

SEASONAL BORROWING PRIVILEGE:  
A NEW DIMENSION IN ADMINISTRATION  
OF THE  
FEDERAL RESERVE DISCOUNT WINDOW

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Seasonal Borrowing Privilege: A New Dimension  
in Administration of the Federal Reserve Discount Window

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In April 1973, the Federal Reserve Board revised the administration of the discount window to institute a "seasonal borrowing privilege" for many of the member banks of the Federal Reserve System. Under this privilege, a member bank that experiences a relatively substantial outflow of funds at about the same time each year and that lacks access to money markets can prearrange to borrow from its Federal Reserve Bank to accommodate part of that outflow. It was hoped that this new privilege would enable such member banks to be more responsive to the seasonal and other credit needs of their communities by reducing the need for these banks to maintain liquid reserves in their non-seasonal periods in order to meet seasonal increases in credit demands. This way reserves would be freed for less liquid investments in the bank's local community.

Background

Prior to the 1973 change, borrowing at the discount window on a prearranged basis to meet normal seasonal outflows was not considered an appropriate use of the discount window. At the time of the last revision of Regulation A in 1955, the banking system was generally liquid. In this environment the Federal Reserve System saw itself as having the responsibility to meet seasonal swings in reserves that affected the whole banking system, but left it to the individual banks to meet their foreseeable future swings from their own resources.

By the mid-1960's the liquidity in the banking system was greatly reduced. A special committee was set up to evaluate the discount mechanism in this new environment. The committee found that the ability of local banks to meet the short-term credit needs of their communities had narrowed.

In particular, the management of seasonal fund flows was becoming increasingly difficult for smaller banks. Banking resources devoted to the seasonal cycle were being utilized in local loans for only part of each year. Some banks now had alternative year-round local lending opportunities for these funds but were unable to take advantage of them because of the need to maintain liquidity to finance the seasonal period. In this circumstance, both the communities and the banks involved would benefit if the banks were able to draw on outside sources of funds to help meet their seasonal needs. But smaller banks were often at a relative disadvantage in obtaining credit from external sources, such as through large-denomination certificates of deposit. Consequently, the committee reported that seasonal fluctuations in loans and/or deposits created asset-and-liability management problems which many small banks seemed unable to accommodate without impairing in one way or another the quality and adequacy of banking service they offered their communities. It concluded, therefore, that

it would be appropriate to modify present lending practices at the discount window.

Design of New Privilege

The discount study committee proposed a seasonal borrowing privilege whereby smaller banks for which seasonality presented significant portfolio adjustment problems could rely on their Federal Reserve Bank as an external source of credit. Such borrowing was to be allowed only in cases of seasonal outflows which exceeded a certain percentage of the deposits of the bank.

To borrow under the seasonal privilege as implemented in 1973, a member bank must demonstrate a relatively large seasonal drain of funds each year and a lack of reasonably reliable access to national money markets. 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. A dip in its net fund availability, total deposits minus loans, should recur at about the same time each year and must persist for at least eight consecutive weeks. The seasonal swing is then calculated by subtracting the funds available each month from the peak month of fund availability. The amount of seasonal credit extended during this period is ordinarily to be limited to the amount by which the seasonal dip exceeds five per cent of the bank's average total deposits in the preceding calendar year.

For illustrative purposes, the following table shows the calculations of monthly seasonal credit needs for a bank with \$10 million in deposits. The bank experiences a seasonal run-off in deposits along with simultaneous seasonal increases in outstanding loans. The bank qualifies for seasonal credit from May to August. The amounts that the bank could borrow in these months are shown in the last column of the table.

Month	Net fund availability		Potential seasonal borrowing <sup>1/</sup>
	Total (deposits less loans)	Difference from peak month	
(millions of dollars)			
January....	\$4.4	\$0.1	\$0.0
February...	4.4	.1	.0
March.....	4.5	.0	.0
April.....	4.4	.1	.0
May.....	3.9	.6	.1
June.....	3.6	.9	.4
July.....	3.7	.8	.3
August....	3.4	1.1	.6
September..	4.0	.5	.0
October....	4.4	.1	.0
November...	4.5	.0	.0
December...	4.4	.1	.0

<sup>1/</sup> Difference in net fund availability between peak availability month and specified month, less 5 per cent of average deposits for the preceding year.

