] The drop in market interest rates in 1983 was reflected by a drop in interest revenues and expenses in 1983 for every size category (Tables 2 and 3). The biggest drop in interest revenues and expenses affected the banks most sensitive to changes in market interest rates, those with assets in excess of $1 billion. Bank loan loss provisions increased from 0.51 percent in 1982 to 0.59 percent of earning assets in 1983 (Table 4). Provisions were up for every size category except the $100 million to $500 million banks.

Bank margins, particularly those of smaller banks, appear to have been affected in 1983 by the continuing deregulation of interest rates paid on deposits. The rates paid on bank liabilities fell in 1983, but the interest they received fell even faster. This contrasts with our findings for 1982 in which margins did not appear to be affected by deregulation. Deregulation's effect on smaller banks' interest expense was noticeable in 1982, but these banks were able to compensate for deposit-rate deregulation by adjusting the rates they charged on loans. Smaller banks appeared to be unable to adjust loan rates sufficiently in 1983 to offset deregulation's effect on the costs of their deposits. Even with this decline, the spread between bank interest earnings and bank interest expenses has held up fairly well over the 1979 through 1983 period. This spread is larger in 1983 than it was in 1979 for every size category except the very largest banks. The fall in adjusted net interest margins during this period was due to the dramatic increases in loan loss provisions.

Banks' Returns on Assets and Equity

The reduced interest margins earned by banks with assets below $100 million are reflected clearly in their overall profitability, but larger banks were able to offset most of the change in margins. All three categories of banks with assets below $100 million saw their return on assets fall below the 1 percent mark (Table 5). In contrast

Table 1. Adjusted Net Interest Margin
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	3.91	4.68	4.46	4.38	4.25	4.25	3.53
1980	3.89	4.91	4.63	4.50	4.30	4.32	3.43
1981	3.82	5.06	4.65	4.48	4.33	4.35	3.31
1982	3.71	4.81	4.56	4.46	4.26	4.30	3.23
1983	3.57	4.58	4.31	4.25	4.14	4.15	3.13

Table 2. Tax Equivalent Interest Revenue
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	11.25	9.43	9.52	9.58	9.76	10.19	12.53
1980	12.95	11.02	10.95	10.92	11.06	11.28	14.45
1981	15.38	13.14	12.97	12.92	13.18	13.44	17.04
1982	14.42	13.58	13.28	13.15	13.14	13.17	15.25
1983	12.16	12.35	12.02	11.85	11.68	11.63	12.38

Table 3. Loan Loss Expense
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500 $1000 $ million	$1000 + $ million
1979	0.30	0.29	0.27	0.27	0.26	0.30	0.33
1980	0.33	0.33	0.29	0.29	0.29	0.35	0.35
1981	0.34	0.37	0.31	0.31	0.31	0.31	0.35
1982	0.51	0.53	0.48	0.44	0.49	0.48	0.52
1983	0.59	0.64	0.57	0.55	0.49	0.52	0.63

Table 4. Interest Expense
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500 $1000 $ million	$1000 + $ million
1979	7.03	4.46	4.79	4.93	5.25	5.63	8.67
1980	8.74	5.78	6.03	6.14	6.47	6.61	10.68
1981	11.22	7.69	8.02	8.14	8.54	8.80	13.37
1982	10.20	8.24	8.25	8.24	8.39	8.39	11.49
1983	7.99	7.12	7.15	7.04	7.04	6.96	8.62

Table 5. Percentage Return on Assets
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	0.81	1.20	1.17	1.10	1.00	0.86	0.64
1980	0.79	1.22	1.21	1.14	1.00	0.88	0.61
1981	0.76	1.20	1.16	1.08	0.94	0.86	0.60
1982	0.71	1.02	1.10	1.06	0 .86	0.79	0.57
1983	0.67	0.88	0.98	0.98	0.88	0.76	0.54

banks with assets between $100 and $500 million were able to post slightly higher returns on assets despite declining margins. While banks with assets below $100 million did relatively less well in 1983, their return on assets continues to equal or exceed those of the larger banks. Indeed, banks with assets in excess of $1 billion continue to have return on assets that are approximately half those of banks with assets between $25 million and $100 million.

