

Seasonal Borrowing Privilege: Profile of the Tenth Federal Reserve District

By John E. Yorke and Charlotte Herman

The seasonal borrowing privilege (SBP) was introduced by the Federal Reserve System in 1973. It was established to provide depository institutions that lack reliable access to money market sources of funds Federal Reserve credit for seasonal funding needs. The intent of the SBP was to assist member banks to better serve the credit needs of their communities by enabling them to expand their loan portfolios throughout the year. The SBP has been of particular significance to the Tenth Federal Reserve District because of the large percentage of banks therein that experience seasonal fluctuation in loans and deposits.¹

This study briefly reviews the history of the SBP and the use of seasonal credit by Tenth District member banks between 1974 and 1980. It also examines the characteristics of Tenth District eligible and borrowing banks during

¹ The Tenth District includes Kansas, Nebraska, Wyoming, Colorado, the western one-third of Missouri, northern New Mexico, and most of Oklahoma.

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that period to determine the extent to which the profile of Tenth District seasonal borrowers conforms to the profile envisioned by the Federal Reserve when the program was established. Finally, the study examines the liquidity positions of Tenth District small banks in an attempt to explain their relatively low participation in the SBP.

BACKGROUND: ADMINISTRATION OF THE SBP

Since its foundation in 1913 the Federal Reserve has been authorized to make loans to banks. The primary purpose of this authority is to provide the banking system with an ultimate source of liquidity. As an ultimate liquidity source, Federal Reserve credit is primarily used to assist banks in meeting short-term adjustment needs arising from unanticipated changes in assets or liabilities.

Prior to 1973 it was not considered appropriate for a bank to use Federal Reserve credit to meet a seasonal need that could be reasonably met through its own resources. The decreasing liquidity of banks in the 1960s led to a reassessment of that position. As a part of the reappraisal of the discount window, a study was conducted by Emanuel Melichar of intra-year fund flows at commercial banks. This

study showed that a significant proportion of banks had large seasonal funding needs.² Moreover, many of these banks had limited access to financial markets. Loan and deposit volumes at the smaller, rural banks showed greater relative intra-year changes because of the high dependence of the banks and their communities on single industries that had seasonal needs for funds. The study determined that by providing a small amount of credit relative to deposit size, the Federal Reserve could assist banks in meeting seasonal needs for funds.

Thus, the Federal Reserve System established the SBP through an amendment to its Regulation A on April 19, 1973. The announced purpose of the SBP was to "assist a member bank that lacks reasonably reliable access to national money markets in meeting seasonal needs for funds arising from a combination of expected patterns of movement in its deposits and loans."³

To determine whether banks in their districts are likely to demonstrate recurring seasonal patterns in fund flows, most Reserve banks use the X-11 variant of the Census Method II seasonal adjustment program. Using historical deposit and loan data, this program estimates the seasonal pattern of deposits and loans and projects this pattern for the year ahead. An institution's projected difference between deposits and loans—i.e., its net fund availability, is the basis for its estimated seasonal need. The program determines in which month the bank will exhibit the highest degree of liquidity (as measured by the difference between deposits and loans). It then subtracts the projected net

fund availability in each of the remaining 11 months from this peak to compute the seasonal need for each month. Because a participant in the program is expected to meet a portion of its seasonal need from its own liquidity reserves, the seasonal borrowing qualification is less than the measured seasonal need. The qualification equals the seasonal need less a certain "deductible," which is an amount equal to a proportion of the institution's average deposits over the previous year. When the program was introduced in 1973, the deductible was pegged at 5 percent of average deposits, regardless of bank size.