To be eligible to borrow for seasonal needs, a bank must also lack access to national money markets. To determine this, Federal Reserve discount officers look at a bank's size, location, and demonstrated ability (or inability) to market large denomination (\$100,000 and over) negotiable time certificates of deposit or to raise funds through other money market activities, such as direct purchases of Federal funds or sales of notes, finance bills and securities under repurchase agreement. The relative outstanding volume of money market instruments issued by individual banks is in general directly related to the overall size of the banks. The average relative volume tends to be low at banks with deposits under \$100 million, gradually increasing with deposit size.

Projections of Qualification and Impact

To measure the potential impact the seasonal program might have on the availability of credit, extensive studies were carried out. This was accomplished by running 5,420 member banks (those for which 1968-72 data were available) individually through the Census Method II, Variant X-11 computer program to obtain the seasonal variation in net fund availability projected for 1973. Potential seasonal borrowing and its impact were analyzed by geographic region, size of bank, whether located in a Standard Metropolitan Statistical Area (SMSA) and by proportion of farm loans to total loans.

The projections indicated that 1,931 member banks would qualify to borrow a daily average of \$597 million during a year. The percentage of member banks qualifying for seasonal borrowing varied according to geographical location. The highest proportion of member banks, 55 per cent, would qualify in the Rocky Mountain region; the lowest, 15 per cent, in the industrialized Mideast. An urban-rural classification had a similar outcome: 25 per cent of banks located in SMSA's would qualify compared to 40 per cent of those located outside of SMSA's. Furthermore, an increasingly larger proportion of member banks were potential borrowers as the level of farm loans to total loans rose.

Over the year the number of qualifying banks rose from a January low to a peak in June, when 1,311 banks would qualify to borrow. This peak amounted to 24 per cent of all member banks. In all but two regions (New England and the Southeast) the number of qualifying banks reached a peak in June or an adjacent month. The national pattern reflected mainly the agricultural season, for the more farm loans a bank had, the more exaggerated the peak in this period. In the Southeast the peak was reached in September, reflecting the influence of tourism; in New England the peak was March.

Actual Seasonal Borrowing - April 19 to October 31, 1973

The number of banks borrowing between April 19 and October 31, the period for which complete detailed data are now available, were far fewer than those potentially qualifying. Apparently,

most bankers continued to handle their seasonal as they had previously, in particular by selling Federal funds regularly and cutting back on sales as seasonal needs developed. This was not unexpected, for by the date of the implementation of the privilege, a large number of the potentially-qualifying banks were either already into their seasonal period or had made other arrangements for financing it. Furthermore, in this first year of operations, there were undoubtedly insufficient knowledge and understanding of the privilege. In general, actual borrowing patterns differed from the potential, mainly reflecting the relatively greater use of the privilege by larger banks than smaller banks and by banks in New England than those elsewhere.

From April 19 through October 31, 205 banks (4 per cent of all member banks) borrowed a daily average of \$105 million under the new privilege. This was considerably below the calculated potential of 1,781 banks (31 per cent of all members) borrowing a daily average of \$732 million. The 205 borrowing banks represented 11 per cent of the potential number while the actual volume equalled 14 per cent of the potential borrowing, a divergence that reflects the relatively greater use of the privilege made by the larger banks.

Percentage Distribution of Seasonal Borrowers

	Potential Borrowers	Actual Borrowers (April 19 - Oct. 31)
<u>Geographic Area</u>		
New England	6	19
Mideast	6	3
Southeast	18	17
Great Lakes	15	3
Plains	26	26
Southwest	18	17
Rocky Mountain	9	14
Far West	2	1
	<u>100</u>	<u>100</u>
<u>Deposit Size (Millions of dollars)</u>		
Under 10	50	21
10-24	30	36
25-49	10	19
50-99	5	11
100-249	4	12
250-299	<u>1</u>	<u>1</u>
	<u>100</u>	<u>100</u>
<u>Location</u>		
SMSA	30	39
Non-SMSA	70	61
	<u>100</u>	<u>100</u>

<sup>1/</sup> Projections assumed this size banks would not be eligible to borrow.

Seasonal Borrowers (cont.)

