

The Role of Extended Credit In Federal Reserve Discount Policy

By Gordon H. Sellon, Jr.

Most borrowing at the Federal Reserve's discount window has traditionally been done by commercial banks in the form of short-term adjustment credit. In recent years, however, important changes have taken place in discount policy. One change is that access to the discount window has been broadened under the Monetary Control Act of 1980 to include all depository institutions subject to Federal Reserve reserve requirements. Another change is that seasonal and other extended credit programs have been developed to assist institutions in meeting longer term liquidity needs.

With the advent of financial deregulation and such problems as the farm credit crisis, borrowing under the extended credit programs has increased sharply in recent years. During 1984, for example, a sizable increase in extended credit was associated with the financial difficulties of Continental Illinois. More recently, the Federal Reserve has played a role in providing short-term liquidity to certain

thrift institutions in Ohio and Maryland and has revised its seasonal credit program to assist small agricultural lenders.

Broadly speaking, the Federal Reserve has responsibilities in maintaining the stability of the financial system and using monetary policy to promote noninflationary economic growth. In this framework, extended credit borrowing performs a valuable role by preventing the liquidity problems of individual financial institutions from weakening the structure of the financial system. At the same time, however, reserves provided to institutions under this program could complicate monetary policy. To the extent that liquidity problems occur during a period of monetary restraint, for example, reserves provided under the extended credit program may need to be offset by appropriate policy actions.

This article examines the role of extended credit borrowing and its implications for monetary policy. The first section of the article provides an overview of the discount window and outlines key features of the various borrowing programs. The second section

Gordon H. Sellon, Jr., is a research officer and economist with the Federal Reserve Bank of Kansas City. Thomas W. Dean and Jeffrey Schlerf provided research assistance.

documents the increased importance of extended credit borrowing. The final section examines the Federal Reserve's treatment of extended credit borrowing in implementing monetary policy.

An overview of the discount window

Before discussing the various borrowing programs in detail, it is useful to consider some broad issues relating to the eligibility of institutions to use the discount window, the mechanics of borrowing, and the costs of borrowing.

General information

Before passage of the Monetary Control Act of 1980, only commercial banks that were members of the Federal Reserve System had regular access to the discount window. In conjunction with the extension of reserve requirements to all depository institutions under this act, Congress required that all institutions subject to Federal Reserve reserve requirements have access to the discount window. In practice, institutions with access to such special industry lenders as the Federal Home Loan Bank System, credit union centrals, and the Central Liquidity Facility of the National Credit Union Administration are expected to use those sources before relying on Federal Reserve discount window facilities.

Use of the discount window is subject to Regulation A of the Board of Governors of the Federal Reserve System. This regulation sets forth administrative principles defining appropriate reasons for borrowing, the types of borrowing programs available, and the terms of borrowing. Institutions borrow from the regional Federal Reserve banks subject to uniform guidelines established at the regional banks.

Discount window borrowing generally takes the form of an advance of funds from the Federal Reserve to the borrowing institution. The loan must be fully collateralized to the satisfaction of the reserve bank. Satisfactory collateral generally includes U.S. government and federal agency securities, and, if of acceptable quality, mortgage notes covering one-to-four-family residences, state and local government securities, and business, consumer, and other customer notes.¹

Institutions borrowing at the discount window are charged an interest rate based on the type of borrowing undertaken. The structure of discount rates is established by the boards of directors of the regional Federal Reserve banks subject to approval by the Board of Governors.

Types of borrowing

Discount window borrowing is divided into two main categories: adjustment credit and extended credit. Extended credit is further subdivided into seasonal extended credit and other extended credit. Each of the three classes will be discussed in turn.

Adjustment credit. Historically, most discount window borrowing has taken the form of adjustment credit. This type of credit is designed to meet the short-run liquidity needs of individual depository institutions. For example, an institution experiencing an unexpected outflow of deposits, an unexpected increase in credit demands, or an unusual event such as a computer malfunction may have a temporary need for reserves. Adjustment credit performs an important function by permitting affected institutions to meet their

¹ Borrowing can also be done in the form of a discount rather than an advance. See *The Federal Reserve System Purposes and Functions*, Board of Governors of the Federal Reserve System, Washington, D.C., 1984, p. 59.

liquidity needs with minimum disruption to financial markets and market interest rates.

