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MINNESOTA'S BANK STRUCTURE AND RURAL CREDIT

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## MINNESOTA'S BANK STRUCTURE AND RURAL CREDIT

by

Mathew Shane

In evaluating the performance of a particular bank structure, such as that in the state of Minnesota, we are asking whether the restraints of a particular system are causing a pattern of deposit and lending behavior which is less desirable than that which would occur under an alternative system. To be specific, is the unit banking system of the state of Minnesota a detriment or an asset to the state's economy, and would the inauguration of a branch banking system add to or detract from the vitality of that economy. After careful analysis of this question, it is the conclusion of the author that many inadequacies exist within the present system. These include evidence of substantial movements of funds from rural to urban areas, a balance of almost \$1.2 billion in December 1972; differentials in loan-to-deposit ratios which exceeded 18 percent in December 1973; and lending limits on rural banks which are on average lower than those of the average commercial agricultural credit line. For these reasons, to be documented below, the author must conclude that the existing unit banking system is inadequate to meet the current and future credit needs of the state and particularly of the rural areas.

Commercial banking is one of the most highly regulated industries in this county. This is largely a result of the perception of the fundamental role which commercial banks play in the economic life of the community, and of the dislocation which would be caused by a bank failure. This perception is by no means incorrect. Indeed, decisions made by banks and

other financial institutions regarding the mobilization and allocation of a community's surplus resources, commonly called savings, are a central determinant of the level and growth of economic activity within that community. Very few economic units can operate in our advanced financial economy without obtaining some credit services from a commercial bank. Indeed, it might be said that one distinguishing characteristic of a successful as compared to an unsuccessful business is its ability to get financial backing of a formal or an informal nature. Thus the analysis of bank structure and performance is not a secondary issue with little or no consequence. Indeed, the ability of our region to prosper in the years ahead could very well depend in part on the ability of our financial institutions to respond rapidly to the changing demands being placed on them by our ever changing and dynamic economy.

This is the issue on which I will focus this report, a timely issue, an important issue, and one which should be judged solely on the merits of the available evidence.

In the following section, I will focus on three particular pieces of evidence which I feel are central to this case: (1) the rural-urban balance, (2) the loan-to-deposit differential of rural and urban banks and (3) the supply and demand for rural loans with particular emphasis on rural bank loan limits and agricultural loan demand.

#### I. The Rural-Urban Balance

One of the most prominent features of the existing banking system is the built-in tendency to move rural funds into urban areas. In Minnesota, this means primarily into the Twin Cities. Table 1 presents a summary of this pattern for December 1972. As of that date, non-metropolitan Minnesota

Table 1. Net Rural Urban Balance for the Twin Cities, The Twin Cities Metropolitan Area, and Non-Metropolitan Minnesota as of December 31, 1972 (in \$1,000) 1/

	Twin Cities	Metropolitan Area	Non-Metropolitan Minnesota
(1) Net Correspondent Balances	229,884	205,003	-202,457
(2) Net Fed Funds Purchases	499,389	434,580	-156,250
(3) Net Direct Balances	1,778,724	823,763	-823,763
(4) Net Rural-Urban Balance	2,807,992	1,463,346	-1,182,470

1/ The Twin Cities includes all banks in Ramsey and Hennepin Counties while the metropolitan area includes all banks in Anoka, Carver, Dakota, Scott and Washington Counties in addition to Ramsey and Hennepin Counties.

Source by row:

- (1) Twin Cities figure obtained from Table 2. Metropolitan figure obtained by subtracting net correspondent balances of Anoka, Carver, Dakota, Scott and Washington counties. The non-metropolitan counties was the rest of Minnesota. See Appendix 1 for county data.
- (2) Taken from Table 2 for Twin Cities. Remaining columns similarly arrived at as row (1).
- (3) Taken from Table 4 and aggregated into correct county groupings.
- (4) The summation of row (1) - (3).

had a net deficit of almost \$1.2 billion. This net deficit contains three components, net correspondent balances of \$202 million, net Fed funds sales of \$156 million and net direct balances of \$824 million. For the Twin Cities - the counties of Hennepin and Ramsey -- this pattern was just the reverse. While rural Minnesota was exporting funds, the Twin Cities were net importers. Thus for December 1972, they had net correspondent balances of \$230 million, net fed fund purchases of \$500 million and net direct balances of 1.8 billion. It should be noted that the Twin Cities also imported funds other than those from rural Minnesota.<sup>1/</sup>

Although the net position as of December 1972 provides insight into the overall pattern, a look at the time trend of the components is also revealing.