Farm Loans as Per Cent of Total Loans	Potential Borrowers	Actual Borrowers (April 19 - Oct. 31)
No farm loans	12	14
Under 5	19	26
5-25	23	22
25-50	22	17
50-Over	24	21
	<u>100</u>	<u>100</u>

Percentage Distribution of Daily  
Average Seasonal Borrowing

Geographic Area	Potential (Annual Average)	Actual (April-October)
New England	9	29
Mideast	9	2
Southeast	27	27
Great Lakes	10	2
Plains	18	26
Southwest	18	10
Rocky Mountain	8	4
Far West	2	*
	<u>100</u>	<u>100</u>

Deposit Size  
(Millions of  
Dollars)

Deposit Size (Millions of Dollars)	Potential	Actual
Under 10	20	5
10-24	23	11
25-49	14	13
50-99	15	19
100-249	28	43
250-299	1/	10
	<u>100</u>	<u>100</u>

Location

Location	Potential	Actual
SMSA	54	72
Non-SMSA	46	28
	<u>100</u>	<u>100</u>

Farm Loans as Per  
Cent of Total Loans

Farm Loans as Per Cent of Total Loans	Potential	Actual
No Farm Loans	20	21
Under 5	34	37
5-25	20	30
25-50	13	7
50-Over	13	6
	<u>100</u>	<u>100</u>

\* Less than .5 per cent

1/ Projections assumed these banks would not qualify for seasonal borrowing.

Almost one-third of the actual borrowing occurred in the New England area, followed by the Southeast and the Plains areas each with more than one-fourth of the total. These three areas dominated the borrowing in all months. Banks

with deposits over \$100 million accounted for over half of total daily average borrowing. In contrast, the projections indicated that these banks would account for less than 30 per cent of the total. Nearly three-fourths of the dollar borrowing was done by the 80 banks located in SMSA's. Over half the borrowing was by banks with less than 5 per cent of their loan portfolio in farm loans.

For the U.S. as a whole the number of banks borrowing and the dollar volume reached a peak in August, rather than in June as had been projected. At the peak in August, 2 per cent of member banks were borrowing, compared to 23 per cent that potentially qualified. From these data, however, it can not be concluded that seasonal borrowing needs of smaller banks reached a high point in August. The outcome in this first period reflects the reluctance of smaller agricultural banks to borrow and the greater use of the privilege by banks with later seasonal needs which had more time to adjust, both psychologically and financially, to the new privilege. A further factor which may have influenced this peak was the overall tightness in the banking system. In August, total borrowing at the discount window reached the peak for the year.

Daily Average Borrowing at the  
Discount Window, 1973

	Total (Millions of Dollars)	Seasonal (Millions of Dollars)	(Per cent of Total)
May	1786	30	1.6
June	1789	77	4.3
July	2051	124	6.0
Aug.	2143	163	7.6
Sept.	1861	147	7.9
Oct.	1467	126	8.6
Nov.	1399	84	6.0

As shown in the above table, seasonal borrowing peaked in August along with regular adjustment credit. Subsequently, however, seasonal borrowing declined at a slower rate. While no conclusion can be drawn from such limited experience, it appears that seasonal borrowing was based on factors apart from general monetary conditions.

Impact on Bank Credit

The seasonal borrowing privilege has had an insignificant impact upon total bank credit outstanding in the economy. Actual average seasonal borrowing during the April-October period amounted to .03 per cent of total loans of all member banks and .02 per cent of total loans at all insured commercial banks. Taking the peak day at each bank, seasonal borrowing amounted to .09 per cent of total member bank loans outstanding, compared to the estimated potential of .61 per cent.

Average Seasonal Borrowing as a Per Cent of  
Loans Outstanding at all Member Banks

	Potential (Annual Average)	Actual (April-October)
Total	.21	.03
<u>Geographic Area</u>		
New England	.41	.21
Mideast	.05	*
Southeast	.45	.06
Great Lakes	.10	*
Plains	.66	.14
Southwest	.57	.04
Rocky Mountain	.78	.16
Far West	.01	*
<u>Deposit Size (Millions of Dollars)</u>		
Under 10	1.09	.08
10-24	.83	.06
25-49	.47	.06
50-99	.49	.09
100-249	.65	.15
250-299	-- 1/	.10
<u>Location</u>		
SMSA	.13	.02
Non-SMSA	.82	.08
<u>Farm Loans as Per Cent of Total Loans</u>		
No Farm Loans	.36	.05
Under 5	.09	.01
5-25	.36	.08
25-50	1.18	.08
50-Over	2.74	.19

\* Less than .005 per cent.

1/ Projections assumed these banks would not qualify for seasonal borrowing.

As a percentage of total member bank loans, seasonal borrowing was most important in New England and at banks with deposits between \$100-\$249 million. In contrast, potential borrowing was relatively more important at smaller banks and in the southern and western areas of the Nation (except for the Far West). Furthermore, because the major banks located in SMSA's did not qualify for the privilege, seasonal borrowing relative to total bank lending was several times more important in non-SMSA areas, as study of the potential had indicated.