The amount of adjustment credit is regulated through administrative guidelines and by changes in the discount rate. Institutions that borrow under the adjustment credit program are monitored according to several criteria. There is a basic prohibition against the use of the discount window as a substitute for higher cost methods of reserve adjustment. There are also restrictions relating to the size of the institution borrowing, the amounts borrowed, the maturity of borrowing, and the frequency of borrowing. Generally speaking, larger institutions with better access to national money markets are expected to borrow relatively smaller amounts, less frequently, and for briefer periods than smaller institutions.²

The amount of adjustment borrowing is also related to the basic discount rate charged on this type of borrowing. An increase in the discount rate relative to market rates is intended to discourage use of the discount window relative to other methods of reserve adjustment. The current discount rate on adjustment borrowing is shown in Table 1.³

Seasonal extended credit. A seasonal borrowing privilege was instituted in 1973 as a result of Federal Reserve System studies indicating that many small banks did not have access to national money markets on the same terms as larger banks. To the extent that these small institutions experienced a strong sea-

TABLE 1
Discount rates for types
of borrowing as of May 20, 1985
(percent)

<u>Type</u>	<u>Discount Rate</u>
Adjustment	7 1/2
Regular seasonal	7 1/2
Temporary seasonal	8
Other extended credit	
First 60 days	7 1/2
Next 90 days	8 1/2
After 150 days	9 1/2

Source: *Federal Reserve Bulletin*

sonal pattern to their loan and deposit flows they tended to acquire an inefficiently large amount of low-yielding but highly liquid assets during off-peak periods to meet peak seasonal needs. The seasonal credit program was designed to give these institutions access to discount window funds on an extended basis that would enable them to meet the loan needs of their community.⁴

The seasonal credit program differs from adjustment credit in several respects. First, seasonal credit is typically extended for longer periods than adjustment credit. To participate in the seasonal program, an institution is expected to have a seasonal need for funds that persists for at least four weeks. Borrowing under the seasonal program can be outstanding for up to nine months. In contrast, most adjustment borrowing is on an overnight basis or within a reserve maintenance period. Second, seasonal borrowing normally is lim-

² For a more detailed discussion of borrowing guidelines, see *Operations of the Federal Reserve Discount Window Under the Monetary Control Act of 1980*, Federal Reserve Bank of Kansas City, 1982.

³ In addition to the basic discount rate, a surcharge may also be applied to borrowing. A surcharge was in effect on large banks that borrowed frequently for certain periods in 1980 and 1981. For a discussion of the surcharge see Gordon H. Sellon, Jr. and Diane Seibert, "The Discount Rate: Experience Under Reserve Targeting," *Economic Review*, Federal Reserve Bank of Kansas City, September-October 1982, pp. 3-18.

⁴ Recent discussions of the seasonal borrowing program can be found in John E. Yorke and Charlotte Herman, "Seasonal Borrowing Privilege: Profile of the Tenth Federal Reserve District," *Economic Review*, Federal Reserve Bank of Kansas City, September-October 1982, pp. 19-26, and Emanuel Melichar, "The Federal Reserve Seasonal Borrowing Privilege," in *Future Sources of Loanable Funds for Agricultural Banks*, Federal Reserve Bank of Kansas City, 1980.

ited to small institutions with deposits of less than \$500 million. Third, to qualify for the seasonal program, an institution's projected seasonal need for funds must exceed a certain percentage of its average deposits in the preceding calendar year.⁵ This deductible is the amount of its seasonal need for funds that an institution must fund on its own, without resorting to the discount window.⁶