The concept of "reasonably reliable" access to market sources of funds was not strictly defined in the original guidelines for administration of the SBP. The guidelines emphasized that access is relative. Banks with deposits under \$100 million were presumed to lack access. The eligibility of a larger bank was an administrative decision based upon evidence that the bank could not readily tap market sources of funds.⁴

Differences among Reserve banks in making the access determination were partially responsible for changes in administration of the SBP, which were effective August 25, 1976. In its deliberations prior to the amendments, the Board's staff recognized that banks with deposits of \$100 to \$500 million had difficulties in gaining credit accommodation from correspondent banks in times of monetary stringency. Thus, the revised SBP raised the deposit size of eligible banks to \$500 million and replaced the constant 5 percent deductible

² Emanuel Melichar, "Toward a Seasonal Borrowing Privilege: A Study of Intra-year Fund Flows at Commercial Banks" in *Reappraisal of the Federal Reserve Discount Mechanism*, Board of Governors of the Federal Reserve System, August 1971, Volume 2, p. 95.

³ *Extensions of Credit by Federal Reserve Bank—Regulation A*, 12 C.F.R. 201, April 19, 1973, Section 201.2(d).

⁴ The guidelines stated that it would be uncommon for a bank with average deposits of more than \$250 million to lack the ability to obtain money market sources of funds to meet seasonal liquidity pressures. All applicants had to demonstrate a seasonal qualification with a minimum duration of eight weeks. Prearrangement to the extent possible was encouraged, and net sales of federal funds were discouraged while seasonal credit was outstanding.

Table 1
SYSTEM AND TENTH DISTRICT SEASONAL BORROWING: 1974-80

Year	System Daily Average Borrowings (In thousands of dollars)			Tenth District Daily Average Borrowings (In thousands of dollars)			Tenth District as a Percent of System Borrowings	
	Total	Seasonal	Seasonal as Percent of Total	Total	Seasonal	Seasonal as Percent of Total	Percent of Total	Percent of Seasonal
1973*	1,684,200	95,004	5.6	114,196	28,621	25.1	6.8	30.1
1974	2,048,231	86,115	4.2	84,375	18,481	21.9	4.1	21.5
1975	201,698	23,340	11.6	6,082	3,403	56.0	3.0	14.6
1976	84,692	18,192	21.5	8,216	4,469	54.4	9.7	24.6
1977	463,769	55,250	11.9	38,566	19,574	50.8	8.3	35.4
1978	867,846	120,423	13.9	58,234	25,213	43.3	6.7	20.9
1979	1,332,846	145,538	10.9	89,909	32,483	36.1	6.7	22.3
1980	1,414,918	72,491	5.1	67,579	19,993	29.6	4.8	27.6

*For 1973, the seasonal privilege was available for only 9 1/2 months.

Source: Board of Governors of the Federal Reserve System, Federal Reserve Bank of Kansas City.

with a graduated scale of 4 to 10 percent, which varied directly with bank size. The Board expected that the requirement for larger banks to meet a greater proportion of their seasonal needs from internal sources would eliminate those banks with assured access to the national money markets from participation in the program.⁵ To foster greater use of the SBP by member banks, the Board reduced the minimum period of seasonal need from eight to four weeks and abolished the prohibition on net sales of federal funds by seasonal borrowers.

USE OF THE SEASONAL BORROWING PRIVILEGE

Since the establishment of the SBP, seasonal credit has represented only a small part of total lending by the Federal Reserve. (See Table 1.) For 1974 (the first full year of the SBP) through 1980, seasonal credit accounted, on average, for 13 percent of total System lending. It ranged from a low of 4.2 percent in 1974 to a high of 21.5 percent in 1976. The amount of seasonal

⁵ A recent study conducted in the Ninth Federal Reserve District (Minneapolis) by Stanley L. Graham has questioned the continued relevance of the SBP in light of the nationwide development of the federal funds market and the greater use of seasonal credit by multibank holding company affiliates in that District. Both phenomena, according to Graham, indicate that seasonal borrowers have access to market sources of funds and, therefore, should not rely on Federal Reserve credit to meet seasonal funding needs. Graham attributes historical changes in the level of seasonal borrowings to changes in the discount rate relative to the federal funds rate. As the differential rises, borrowings tend to rise; when the differential decreases, the level of seasonal credit outstanding tends to fall. See Stanley L. Graham, "Is the Fed's Seasonal Borrowing Privilege Justified?" *Federal Reserve Bank of Minneapolis Quarterly Review*, Volume 66, No. 4, Fall 1979, p. 9.

