District trends in banking concentration

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It is widely assumed that banking markets have become progressively more concentrated over time. Statements to that effect appear frequently in the financial press and in testimony regarding prospective changes in banking laws. For states in the Seventh District, however, the evidence does not appear to support such an assertion. In part, this reflects the fact that the federal bank regulatory agencies, acting under the Bank Holding Company Act of 1956 and the Bank Merger Act of 1960, have refused to approve acquisitions that would result in substantial increases in concentration. Since the revisions of these acts in 1966, the competitive standards have essentially been those of sections 1 and 2 of the Sherman Antitrust Act and section 7 of the Clayton Antitrust Act. This article reviews the changes in banking concentration in Standard Metropolitan Statistical Areas (SMSAs) and non-SMSA counties in Seventh District states during the period 1965-79.

Banking concentration in SMSAs

Measures of concentration for banking indicate that most of the SMSAs in Seventh District states became more competitively structured from the end of 1965 to the end of 1979. That is to say, to the extent that an SMSA serves as a legitimate proxy for a local metropolitan or urban banking market, such markets in the Seventh District appear to have become more competitive since 1965. Thus, as shown in table 1, the number of banking organizations increased in 24 SMSAs, remained constant in 12, and decreased in 18. Furthermore, of the 30 SMSAs experiencing no change or a decrease in the number of banking organizations, 23 SMSAs showed a decline in the three-firm concentration ratio and 22 SMSAs showed a decrease in the Herfindahl index. Thus, even where the number of banking organizations did not increase, market shares of the firms became more equal and dominance by larger firms declined.

Over the 14-year period, a review of the measures of concentration at five-year intervals indicates that improvements in competitive structure were generally greater between 1970 and 1975 than in the earlier or later periods. Thus, 25 of the 54 SMSAs experienced increases in the number of banking organizations during this middle period compared with 17 in the prior five years and 15 in the subsequent four-year period. Similarly, both the three-firm concentration ratio and the Herfindahl index declined in more SMSAs in the middle period than in the other two periods.

Not only were procompetitive changes in market structure widespread among the SMSAs during this period, but the magnitudes of the changes in the measures of concentration were significant. For the average SMSA the three-firm concentration ratio declined .044 (or 6.7 percent) and the Herfindahl index was down .033 (or 14.1 percent) as shown in table 2.

Trends in non-SMSA counties

Fewer changes towards a more competitive structure occurred in non-SMSA counties in Seventh District states than in SMSAs between 1965 and 1979. As indicated in table 3, only 21 percent of the 334 non-SMSA counties showed an increase in the number of banking organizations compared with 44 percent of the SMSAs. There were no changes in

Table 1

Number of SMSAs in District states, by changes in concentration and number of banking organizations, 1965-79[a]

Area / Change in number of banking organizations	Total	Three-firm concentration ratio: Increase	Three-firm concentration ratio: Decrease	Herfindahl index: Increase	Herfindahl index: Decrease
Seventh District states					
Increase	24	2	22	0	24
No change	12	1	10[b]	3	9
Decrease	18	5	13	5	13
Illinois					
Increase	9	—	9	—	9
No change	—	—	—	—	—
Decrease	—	—	—	—	—
Indiana					
Increase	4	1	3	—	4
No change	4	1	3	1	3
Decrease	6	2	4	2	4
Iowa					
Increase	3	—	3	—	3
No change	4	—	4	1	3
Decrease	1	—	1	—	1
Michigan					
Increase	2	—	2	—	2
No change	3	—	2[b]	1	2
Decrease	7	1	6	—	7
Wisconsin					
Increase	6	1	5	—	6
No change	1	—	1	—	1
Decrease	4	2	2	3	1
TOTAL SMSAs	**54**	**8**	**45[b]**	**8**	**46**

[a]Davenport-Rock Island-Moline SMSA is included in Iowa results; only the portion of the SMSA in a Seventh District state is included; SMSAs defined as of December 31, 1979.

[b]The three-firm concentration ratio for an SMSA with three banking organizations remained at 1.000.

Table 2

Average concentration changes in SMSAs in District states, 1965-79

Area	Three-firm concentration ratio 1965	1979	Change	Herfindahl index 1965	1979	Change
Seventh District states						
Average	.718	.674	- .044	.241	.208	- .033
Percent[a]			- 6.7			-14.1
Illinois						
Average	.582	.491	- .091	.150	.109	- .041
Percent[a]			-16.5			-27.4
Indiana						
Average	.746	.724	- .022	.242	.225	- .017
Percent[a]			- 3.3			- 9.9
Iowa						
Average	.703	.655	- .048	.208	.184	- .024
Percent[a]			- 7.2			-11.8
Michigan						
Average	.864	.818	- .046	.381	.315	- .066
Percent[a]			- 5.7			-18.0
Wisconsin						
Average	.644	.614	- .030	.185	.169	- .016
Percent[a]			- 3.9			- 5.9

[a]Average of percent changes for individual SMSAs.

the number of banking organizations in the majority of counties and there were declines in one-sixth.

