Looking for Evidence of Noncompetitive Behavior in Minnesota's Banking Industry

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Policy makers should consider allowing more freedom in Minnesota's banking industry. To assure consumers convenient and innovative banking services and to let banks compete as other financial firms already can, policy makers should loosen restrictions on new types of banking facilities, branch banking, and holding company affiliations. To further increase competition and possibly decrease the prices of bank services, they should also consider letting banks from other states locate in Minnesota.

These recommendations are based on our study of competition in Minnesota's banking industry. It suggests that even though two large multibank holding companies (MBHCs) hold about half the state's bank deposits the industry is competitive, so current government restrictions may not be necessary.

In banking as in other industries, the public is usually best served when firms are free to compete without government intervention. As firms individually try to maximize their profits, the industry as a whole provides the goods and services consumers want at the least cost. When a few firms hold a large share of the market, however, an industry could easily not be competitive. Since they're so large, the firms may not need to compete; together they could set their own high prices and offer few services in order to increase their profits.

The government has a role in any industry with the potential for this kind of noncompetitive behavior, but how much it needs to do is hard to determine. Its role could range from just monitoring prices and the availability of goods and services to explicitly limiting the size and activities of the firms. Although economic theory provides little guidance here, obviously government involvement should be more restrictive if noncompetitive behavior is detected and less if only the potential exists.

The government has restricted Minnesota's banking industry quite a bit without evidence of such behavior. The potential clearly exists here—together First Bank System and Northwest Bancorporation hold about half of the state's bank deposits—so some government involvement is needed. Without evidence of noncompetitive behavior by these two firms, though, policy makers have been limiting their activities and in some ways the activities of all banks. The Board of Governors of the Federal Reserve System, for example, has been reluctant to let the two MBHCs acquire more banks. And the state of Minnesota has prohibited all banks from branching and severely limited the type and location of other facilities they may offer. (See box on page 7.)

This much government intervention may have been necessary if the industry was not competitive. But policy makers had no evidence of that before they restricted Minnesota's banks. Have affiliates of the two large MBHCs actually been earning a greater return than other banks by charging higher prices and offering fewer services?

Let's look at the evidence.

A Look at Profits[1]

Past studies of bank performance have looked at bank profits more than other measures because data

[1]Part of an as yet unpublished study of the profitability of Minnesota banks by David S. Dahl, Research Department, Federal Reserve Bank of Minneapolis, Minnesota, 1977.

which can be used to measure profitability are collected regularly by federal agencies. Generally, "profitability" is the measure of a firm's return on capital. In banking studies it is usually measured by the ratio of net income to bank equity. Net income is total revenue less all operating expenses, security gains and losses, and taxes; bank equity is simply assets less liabilities.

But some have argued against the net income to equity ratio as a good measure of profitability. One study, for example, showed that the federal tax on corporate income considerably alters the relationship between the size and net income of commercial banks so income before taxes should be used.[2] Others have questioned whether equity is as meaningful in banking as in other industries and have suggested total assets as a more appropriate measure.[3]

Our purpose here is to compare the profitability of affiliates of Minnesota's two large MBHCs to that of other Minnesota banks, not evaluate the relative merits of profitability measures. To take these criticisms into account, however, we examine four measures of profitability: net income to equity and income before taxes to equity, net income to total assets, and income before taxes to total assets. In order to test the consistency of our results, we make these comparisons for five consecutive years (1971 through 1975).[4]

But simply comparing affiliates of the two large MBHCs to other banks may be misleading. Previous profitability studies suggest that size, location in rural or urban areas, and location in counties with or without affiliates may affect the profitability of a bank. So besides comparing all affiliates to all other banks, we make several other comparisons based on size and location.

Our results are clear: on average, affiliates of the two large MBHCs have been more profitable than other banks.[5]

Table 1 shows our results for the net income to equity measure of profitability. (The results for the other measures are substantially the same; they are not reported but are available upon request.) On average, affiliates of the two large MBHCs have had much higher profit rates than all others.[6] Banks which do not compete locally with affiliates of the two have been slightly more profitable than nonaffiliate banks in affiliate counties, but they have still been considerably less profitable than affiliate banks.