The changes in banks' return on equity generally parallel the changes in their return on assets (Table 6). One exception is that banks with assets above $1 billion had a much sharper drop in their return on equity than we would expect based on the drop in their return on assets. This drop probably reflects increases in bank capital during the last year. Near the end of 1981 the three federal bank regulatory agencies adopted numerical guidelines for bank capital to asset ratios. In many cases these guidelines required banks, especially those with assets in excess of $1 billion, to sell additional capital to raise their ratios. An effect of spreading relatively constant profitability (as measured by return on assets) over more capital is to reduce a bank's return on equity.

Thus, bank profitability declined in 1983 for five of the six size categories of banks, with loan loss provisions and the effect of deregulation being two important factors in the decline. The effect on bank stockholders is ambiguous because stock prices are also influenced by the rate of return earned on competitive investments

Table 6. Return on Equity
All Insured Commercial Banks
By Size Category

Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
		Size Category					
1979	13.91	13.56	14.47	14.32	14.09	13.51	13.76
1980	13.66	13.31	14.59	14.41	13.84	13.12	13.38
1981	13.07	12.82	13.71	13.42	12.78	12.73	13.06
1982	12.08	10.76	12.79	13.15	11.73	11.74	12.06
1983	11.23	9.05	11.33	12.03	12.04	11.27	10.99

Table 7. Adjusted Net Interest Margin
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
In Six Southeast States
By Size Category

Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
		Size Category					
1979	4.53	4.81	4.64	4.57	4.58	4.34	4.23
1980	4.72	5.05	4.82	4.91	4.76	4.37	4.49
1981	4.72	5.09	4.86	4.80	4.59	4.74	4.65
1982	4.66	4.63	4.60	4.78	4.58	4.70	4.70
1983	4.42	4.47	4.43	4.41	4.41	4.54	4.40

and by banks' risk. Market interest rates dropped in 1983, which should have reduced the return investors might expect from banks. On the other hand, reported bank loan loss provisions were up, and some economists contend that reported loan losses understate actual losses (particularly for banks with loans to less developed countries). Increased loan loss provisions could indicate that banks are riskier, which would lower the value of their stock.[8]

Profitability of Banks in the Southeast

Southeastern banks remained more profitable than their peers across the nation, except for banks with assets below $25 million (Tables 7-12). Some of the factors that influenced bank profitability across the nation also affected southeastern banks. Like their peers southeastern banks reported lower adjusted net interest margins in all size categories and the decline in margins was greater than the increases in loan loss provisions. Southeastern banks, like banks across the nation, maintain generally higher loan loss provisions, but southeastern banks with assets in excess of $500 million reported lower loss provisions relative to their interest earning assets in 1983.

Falling margins are reflected in reduced returns on assets and equity at southeastern banks with assets below $100 million (Tables 11-12). Southeastern banks with assets in excess of $100 million were able to maintain their 1982 returns on assets in 1983. These larger banks also were

Table 8. Tax Equivalent Interest Revenue
As a Percentage of Interest Earning Assets
All Insured Commercial Banks
In Six Southeast States
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	10.05	9.70	9.68	9.71	9.85	10.48	10.91
1980	11.52	11.31	11.18	11.14	11.33	11.50	12.46
1981	13.66	13.23	13.25	13.14	13.27	13.75	14.77
1982	13.44	13.52	13.35	13.35	13.10	13.96	1391
1983	11.82	12.22	11.93	11.92	11.69	11.60	11.85

Table 9. Loan Loss Expense
As a Percentage of Interest Earning Assets
All Insured Commercial Banks
In Six Southeast States
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	0.38	0.43	0.36	0.34	0.32	0.43	0.50
1980	0.40	0.44	0.39	0.32	0.35	0.44	0.52
1981	0.38	0.48	0.41	0.35	0.34	0.30	0.45
1982	0.50	0.69	0.55	0.47	0.49	0.52	0.45
1983	0.51	0.82	0.57	0.64	0.50	0.51	0.41

able to increase their return on equity. The increased return on equity for banks with assets between $100 and $500 million appears to be roughly in line with the slight increase in return on assets, but the increase in return on equity for banks with assets above $500 million looks larger relative to the change in their return on assets. Banks with assets above $500 million appear to have reduced their capital-to-assets ratio in 1983.

