

NON-LOCAL SOURCES OF FUNDS FOR RURAL BANKS

by

EMANUEL MELICHAR
BOARD OF GOVERNORS OF THE FEDERAL RESERVE SYSTEM

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The financing of agricultural capital flows, particularly through the banking system, has been of considerable and continuing interest to the Federal Reserve System. In the mid-1960's, a national Federal Reserve survey of bank financing of agriculture quantified the fund-supply problems that had emerged after two decades of rapid expansion in borrowing by farmers. Shortly thereafter, these problems of rural banks were thoroughly examined in the course of a reappraisal of Federal Reserve discount policy. A seasonal borrowing privilege was recommended and, after much additional work on its design, was implemented in April 1973. A second recommendation noted that the direct and fundamental solution to the fund-supply problems of rural banks lay in the development of markets for the assets and liabilities of these banks. These two ways in which rural banks may add to their funds for agricultural and other lending are the primary subjects of this paper.

The banks on which this paper focuses are those with a relatively high concentration in farm loans. The ratio of farm loans to total loans is a conveniently available measure to identify rural banks.

Farm loans nationally constitute only 5 per cent of total loans outstanding at all insured commercial banks. Also, this ratio

has been declining--ten years ago it stood at 6.1 per cent.

In contrast, however, a relatively large number of banks are heavily involved in financing agriculture. In June 1973, as Table 1 indicates, 2,368 banks, or 17 per cent of all commercial banks, had one-half or more of their loan portfolio in loans to farmers. Almost 3,000 other banks had between a fourth and a half of their portfolio in farm loans. In all, 39 per cent of the nation's commercial banks were involved in farm lending to the extent of at least a fourth of their loan portfolio.

These banks, holding \$46 billion in deposits (7 per cent of the nation's bank deposits), had outstanding \$11.5 billion in farm loans--thereby accounting for 55 per cent of the bank lending to farmers. Over most postwar years preceding 1967, farm loans at these rural banks rose faster than deposits. Furthermore, the average size of farm loans increased faster than the average deposits and capital (and thus the average legal lending limit). These trends helped to trigger the Federal Reserve studies and actions already noted.

Since 1967, however, the growth of deposits at rural banks has on average equalled or exceeded the rate of increase in farm loans, as Table 2 indicates. Also, the number of farms has in recent years been decreasing less rapidly than previously, thus slowing the rise in the average size of farms. Furthermore, the most recent Census data indicate that the proportion of farmers using credit is no longer

increasing as it undoubtedly had in earlier postwar years. For rural banks as a whole, therefore, problems of aggregate fund supply and overline loan requests, though by no means resolved, at least have not been worsening in the manner of earlier years.

Changes in bank loan/deposit ratios are commonly employed as rough indicators of movement in the relative balance between the supply of and the demand for loanable funds. The average loan/deposit ratio for rural banks, as shown in Table 3, has been relatively stable since 1967 after increasing sharply in preceding years. These ratios also tend to indicate that rural banks have been affected far less than most other banks by variations in the degree of monetary restraint experienced over the past few years.

On the whole, therefore, the rural banking trends that led, by the mid-1960's, to major studies and efforts concerned with the development of new, non-local sources of funds have been significantly altered and the problems that they were causing have somewhat abated. However, while the urgency has diminished, there are good reasons to continue this work.

Some individual banks and occasionally entire areas have been and will be at times experiencing divergent loan and deposit trends. In some future periods, such experience may again be more widespread. Continued attention to development of non-local sources of funds for rural banks seems a prudent course.

What can be done along these lines is to a great extent conditioned by certain characteristics of the rural banks that affect their ability to sell their instruments in financial markets. On average, the 5,341 banks that on June 30, 1973, had one-fourth or more of their loan portfolio in farm loans had:

- total deposits of \$8.6 million;
- capital and surplus of \$454,000 implying, in the case of national banks, a limit of \$45,400 on farm loans outstanding to any one borrower (\$113,400 if secured by livestock);
- farm loans totaling \$2.1 million;
- 45 per cent of the loan portfolio in farm loans;
- in many cases, considerable seasonal fluctuation in the loan/deposit ratio.