When classified by urban and rural location and then by size, affiliate banks have still been more profitable. This is true in urban areas both when the affiliates are compared to all other banks and when other banks are divided by counties with and without affiliates. With some minor exceptions, the result holds regardless of size.

The rural comparisons appear to have more significant exceptions. Although the results hold between all rural affiliates of the two large MBHCs and all other rural banks, large rural banks in counties without affiliates seem to have been much more profitable than any other banks in rural counties with affiliates—including the affiliates. Since the group of nonaffiliate large rural banks is very small, however, this does not seriously weaken the evidence that affiliates of the two large MBHCs have on average been more profitable than other banks in Minnesota.[7]

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[2]Lyle E. Gramley, *A Study of Scale Economies in Commercial Banking* (Federal Reserve Bank of Kansas City, Missouri, 1962), p. 36.

[3]Administrator of National Banks, *Studies in Banking Competition and the Banking Structure* (Washington, D.C., 1966), p. 161.

[4]The study included all insured commercial banks in Minnesota. Profitability measures were calculated from semiannual Reports of Condition and annual Reports of Income filed with federal regulatory agencies. Total assets and equity for each year were calculated by averaging the amounts on the reports for December of the preceding year and June and December of the current year.

[5]Some nonaffiliate banks have been more profitable than affiliate banks, but the average of all affiliates' profit rates is consistently higher than the average of other banks'.

[6]The profitability of banks not affiliated with the two large MBHCs could be understated because to minimize taxes stockholder-officers of family controlled or closely held banks could be realizing bank profits as higher salaries instead of as dividends. This may help explain the difference we find between small affiliate and nonaffiliate banks because small nonaffiliates are those most likely to be family controlled. But that difference could also be explained by the greater benefits of affiliation for smaller banks. And this kind of profit-understatement cannot explain the difference between large banks.

[7]Two other studies have specifically compared the profitability of Minnesota's MBHCs to other banks. Both used the net income to equity measure, and both got the same results. Carter H. Golembe Associates, using data for just one year (1968), compared the profitability of affiliates of all MBHCs to that of all banks in Minnesota—in the aggregate and broken down by deposit size. Francis M. Boddy, using data for two years (1972 and 1975), compared banks by counties with and without affiliates as

Table 1

Profitability of Banks Affiliated with Minnesota's Two Largest MBHCs and All Other Minnesota Banks, 1971-75