Southeastern banks, except those with assets below $25 million had posted better adjusted net interest margins than their peers across the nation, in spite of higher loan loss provisions in the Southeast (except for banks with assets above $1 billion). These better margins are reflected in better returns on assets and equity for southeastern banks, particularly banks with assets in excess of $100 million.[9]

Profitability of Southeastern Banks by State

The profitability of banks in the six states varies widely. Georgia banks continue to do well, leading the Southeast in 1983 in all three measures of bank profitability—adjusted net interest margin in Table 13, return on assets in Table 17 and return on equity in Table 18. Mississippi and Tennessee banks, on the other hand, continue to have problems, although they were able to prevent a further drop in their profitability as measured by return on assets.

Table 10. Interest Expense
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
In Six Southeast States
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	5.14	4.47	4.69	4.80	4.95	5.71	6.19
1980	6.39	5.81	5.97	5.91	6.21	6.70	7.45
1981	8.55	7.67	7.98	7.99	8.34	8.71	9.68
1982	8.29	8.19	8.20	8.10	8.03	8.24	8.76
1983	6.88	6.94	6.93	6.88	6.78	6.54	7.04

Table 11. Return on Assets
All Insured Commercial Banks
In Six Southeast States
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	1.04	1.12	1.16	1.13	1.06	0.88	0.91
1980	1.09	1.19	1.23	1.26	1.11	0.93	0.89
1981	1.01	1.16	1.18	1.16	1.00	0.96	0.85
1982	0.97	0.90	1.08	1.15	0.95	0.90	0.91
1983	0.94	0.70	1.01	1.01	0.96	0.89	0.92

Table 12. Return on Equity
All Insured Commercial Banks
In Six Southeast States
By Size Category

		Size Category					
Year	All Banks	0-$25 $ million	$25-$50 $ million	$50-$100 $ million	$100-$500 $ million	$500-$1000 $ million	$1000 + $ million
1979	14.06	12.39	14.20	14.52	14.47	13.23	14.55
1980	14.51	12.71	14.43	15.66	15.14	13.60	14.20
1981	13.64	12.28	13.68	14.28	13.47	13.74	13.87
1982	13.27	9.57	12.34	14.08	12.98	12.95	14.96
1983	13.09	7.11	11.38	12.46	13.08	13.10	15.29

Table 13. Adjusted Net Interest Margin
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
In Six Southeast States
By State

		States					
Year	All Banks	Ala.	Fla.	Ga.	La.	Miss.	Tenn.
1979	4.53	4.23	4.79	5.04	4.54	4.04	4.00
1980	4.72	4.20	5.11	5.43	4.78	4.02	4.01
1981	4.73	4.24	5.00	5.49	4.98	3.87	3.95
1982	4.66	4.17	5.12	5.02	4.96	3.67	3.90
1983	4.42	4.17	4.77	4.84	4.37	3.71	3.84

Table 14. Tax Equivalent Interest Revenue
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
In Six Southeast States
By State

		States					
Year	All Banks	Ala.	Fla.	Ga.	La.	Miss.	Tenn
1979	10.05	10.04	9.76	10.65	10.23	9.64	10.02
1980	11.52	11.37	11.30	11.94	11.78	11.01	11.61
1981	13.66	13.56	13.43	13.87	14.09	13.11	13.93
1982	13.44	13.25	13.40	13.23	13.71	13.05	13.87
1983	11.82	11.47	11.91	12.13	11.72	11.51	11.83

Alabama, Florida and Louisiana banks rank in the middle of the regional pack in terms of profitability. Louisiana banks, however, did see a significant drop in profits last year.

Last year we noted that Alabama banks produce somewhat better returns on assets and equity than one would expect given their adjusted net interest margins, while Florida and Tennessee banks produce somewhat lower returns than one would expect. This finding also holds for 1983. The adjusted net interest margins at Alabama banks are below the average margins of their peers in the region, but Alabama banks turned in the second best return on assets. Florida banks had the second best adjusted net interest margin, but their return on assets fell below the average of all Southeastern banks. Tennessee banks turned in better margins than did Mississippi banks, but Tennessee banks had much lower returns on assets.