Recently, in the context of a worsening farm credit crisis, the Board of Governors made two changes in the seasonal program to ensure availability of credit to small agricultural lenders. First, the regular seasonal borrowing program was modified to lower the deductible amount, that is, the amount of a seasonal need that must be funded by the institution.⁷ Second, the Board announced a temporary simplified seasonal program aimed at small agricultural lenders that do not currently participate in the regular seasonal borrowing program. These changes allow smaller institutions to obtain a greater portion of their seasonal need for funds from the Federal Reserve

and make it easier for institutions to make use of the programs.⁸

Different discount rates are charged under the regular seasonal program and the temporary program. Institutions that borrow under the regular seasonal program are charged the basic discount rate on adjustment borrowing. Those that borrow under the temporary program are charged, at present, a rate that is one-half percent above the basic rate. Under the temporary program, this rate may change for new loans but is fixed for the maturity of outstanding loans. Current discount rates on the seasonal programs are shown in Table 1.

Other extended credit. This category of discount window borrowing is designed to assist institutions experiencing serious liquidity problems that are expected to persist for an extended period of time. Borrowing under this program typically occurs in two situations. The first case is that of an institution adversely affected by unanticipated economic events or unsound management decisions. For example, an institution with a heavy concentration of loans in a particular sector, such as energy or agriculture, could be seriously affected by an economic downturn in these sectors. With reduced profitability of such a loan portfolio, the reduction in earnings could cause a serious erosion in the institution's capital. Borrowing under the extended credit program may provide needed interim financing to allow the institution to restructure its loan portfolio or replace current management or to allow regulators to merge or close the institution.

The category of other extended credit is also designed to meet the intent of Congress as expressed in the Monetary Control Act to pro-

⁵ For example, consider an institution with a seasonal need of \$1 million and \$5 million in deposits in the prior year. If this institution were subject to a 5 percent deductible amount, it would be expected to fund \$250,000 of its seasonal need from its own resources and would have a maximum seasonal borrowing privilege of \$750,000. For more details see John E. Yorke and Charlotte Herman, "Seasonal Borrowing Privilege," p. 20.

⁶ When the seasonal borrowing privilege was established in 1973, the minimum period for borrowing was set at eight weeks. The program was targeted at institutions with less than \$250 million of deposits and all banks were subject to a 5 percent deductible. The program was revised in 1976 to shorten the maximum borrowing period to four weeks, raise the deposit size of eligible institutions to \$500 million, and replace the constant deductible percentage with a graduated scale based on deposit size of the bank.

⁷ The deductible amount was reduced from 4 to 2 percent for the first \$100 million in deposits and from 7 to 6 percent for the second \$100 million in deposits. The rate remains at 10 percent for deposits over \$200 million.

⁸ For more detail on these programs, see Mark Drabentstott and Marvin Duncan, "Farm Credit Problems: The Policy Choices," *Economic Review*, Federal Reserve Bank of Kansas City, March 1985, p. 12.

vide assistance to depository institutions particularly affected by financial disintermediation. For example, thrift institutions with asset portfolios consisting primarily of low-yielding, fixed-rate mortgage loans may be put under a serious liquidity strain when they are forced to pay higher market rates to maintain their deposit bases. Borrowing under the extended credit program may be an appropriate method of easing these liquidity strains pending a reduction in market rates or a longer term adjustment of asset portfolios.

Since the other extended credit program is designed to provide a flexible response to a variety of individual situations, guidelines are somewhat different from those for the adjustment and seasonal programs. Whether the problems of an institution can be corrected on a timely basis and what local or national consequences might result from the failure of an institution enter the decision as to the availability and terms of credit.⁹

Institutions borrowing under the other extended credit program pay a discount rate that varies with the maturity of the borrowing. For the first 60 days, an institution pays the basic discount rate charged on adjustment and seasonal credit. Beyond 60 days, institutions pay a higher rate, as illustrated in Table 1. Additionally, for loans outstanding for more than 150 days, a Federal Reserve bank may charge a flexible rate that takes into account rates on market sources of funds. This flexible rate must be set at least one percentage point above the basic rate.¹⁰

⁹ A more detailed discussion of these issues can be found in *The Federal Reserve System Purposes and Functions*, pp. 62-63.