	Average Net Income to Equity Ratios				Number of Banks			
	Affiliates of Two Large MBHCs	All Other Banks	All Other Banks in Counties With Affiliates	All Other Banks in Counties Without Affiliates	Affiliates of Two Large MBHCs	All Other Banks	All Other Banks in Counties With Affiliates	All Other Banks in Counties Without Affiliates
All insured commercial banks								
1971	12.6%	9.2%	8.8%	9.9%	96	626	380	246
1972	12.3	8.7	8.4	9.2	97	631	389	242
1973	12.2	10.3	9.9	10.8	98	636	403	233
1974	12.5	11.3	11.0	11.8	98	639	415	224
1975	11.9	10.5	10.3	11.0	98	645	419	226
All urban banks[1]								
1971	11.8%	8.0%	7.7%	9.8%	45	124	106	18
1972	11.9	7.7	7.4	9.6	45	127	109	18
1973	10.9	9.2	9.2	9.0	46	130	121	9
1974	10.1	9.5	9.5	—	46	133	133	0
1975	10.2	8.8	8.8	—	46	137	137	0
Small urban[2]								
1971	11.6	7.5	7.1	9.9	11	110	94	16
1972	11.4	7.4	7.0	9.4	10	112	96	16
1973	10.4	9.0	9.1	8.6	12	113	105	8
1974	9.4	9.5	9.5	—	11	116	116	0
1975	9.4	8.5	8.5	—	10	115	115	0
Large urban								
1971	11.9	11.6	12.0	8.9	34	14	12	2
1972	12.0	9.9	9.7	11.4	35	15	13	2
1973	11.0	9.9	9.8	11.8	34	17	16	1
1974	10.3	9.0	9.0	—	35	17	17	0
1975	10.5	10.1	10.1	—	36	22	22	0
All rural banks								
1971	13.3%	9.6%	9.3%	9.9%	51	502	274	228
1972	12.7	9.0	8.8	9.2	52	504	280	224
1973	13.3	10.5	10.3	10.9	52	506	282	224
1974	14.7	11.7	11.7	11.8	52	506	282	224
1975	13.3	11.0	11.0	11.0	52	508	282	226
Small rural								
1971	13.4	9.5	9.2	9.9	40	496	268	228
1972	12.7	9.0	8.8	9.2	40	497	273	224
1973	13.5	10.5	10.2	10.9	33	494	272	222
1974	15.5	11.8	11.8	11.8	31	490	268	222
1975	13.9	11.0	11.0	10.9	29	482	261	221
Large rural								
1971	13.1	10.6	10.6	—	11	6	6	0
1972	12.8	8.6	8.6	—	12	7	7	0
1973	12.9	11.5	10.6	16.3	19	12	10	2
1974	13.5	11.2	10.7	14.6	21	16	14	2
1975	12.5	11.8	11.5	13.4	23	26	21	5

[1] "Urban" banks are those in counties with standard metropolitan statistical areas: Anoka, Carver, Clay, Dakota, Hennepin, Olmsted, Ramsey, St. Louis, Scott, and Washington counties. All other banks are "rural."

[2] "Small" banks are those with deposits less than $25 million; all other banks are "large."

Sources: Federal bank regulatory agencies

The profit data alone therefore do seem to indicate that Minnesota's banking industry has not been competitive. But before drawing this conclusion, we must look at the most direct measures of noncompetitive behavior—prices and services—where these profits are supposed to be coming from.

The Best Evidence: Prices and Services[8]

Most past studies of bank performance have not included bank prices (such as interest rates and service charges) or the availability of services because good data have simply not existed. Governmental agencies have not been collecting them regularly, as they have data on profitability. To study prices, researchers had to construct rough measures from bank income statements and balance sheets.[9] These price estimates are questionable because they do not take into account factors like quality, maturity, and transaction costs which vary with the many different kinds of loans and deposits banks offer. Researchers have not even had rough measures of the availability of banking services.

To look for reliable evidence that MBHC affiliates are charging higher prices and offering fewer services than other banks, we use prices and services reported directly by banks to the Federal Reserve Bank of Minneapolis in a 1975 survey.[10] These data are still somewhat limited in that they represent only one date and only a sample of rural banks[11] and they do not include some important bank services such as business loans. But the data are the best ever available to evaluate this question. Besides being explicit quotes from banks, they include many more prices than have ever been reported and service information never before examined.

Using these data we first compare rural banks affiliated with Minnesota's two large MBHCs to other rural Minnesota banks. Table 2 shows the results of this comparison: on average, affiliates of Minnesota's two large MBHCs have not been charging higher prices or offering fewer services than other banks. Actually, affiliate banks have charged lower interest rates for some loans, offered higher rates on some deposits, and provided more services than other banks. When tested statistically, however, most of the differences between affiliates and other banks are so small they are not statistically significant. And of those that are significant, the higher prices or fewer services are evenly divided between the two groups of banks.

If affiliates were not competing, though, this comparison may not reveal it. The average prices charged by other banks may be close to those of affiliates because they include prices of banks located in markets where affiliate banks are setting high prices for all banks in the market. We therefore also compare banks in counties with affiliates to those in counties without them.

The results, shown in Table 3, are generally the same. On average, banks in affiliate counties have offered a mixture of lower and higher prices and more and fewer services than other banks. Again, most of the differences are small. This time only one is statistically significant, and it favors banks in affiliate counties.