An analysis of the adjusted net interest margins explains why Georgia banks did well while Mississippi and Tennessee banks suffered (Tables 13-16). Georgia banks' margins were high because they had the highest interest revenue and the second lowest (second to Alabama) loan loss provisions. Mississippi and Tennessee banks' interest expenses and loan losses both exceed the regional average. In addition, Mississippi had the second lowest tax equivalent interest revenue. A portion of the drop in Louisiana banks' adjusted net interest margins can be explained by the increase in loan loss provisions, but most of the drop was due to a narrowing of the difference between interest revenue and interest expenses.

Table 15. Loan Losses
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
In Six Southeast States
By State

		States					
Year	All Banks	Ala.	Fla.	Ga.	La.	Miss.	Tenn.
1979	0.38	0.51	0.30	0.54	0.34	0.31	0.39
1980	0.40	0.61	0.30	0.45	0.39	0.36	0.44
1981	0.38	0.46	0.30	0.41	0.39	0.44	0.44
1982	0.50	0.54	0.35	0.41	0.54	0.71	0.73
1983	0.51	0.44	0.38	0.41	0.68	0.65	0.70

Table 16. Interest Expense
As a Percentage of Interest-Earning Assets
All Insured Commercial Banks
In Six Southeast States
By State

		States					
Year	All Banks	Ala.	Fla.	Ga.	La.	Miss.	Tenn.
1979	5.14	5.31	4.68	5.07	5.36	5.28	5.64
1980	6.39	6.56	5.89	6.06	6.62	6.63	7.17
1981	8.55	8.85	8.11	8.00	8.72	8.79	9.46
1982	8.29	8.54	7.93	7.80	8.21	8.67	9.20
1983	6.88	6.86	6.75	6.88	6.67	7.14	7.29

Table 17. Percentage Return on Assets
All Insured Commercial Banks
In Six Southeast States
By State

		States					
Year	All Banks	Ala.	Fla.	Ga.	La.	Miss.	Tenn.
1979	1.04	1.09	1.01	1.16	1.14	1.05	0.85
1980	1.09	1.10	1.09	1.18	1.17	1.09	0.88
1981	1.01	1.04	0.86	1.25	1.24	1.01	0.78
1982	0.97	1.04	0.95	1.11	1.20	0.84	0.64
1983	0.94	1.07	0.92	1.10	1.02	0.82	0.67

Table 18. Percentage Return on Equity
All Insured Commercial Banks
In Six Southeast States
By State

		States					
Year	All Banks	Ala.	Fla.	Ga.	La.	Miss.	Tenn.
1979	14.06	13.91	13.51	15.48	15.42	14.59	12.11
1980	14.51	13.50	14.83	15.46	15.63	14.79	12.36
1981	13.64	12.63	12.32	16.77	16.39	13.54	10.86
1982	13.27	12.63	13.63	15.23	15.57	11.36	9.24
1983	13.08	13.21	13.85	15.86	12.68	11.09	9.80

Table 19. Percentage Return on Assets
All Insured Commercial Banks
With Assets Below $25 Million

	By Percentile		
Year	75%	50%	25%
1979	1.57	1.23	0.93
1980	1.66	1.27	0.92
1981	1.70	1.26	0.86
1982	1.59	1.16	0.72
1983	1.51	1.07	0.58

Table 20. Percentage Return on Assets
All Insured Commercial Banks
With Assets of $25-$50 Million

	By Percentile		
Year	75%	50%	25%
1979	1.44	1.17	0.94
1980	1.53	1.21	0.92
1981	1.56	1.18	0.82
1982	1.54	1.17	0.80
1983	1.46	1.10	0.73

Distribution of Bank Profitability

The accompanying tables indicate that banks in general are less profitable than they have been in recent years and they indicate the bank size categories that have suffered the most. However, they provide no information on the distribution of profitability of banks within the size categories. For example, it may be that most banks have been unaffected by the changing environment, but that the most profitable banks are having problems maintaining their high returns. Such a loss of profitability at the most profitable banks would be bad news for their owners and managers, but it would pose no public policy problems. On the other hand, the decline could be concentrated in banks that already are least profitable. If the least profitable banks have been hardest hit, it raises the possibility of an increase in bank failures. An increase in the rate of failures would be important because the government must be concerned about a safe and sound banking system, and because the Federal Deposit Insurance Corporation (FDIC) insures at least the first $100,000 of most bank deposits.