¹⁰ Where credit provided to a particular depository institution is anticipated to be outstanding for an unusually prolonged period and in relatively large amounts, the time period in which each rate under this structure is applied may be shortened.

The growth of extended credit

In recent years, the seasonal and other extended credit programs have become a more important source of funds for institutions experiencing longer term liquidity needs. This section documents the growing significance of these programs and identifies some of the factors underlying this trend. The following section explores the relationship of extended credit borrowing and monetary policy.

The increased importance of seasonal and other extended credit is illustrated in Table 2, which shows total discount window borrowing and the three types of borrowing for the period 1974-84. As seen in the table, the amounts of the two categories of extended borrowing have generally increased since 1980 and both types reached record levels in 1984. This behavior contrasts sharply with the low levels of extended borrowing in the 1975-79 period. The relative importance of extended borrowing in recent years is illustrated even more clearly in Chart 1, which shows the two categories of extended credit as a percentage of total borrowing. As can be seen, extended credit rose from a low of 11 percent of total discount window borrowing in 1979 to a high of 77 percent in 1984.

The behavior of the different types of borrowing can potentially be explained both by economic factors, such as interest rates, and by institutional factors such as legislative and regulatory changes. Most research on discount window borrowing has focused on adjustment borrowing. Studies generally find that adjustment borrowing is sensitive to the spread between the federal funds rate and the discount rate. When the funds rate is above the discount rate so that the spread is positive, institutions typically increase their borrowing. For example, 1974 and 1979-81 were characterized by large positive values of the spread.

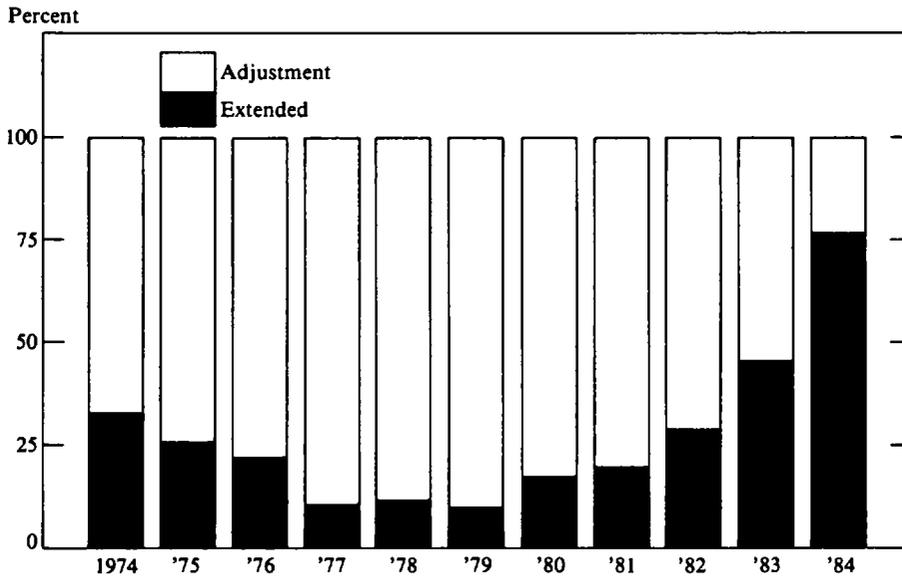
TABLE 2
Discount window borrowing
by type, 1974-84
 (annual averages of daily figures, millions of dollars)

<u>Year</u>	<u>Total</u>	<u>Adjustment Credit</u>	<u>Seasonal Credit</u>	<u>Other Extended Credit</u>
1974	2,050	1,358	85	606
1975	195	144	24	28
1976	84	64	18	2
1977	461	405	56	0
1978	871	750	121	0
1979	1,339	1,187	151	*
1980	1,416	1,153	72	191
1981	1,361	1,073	183	105
1982	1,052	746	136	170
1983	1,039	554	112	373
1984	3,730	854	209	2,666