Furthermore, there was less tendency for the market shares of banking organizations to become more equal in the non-SMSA counties than in the SMSAs. Generally, an increase in the number of banking organizations was associated with a decrease in the three-firm concentration ratio and Herfindahl index in both groups of local areas. However, 77 percent of the SMSAs experiencing no change or a decrease in the number of banking organizations showed declines in the three-firm concentration ratio and 73 percent showed declines in the Herfindahl index. These figures compare with only 28 and 46 percent, respectively, of the 263 non-SMSA counties experiencing no change or a decrease in the number of banking organizations.

Initial level of concentration

While banking concentration declined in the majority of the local areas in the Seventh District between 1965 and 1979, declines generally occurred more frequently in those areas with a higher initial level of concentration in 1965. Furthermore, the declines show up more consistently in the Herfindahl index than in the three-firm concentration ratio, an indication of the importance of taking into

Table 3

Non-SMSA counties in District states, by changes in concentration and number of banking organizations, 1965-79[a]

Area / Change in number of banking organizations	Total	Three-firm concentration ratio: Increase	No change[b]	Decrease	Herfindahl index: Increase	No change[c]	Decrease
Seventh District states							
Increase	71	8	13	50	5	2	64
No change	209	60	84	65	83	13	113
Decrease	54	42	4	8	46	—	8
Illinois							
Increase	27	4	1	22	2	1	24
No change	49	17	17	15	22	1	26
Decrease	3	1	—	2	1	—	2
Indiana							
Increase	7	—	2	5	—	—	7
No change	38	6	18	14	11	3	24
Decrease	13	8	2	3	11	—	2
Iowa							
Increase	16	2	3	11	1	1	14
No change	55	25	10	20	28	—	27
Decrease	19	18	—	1	16	—	3
Michigan							
Increase	8	1	3	4	1	—	7
No change	33	1	24	8	8	6	19
Decrease	12	10	2	—	12	—	—
Wisconsin							
Increase	13	1	4	8	1	—	12
No change	34	11	15	8	14	3	17
Decrease	7	5	—	2	6	—	1
TOTAL COUNTIES	334	110	101	123	134	15	185

[a]SMSAs defined as of December 31, 1979.
[b]Non-SMSA counties with three or fewer banking organizations in 1965 and 1979.
[c]Non-SMSA counties with one banking organization or no change.

account the market shares of all banking organizations.

As shown in table 4, between 1965 and 1979 the Herfindahl index declined in 92 percent of the SMSAs with an initial Herfindahl index of .30 or more in 1965 but in only 75 percent of the SMSAs with an initial Herfindahl index of under .10. Even among the non-SMSA counties where the trend toward lower levels of concentration was less pronounced than in the SMSAs, counties with higher initial levels of concentration were more apt to experience a decrease in concentration between 1965 and 1979. By 1979 the Herfindahl index had declined in 68 percent of the non-SMSA counties with an index of .40 or more in 1965, compared with 49 percent of the counties with an index of under .20.

Table 4

Number of SMSAs and non-SMSA counties in District states, by initial level of concentration and change in concentration, 1965-79

Three-firm concentration ratio in 1965	SMSAs			
	With increase		With decrease	
(percent)	Number	Percent	Number	Percent
Over 80	3	20	12	80
60 to 80	2	8	23	92
Under 60	3	23	10	77
Total[a]	**8**	**15**	**45**	**85**
Herfindahl index in 1965				
(index)				
Over .30	1	8	12	92
.10 to .30	6	16	31	84
Under .10	1	25	3	75
Total	**8**	**15**	**46**	**85**

Three-firm concentration ratio in 1965	Non-SMSA counties			
	With increase		With decrease	
(percent)	Number	Percent	Number	Percent
Over 90	13	38	21	62
70 to 90	43	43	57	57
50 to 70	45	55	37	45
Under 50	9	53	8	47
Total[b]	**110**	**47**	**123**	**53**
Herfindahl index in 1965				
(index)				
Over .40	22	32	46	68
.20 to .40	66	41	95	59
Under .20	46	51	44	49
Total[c]	**134**	**42**	**185**	**58**

[a]An SMSA with three banks had no change.

[b]Excludes 101 non-SMSA counties with three or fewer banking organizations in 1965 and 1979.

[c]Excludes 14 non-SMSA counties with one banking organization and no change between 1965 and 1979 and one with no change.