One way of analyzing the distribution of bank profitability is to study the return on asset figures at various profitability percentiles. We chose to look at the profitability of banks at the 25th, 50th and 75th percentiles in return on assets. Twenty-five percent of the banks had profitability lower than the bank at the 25th percentile, half the banks had a return on assets lower than the bank at the 50th percentile and three-quarters had profitability lower than the bank at the 75th percentile. The ranking was done separately for each year so that some banks will shift to a different profitability ranges over the five years we analyze.[10]

An analysis of the return on assets of the six size groups at the 25th percentile, 50th percentile and 75th percentile indicates that the least profitable banks have suffered the greatest declines in profitability (Tables 19-24). The profitability of banks in the 75th percentile in 1983 generally is only slightly below their peak profitability over the 1979 to 1983 period (with the biggest exception being banks with assets below $25 million). Indeed, in several size categories the banks in the 75th percentile were more profitable in 1983 than they were in 1979.

Banks at the 50th percentile fared somewhat worse, but they also avoided large profitability declines (with banks with assets below $25 million again being the largest exception). The 50th percentile for banks with assets in excess of $50 million dropped only slightly between 1979 and 1983.

The year 1979, however, was the best year for banks at the 25th percentile, with profitability generally failing throughout the period. Most of the loss in profitability for the banks with assets below $25 million has come since 1981, most of the loss in profitability for banks with assets between $25 million and $1 billion came prior to 1981, and for banks above $1 billion the loss is evenly split between the two periods. The declines in profitability (as measured by the percentage point change in return on assets) over the period for banks in the 25th percentile is far more than it is for banks at the 50th or 75th percentile. Much of the decline in profitability is being borne by what were already the least profitable banks.

Table 21. Percentage Return on Assets
All Insured Commercial Banks
With Assets of $50-$100 Million

	By Percentile		
Year	75%	50%	25%
1979	1.34	1.10	0.89
1980	1.42	1.14	0.89
1981	1.44	1.09	0.76
1982	1.46	1.11	0.79
1983	1.40	1.08	0.75

Table 22. Percentage Return on Assets
All Insured Commercial Banks
With Assets $100-$500 Million

	By Percentile		
Year	75%	50%	25%
1979	1.20	0.99	0.80
1980	1.24	1.00	0.77
1981	1.29	0.97	0.67
1982	1.27	0.96	0.66
1983	1.25	0.96	0.66

Table 23. Percentage Return on Assets
All Insured Commercial Banks
With Assets of $500-$1000 Million

	By Percentile		
Year	75%	50%	25%
1979	1.06	0.85	0.67
1980	1.08	0.89	0.67
1981	1.10	0.86	0.57
1982	1.12	0.86	0.57
1983	1.08	0.83	0.58

Table 24. Percentage Return on Assets
All Insured Commercial Banks
With Assets of Over $1000 Million

	By Percentile		
Year	75%	50%	25%
1979	0.92	0.77	0.61
1980	0.92	0.73	0.56
1981	0.93	0.76	0.53
1982	0.92	0.75	0.49
1983	0.96	0.74	0.46

This does not necessarily imply that the government must do something to boost bank profitability. In particular, it does not imply that the Congressionally mandated deregulation of interest rates must be halted or reversed.

Deregulation has provided significant benefits to small savers, and it has kept money from flowing to money market mutual funds from banks. The problems may mean, however, that regulators will need to devote more resources to monitoring the condition of weak banks. Depositors also will need to watch the condition of weak banks more carefully, especially given the possibility that the FDIC will limit deposit insurance coverage to $100,000 per depositor.[11]

Conclusions

Commercial bank profitability fell across the nation and in the Southeast in 1983. The drop in profitability was due in part to increased loan losses and a narrowing of the gap between bank interest revenue and interest expenses.

Southeastern banks continued to outperform the rest of the nation in 1983, but the relative prosperity was distributed unevenly. Georgia banks enjoyed the highest adjusted net interest margins, return on assets and return on equity. Banks in Mississippi and Tennessee continued to suffer relatively low profitability levels.