This summary of average characteristics portrays a relatively small, relatively undiversified institution that is necessarily heavily affected by any seasonal variations and longer-term trends in the financial requirements of agriculture.

As the Federal Reserve discount study committee noted in 1968, the most general improvement in the ability of rural banks to respond to variations and trends in farm financing requirements would be achieved by the development of markets for their assets and liabilities. But the committee found that small banks were largely unable to raise funds directly in the nation's main financial markets. This deficiency is of concern to the Federal Reserve System, which needs financial markets that are sufficiently perfect to distribute the impact of monetary policy actions rapidly and equitably throughout the economy.

Money-market investors prefer instruments that have known safety of principal, high liquidity, and low cost of handling. From their point of view, the financial condition of most small banks is unknown, and most of the instruments that these banks typically hold or could issue do not meet their requirements.

Banker's acceptances. However, there is one class of money-market instruments--banker's acceptances--which, because they represent actual credits extended by banks, are often written in fairly small amounts, in odd amounts, and with various maturities. If small banks were to write their larger loans in the form of acceptances, they would not differ materially from some already being created and traded. Instead of signing a promissory note, the borrower would sign an order to pay a stated amount on a specified future date, drawn on the bank extending the credit. This draft becomes an "acceptance" if and when the bank chooses to undertake an obligation to make payment, which it does by stamping "accepted" on the face of the instrument. By assuming primary liability for payment, the bank has created an instrument that it can offer in money markets, perhaps through brokers in such paper.

Before investors will purchase such acceptances, however, they must regard them as absolutely safe from default. Most investors do not possess such knowledge about rural banks in the requisite degree of certainty, and thus they would refrain from buying their paper. However, the issuing bank's money-market correspondent will in most cases have sufficient knowledge about the smaller bank to be willing to purchase the acceptance at a reasonable discount, endorse it to make it as marketable as its own acceptances, and then sell it

to investors. With this type of assistance from a correspondent bank, banker's acceptances could develop into a source of money-market funds for even relatively small rural banks.

In addition, when a correspondent bank takes the overline portion of a large loan originated by a rural bank, that part of the loan could be written in the acceptance form. By knowing that it can sell this instrument either immediately or later if a need for funds arises, the correspondent bank may be more willing to provide this participation credit service to rural banks.

Until recently, it was generally thought that acceptances of the type that would arise in most lending by rural member banks-- known as "working capital" acceptances or "finance bills"--were subject to per-customer and aggregate limitations on amounts that could be issued. An interpretation issued by the Board of Governors in May, 1973, removed this restraint. At the same time, the Board moved to apply reserve requirements against funds raised in this way, with the reserves to be identical to those required against large time certificates of deposit. While this raised the cost of these funds to those banks, primarily large institutions, that had already been raising money through these acceptances, it also cleared away regulatory reservations about expanded aggregate sales of acceptances. More recently, the Board has moved to make these acceptances subject to the per-customer lending limits that apply to loans. With regulatory concerns thus resolved, small banks may be able to arrange to sell acceptances through

the ways outlined above.

Fund-raising intermediaries. The marketing, with the assistance of correspondent banks, of a single type of asset such as banker's acceptances would still leave rural banks considerably removed from having attained general and reliable access to money-market funds. Since the paper of small banks presently fails to meet the important market requirements, development of such access apparently requires that an intermediary be interposed between such banks and the market, to endow the paper offered by small banks with the qualities required by the market or to convert the paper to more marketable forms.

There is some possibility that a group of rural banks could themselves form such an intermediary, possibly a regional organization that might primarily tap regional sources of funds. Such an organization might, for instance, raise funds by selling commercial paper and use the proceeds to purchase farm loans made by the participating banks. A bill enacted by Congress last year allows member banks to participate in the capitalization of jointly-owned agricultural credit corporations which might be a vehicle for such operations.