When banks are grouped by the ratio of farm loans to total loans, those with over 50 per cent of farm loans in their loan portfolio used the privilege to the greatest extent relative to the outstanding loans of the group. But as their potential use exceeded the other groups' to an even greater extent, the gap between potential and actual use was larger than at banks with relatively fewer farm loans.

The significance of both potential and actual seasonal borrowing, while still not great, increases considerably when measured against the loans outstanding at the borrowing banks only.

Average Seasonal Borrowing as a Percentage of  
Loans Outstanding at Borrowing Banks

	Potential 1/ (Annual Average)	Actual (April-October)
Total	2.6	1.8
<u>Geographic Area</u>		
New England	2.3	1.6
Mideast	2.6	1.2
Southeast	3.0	2.0
Great Lakes	1.5	.8
Plains	2.6	2.5
Southwest	3.7	1.6
Rocky Mountain	3.4	1.1
Far West	1.4	.4
<u>Deposit Size (Millions of Dollars)</u>		
Under 10	4.4	2.4
10-24	2.9	1.6
25-49	2.2	1.5
50-99	2.3	1.9
100-249	2.2	1.8
250-299	-- 2/	1.8
<u>Location</u>		
SMSA	2.3	1.9
Non-SMSA	3.1	1.6
<u>Farm Loans as Per Cent of Total Loans</u>		
No Farm Loans	2.7	1.8
Under 5	2.2	1.5
5-24	2.3	2.4
25-49	3.5	1.4
50-Over	4.7	1.8

1/ Data for 1,931 banks which potentially qualified.

2/ Projections assumed this size bank would not be eligible to borrow.

Borrowing from April to October averaged 1.8 per cent of outstanding loans, or approximately two-thirds of the estimated potential. The relative importance ranged from 2.5 per cent in the Plains area to .4 per cent in the Far West. By deposit size, it was highest at banks with deposits below \$10 million, where seasonal borrowing equalled 2.4 per cent of outstanding loans.

In general, the relative importance of 1973 seasonal borrowing to the banks using the privilege tended to parallel the potential importance when examined by area and by deposit size groups. The rural banks that borrowed, however, fell further short of borrowing as heavily as the potential indicated for them than did banks in

SMSA's or banks with relatively few farm loans.

Comparing monthly seasonal borrowing with the loans at only banks borrowing in that month, the significance is further increased. This ratio ranged from 2.2 per cent in May to 3.6 per cent in August. The projection of potential borrowing had indicated a high of 6.3 per cent in June. The actual ratio was consistently more important on a monthly basis for banks with deposits under \$10 million where it averaged 4.7 per cent from May through October. This was followed by banks having deposits between \$50 and \$99 million.

Total loans at banks with seasonal borrowing represented 1.7 per cent of all member bank loans, approximately one-fifth the potential level of 8.1 per cent.

Percentage of Member Bank Loans  
at Seasonal Borrowers

	Potential	Actual
Total	8.1	1.7
<u>Geographic Area</u>		
New England	18.2	13.4
Midwest	2.3	.2
Southeast	15.3	3.2
Great Lakes	6.9	.3
Plains	26.0	5.7
Southwest	15.5	2.9
Rocky Mountain	23.1	5.4
Far West	1.4	.2
<u>Deposit Size (Millions of Dollars)</u>		
Under 10	43.4	3.5
10-24	29.1	4.3
25-49	21.7	4.6
50-99	21.1	4.9
100-249	29.4	8.6
250-299	-- 1/	6.3
<u>Location</u>		
SMSA	5.5	1.3
Non-SMSA	27.0	5.2
<u>Farm Loans as Per Cent of Total Loans</u>		
No Farm Loans	13.6	3.0
Under 5	4.4	1.0
5-24	15.5	3.4
25-49	33.6	6.4
50-Over	55.9	10.7

1/ Projection assumed this size bank would not be eligible to borrow.

The highest share, 13 per cent, was in New England, followed by nearly 6 per cent in both the Rocky Mountain and the Plains areas. These are the three areas, although in a reversed order, in which the potential share was also larger than in

other areas. Borrowing banks located outside of SMSA's accounted for 5.2 per cent of total loans at member banks in these areas, considerably above the share of borrowing banks located in SMSA's. Again this paralleled the potential pattern, but the results were far below the potential levels. Similar results were found when banks were classified by relative importance of farm loans. The actual and potential patterns were reversed, however, when the banks were classified by deposit size; lending by the larger seasonal borrowers accounted for a greater share of total member bank loans.

Overall, seasonal borrowers held only 5 per cent of total farm loans.