Still, if the market for banking services were really the state rather than the county, the two large

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well as by deposit size, and separated MBHC banks into affiliates of the two largest and others. The studies' results agreed: Golembe found affiliates of MBHCs clearly more profitable than all banks, and Boddy found affiliates of the two largest MBHCs the most profitable. See Carter H. Golembe Associates, Inc., *Multioffice Commercial Banking: An Examination of the Issues and Alternatives in Minnesota* (Washington, D.C., 1970); and Francis M. Boddy, "The Market Structure of Banking in Minnesota" (unpublished study prepared for the First Bank System, Inc., Minneapolis, Minnesota, 1976).

[8]Based on an as yet unpublished study of bank prices and services by Stanley L. Graham, Research Department, Federal Reserve Bank of Minneapolis, Minnesota, 1977.

[9]A good example is the study by Golembe Associates. At the same time they looked at bank profitability, they tried to compare the prices at affiliates of Minnesota's MBHCs to those at all Minnesota banks. To do that they constructed three prices from banks' 1968 income statements and balance sheets: "return on loans," the total interest payments on loans divided by the average outstanding stock of loans; "service charges," the total service charges divided by the average outstanding stock of demand deposits; and "interest on savings and time deposits," the total interest payments divided by the average stock of outstanding savings and time deposits. Using these measures, Golembe found virtually no difference between prices charged by Minnesota's MBHCs and all Minnesota banks. Again, see Carter H. Golembe Associates, Inc., *Multioffice Commercial Banking: An Examination of the Issues and Alternatives in Minnesota* (Washington, D.C., 1970).

[10]The survey is described more fully in Richard Stolz's "Local Banking Markets and the Relation Between Structure, Prices, and Nonprices in Rural Areas," Research Department Staff Report, Federal Reserve Bank of Minneapolis, Minnesota, 1975.

[11]To help determine if the sample is representative of all rural banks in Minnesota, we compared the average profitability of affiliate and nonaffiliate sample banks using the ratio of net income to total assets. The difference matches that between all rural affiliates and nonaffiliates.

MBHCs could be setting their own high prices without the evidence showing in the county data either. We would see no differences in prices and services between banks in counties with and without affiliates because the affiliates were setting the prices for all banks in the market—that is, the state.

In one last attempt to detect noncompetitive behavior in Minnesota's banking industry, therefore, we use price and service data from a 1973 survey by the Federal Reserve Board[12] to compare a sample of banks in Minneapolis-St. Paul to a sample of urban banks in states which prohibit both branching and holding companies. Presumably these states would be those most likely to have competitive banking industries. So if banking in Minnesota were not competitive, prices would be higher and services less available here.

But that is not true. Instead, these results,

[12]The survey is described more fully in Arnold A. Heggestad and John J. Mingo's "Prices, Nonprices, and Concentration in Commercial Banking," *Journal of Money, Credit and Banking*, February 1976, pp. 107-117.

Table 2

Prices and Services at Rural Banks Affiliated with Minnesota's Two Largest MBHCs and Other Rural Minnesota Banks

(Based on 1975 survey)

	Rural Affiliates of Two Large MBHCs	Other Rural Banks	
PRICES (averages of prices reported)			
Interest Rates on:			
Savings deposits	5.13%	4.88%	
Certificates of deposit			
90-day	5.58	5.48	
12-month	6.10	6.05	
4-year	7.27	7.28	
Loans			
Auto installment	10.34	10.61	
Farm machinery	9.85	9.04	*
Farm operating	7.86	8.04	
Service Charges for:			
Checking accounts (monthly)	$ .00	$ .50	*
Nonsufficient funds checks (unit)	2.46	1.43	*
Safety deposit boxes (min. annual)	5.46	3.89	*
SERVICES			
Availability (% of banks offering)			
4-year certificates of deposit	100%	57%	*
Overdraft credit	92	14	*
Bank credit cards	23	9	
Automated 24-hour service	8	1	
Safety deposit boxes	100	100	
Hours Open Weekly (averages)	30.7	29.8	
Number of banks in survey	13	100	

* Difference is significant at 10% level.

