

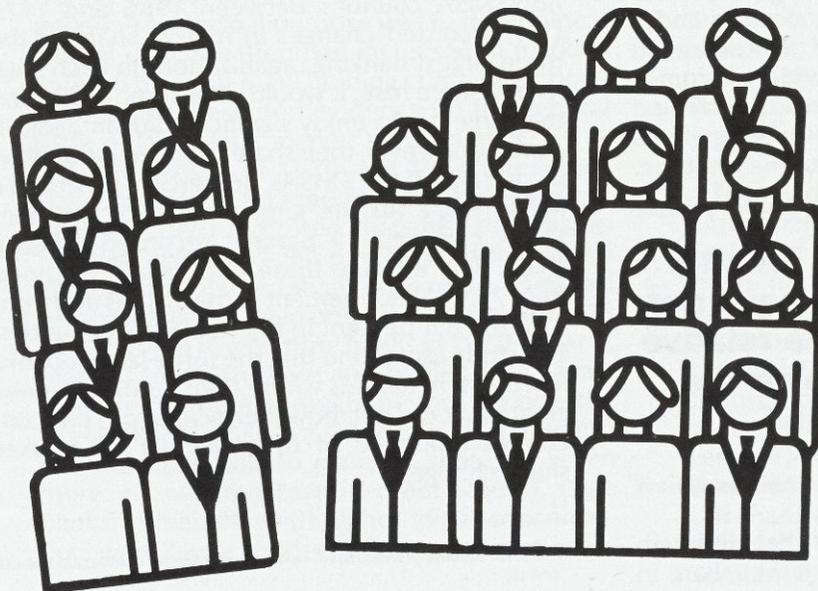
# Changes in Large Banks' Market Shares

**From 1974 through 1981, larger banks in the Southeast generally lost market share to smaller local competitors. Evidence strongly supports that conclusion for other areas of the country over the past 15 years.**

Several factors help determine the competitive position of individual banks. Size, risk assumed, management strategies, and past behavior are thought to play important roles. Studies of these factors allow us to assemble evidence on their impact to project how a particular type of bank will perform. An alternative way to study the impact of these factors, particularly size, is to observe how a certain group of banks performs in a total environment without isolating individual factors.

Evidence on bank operating costs and risk indicates that, above a relatively small size, commercial banks do not gain operating efficiency or reduce risk to any significant degree. Other factors that might give large banks significant competitive advantages, such as economies of scope, the ability to invest in innovations, the ability to ride out errors, the concern of regulators to keep them from failing, have received less study. Students of banking find it difficult to put together all the evidence to project or explain banks' market performance.

Banks, on the other hand, put all of these factors together in their markets every day. Operating costs, risk, regulatory compliance costs, innovation, regulatory attitudes and other factors influence each day's



operations. One way to determine whether larger banks enjoy significant competitive advantages in local markets is to study their market performance.

If larger banks have (and use) advantages over smaller banks, we would expect them to gain market share at the expense of smaller banks. Lower costs of operations, risk taking, and the ability to handle the expense of developing new products or to ride out errors would allow larger banks to offer lower prices or higher quality service than smaller competitors. If they did so, then customers would gravitate to them from their smaller competitors.

But studies indicate that personal and business customers are loyal to their financial institutions. Nevertheless, turnover in both business and consumer markets would allow banks using price or service advantages to gain business relative to their competitors over an extended period of time.

Evidence on the actual market performance of large and small institutions comes from recent direct studies of the subject and from another group of studies by economists interested in competition in local banking markets. These latter economists have performed several studies of changes in the market shares of larger banks in these markets. While these studies were not conducted specifically to test the relative performance of larger and smaller banks, the evidence presented in them is relevant.

Studies indicate that smaller institutions generally have not been at a disadvantage relative to large competitors over the past decade and a half. This seems true in all sizes of markets and in each geographic area studied. Evidence comes from a variety of empirical work already published and is confirmed by new work on banking markets in the Southeast presented here for the first time.

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Our new evidence also indicates that, although large banks generally have lost market share in

local markets, they have not been losing local market share because outside institutions are taking business away from them rather than from smaller banks. Nor do they seem to be losing share because they are refraining from using their competitive advantages so as to keep prices and profits high.