Melichar has attributed historical declines in seasonal borrowings to easing liquidity positions of correspondent banks. These periods of slack have tended to coincide with federal funds rates at levels below the discount rate. Melichar has stated that a true "macro" test of access would be the observation of changes in seasonal borrowing levels in a period of tight monetary policy in which the discount rate would be pegged above the federal funds rate. He notes that these conditions have not appeared to date. See Emanuel Melichar, "The Federal Reserve Seasonal Borrowing Privilege," *Future Sources of Loanable Funds for Agricultural Banks*, a symposium sponsored by the Federal Reserve Bank of Kansas City (Kansas City, Missouri), December 8-9, 1980, pp. 111-32.

credit extended has been considerably less than the originally estimated potential. From 1973 through 1980, total potential seasonal borrowing had been projected to be about \$600 million on an annual average basis.⁶ The average annual amount of seasonal credit extended over that period, however, was only \$77 million.

For the first two years of its existence, 1973 and 1974, borrowing under the SBP was high compared with the volume of credit extended in later years. Seasonal borrowing dropped off dramatically the next two years to the lowest levels in the history of the program. Although some authors have attempted to explain this drop on such factors as a reduction in the seasonality of funds flow and the program's restrictions on net sellers of federal funds, it may also have been the result of lower interest rates and easier credit conditions.⁷

For most of 1975 and 1976 the federal funds rate was lower than the discount rate. Under these conditions, a drop in all Federal Reserve borrowings, including credit under the SBP program, might be expected. It is worth noting, however, that during this interval seasonal credit as a percentage of total Federal Reserve credit increased significantly, from 4.2 percent in 1974 to 11.6 percent in 1975 and 21.5 percent in 1976.

For 1977 through 1979, the amount of seasonal credit increased. However, the percentage of seasonal to total credit declined. For 1980 both the amount of seasonal credit and seasonal credit as a percentage of total credit was less than for the previous two years. Economic conditions had an impact on seasonal activity that year. As in 1975 and 1976, federal funds rates were less than the discount rate for part of 1980.

⁶ Ibid., p. 116.

⁷ Ibid., p. 112.

The importance of the SBP to Tenth District banks is clearly illustrated in Table 1. For 1974 through 1980, seasonal credit represented an average of 42 percent of total lending to Tenth District banks. During those years, on average, 24 percent of total System seasonal credit was extended by the Federal Reserve Bank of Kansas City. The relatively large contribution of the Tenth District to seasonal credit totals reflects the large number of Tenth District banks that are eligible to use the SBP. The number of banks eligible to borrow seasonal credit, expressed as a percentage of all member banks in the District, has generally been 50 percent or more. However, a much smaller proportion, on average less than one-half of those eligible to borrow, actually made use of the SBP in the seven-year interval.

TENTH DISTRICT PROFILE OF ELIGIBLE AND BORROWING BANKS

This section analyzes the characteristics of the size, location, and agricultural orientation of Tenth District eligible and borrowing banks from 1974 through 1980. The purpose of the analysis is to assess the extent to which the banks' profile matched that expected by the framers of the SBP.