Establishment of the larger and more general intermediary required to tap the principal money markets may be beyond the ability of rural banks acting in concert. Most likely, assistance from a government agency would be required. The Congress, for instance,

might be persuaded to establish an intermediary to raise money-market funds for small banks, patterned after the Federal Intermediate Credit Banks that perform this function for production credit associations, or after the Federal Home Loan Bank that raises money-market funds for savings and loan associations. Or, an existing organization such as the Federal Reserve System could conceivably perform this function. In one of its simpler forms, the intermediary could assemble and pool special time deposit certificates issued by participating banks and periodically conduct an auction of large-denomination participations in the pool of these certificates. Given appropriate management of this operation, money-market investors would likely deem these participations to possess the characteristics of safety and size that they seek, and a secondary market in them would undoubtedly develop to provide liquidity. An arrangement along these lines appears to offer excellent prospects for bridging the present gap between rural bank paper and the requirements of the major financial markets, but substantial private and governmental effort would be required to make it a reality.

The Federal Reserve discount window

The general principles that governed administration of the Federal Reserve discount window were formulated, in the early 1950's, against the backdrop of heavily liquid positions at almost all banks. The intent of the guidelines, therefore, was to limit the amount of credit available at the discount window, particularly during periods of monetary restraint. The restrictive attitude also applied to the issue of borrowing for seasonal purposes, where the position taken was that member banks should handle their portfolios in ways that would allow them to meet foreseeable seasonal swings

from their own resources.

As already noted, however, by the mid-1960's many banks had exhausted their excess secondary reserves. In this new environment, a Federal Reserve study committee concluded that portfolio adjustment problems were more frequent and serious and that greater use of the discount window for short-term and seasonal reserve needs should be encouraged, particularly by banks that lacked access to money market sources for funds. To accomplish this objective, the committee recommended a fundamental change in the administration of the window. Most borrowing would be done under either a "basic" or "seasonal" borrowing privilege. The qualifications for borrowing under each of these privileges would be clearly stated, as would the rules governing the amount and term of borrowing. Therefore, after specific arrangements had been concluded with the Federal Reserve Bank, a member would know precisely how much discount credit it could assuredly obtain over the coming year, and it could therefore make its lending and portfolio adjustment plans accordingly.

The new seasonal borrowing privilege. After much further study of its potential impact and of the administrative procedures it would entail, a seasonal borrowing privilege was implemented on April 19, 1973. To be considered for seasonal discount credit, a member bank must "lack reasonably reliable access to national money markets." Such a bank's seasonal need for funds is defined as the need "arising from a combination of expected patterns of movement in its deposits and loans." For the bank to qualify for seasonal borrowing, a dip in its net fund availability (deposits minus loans) should recur at about the same time each year and must persist for at least eight consecutive weeks. The amount of seasonal discount credit extended during this period is ordinarily to be limited to the amount by which the seasonal dip exceeds 5 per cent of the bank's

average total deposits in the preceding calendar year.

For illustrative purposes, in Table 4 monthly seasonal credit needs have been calculated for a bank that has average deposits of \$10 million and that, as is typical in rural areas, experiences a seasonal run-off in deposits along with simultaneous seasonal increase in outstanding loans. The bank could apply to its Reserve Bank, preferably no later than early March, for seasonal credit during the four months April through July. The amounts that the bank could borrow in these months are shown in the last column of the table.

At many banks, the amount of seasonal variation in local loans may be obscured because the bank may sometimes hold its secondary reserves in the form of loan instruments such as sales of Federal funds or purchases of commercial paper. In addition, some banks make seasonal loans to local governments that for reporting purposes are classified as securities rather than loans. Some banks may sell seasonal loans to their correspondents. These and similar factors may be taken into account in calculating the true seasonal need, and should be brought to the attention of the Reserve Bank's loan officer.