### **Studies of the Performance of Small Institutions**

Two recent studies of the performance of small financial institutions (11) (12) during 1978-1980 found no evidence that smaller institutions are not viable competitors. Both studies deal with institutions in Standard Metropolitan Statistical Areas (SMSAs); one covers commercial banks, the other savings and loan associations. The authors of each compare performance of small firms with that of larger ones in the same economic environment. Although smaller banks and S&Ls report somewhat lower returns, they are also clearly less risky. The studies also find that, while there has been no difference in the growth rates of small and large S&Ls, smaller banks have grown faster than larger ones.<sup>1</sup>

### **Studies of Large Banks' Market Shares**

Another set of relevant studies looks at changes in the market shares of larger banks relative to their smaller competitors. The most comprehensive of these, covering 213 SMSAs and 233 large non-SMSA counties between 1966 and 1975 (16), recorded changes in market share of the three largest banking organizations in each area. If their share rose, it would offer some indication that large banks enjoy significant advantages. In general, however, their share declined rather than increased. Of the SMSAs, 86 percent recorded a falling share for the largest firms; of the non-SMSA counties, 79 percent recorded a falling share. The average three bank share declined from 75.8 to 69.3 percent in the SMSAs and from 81.2 to 78.4 percent in the non-SMSA counties. The study also found that the three largest banks lost most in markets where their 1966 share was greatest. It did not, however, screen out the concurrent influence of other factors on market share change.

<sup>1</sup>For older studies of this issue — which reach similar conclusions see (1) and (8).

Another national study of market structure changes covering a smaller sample of markets produced similar results. The Rhoades (9) study covered the 1966-1976 period and included only 152 SMSAs that had not had their boundaries changed during the period and a sample of 129 non-SMSA counties. Over the period and two subperiods, more than 80 percent of the SMSA markets showed declining in market shares for the largest three banks. In 71 percent of the county markets, the largest three banks also lost share.

Two regional studies - one from the Midwest and one from the Southeast - confirm the findings of the national studies. The most recent of these covers 53 SMSAs and 233 non-SMSA counties with more than three banking organizations in Illinois, Indiana, Iowa, Michigan and Wisconsin (2). This study covers smaller areas and more recent experience (1965-1979) than the national studies summarized above, but its conclusions are quite similar. Of the SMSAs, 85 percent recorded declines in the combined market share of the three largest banks; of the non-SMSA counties, only 53 percent recorded declining concentration. As in the national studies, concentration declined to a greater extent in areas with higher initial concentration.

Another regional study was carried on at the Federal Reserve Bank of Atlanta in 1976 (18) and is the springboard for new empirical evidence presented in the next section of this article. That study covered 98 banking markets in Alabama, Florida and Tennessee during the 1970-1974 period. Its principal purpose was to determine if market concentration had increased in markets entered by multi-bank holding companies; however, it also presented evidence on the general issue of large bank market performance.

A comparison of 1970 and 1974 three-bank concentration in 98 markets with three or more banks in 1970 indicated that the larger banks had lost share in 62 (63 percent) of the markets and only maintained share in 26 more. They had gained market share in only 10 markets. In the 75 markets with five or more banks in 1970—that is, markets in which there are smaller banks available to compete throughout the period—the largest three banks lost share in 59 (79 percent) and managed only to maintain shares in seven more. As was the case in other studies, large banks in markets with higher initial concentration were likely to lose a greater market share (7).

**Table 1.** Concentration Change, Markets with Five Banks or More in June, 1981

State	Total	Number of Markets		with Increase	
		with Decrease	Percent	Number	Percent
Alabama	29	19	65.5	10	34.5
Florida	29	24	82.8	5	17.2
Georgia	13	9	69.2	4	30.8
Tennessee	14	12	85.7	2	14.3
Total	85	64	75.3	21	24.7

### Recent Evidence from the Southeast

Our latest study adds both markets and time to evidence from Alabama, Florida and Tennessee. It covers the period from 1974 to 1981 and includes markets from Georgia as well as the three states covered previously. Eighty-four markets with five banking organizations or more are included. The market areas are those used by the Board of Governors of the Federal Reserve System in decisions on bank holding company acquisitions and bank mergers. They are defined on the basis of study of banking patterns in local areas and are updated on the basis of changing local conditions (15 and 17).