Since the studies conducted by Melichar in the mid-1960s revealed that rural banks exhibited a greater seasonal funding need than other banks, one would expect to see more small, rural, farm lending banks within the ranks of those institutions eligible to use the SBP.⁸ This has been the case in the Tenth District. In general, a greater proportion of the smallest banks in the District, those with

⁸ See Emanuel Melichar and Raymond J. Doll, "Capital and Credit Requirements of Agriculture and Proposals to Increase Availability of Bank Credit" in *Reappraisal of the Federal Reserve Discount Mechanism*, Board of Governors of the Federal Reserve System, Volume 2, p. 162.

deposits under \$50 million, were eligible for the SBP than larger banks. Between 1974 and 1980, small banks comprised 83.5 percent of all Tenth District member banks but accounted for 90 percent of the total number of qualifying banks. Moreover, the largest percentage of banks eligible to use the SBP were in rural, or non-SMSA, areas. While 71 percent of all member banks were in rural areas, these banks constituted 79 percent of banks eligible to obtain seasonal credit. Finally, member banks with higher concentrations of farm loans in their portfolios were more likely to be eligible to participate in the SBP. Banks with agricultural loans equal to more than 40 percent of total loans outstanding represented only 35 percent of all District member banks. However, these banks accounted for half of all Tenth District eligible banks throughout the 1974-80 period.

Although banks eligible for seasonal credit exhibited the expected characteristics, one would not necessarily expect any correlation between these characteristics and use of the SBP by eligible banks. That is, once determined to be eligible for the SBP, a bank's location, agricultural orientation, and size should not—in and of themselves—explain its use of the SBP. Tenth District experience with the SBP supports this expectation with one exception—bank size. There was no significant difference between rural and urban bank use of the SBP. From 1974 through 1980, 20.9 percent of the eligible SMSA banks used seasonal credit, about one percentage point more than eligible banks outside SMSAs.

In addition, the extent of agricultural lending in Tenth District banks did not significantly influence decisions to use seasonal credit. Table 2 shows that approximately the same proportion, 20 percent, of eligible banks with a heavy agricultural orientation used seasonal credit as banks with a lower proportion of agricultural

Table 2
CHARACTERISTICS OF TENTH
DISTRICT SEASONAL CREDIT
ELIGIBLE AND BORROWING BANKS:
1974-80

Location	Distribution of all Eligible Banks	Percentage of Eligible Banks Using the SBP
SMSA	21.5	20.9
Non-SMSA	78.5	19.9
Agricultural Orientation		
Ag Loans ≤ 40% of Total Loans	51.4	20.4
Ag Loans ≥ 40% of Total Loans	48.6	20.8
Multibank Holding Company Affiliation		
Affiliates	13.5	21.9
Nonaffiliates	86.5	19.6
Size		
\$0 to \$49 Million	90.5	18.6
≥ \$50 Million	9.5	31.8

loans in their portfolios. For the purpose of this study, agriculturally oriented banks were defined as those with agricultural to total loans ratios of 40 percent or more.⁹

⁹ Also, structural characteristics do not appear to have had significant influence over the use of the seasonal borrowing privilege by Tenth District banks. Of the banks that were subsidiaries of multibank holding companies and eligible to use seasonal credit, 22 percent on average did so from 1974 through 1980, compared with 20 percent of the eligible banks that were not subsidiaries of multibank holding companies. The lack of any significant correlation between use of the seasonal borrowing privilege and bank structure (multibank holding company banks as compared with independent banks) in the Tenth Federal Reserve District is consistent with the experience of the Federal Reserve

Unlike other factors, there has been a correlation between Tenth District bank size and use of the SBP. As seen in Table 2, bank size has been directly correlated with use of the SBP. On average, 32 percent of the eligible banks with deposits of \$50 million or more borrowed seasonal credit. By contrast, only 19 percent of the small eligible banks used the SBP.

BANK SIZE AND THE DECISION TO BORROW SEASONAL CREDIT

An understanding of the lower participation by smaller banks requires an analysis of the mechanisms by which managers of small banks adjusted to liquidity pressures created by falling deposit levels or rising loan demand. Four different responses of managers could account for the absence of small eligible banks from the discount window. These include the liquidation by nonborrowers of a greater volume of securities, significantly higher reductions in their volume of federal funds sales, greater purchases of federal funds by nonborrowers, and the curtailment of loan activity.