Source: Federal Reserve Bank of Minneapolis

Table 3

Prices and Services at Minnesota Rural Banks in Counties with Affiliates of the Two Largest MBHCs and in Other Counties

(Based on 1975 survey)

	Rural Banks in Counties With Affiliates	Rural Banks in Counties Without Affiliates	
PRICES (averages of prices reported)			
Interest Rates on:			
Savings deposits	4.88%	4.96%	
Certificates of deposit			
90-day	5.50	5.50	
12-month	6.05	6.07	
4-year	7.26	7.32	
Loans			
Auto installment	10.39	10.89	*
Farm machinery	9.04	9.26	
Farm operating	7.99	8.08	
Service Charges for:			
Checking accounts (monthly)	$ .41	$ .50	
Nonsufficient funds checks (unit)	1.52	1.60	
Safety deposit boxes (min. annual)	4.02	4.16	
SERVICES			
Availability (% of banks offering)			
4-year certificates of deposit	63%	59%	
Overdraft credit	28	14	
Bank credit cards	8	14	
Automated 24-hour service	3	0	
Safety deposit boxes	100	100	
Hours Open Weekly (averages)	30.0	29.8	
Number of banks in survey	71	42	

* Difference is significant at 10% level.

Source: Federal Reserve Bank of Minneapolis shown in Table 4, are as mixed as those in the other two comparisons. On average, Minneapolis-St. Paul banks have charged some higher and some lower prices and generally have provided more services. Again, few of the differences are statistically significant, and those that are put Minnesota on the side of consumers.

Conclusion: A Competitive Banking Industry

The best data available today suggest, therefore, that even though the two MBHCs hold a large share of the market, Minnesota's banking industry has been competitive: while on average affiliates of the two large MBHCs have been earning a higher rate of return than other banks, they have not been charging higher prices or offering fewer services. In fact, they may actually be more efficient than other banks since they have been more profitable while offering essentially the same services at the same prices.[13]

Table 4

Prices and Services at Banks in Minneapolis-St. Paul and in Urban Areas of States Which Prohibit Branching and MBHCs[1]

(Based on 1973 survey)

	Minneapolis-St. Paul Banks	Urban Banks in More Restrictive States
PRICES (averages of prices reported)		
Interest Rates on:		
Savings deposits	4.59%	4.52%
Auto installment loans	9.49	9.36
Service Charges for:		
Checking accounts (monthly)	$ .28	$1.02 *
Nonsufficient funds checks (unit)	3.30	2.49
Safety deposit boxes (min. annual)	5.60	5.18
SERVICES		
Availability (% of banks offering)		
Overdraft credit	100%	36%*
Automated 24-hour service	20	18
Conventional mortgages	100	91
Trust services	20	55
Hours Open Weekly (averages)	40.6	34.9 *
Number of banks in survey	5	22

[1] Illinois, Kansas, Nebraska, Oklahoma, and West Virginia; "urban" areas are standard metropolitan statistical areas.

* Difference is significant at 10% level.

Source: Board of Governors of the Federal Reserve System

Policy Implications

Current restrictions in Minnesota's banking industry are thus hard to justify. Without evidence of noncompetitive behavior, policy makers may have accidentally restricted the two large MBHCs just enough to keep them competitive, but that is highly unlikely. Instead, because of their concern about the potential for such behavior, policy makers have probably acted prematurely and too restrictively.

Federal and state policy makers should therefore seriously consider moving toward a freer banking environment. They could allow more MBHC acquisitions, some form of branch banking, and more innovative types of banking facilities. And to help prevent noncompetitive behavior, they could let banks from other states locate here.