A. Federal Funds Purchases and Sales

Table 2 presents the level of Federal Funds participation from December 31, 1965, to December 31, 1973. Although one could make a number of interesting observations, the most startling fact is the sheer growth of this market. From 1965 to 1973, the Twin Cities' purchases increased by more than 100 times and resulted in a net inflow of more than \$700 million dollars. Between 1972 and 1973 alone, the Twin Cities increased purchases by more than \$200 million. Over the same period, sales from the rest of Minnesota increased at almost as dramatic a pace, so that over the period, there was a net outflow of more than \$300 million from rural Minnesota, with \$127 million occurring between 1972 and 1973. It is clear that this market will become increasingly

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<sup>1/</sup> I refer to funds coming in from the surrounding states.

Table 2. Federal Funds Purchases and Sales of Commercial Banks in the Twin Cities and the Rest of Minnesota as of December 31, 1965-1973 <sup>1/</sup>

Year	Fed Funds Purchases		Fed Funds Sold		Net Fed Funds Purchases	
	Twin Cities	Rest of Minnesota	Twin Cities	Rest of Minnesota	Twin Cities	Rest of Minnesota
1965	10,000	4,100	15,500	600	-5,500	3,800
1967	67,738	3,800	3,200	12,200	64,538	-8,940
1969	267,596	5,815	170,959	62,715	96,637	-56,820
1971	430,628	19,315	230,227	106,295	200,401	-86,980
1972	641,586	26,545	142,197	197,604	499,389	-171,059
1973	1,110,425	30,604	410,138	329,117	700,287	-298,513
1973-1965	1,100,425	26,504	394,638	328,517	705,787	-302,013

<sup>1/</sup> The Twin Cities includes all banks in Ramsey and Hennepin Counties. The data was derived from county asset and liability accounts of commercial banks in Minnesota provided the author by the Federal Reserve Bank of Minneapolis. This item was not reported before 1965.



important as a medium for transferring resources within the banking system of our state.

B. Correspondent Balances

Table 3 summarizes the holdings of correspondent balances<sup>2/</sup> of Twin Cities and Non-Twin Cities Minnesota commercial banks from 1961 through 1973. Although there has always been a substantial correspondent balance in Twin Cities banks, this balance has been reduced over the period, and particularly since 1969. On the other hand, the correspondent balances of outstate banks has continued to rise. Over the period this implied an outflow of funds in the amount of \$121 million, with \$47 million of this occurring between 1972 and 1973. One particularly noteworthy result is the fact that although Minnesota was a net importer of correspondent balances throughout the period 1961-1972, that as of 1973 Minnesota was a net exporter.<sup>3/</sup> Involved is a \$190 million outflow of funds from Minnesota. This could imply a realigning of correspondent services with large Chicago and New York banks rather than with Twin Cities banks.

C. Net Direct Balances

The calculation of net direct balances was accomplished using econometric techniques. No previous estimate of these balances is

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<sup>2/</sup> Correspondent balances are deposits held by one bank in another in return for services received such as check clearing and overline loans.

<sup>3/</sup> This can be calculated by adding the net balance of the Twin Cities and the rest of Minnesota together.

Table 3. Correspondent Balances of Commercial Banks in the Twin Cities and the Rest of Minnesota, December 31, 1961-1973 (in \$1,000) <sup>1/</sup>

Year	Deposits From Other Banks		Deposits With Other Banks		Net Balance	
	Twin Cities	Rest of Minnesota	Twin Cities	Rest of Minnesota	Twin Cities	Rest of Minnesota
1961	370,681	41,936	102,583	194,764	268,098	-152,828
1963	347,225	38,723	71,524	168,898	275,701	-130,175
1965	390,334	42,429	113,225	214,051	277,109	-171,622
1967	387,620	42,038	137,392	211,934	250,228	-169,896
1967-1961	16,939	102	34,809	16,970	-17,870	-17,068
1969	508,504	41,243	150,636	241,969	357,868	-200,726
1971	507,480	51,643	213,443	273,970	294,037	-222,327
1972	448,533	55,483	218,649	282,821	229,884	-227,338
1973	463,960	51,489	222,298	326,089	241,662	-274,600
1973-1967	76,340	9,451	84,906	114,155	-8,566	-104,704
1973-1961	93,279	9,553	119,715	131,125	-26,436	-121,772