An analysis of security holdings reveals no significant differences between the investment policies of small borrowing and nonborrowing banks. The ratio of investments to assets for small nonborrowers over the 1974-80 period averaged 28 percent, or about one percentage point more than that of small banks which used the SBP.

Similar findings appear when the level of federal funds purchased by the two groups are examined. In fact, neither borrowers nor nonborrowers participated significantly in the federal funds market between 1974 and 1980.

System in general (op. cit., Melichar, p. 119). An exception was the experience in the Ninth Federal Reserve District, where banks affiliated with multibank holding companies tended to use the seasonal borrowing privilege substantially more than independent banks (op. cit., Graham, pp. 9-14).

Federal funds purchased, expressed as a percentage of deposits and purchased funds, averaged .5 percent for small nonborrowers and 1.3 percent for small borrowers.

On the other hand, small nonborrowers sold significantly more federal funds than small banks that used the SBP. Federal funds sold by nonborrowers averaged 7.9 percent of deposits and funds sold. This was about twice the average recorded by small borrowing banks.

Given the lack of significant differences between small nonborrowers and borrowers in security holdings and purchased funds practices, the persistence of higher levels of federal funds sales by nonborrowers might indicate that they maintained greater levels of "excess liquidity" throughout the year to meet seasonal liquidity needs compared to small SBP users. If this were the case, one might expect small seasonal borrowers to exhibit higher average loan to deposit ratios. Indeed, the annual loan to deposit ratios of small borrowers was consistently higher than that of small nonborrowers throughout the 1974-80 period. This ratio averaged 70.8 percent for small borrowers but only 63.4 percent for nonborrowers.

The relative degree of liquidity strain, or adjustment required within the year to meet changes in deposit and loan levels, could also explain why more small eligible banks did not use their seasonal credit qualification. One indicator of liquidity strain, deposits minus loans, was constructed to measure the magnitude of change in eligible banks' net fund availability.¹⁰ As illustrated by Chart 1, Tenth

¹⁰ For each year in the interval weekly deposit and loan data were averaged, giving monthly figures. Average loans were then deducted from average deposits. The lowest monthly net fund availability average was then subtracted from the peak monthly net fund availability total and expressed as a percentage of the peak amount. A higher variance in net fund availability might imply a more onerous task of adjusting to deposit outflow or increases in loan demand.

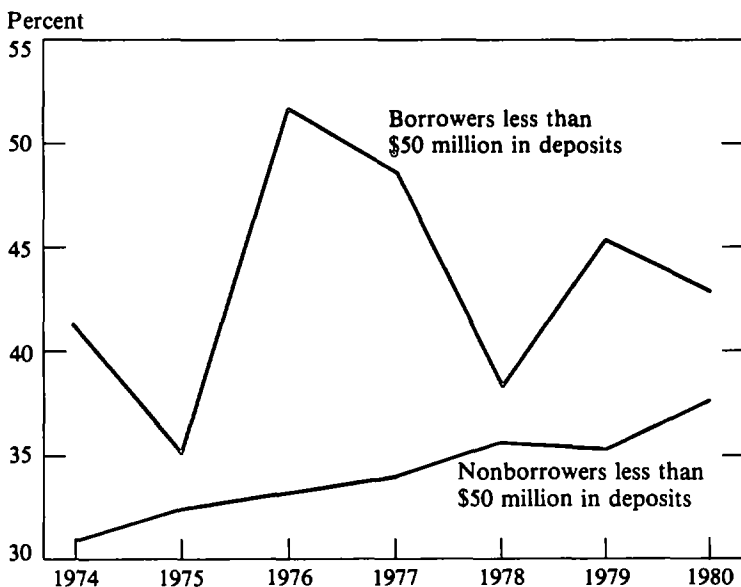
District data indicate that the net fund availability variance ratios of small borrowers were higher than those of their nonborrowing counterparts by a large margin. Throughout the 1974-80 period, the variance ratios for small borrowers averaged 43.4 percent; in contrast, that of small nonborrowers was 34 percent. These differences also are evident when all borrowing banks' ratios are compared with those of all nonborrowing institutions, regardless of size (Chart 2).