Our analysis indicates that the most profitable banks have seen hardly any drop in their profitability since 1979. However, the least profitable banks have seen the greatest drop in profitability during the 1979 to 1983 period. Our analysis suggests that the regulators and public will want to watch troubled banks more carefully in the future.

—Larry D. Wall

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NOTES

[1]This article provides information on commercial bank profitability from 1979 to 1983. Comparable profitability figures going back to 1972 are presented in "Commerical Bank Profitability" in the July 1983 issue of this **Economic Review** (Wall 1983a). Some of the figures presented in the July 1983 article differ slightly from those presented in this study because revisions have been made in the Report of Condition and Income data filed by commercial banks with the three federal bank regulatory agencies.

[2]See the Appendix for an explanation of how these ratios were calculated. The adjusted net interest margin contains two important adjustments to an ordinary net interest margin: an adjustment for taxes saved on tax exempt securities and an adjustment for loan loss provisions.

[3]The 1981 results were unusually good, however, for banks with assets below $25 million, according to Wall (1983a).

[4]In this article the "Southeast" refers to the six states all or partially within the Sixth Federal Reserve District: Alabama, Florida, Georgia, Louisiana, Mississippi and Tennessee. The outlook for the economies of these states is reviewed in the February issue of this **Economic Review.**

[5]See the Appendix for a description of how each variable is calculated.

[6]Banks with assets in excess of $1 billion have long paid market rates of interest on a large portion of their funds, so they have been relatively less affected by deregulation.

[7]See Wall (1983a) for a discussion of the effect of deposit-rate deregulation on bank profitability in 1982.

[8]The increase in loan losses means that individuals who invest only in bank stocks face greater risks, but it is not obvious how the losses affect investors who own a diversified portfolio of stocks.

[9]The comparisons of southeastern banks with assets in excess of $1 billion with those of the rest of the nation are, however, somewhat inappropriate. The return figures for banks across the nation will be influenced significantly by the returns of the very large multinational banks that operate in worldwide markets. The return figures for the Southeast are for smaller banks that do most of their business in one region of the United States. Competition in fierce in the international markets and returns in these markets are often significantly lower than in regional markets in the United States.

[10]Bank rankings may change considerably from year to year but previous work by this author, reported in Wall (1983b), suggests the rankings are relatively stable through time. Wall (1983b), looked at the differences in bank profitability by quartile over the 10 year period from 1972 through 1981. He found that 114 banks that met his initial sample selection criteria were in the same quartile at least seven of the ten years in his sample period. He started with 358 banks that met his initial sample selection criteria.

[11]In some cases the FDIC arranges for a healthy bank to assume all of the deposits, including those above $100,000. The FDIC is has been experimenting with limiting the coverage of depositors in all failed banks to $100,000.

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APPENDIX

The data in this article were taken from the Reports of Condition and Income that insured commercial banks file with the Federal Reserve System. Data from the Reports of Condition have been modified at the Board of Governors to reflect bank mergers. The modifications attempt to match each bank's income with the assets used to produce that income. The pooling method of accounting combines the merged banks' income from the beginning of the year, whereas the purchase method combines their income as of the date of the merger. Therefore, for mergers that were accounted for using the pooling method, balance sheets are merged as of the beginning of the year if the merger took place during the first quarter of the year, June balance sheets are merged if the merger took place during any of the first three quarters of the year.

The three profitability measures used in this study are defined as follows:

$$\text{Adjusted Net Interest Margin} = \frac{\text{Expected Interest Rev.-Interest Exp.}}{\text{Average Interest Earning Assets}}$$

$$\text{Return on Assets} = \frac{\text{Net Income}}{\text{Average Assets}}$$

$$\text{Return on Equity} = \frac{\text{Net Income}}{\text{Average Stockholder Equity}}$$

Average interest earning assets and average stockholders' equity are the average of the beginning, middle and end-of-the-year balance sheet figures. The expected interest income component to net interest margin has two significant adjustments from ordinary interest income. One adjustment is that revenue from state and local securities exempt from federal income taxes is grossed up by the bank's marginal tax rate. This prevents banks from being penalized because they hold substantial portfolios of state and local securities to reduce their tax burden. The other adjustment is that loan losses are subtracted from interest income. This is done so that banks that make low-risk loans at low interest rates are placed on a more equal footing with those that make high-risk loans involving high interest income.