<sup>1/</sup> The Twin Cities includes all banks in Ramsey and Hennepin Counties. The data was derived from county asset and liability accounts of commercial banks in Minnesota provided the author by the Federal Reserve Bank of Minneapolis.

available. Table 4 summarizes these calculations for Minnesota counties for December 31, 1972.

The process of calculating these balances involved the following steps. (1) A deposit function was estimated based on a cross-section study of family financial portfolios. (2) Using the distribution of family income for each county from census data, a predicted level of deposits was derived. (3) Based on available information from the Federal Reserve and Home Loan Bank Board actual deposits for each county were calculated. For Hennepin county these include deposits in Farmers and Mechanics Savings Bank as well as in S & L's and commercial banks. (4) Total predicted deposits were then normalized so that the sum of actual and predicted deposits for the state were the same. (5) Finally, actual total deposits were subtracted from predicted deposits, the difference being direct balances.

Several observations are in order. Almost \$900 million of the direct balances held in the Twin Cities are accounted for by balances of the surrounding metropolitan counties. There remain on balance close to \$1 billion of non-metropolitan balances held in urban banks.

## II. Loan-to-Deposit Ratios

The pronounced differential between rural and urban loan-to-deposit ratios<sup>4/</sup> (referred to as L/D) is a universal feature of unit banking

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<sup>4/</sup> The loan-to-deposit ratio is defined as:  $L/D = (\text{Total Loans} / \text{Total Deposits}) \times 100$ .

TABLE 4. DEPOSITS OF SAVING AND LOAN ASSOCIATIONS, COMMERCIAL BANKS, PREDICTED DEPOSITS AND THE FLOW OF DEPOSITS FOR MINNESOTA COUNTIES AS OF DECEMBER 31 1972 (IN \$1000)

COUNTY	SAVING AND LOAN DEPOSITS	COMMERCIAL BANK DEPOSITS	TOTAL DEPOSITS	PREDICTED DEPOSITS	NET DIRECT BALANCES
AITKIN	-0	25055.	25055.	38756.	-13701.
ANOKA	63716.	103131.	166847.	586594.	-419747.
BECKER	10982.	47450.	58432.	80308.	-21876.
BELTRAMI	12339.	50578.	62917.	92868.	-29051.
HENTON	-0	52147.	52147.	68911.	-16764.
BIG STONE	-0	29864.	29869.	27381.	2488.
BLUE EARTH	44907.	172615.	217522.	217567.	-45.
BROWN	3437.	105256.	109693.	105015.	4678.
CARLTON	4584.	52163.	56747.	100823.	-44076.
CAPVER	-0	67019.	67019.	107597.	-40578.
CASS	-0	30047.	30047.	55634.	-25587.
CHIPPEWA	8509.	57143.	65652.	53173.	12479.
CHISAGO	-0	34147.	34147.	63868.	-29721.
CLAY	11204.	103574.	114783.	183383.	-68600.
CLIFARWATER	-0	19261.	19261.	25596.	-6335.
COTTONWOOD	10286.	45484.	55770.	55701.	69.
CROW WING	30540.	87811.	118351.	124612.	-6261.
DAKOTA	74500.	208956.	283456.	565491.	-282035.
DODGE	-0	29521.	29521.	44834.	-15313.
DOUGLAS	18246.	68989.	87235.	79215.	8020.
FARIBAULT	18562.	80708.	99270.	76186.	23084.
FILMORE	22063.	78296.	100359.	75181.	25178.
FREBORN	66108.	88995.	155103.	143508.	11595.
GOODHUE	9518.	111245.	120763.	131124.	-10361.
GRANT	-0	26112.	26112.	25813.	299.
HENNEPIN	2437434.	3471857.	5909301.	4539783.	1369518.
HOUSTON	-0	44004.	44004.	61553.	-17540.
HUBBARD	-0	18844.	18844.	34372.	-15528.
ISANTI	14632.	42027.	56659.	56535.	124.
ITASCA	-0	70708.	70708.	123361.	-52653.
JACKSON	6403.	45568.	51971.	50645.	1326.
KANABEC	-0	32558.	32558.	35323.	-2765.
KANDIYOHI	20615.	94434.	115049.	110258.	4791.
KOOCHICHING	2795.	34157.	36952.	62291.	-25330.
LAC QUI PARLE	-0	31958.	31958.	37326.	-5368.
LAKE	-0	20837.	20837.	48517.	-27688.
LE SUEUR	-0	60640.	60640.	78080.	-17440.
LINCOLN	-0	17909.	17909.	25391.	-7482.
LYON	3804.	104992.	108796.	88471.	20325.
MCLEOD	26139.	83964.	110103.	104389.	5714.
MAPSHALL	-0	34056.	34056.	41255.	-7199.
MARTIN	20546.	96593.	117139.	94207.	22932.
MEeker	-0	52943.	52943.	64231.	-11288.
MILLELACS	-0	36842.	36842.	53740.	-16898.
MORRISON	15772.	55735.	71507.	82865.	-11358.