SUMMARY AND CONCLUSION

Despite the longevity of the Federal Reserve's seasonal borrowing privilege, few studies have been published that examine Reserve Banks'

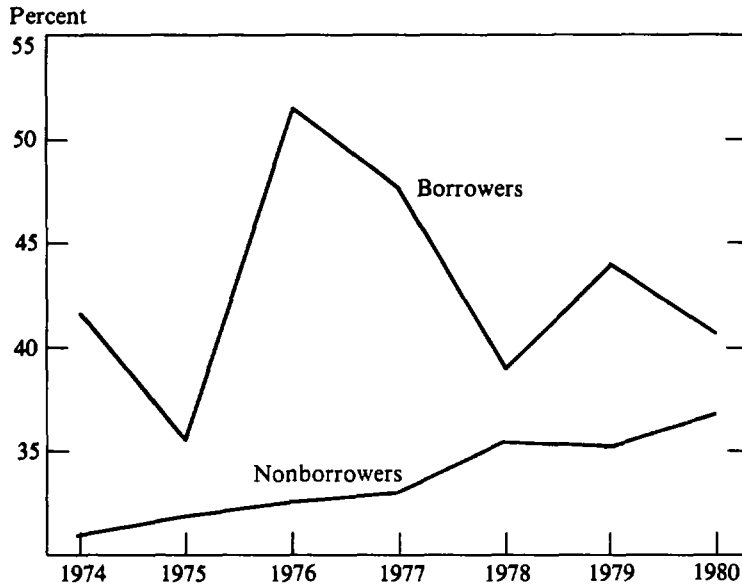
lending experience under the program. This study has reviewed the background of the SBP and changes in its administration. In addition, expected characteristics of banks eligible to participate in the program were compared with those of Tenth District seasonal borrowers. The Tenth District experience with the SBP between 1974 and 1980 demonstrated that the expected characteristics of smaller size, rural location, and agricultural orientation were evident in banks eligible to use the program. The proportion of agricultural loans did not significantly influence use of the SBP, nor did multibank holding company affiliation or location. Large banks tended to use the SBP more than small banks. However, the significantly greater loan to deposit and net fund availability variance

Chart 1
VARIANCE IN NET FUND AVAILABILITY FOR BORROWERS OF SEASONAL CREDIT IN THE TENTH FEDERAL RESERVE DISTRICT BY DEPOSIT SIZE: 1974-80



Note: Variance of net fund availability (NFA) = $\frac{\text{Mean of peak NFA minus lowest NFA}}{\text{Peak NFA}}$

Chart 2
VARIANCE IN NET FUND AVAILABILITY FOR TENTH FEDERAL RESERVE
DISTRICT BANKS ELIGIBLE FOR THE SEASONAL BORROWING PRIVILEGE:
1974-80



Note: Variance of net fund availability (NFA) = $\frac{\text{Mean of peak NFA minus lowest NFA}}{\text{Peak NFA}}$

ratios exhibited by small Tenth District borrowers suggest that these institutions faced greater seasonal needs for credit and accommodated a higher volume of nonseasonal loan demand in their communities than small nonborrowers.

A primary benefit of the SBP is that seasonal credit represents an assured, dependable source of funds to eligible institutions every year,

regardless of the business cycle. The continued availability of seasonal credit may have given bankers the confidence to maintain a more fully loaned position during the year, thereby enhancing these financial institutions' contribution to community welfare. The Tenth District experience tends to support a conclusion that the SBP has served the objectives for which it was established.