Percentage of Member Bank Farm  
Loans at Seasonal Borrowers

	Potential	Actual
Total	26.6	5.0
<u>Geographic Area</u>		
New England	28.7	8.6
Midwest	6.3	.5
Southeast	29.2	3.5
Great Lakes	15.7	.2
Plains	44.6	10.0
Southwest	33.0	7.2
Rocky Mountain	41.4	10.0
Far West	2.1	.1
<u>Deposit Size (Millions of Dollars)</u>		
Under 10	55.9	4.9
10-24	38.7	8.0
25-49	19.3	4.5
50-99	19.7	4.1
100-249	32.0	16.7
250-299	--	4.9
<u>Location</u>		
SMSA	11.0	3.6
Non-SMSA	39.5	6.4
<u>Farm Loans as Per Cent of Total Loans</u>		
No Farm Loans	--	--
Under 5	5.1	.7
5-25	18.3	4.2
25-50	34.7	6.8
50-Over	60.1	10.8

As expected, seasonal borrowers located in the Plains and Rocky Mountain areas held the largest shares of farm loans at member banks--10 per cent of total outstanding farm loans in each region. The classification by deposit size indicates that relatively heavy involvement in farm lending may have been a factor in use of the privilege by the larger banks. Borrowers with deposits between \$100 and \$249 million held 17 per cent of the farm loans at banks in this size class, fully one-half of the potential level.

Individual Comparison Between Potential and Actual Borrowing

No potential borrowing was indicated for 50 of the 205 banks that borrowed seasonally by October 31. Most of the additional banks qualified after Federal Reserve discount officers adjusted the data for Federal funds sales and loan participations purchased. One-third of these banks were located in New England where area banks were heavily involved in local municipal financing. This factor was not taken into account in calculating the potential. Some of the banks not potentially qualifying may have been banks chartered since 1968, and their potential seasonal borrowing was not estimated.

In many of the remaining 155 cases, the amount and the timing of seasonal borrowing not surprisingly differed from the calculated potential. Some banks did not need to borrow the full amount for which they qualified. At other banks, borrowing needs of banks heavily involved in agricultural lending exceeded estimated potentials as a result of grain transportation difficulties, expanded acreage and increased prices.

At 138 banks, actual borrowing occurred in one or more of the months in which potential borrowing had been indicated. In these cases, the potential borrowing average did foreshadow the level of actual borrowing, particularly in the months of heavy borrowing.

Borrowing  
(millions of dollars)

	<u>Potential</u>	<u>Actual</u>	<u>Actual as Percentage of Potential</u>
April	10.4	8.6	83
May	47.6	21.1	44
June	76.8	59.3	77
July	79.4	81.6	103
Aug.	114.8	112.0	98
Sept.	92.9	93.6	101
Oct.	65.1	53.5	82

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References

1. Board of Governors of the Federal Reserve System, Advances and Discounts by Federal Reserve Banks--Regulation A, Washington, D.C., February 15, 1955, 18pp.
2. \_\_\_\_\_, "Extensions of Credit by Federal Reserve Banks," Federal Reserve Bulletin, 59:353-355, May 1973.
3. Holland, Robert C., et. al., "Intrayear Fund Flows at Commercial Banks," in "Transmittal Memoranda," Reappraisal of the Federal Reserve Discount Mechanism, Vol. 1, Washington, D.C., Board of Governors of the Federal Reserve System, 1971, pp. 106-109.
4. Melichar, Emanuel, "Seasonal Discount Assistance to Rural Banks: Evaluation of a Federal Reserve Proposal," Agricultural Finance Review, 30:44-57, July 1969.
5. \_\_\_\_\_, "Toward a Seasonal Borrowing Privilege: A Study of Intrayear Fund Flows at Commercial Banks," Reappraisal of the Federal Reserve Discount Mechanism, Vol. 2, Washington, D.C., Board of Governors of the Federal Reserve System, 1971, pp. 93-106.
6. Mitchell, George W., et. al., "Report of a System Committee," Reappraisal of the Federal Reserve Discount Mechanism, Vol. 1, Washington, D.C., Board of Governors of the Federal Reserve System, 1971, pp. 1-25.
7. Shull, Bernard, "Rationale and Objectives of the 1955 Revision of Regulation A," Reappraisal of the Federal Reserve Discount Mechanism, Vol. 1, Washington, D.C., Board of Governors of the Federal Reserve System, 1971, pp. 117-131.
8. \_\_\_\_\_, "Report on Research Undertaken in Connection with a System Study," Reappraisal of the Federal Reserve Discount Mechanism, Vol. 1., Washington, D.C., Board of Governors of the Federal Reserve System, 1971, pp. 27-75.