TABLE 4. DEPOSITS OF SAVING AND LOAN ASSOCIATIONS, COMMERCIAL BANKS, PREDICTED DEPOSITS AND THE FLOW OF DEPOSITS FOR MINNESOTA COUNTIES AS OF DECEMBER 31 1972 (IN \$1000)

COUNTY	SAVING AND LOAN DEPOSITS	COMMERCIAL BANK DEPOSITS	TOTAL DEPOSITS	PREDICTED DEPOSITS	NET DIRECT BALANCES
MOWER	46612.	110548.	157160.	169955.	-12795.
MURRAY	2163.	31450.	33613.	42098.	-8485.
NICOLLET	-0	60765.	60765.	91228.	-30463.
NORLES	14736.	81272.	96008.	82218.	13790.
NORMAN	45074.	32601.	117675.	33221.	84454.
OLMSTEAD	-0	204666.	204666.	355653.	-150987.
OTTER TAIL	15174.	104563.	123737.	156319.	-32582.
PINE	-0	31934.	31934.	55421.	-23487.
PIPESTONE	31924.	36154.	68082.	43996.	24086.
PULK	30435.	91035.	121470.	121071.	390.
POPE	-0	28448.	28448.	42310.	-13902.
RAMSEY	423444.	1688236.	2111680.	2102474.	409206.
RED LAKE	-0	14025.	14025.	16293.	-2260.
REDWOOD	6604.	74113.	80717.	69024.	11493.
RENVILLE	-0	65331.	65331.	70601.	-5270.
RICE	13145.	104474.	117623.	154654.	-37031.
ROCK	14947.	40444.	55391.	40796.	14595.
ROSEAU	-0	31332.	31332.	38218.	-6886.
ST LOUIS	175331.	588079.	763410.	868025.	-104615.
SCOTT	19923.	57905.	77828.	115639.	-37811.
SHERBURN	-0	27731.	27731.	63968.	-36237.
SIRLEY	-0	46688.	46688.	54257.	-7569.
STEARNS	31716.	230230.	261946.	313597.	-51651.
STEELE	30349.	87453.	117802.	105882.	11920.
STEVENS	6673.	29817.	36490.	40437.	-3947.
SWIFT	534.	48048.	48582.	43608.	4974.
TODD	-0	50269.	50269.	67297.	-17029.
TRAVERSE	-0	23049.	23049.	21962.	1087.
WARASHA	5977.	51539.	57516.	60744.	-3228.
WADENA	10963.	33941.	44944.	40488.	4456.
WASECA	5089.	52730.	57819.	61349.	-3530.
WASHINGTON	26152.	113222.	139374.	314164.	-174790.
WATONWAN	5041.	47339.	52380.	47074.	5306.
WILKIN	3855.	27655.	31510.	30973.	537.
WINONA	5065.	161981.	167046.	170064.	-3018.
WRIGHT	-0	82741.	82741.	133072.	-50331.
YELLOW MEDICINE	-0	36806.	36806.	50878.	-14072.
PENNINGTON-KITTSON	17691.	58964.	76655.	44534.	32121.
COOK-MAHN-LAKE WOODS	-0	24729.	24729.	74489.	-49760.
MINNESOTA	4386258.	10943528.	15329786.	15329786.	0.