The study excludes eight markets for which the market definition was changed after 1974. Each of these markets was redefined during the study period to include an expanded geographic area. This in itself resulted in a decline in the market share held by the largest banks. The markets were excluded to avoid any bias toward a general conclusion that large bank market shares were declining.

The evidence from Sixth District markets is summarized in Table 1 and 2. The three largest banks lost market share in over three quarters of these markets, losing in each state and in markets of all sizes. The average share held by the three largest banks declined from 76.8 percent in 1974 to 72.2 percent in 1981—a drop of almost 6 percent. As Table 2 indicates, the three largest banks' share declined by almost 9 percent in Florida markets but by only 1.2 percent in Georgia markets.

If changes in bank operations and competition during the 1970s have changed large banks' performance, results of this most recent study

**Table 2.** Concentration Change, Markets with Five Banks or More

State	Average Concentration		Change 1974-1981		Average Percent Per Market
	1974	1981	In Average	Percent in Average	
Alabama	.759	.727	-.032	-4.217	-3.758
Florida	.768	.699	-.069	-8.984	-8.686
Georgia	.804	.794	-.010	-1.244	-1.184
Tennessee	.757	.694	-.063	-8.322	-8.138
Total	.768	.722	-.046	-5.989	5.732

should be expected to differ from previous results. Yet results are quite similar to previous studies.

### Explanations for Large Banks' Losses

Even if larger banks have lost market share, it does not show conclusively that they have suffered competitive disadvantages. At least two alternative explanations are possible. First, outside competitors may be taking more business from larger banks than from smaller ones. Non-local and non-bank competitors are not included in measures of local market size and share because data on their local business generally is not available. Consequently, large banks may appear to lose share to small ones when they are losing to non-local and non-bank competitors. Second, one may argue that large banks refrain from capitalizing on their advantages to charge lower prices, pay more for deposits or provide higher quality services in order to gain higher profits. If this were so, one might find these banks retaining or losing their market share rather than gaining.

We tested for these two alternative explanations and found that neither holds up well. If nonbank and nonlocal competitors have entered markets and taken business away from larger banks we would expect their entry to have its greatest impact in the most attractive markets. Multivariate tests of the determinants of changes in large banks' shares indicate that neither market size nor market growth—two indicators of a market's attractiveness—was related to the decline in large bank shares in southeastern markets. (See the Appendix for an explanation of the tests.)

The consistency of the study results also implies that competitors from outside the banking industry and local markets have not differentially affected large bank shares. Markets of all sizes have shown a decline in large banks' share over all time periods since 1965. Yet rapid expansion of nonlocal and nonbank competition has been rather recent. Had this expansion caused large banks to lose more local market share, declining shares would have shown up in later studies. This has not been the case.

Evidence does not entirely rule out the possibility that large banks refrained from using their advantages in order to earn greater profits. However, no supporting evidence has been found in Southeast markets. In three of the other studies, tabular analysis indicated that the three largest banks lost the highest share in markets where they had held the highest initial share. This type of market performance supports one reason advanced for the ability of smaller banks to compete with larger ones. Large banks may refrain from exploiting some of their competitive advantages if they are able to earn long-run profits by doing so. Three previous studies of concentration change indicate that small banks gain more ground when large banks hold a greater market share—that is, when they have more incentive to charge higher prices and/or provide less quality. The other studies did not, however, account for other factors that also might have influenced large banks' share. Our study tested a more detailed multivariate model and found no relationship between changes in large banks' share and the level of their share (see Appendix.)

Our tests indicate that large banks probably have lost market share in local markets because they have been at a competitive disadvantage of

some sort. Neither differential effects of outside and nonbank competitors nor large banks' reluctance to use advantages seem to explain their loss of market share. A final element of the multivariate model gives a clue to the identity of the banks that gained from large bank losses and suggests at least one dimension of large bank disadvantages. Our tests found that the entry of new banks into local markets was closely related to large banks' loss of market share. The introduction of new banks was followed by greater market share loss for large banks. This finding is consistent with results of a studies of *de novo* entry by Rose and Savage (13 and 14). They found that new banks whether independent or

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started by bank holding companies made significant contributions to decreasing concentration of local market deposits in larger banks.