Multibank holding company activity

A multibank holding company is a corporation controlling two or more banks. The formation or expansion of multibank holding companies in the three Seventh District states that permit them—Iowa, Michigan, and Wisconsin—appears to have had only a limited effect on trends in concentration in local areas. By the end of 1979, multibank holding companies owned two or more banks in 13 of the 31 SMSAs and 11 of the 197 non-SMSA counties with banks in these three states. Over the 14-year period, the Herfindahl index increased in only two of the 13 SMSAs and five of the 11 non-SMSA counties.

The fact that the multibank holding company activity has not led to increased concentration in most local areas is probably the result of Federal Reserve regulation of such activity. Proposals for acquisitions that involve the elimination of substantial existing competition in a local banking market are generally denied by the Federal Reserve Board in conformity with the Bank Holding Company Act. Not only actual denials, but the high probability that anticompetitive proposals will be denied, have served to limit expansion of multibank holding companies in those local areas where they are already present.

The measures of concentration reported above did not consider chain banking relationships, which are usually defined as the control of two or more commercial banks by the same individual or group of individuals. The complete extent of the chain effect is difficult to measure. Previous research has shown that, among the Seventh District states, chain banking is most pervasive in Illinois and appears to be a direct substitute for multibank holding companies and branching.[1] Until recently, such chain banking arrangements were largely unregulated and, as a consequence, tended to increase concentration in local areas. The Change in Bank Control Act of 1978 requires that the competitive effects of all proposed acquisitions of control of insured banks be evaluated by the appropriate federal banking agency. It is expected that this prior approval requirement will restrain growth of chain banking arrangements within local areas where they already exist.

Effects of branching

A comparison of levels and trends in concentration indicates that differences in branching laws have probably been the most important determinant of local area banking structure in Seventh District states. Commercial banks in Illinois are not permitted to branch although, since August 16, 1976, they have been permitted to establish at most two limited-service facilities, the most distant of which must be within 3,500 yards of the main office. As shown in table 2, average concentration in SMSAs, as measured by both the three-firm concentration ratio and the Herfindahl index, was lower in Illinois than in any of the other Seventh District states in 1965. By contrast, in SMSAs in Michigan, which permits branching within the same county or within 25 miles of the home office, both the average three-firm concentration ratio and the average Herfindahl index were higher in 1965 than in any other Seventh District state. The other states—Indiana, Iowa, and Wisconsin—whose branching laws are more restrictive than those of Michigan but less restrictive than those of Illinois, had average SMSA concentration levels between these two extremes.[2]

Between 1965 and 1979 the average concentration measures for SMSAs in all five states declined, and the ranks of the states by average level of concentration remained the

[1]See Joseph T. Keating, "Chain banking in the District," *Economic Perspectives*, Federal Reserve Bank of Chicago (September/October 1977), pp. 15-20.

[2]Deposit totals for each SMSA and county are based on each institution's total deposits according to the location of the home office. This methodology may tend to bias the measures of concentration upward in those Seventh District states (Iowa, Michigan, and Wisconsin) that permit offices to be established in more than one county. However, distance limits, branching restrictions, and home office protection laws reduce the extent of this bias.

same. Despite the general tendency for measures of concentration in local areas to decline more when the initial level of concentration is high, the decline in Illinois relative to the other states exceeded expectations. On the other hand, the decline in Michigan appears to have been less than would have been expected.

In both states, differences in branching laws appear to have affected the declines in concentration. In Illinois, because of the restrictions on branches, opening new banks was the only way to provide new banking offices, and mergers were rare because the office of the merged bank generally could not be retained as a facility of the consolidated bank.[3] In Michigan, the opposite was generally true. Between 1965 and 1979, 252 banks were established de novo in Illinois compared with 65 in Michigan. During the same period only 17 mergers occurred in Illinois compared with 46 in Michigan.[4]

[3]Bank mergers do occur in Illinois. However, mergers where the office of one bank might be operated as a facility of the consolidated bank frequently cannot gain regulatory approval because, in most local markets, banks located within 3,500 yards of one another would be considered direct competitors.

Summary

Local area concentration in Seventh District states, based on an analysis of SMSAs and non-SMSA counties, generally declined between 1965 and 1979. The decline was more pronounced in SMSAs than in non-SMSA counties. Decreases in concentration generally occurred more frequently in those areas with a higher initial level of concentration. Multibank holding company activity has had little effect on concentration in local areas, probably because the requirement for prior regulatory approval has inhibited the acquisition of competitors in local markets.

Differences in branching laws between Seventh District states appear to have been the major factor in creating variations in local area concentration. Illinois, with the most restrictive branching law among the five states, has the lowest levels of local area concentration. Michigan, with the most lenient branching laws in the Seventh District, but with branches still limited to a maximum distance from the home office, has the highest levels of concentration.

[4]*Changes Among Operating Banks and Branches*, FDIC, various years.