systems. For the case of Minnesota, this differential has been increasing over the period investigated, so that while the Twin Cities had only a little less than 6 percent higher L/D ratio in 1961, they had more than 18 percent higher ratio in 1973 (see Table 5). This fact points to one of the most serious shortcomings of the present system: rural banks appear to be less and less able to keep up to the performance of urban banks. There are many reasons for this, most of which are related to the existing unit banking structure. As of December 1973, 28 of the 87 counties in Minnesota had five or fewer banks. In addition, 36 of the counties did not even have one savings and loan association office. In much of rural Minnesota, commercial banks face very little competition in these regional markets, and in some areas of the state, banks have virtual monopolies of the financial services in their local areas. The effect of such a system is that there are no competitive forces operating to guarantee high quality banking service.

In addition to the fact that many rural Minnesota banks are quite isolated, there are other features of the state's bank structure which tends to foster conservative banking among most of Minnesota's non-metropolitan banks. These include (1) deposit fluctuations, (2) portfolio diversification problem, (3) lack of specialized loan officers and (4) low loan limits.

Each of these problems is in some way related to the small average size of non-metropolitan banks. Table 6 presents a distribution of commercial banks by size of deposits. Of the 737 commercial banks in Minnesota, 470 had deposits of less than \$10 million, while 575 had deposits of less than \$15 million. Table 7, which gives the distribution

Table 5. Loan-To-Deposit Ratios of Commercial Banks in the Twin Cities and the Rest of Minnesota, December 31, 1961-1973 <sup>1/</sup>

Year	Twin Cities	Rest of Minnesota	Difference
1961	50.54	44.92	5.62
1963	57.28	47.91	9.37
1965	59.84	48.47	11.37
1967	60.45	51.84	8.61
1967-1961	9.91	6.92	2.99
1969	68.28	54.50	13.78
1971	61.16	53.61	7.55
1972	70.51	53.08	17.43
1973	74.62	56.24	18.38
1973-1967	14.17	4.40	9.77
1973-1961	24.08	11.32	12.76

<sup>1/</sup> The Twin Cities includes all banks in Ramsey and Hennepin Counties. The data was derived from county asset and liability information of commercial banks in Minnesota provided the author by the Federal Reserve Bank of Minneapolis.

Table 6. The Distribution of Minnesota Commercial Banks by Size of Deposits as of December 31, 1973

Size of Deposits	Number of Banks
Less than 5 million	250
5-9 million	220
10-14 million	105
15-20 million	50
More than 20 million	<u>112</u>
Total	737

Table 7. The Distribution of Minnesota Commercial Banks by Population of Bank Location and Reserve City Classification for December 31, 1973

Population Class	Number of Banks	Average Deposits Per Bank (\$1000)
Less than 1000	309	4,485
1000-4999	215	7,148
5000-9999	62	18,253
Greater than 10,000	143	27,245
Reserve City	<u>8</u>	<u>514,041</u>
Total Minnesota	737	16,168
Total Less Reserve City	729	10,905
Median Bank	368	5,895



over size of towns, demonstrates the close association between small banks and rural Minnesota. The median bank in Minnesota has almost \$6 million in deposits and an individual loan limit of approximately \$60 thousand. Although this topic will be analyzed in the next section, this fact portends serious problems for the average bank trying to meet the average loan need of a rural business.

Because of the heavy dependence of outstate banks on agricultural loans -- the 524 banks in towns having less than 5000 population had on average 41 percent of their loans in agriculture -- there is both a serious seasonality to deposits and an extremely high risk associated with a business failure. This is due to the fact that the income and wellbeing of the farm population in a given locality would naturally tend to fluctuate together. If one adds to this the fact that the small resource base of the median bank is inadequate to hire specialized agricultural loan officers, one realizes that the low loan-to-deposit ratios are indeed justified within the current system.