Minnesota's bankers and consumers would both benefit from the freer environment. Bankers would be better able to compete with other financial institutions, such as savings and loan associations, which have not shared these restrictions. Consumers would be provided more convenient and innovative services; banks would be generally more responsive to consumer demands. And if affiliate banks really are more efficient than other banks, freer entry into Minnesota would turn their higher profit rates into lower prices for consumers.

As long as the potential for noncompetitive behavior exists, of course, some government involvement would be needed. The Federal Reserve System and other regulatory agencies should continue examining holding company acquisition requests and monitoring for noncompetitive practices. But government surveillance, competition from other types of financial firms, and competition from banks in other states should keep the potential from being realized.

[13] Of course, bank costs would have to be studied directly to determine this more conclusively.

Policy makers have been concerned about noncompetitive behavior

The potential for noncompetitive behavior in Minnesota's banking industry has developed despite an old restriction on bank expansion. Since 1923, individual banks have not been allowed to branch, which many consider the easiest way for a bank to increase its share of the market. But banks have always been allowed to pool their equity in multibank holding companies (MBHCs). As a result, two MBHCs have been able to acquire a large share of Minnesota's banking market: First Bank System and Northwest Bancorporation together hold about half of Minnesota's total bank deposits, while the next largest firm holds less than 3 percent. Affiliates of the two large firms also hold over 90 percent of all trust accounts in Minnesota and make close to 60 percent of all bank stock loans.[1]

Policy makers have been concerned about the effect these two companies may have on Minnesota's banking industry. Because they hold such a large share of the market, the two may not need to compete. Instead, together they could make bigger profits by setting higher prices, offering fewer services, and generally being less responsive to consumer demands than other banks.

This concern has led to policies restricting the activities of these two companies.

The Board of Governors of the Federal Reserve System, which has been responsible for approving holding company acquisitions since 1957, has been reluctant to let Minnesota's two large MBHCs acquire more existing banks. These companies added 95 percent of their affiliates before 1957 and have made relatively few applications for acquisitions since. Of course, the two simply may not have wanted to expand further. But that may have been partly because of the expressed Board concern about their size. For the Board has stated explicitly that concentration in Minnesota's banking industry is one of its major considerations in deciding which acquisitions to approve.[2]

Minnesota policy makers have also been limiting the activities of the state's two large MBHCs, mainly by refusing to allow any banks to expand in new ways.

Because they believe branching is an easier way to expand than acquiring banks, state legislators have repeatedly defeated proposals to lift the branching ban. Such a proposal was not even seriously considered until the early 1970s, when a study recommended a more liberal law.[3] This year was the first time since 1923 that any branch banking legislation even got out of committee. The Senate actually passed it, but it died in a House committee.

Electronic banking is still prohibited in Minnesota too. Twice legislators sent former Governor Wendell Anderson a bill allowing banks to establish, within well-specified locations, remote electronic banking terminals similar to those already used by other financial firms. But he vetoed it twice saying it would let the two large MBHCs increase their large share of the market.[4]

This year Minnesota did loosen the restrictions on detached banking facilities. But the number each is allowed and where they can be placed are still severely limited.[5]

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[1]Paul F. Jessup, "Minnesota's Exceptional Banking Structure: Research and Policy Perspectives," Research Report, Federal Reserve Bank of Minneapolis, Minnesota, 1975, pp. 17, 28.

[2]For example, see *Federal Reserve Bulletin*, February 1968, p. 223, and January 1969, p. 63.

[3]Carter H. Golembe Associates, Inc., *Multioffice Commercial Banking: An Examination of the Issues and Alternatives in Minnesota* (Washington, D.C., 1970).

[4]See *Minneapolis Tribune*, April 21, 1976, p. 4A. The legislature considered another electronic banking bill in 1977, but because of a technicality it did not pass both houses.

[5]Subject to approval by the Minnesota Commissioner of Banks, any bank may establish not more than two detached facilities. They may be in the same municipality as the bank's principal office or within 5,000 feet or within 25 miles if in a municipality without a bank, with more than 10,000 population, or with 10,000 or less by consent of all banks with a principal office located there.