That new banks should gain market share seems reasonable for several reasons. Their

organizers would not start them nor would regulators approve them without considerable confidence that they would attract profitable business, that is, gain market share. In addition, new banks are often organized by investors who do substantial banking themselves and who move their business to the new institution. Finally, most new banks in larger markets have opened in suburban areas that grow more quickly than the downtown areas that are headquarters of larger banks.

An interesting extension of this study would be an examination of the market shares of smaller banks that existed in local markets at the beginning of our study period. Did they also lose share to new banks or did they also gain share at the expense of larger banks?

Studies reported here consistently indicate that in the recent past smaller banks have performed at better than par with larger ones in local markets. The smaller banks have been about as profitable (when profits are adjusted for risk) and have generally gained market share. Attributing this phenomenon to mismeasurement of market share and noncompetitive behavior of large banks does not seem to fit. It seems more likely that larger banks have been at a competitive disadvantage in relation to smaller banks in some basic product lines. 

—B. Frank King

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**APPENDIX**

To provide some evidence on the relationship of market power of the largest banks to changes in their shares, we developed and tested a model of concentration change. It follows the development in Working Papers previously published by the Federal Reserve Bank of Atlanta (6 and 7).

As explained in the text, large bank forbearance might be thought to result from use of market power even though large banks were more efficient. One would expect such forbearance to be more likely the larger the large banks' market share. Thus one feature of the model is market share of the market's three largest banks measured in the beginning year, 1974.

Market growth may also influence large banks' share in two ways. First, by providing new business opportunities and attracting migration, growth brings in bank customers not previously attached to a local bank. Second, growth may attract new bank competitors that apparently take market share from large banks. (See 6) Market growth has two dimensions in this case: the percentage change in market size and the absolute change in size. In order to capture both aspects, variables for percentage change in market deposits and for total market deposits were used.

We would also expect large banks' market share to be influenced over time by changes in the number of firms competing in the market. Additional firms would be expected to enter only if they could take market share from larger firms; exiting firms would give larger firms an opportunity to increase their share.

Bank holding company activity has also been discussed as an influence on concentration (See (5) and the next article in this **Review**, for summary of the evidence.) Evidence of holding company effects is mixed. A majority of studies find no bank holding company

effect, but some studies find multi-bank holding companies both increasing and decreasing concentration of business in larger banks. A variable to measure the change in the number of multibank holding companies operating in each market was included in the model.

These variables were regressed against the percentage change in concentration in the local markets used in this study. The table below gives the results of this multiple linear regression.

Only one factor was closely related to changes in the market shares of the three largest banks. That was the change in the number of organizations competing in the market. Greater increases in the number of competitors—greater entry—were associated with greater declines in large bank shares. Market growth, size, concentration and bank holding company activity were not significantly related to concentration change.<sup>1</sup>

The equation explained almost 30 percent of concentration change, and the relationship was highly significant. This level of explanation is quite satisfactory in view of the slowness with which changing market conditions appear to be felt in market structure.



<sup>1</sup>We considered the possibility that change in the number of competitors and market growth might be closely related, causing problems related to multicollinearity. Percentage market growth and market size explained less than 7 percent of the change in the number of competitors in markets in this sample. In addition exclusion of the market growth variable from the model had only minor influence on other coefficients. Both facts indicate minimal multicollinearity. See (3).

**Appendix Table** Concentration Change Model: Regression Results

Variable	Regression Coefficient	Standard Error	t
Deposit growth 1974-81 (percent, annual average)	-.213	.182	-1.169
Deposits 1974 (billion \$)	-1.435	1.039	-1.380
Three organization concentration, 1974	.184	6.661	.027
Change in number of competing organizations, 1974-1981 (percent)	-.184	.036	-5.009 <sup>a</sup>
Change in number of multibank holding companies represented, 1974-1981	.245	1.039	.360
Constant	-.882	5.273	-.167

Dependent variable: Change in three-organization concentration, 1974-1981 (percent)

R<sup>2</sup> = .251<sup>a</sup>

<sup>a</sup>Differs from 0 at .01 level.