Is there evidence that an alternative regional branching system such as the one proposed would in any way reduce these problems and allow better loan performance. The answer to this question is definitely yes. Table 8 summarizes the evidence related to the operations of three Northwest Bancorporation affiliated branch systems in South Dakota, the First National Bank of Aberdeen, First National Bank of Rapid City and Northwestern Bank of Sioux Falls. On average the branch systems had almost as high L/D ratios as did the Reserve City class of banks in Minnesota, 71% as compared with 78%. In addition, branch offices in towns of less than 5000 population had loan-to-deposit ratios fully 10 percent higher than the comparable class of banks in Minnesota, 61% as compared with 51%.

Table 8. Loan-to-Deposit Ratios, Farm Lending, Population of Office Location and Lending Limit of Three Branch Systems in South Dakota as of December 31, 1974.

Office	Loan-to Deposit	Farm Loans Total Loans	Size of Community	Legal Lending Limit (\$)
<b>Aberdeen Bank</b>				
Aberdeen	90.4	23.7	26,476	937,500
East	176.9	22.3	26,476	937,500
Bristol <sup>1/</sup>	33.0	63.7	470	937,500
Britton	58.6	60.1	1,465	937,500
Groton	83.0	44.7	1,071	937,500
Hecla	83.3	75.0	407	937,500
Milbank	66.5	24.4	4,100	937,500
Mobridge	73.2	31.1	4,545	937,500
Redfield	58.3	50.1	2,943	937,500
System Average	80.36	41.27	7,550	937,500
<b>Sioux Falls Bank</b>				
Colonial	108.22	-	72,488	1,700,000
Stockyards	76.50	22	72,488	1,700,000
Westwood	76.39	-	72,488	1,700,000
Brookings	68.45	15	13,717	1,700,000
Chamberlain <sup>2/</sup>	37.72	51	2,626	1,700,000
Dell Rapids	73.07	54	1,991	1,700,000
Gregory	54.51	70	1,756	1,700,000
Huron	68.15	27	14,299	1,700,000
Lake Preston	63.64	75	812	1,700,000
Madison	51.22	26	6,313	1,700,000
Parker	46.39	56	1,005	1,700,000
System Average	60.36	33	21,665	1,700,000
<b>Rapid City Bank</b>				
Main	83.4	N.A.	43,836	1,600,000
Robbinsdale	122.0	N.A.	N.A.	1,600,000
Villa Rancharo	79.0	N.A.	N.A.	1,600,000
Belle Fourche	79.8	N.A.	4,236	1,600,000
Deadwood	44.4	N.A.	2,409	1,600,000
Hot Springs	53.0	N.A.	4,434	1,600,000
Lead	47.0	N.A.	5,420	1,600,000
Newell	67.6	N.A.	644	1,600,000
Spearfish	52.1	N.A.	4,661	1,600,000
Sturgis	76.1	N.A.	4,536	1,600,000
Mountain View	110.0	N.A.	N.A.	1,600,000
System Average	74.04			

1/ Bristol bank was acquired in late 1974.

2/ The Chamberlain office was heavily involved in cattle loses and writeoffs.

3/ The Parker office was acquired during 1974.

Thus it must be concluded that many of the problems associated with low loan-to-deposit ratios of rural Minnesota banks could be overcome in a regional branch banking system such as exists in South Dakota. Increasing by ten percent the loan-to-deposit ratios of banks in towns of less than 5000 would imply an increase in loans totalling \$184 million! This much in additional funds would accrue automatically to the small communities of Minnesota, even without considering the effect on the rest of the banking system.

### III. Supply and Demand for Rural Loans

The last issue to be discussed involves the capacity of the existing unit banking system to respond to the changing composition and types of credit demand. As stated previously, the average bank in Minnesota has a legal lending limit of about \$60 thousand.

Table 9 summarizes the average credit line of 25 Minnesota farmers at five Minnesota banks. On average the agricultural credit lines increased 270 percent over the five year period from 1970 through 1974. From 1969 through 1973, a comparable five year period, the average loan limit of a non-Twin Cities bank increased only 147 percent.<sup>5/</sup> Since in general banks are reluctant to loan out funds up to their limit and as a mean is upwardly biased anyway, this difference in growth implies a serious credit problem. Put another way, the average bank in 1973 (referring to the median as previously used) could not provide the average amount of credit required by the average commercial farm borrower. Since the trend in agriculture is toward fewer and larger farms with higher average credit demands, we see a situation developing where a relatively large borrower is facing

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<sup>5/</sup> See Table 10.