Potential impact of the privilege. Potential use of the new privilege has been determined in a statistical sense by computing the maximum borrowing for which each member bank might qualify, on the basis of monthly-average data on total loans and deposits that were available at the Federal Reserve Board for the period 1968-1972. No adjustments such as those described above were made. For purposes of these estimates, banks with deposits up to \$250 million were considered. The amount of seasonal variation in net fund availability at each bank was calculated through application of a well-known statistical process designed for such tasks. Within the

limitations inherent in these procedures, the data that follow indicate the maximum use that member banks could have made of the seasonal borrowing privilege if it had been in existence during all of 1973. In practice, of course, many banks that would qualify will not apply for the privilege simply because they do not have additional local lending opportunities in which to employ such funds, or because they prefer to provide for their seasonal needs in other ways.

An estimated 1,930 banks qualify for the seasonal borrowing privilege during some period of the year. As indicated in Table 5, this number represents 14 per cent of all insured commercial banks and 34 per cent of all member banks. However, agricultural banks are far more likely to qualify. For instance, at banks at which farm loans constitute at least one-half of all loans outstanding, 68 per cent qualify for seasonal borrowing.

A different measure of the incidence of the new privilege is the proportion of total bank loans that are made by the banks that qualify. As also shown in Table 5, this ratio stands at 8 per cent for all member banks, but at 59 per cent for those most heavily involved in farm lending. Thus, it turns out that qualifying banks hold 27 per cent of all farm loans outstanding at member banks.

Over the year as a whole, potential seasonal borrowing averages \$591 million. The peak month is June, when 1,311 banks qualify to borrow \$833 million, and the low month is January with potential borrowing of \$188 million at 397 banks.

These amounts of potential seasonal borrowing are very small when compared with total outstanding loans at member banks--only 0.21 per cent of that total. Thus, even maximum use of the privilege would have relatively minor impact on over-all lending by banks. However, Table 5 shows that the potential impact is much greater

when compared to the loan volume of the qualifying banks only, and even more so when one examines only the agricultural banks that qualify. The peak month's potential borrowing for individual qualifying banks averages 12 per cent of total loan volume at the banks most heavily involved in farm lending.

As these data demonstrate, the new seasonal borrowing privilege can be a very significant source of nonlocal funds for rural banks that experience substantial seasonal variations in deposits or loan demand. In 1973, actual use of the privilege after the program was implemented on April 19 fell far short of the potential that has been demonstrated. A total of 220 banks used the privilege, of which 159 were among the 1,849 banks for which the study discussed had indicated potential seasonal borrowing during April to December. Thus 8.6 per cent of the potentially qualifying banks actually used the privilege in its first year. Daily average seasonal borrowing of \$95 million was 16 per cent of the estimated average potential borrowing. On a monthly basis, seasonal borrowing reached a peak of \$163 million in August before declining as expected during the fall and winter.

It had been anticipated that whether a qualifying bank actually used the privilege would depend to a great extent on whether it had additional lending opportunities to which it could respond after given this new access to outside funds, and that the presence of this condition would be indicated by a bank's loan/deposit ratio. Analysis of actual seasonal borrowing in 1973 verified that qualifying banks with high loan/deposit ratios were far more likely

to have used the privilege. Further analysis has also shown that users of the new privilege in 1973 tended to come from among the minority of member banks that use the discount window regularly (only 31 per cent of member banks used the discount window at some time during 1973). While these banks on average obtained a much greater volume of funds through seasonal borrowing than they had obtained in previous years at the discount window, it is clear that the seasonal borrowing program has not yet been used by the majority of the banks that could employ it to the benefit of their communities. The Federal Reserve Banks have been making substantial efforts to implement the program successfully, and their discount officers stand ready to assist individual member banks in determining whether they qualify and in setting up a borrowing program for those that do.