*Less than \$500,000

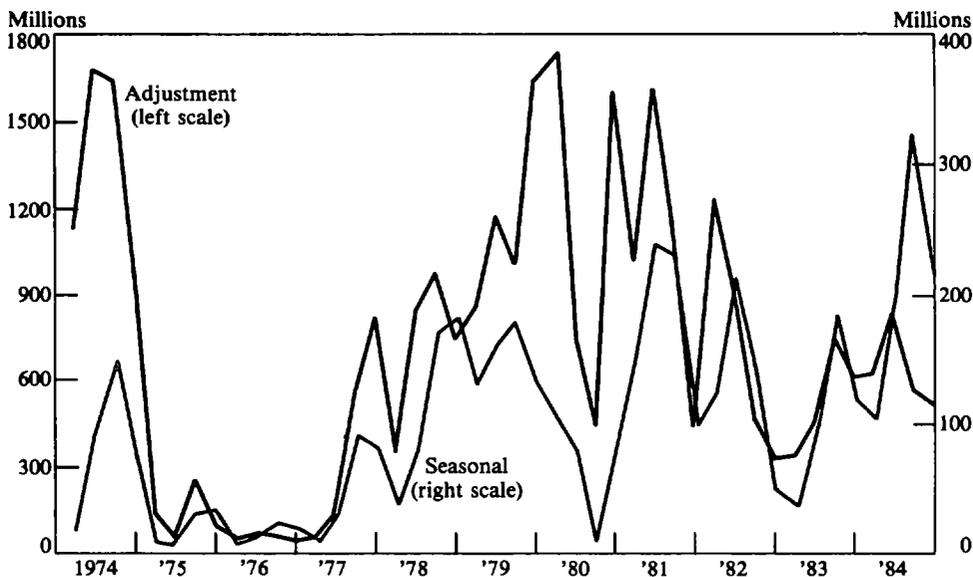
Source: *The Federal Reserve System Purposes and Functions*, Board of Governors, 1984, and
Federal Reserve Bulletin

CHART 1
Extended credit as a percentage of total borrowing



Source: *Federal Reserve Bulletin*

CHART 2
Adjustment and seasonal borrowing
 (quarterly averages of daily figures in millions of dollars)



Source: *Federal Reserve Bulletin*

As shown in Table 2, in these years adjustment borrowing exceeded \$1 billion. In contrast, in 1975-76, the funds rate was generally below the discount rate so that the spread was negative. And, as shown in Table 2, adjustment borrowing declined to frictional levels in these years.

Seasonal borrowing appears to depend on both economic factors, such as interest rates and on the institutional framework of the seasonal credit program. Over the course of the business cycle, seasonal borrowing behaves very much like adjustment borrowing. This relationship is apparent in Chart 2. Both seasonal and adjustment borrowing were low in such years as 1975-76 when the spread between the funds rate and the discount rate was frequently negative. In contrast, both types of borrowing were higher in such years

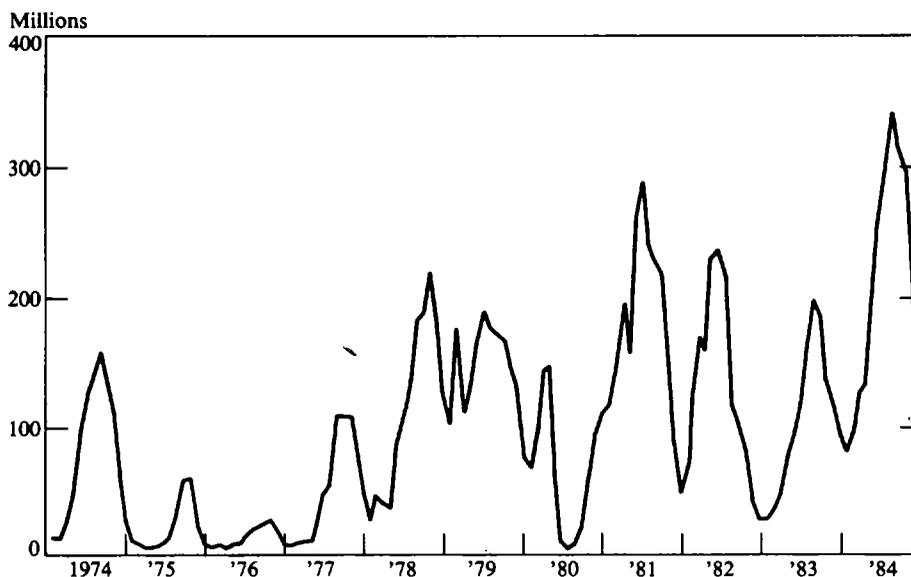
as 1979 and 1981, when the funds rate generally exceeded the discount rate.¹¹