Table 9

AVERAGE YEARLY MAXIMUM FARM LOAN OF FIVE MINNESOTA BANKS, 1970 - 1975, IN DOLLARS<sup>1/</sup>

	1970	1971	1972	1973	1974	Projected 1975
Term Loan (Machinery-Equipment)	18,818	22,761	29,436	33,260	44,153	43,859
Operating Loan	31,753	39,824	62,222	67,517	90,835	76,388
Total Loan	50,571	62,585	91,658	100,777	134,988	120,147
Interest Rate Charged	7.9	8.0	7.95	7.89	8.86	8.98
Real Estate Loan <sup>2/</sup> (only if used to purchase land)	8,806	6,956	14,562	15,328	16,504	16,368

<sup>1/</sup>The five banks were located in Moorhead, Rochester, Albert Lea, Marshall and Dawson. Five agricultural customers from each bank were choosen at random from all agricultural customers who were with the bank since 1970.

<sup>2/</sup>Only the bank at Marshall made any loans for agricultural real estate.

Table 10. Average Capital and Surplus, and Lending Limit of Non-Twin City Banks, 1967-1973 in Thousands of Dollars. 1/

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	1967	1969	1971	1972	1973
Capital and Surplus	304.844	350.209	407.074	454.237	517.462
Lending Limit	60.968	70.041	81.414	90.847	103.492

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1/ The average is derived by taking the total value and dividing by the number of Minnesota banks outside of Ramsey and Hennepin counties.

a relatively small lender. The implications are quite clear in terms of the ability of commercial banks to finance agricultural operations.

An additional indication of the nature of the agricultural credit problem is the competition which has developed between commercial banks and the Product Credit Associations (PCA's) in Minnesota. As a means of evaluating this, I compared the percent of agricultural lending of banks and PCA's in high and low loan-to-deposit counties between 1963 and 1972. On average PCA's lost a percent of the market in high L/D counties and gained a percent of the market in low L/D counties (see Table 11). Indeed, at the extreme the PCA's gained eight percent of the market in the low L/D counties, while losing almost four percent in the high L/D counties.

#### IV. Conclusions

Minnesota's current unit banking system faces some very serious problems for lending in rural Minnesota. The evidence indicates that substantial quantities of funds are moving from rural Minnesota into the Twin Cities, that rural banks are far less aggressive in their lending behavior than their city cousins and that especially in agriculture, the average Minnesota bank will find it increasingly difficult to provide for the credit needs of the average farmer. What is even more serious is that these problems appear to be getting more severe rather than less, and that the current system will therefore become more and more inadequate to the demands of the future. In each of these crucial areas there is evidence and reason to believe that a regional branch banking system would help to overcome these growing problems. It would remove the constraint of low loan limits by pooling the resources of many banks. It would remove some of the risk faced by a single bank in a concentrated loan portfolio by increasing the geographic area and complexion

Table 11. Comparison of Commercial Bank and Production Credit Association Agricultural Lending in High and Low Loan-to-Deposit Counties in Minnesota, 1963 and 1972.

Counties	% L/D 1972	Agricultural Loans (in \$1,000)				Percent of Agricultural Loans			
		Production 1963	Credit Assoc 1972	Commercial Banks 1963	Commercial Banks 1972	Production 1963	Credit Assoc 1972	Commercial Banks 1963	Commercial Banks 1972
Lowest 10%	41.359	2324.8	4708.8	3811.3	6806	34.95	42.63	65.05	57.37
2nd Lowest 10%	46.375	2386.8	5373	4551.2	9272	34.02	38.55	65.98	61.45
2nd Highest 10%	58.857	2304.8	4434.7	5768.5	6873.2	27.85	24.87	72.15	75.13
Highest 10%	61.949	2239.5	4475.7	4352.2	11014.7	31.93	28.25	68.07	71.75

of loans. It would permit the hiring of specialized lending and borrowing agents which becomes increasingly important in our complex technological society. And finally, it would utilize the best people in the banking industry over many more banking offices over a larger resource base thus giving more people access to good banking.