Table 1. Banks, deposits, capital, and farm loans, June 30, 1961-1963

Year	All insured commercial banks	Agricultural banks: banks at which the ratio of farm loans to total loans is--	
		25 to 49 per cent	50 per cent or more
<u>A. Number of banks</u>			
1961.....	13,023	3,082	3,311
1962.....	13,085	3,091	3,277
1963.....	13,192	3,102	3,250
1964.....	13,396	3,107	3,177
1965.....	13,529	3,122	3,006
1966.....	13,554	3,093	2,929
1967.....	13,527	3,054	2,894
1968.....	13,514	3,078	2,878
1969.....	13,468	3,088	2,666
1970.....	13,482	3,022	2,600
1971.....	13,550	2,946	2,567
1972.....	13,672	2,955	2,480
1973.....	13,842	2,973	2,368
<u>B. Farm loans as percentage of total loans</u>			
1961.....	7.4	35.6	66.1
1962.....	7.3	35.6	66.2
1963.....	6.1	35.7	66.5
1964.....	5.9	35.4	66.0
1965.....	5.5	35.7	65.4
1966.....	5.4	35.4	65.4
1967.....	5.6	35.3	65.6
1968.....	5.6	35.3	65.3
1969.....	5.3	35.7	64.9
1970.....	5.4	35.5	65.3
1971.....	5.3	35.5	65.4
1972.....	5.2	35.2	65.0
1973.....	5.0	35.0	64.5

Table 1. Banks, deposits, capital, and farm loans, June 30, 1961-1973 (continued)

Year	All insured commercial banks	Agricultural banks: banks at which the ratio of farm loans to total loans is--	
		25 to 49 per cent	50 per cent or more
<u>C. Total deposits (billions of dollars)</u>			
1961.....	182.7	11.2	7.1
1962.....	200.0	12.1	7.5
1963.....	264.6	13.2	8.2
1964.....	283.4	13.8	8.5
1965.....	309.6	14.4	8.4
1966.....	337.1	16.1	9.0
1967.....	358.7	16.9	9.5
1968.....	392.7	19.0	10.3
1969.....	423.9	19.9	10.8
1970.....	431.1	21.1	11.2
1971.....	501.3	22.9	12.1
1972.....	550.0	26.0	13.3
1973.....	625.1	30.7	15.2
<u>D. Total farm loans (billions of dollars)</u>			
1961.....	7.1	1.9	2.2
1962.....	7.8	2.1	2.3
1963.....	8.9	2.3	2.7
1964.....	9.8	2.5	2.9
1965.....	10.4	2.7	2.9
1966.....	11.5	3.1	3.2
1967.....	12.5	3.3	3.6
1968.....	13.6	3.7	3.8
1969.....	14.6	3.9	3.9
1970.....	15.2	4.2	4.2
1971.....	16.1	4.5	4.5
1972.....	18.1	5.1	4.9
1973.....	21.1	6.1	5.4

Table 1. Banks, deposits, capital, and farm loans, June 30, 1961-1973 (continued)

Year	All insured commercial banks	Agricultural banks: banks at which the ratio of farm loans to total loans is--	
		25 to 49 per cent	50 per cent or more
<u>E. Average deposits (millions of dollars)</u>			
1961.....	14.0	3.6	2.1
1962.....	15.3	3.9	2.3
1963.....	20.1	4.3	2.5
1964.....	21.2	4.4	2.7
1965.....	22.9	4.6	2.8
1966.....	24.9	5.2	3.1
1967.....	26.5	5.5	3.3
1968.....	29.1	6.2	3.6
1969.....	31.5	6.5	4.1
1970.....	32.0	7.0	4.3
1971.....	37.0	7.8	4.7
1972.....	40.2	8.8	5.4
1973.....	45.2	10.3	6.4
<u>F. Average capital and surplus (thousands of dollars)</u>			
1961.....	995	250	152
1962.....	1,077	265	161
1963.....	1,438	284	174
1964.....	1,554	297	185
1965.....	1,697	303	193
1966.....	1,784	331	204
1967.....	1,880	347	222
1968.....	2,007	372	231
1969.....	2,166	376	250
1970.....	2,267	417	267
1971.....	2,454	438	283
1972.....	2,677	478	306
1973.....	2,883	546	339

Table 2. Average annual growth rates of deposits and farm loans, 1961-67 and 1967-73

Period and item	All insured commercial banks	Agricultural banks: banks at which the ratio of farm loans to total loans is--	
		25 to 49 per cent	50 per cent or more
<u>Average annual increase (per cent)</u>			
<u>1961-67</u>			
Deposits.....	11.9	7.1	5.0
Farm loans.....	10.0	10.0	8.6
<u>1967-73</u>			
Deposits.....	9.7	10.4	8.1
Farm loans.....	9.1	10.5	7.2

Note: Calculated from data in Table 1. Periods start and end on June 30.

Caution: Because the population of agricultural banks changes over time as the loan portfolios of individual banks change sufficiently to include or exclude them from this group, growth rate comparisons for these banks in Table 2 should be restricted to comparisons between deposits and farm loans in the same column and for the same time period.

Table 3. Loan/deposit ratios on June 30, 1961-1973

Year	All insured commercial banks	Agricultural banks: banks at which the ratio of farm loans to total loans is--	
		25 to 49 per cent	50 per cent or more
<u>Total loans as percentage of total deposits ^{1/}</u>			
1961.....	54.3	46.9	45.7
1962.....	54.7	47.2	46.1
1963.....	58.3	48.8	49.0
1964.....	61.7	51.3	51.1
1965.....	64.7	52.4	51.8
1966.....	66.7	53.7	53.5
1967.....	66.1	55.3	56.1
1968.....	66.6	54.6	55.5
1969.....	71.3	54.9	54.6
1970.....	70.8	56.0	56.7
1971.....	65.4	54.4	55.8
1972.....	67.0	55.1	55.7
1973.....	71.7	56.2	54.6

^{1/} Loans are gross loans less reserves for bad debts; deposits are total deposits less cash items in process of collection.

Table 4. Illustration of a Bank's Potential Seasonal Credit Need

Month	Seasonal pattern		Net fund availability		Potential seasonal borrowing ^{1/}
	Average deposits	Average loans	Total (deposits less loans)	Difference from peak month	
(millions of dollars)					
January....	\$10.1	\$5.7	\$4.4	\$0.1	\$0.0
February....	10.1	5.7	4.4	.1	.0
March.....	9.9	5.4	4.5	.0	.0
April.....	9.9	5.5	4.4	.1	.0
May.....	9.8	5.9	3.9	.6	.1
June.....	9.7	6.1	3.6	.9	.4
July.....	9.8	6.1	3.7	.8	.3
August.....	9.6	6.2	3.4	1.1	.6
September..	9.9	5.9	4.0	.5	.0
October....	10.1	5.7	4.4	.1	.0
November...	10.2	5.7	4.5	.0	.0
December...	10.2	5.8	4.4	.1	.0

^{1/} Difference in net fund availability between peak availability month and specified month, less 5 per cent of average deposits for the preceding year and subject to possible adjustments.

Source: Business Review, Federal Reserve Bank of Dallas, May 1973, p. 8.

Table 5. Potential impact of the seasonal borrowing privilege

Group of banks	Total	Agricultural banks: banks at which the ratio of farm loans to total loans is--	
		25 to 49 per cent	50 per cent or more
<u>Percentage of banks potentially qualifying</u>			
Insured commercial banks.....	14	15	19
Member banks.....	34	44	68
<u>Percentage of bank loans at the qualifying banks</u>			
Insured commercial banks.....	6	16	22
Member banks.....	8	34	59
<u>Percentage of bank farm loans at the qualifying banks</u>			
Insured commercial banks.....	15	16	22
Member banks.....	27	35	60
<u>Potential seasonal borrowing as a percentage of outstanding loans</u>			
Insured commercial banks:			
Annual average.....	.16	.56	1.03
Peak month.....	.49	1.49	2.64
Member banks:			
Annual average.....	.21	1.19	2.75
Peak month.....	.61	3.17	7.06
Qualifying banks:			
Annual average.....	2.61	3.53	4.66
Peak month.....	7.59	9.43	11.99

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