At the same time, however, there are institutional features specific to the seasonal borrowing program. Under this program, borrowing by institutions is expected to mirror their seasonal need for funds, rising to a peak and then diminishing.¹² This behavior imparts a pronounced "seasonal" pattern to seasonal borrowing. Thus, seasonal borrowing is generally low in the first quarter of the year, rises

¹¹ While both seasonal and adjustment borrowings are sensitive to the spread, the elasticity of seasonal borrowing with respect to the spread is considerably smaller than that for adjustment borrowing.

¹² See "Report of a System Committee," in *Reappraisal of the Federal Reserve Discount Mechanism*, Board of Governors of the Federal Reserve System, 1971, p. 17.

CHART 3
Seasonal borrowing
 (monthly averages of daily figures in millions of dollars)



Source: *Federal Reserve Bulletin*

to a peak in the third quarter, and then declines again in the fourth quarter.¹³ This pattern is apparent in the monthly data for seasonal borrowing shown in Chart 3. Moreover, the chart indicates that the pattern has become more pronounced since 1980.¹⁴

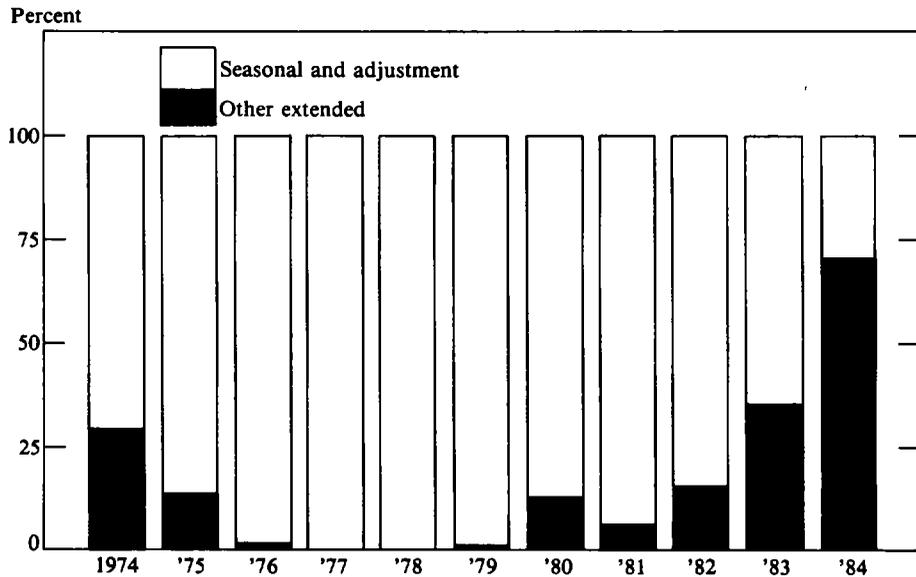
Institutional and economic factors are more difficult to disentangle in the case of other

extended credit. Much of other extended credit borrowing can best be described as episodic and, thus, difficult to capture in an economic model. In Chart 4, for example, the large amount of other extended borrowing in 1974 was primarily associated with the financial difficulties of Franklin National Bank. Little borrowing occurred under this program in 1977-79. The subsequent increase in other extended credit borrowing after 1979 was due to a variety of factors. Part of the increase was due to the extension of discount window privileges to nonmember institutions as mandated by the Monetary Control Act of 1980. Another part of the increase in other extended borrowing was related to economic declines in the energy, agricultural, and other sectors of the economy. Still another factor was poor judgment on the part of the management of several

¹³ This aggregate pattern to seasonal borrowing masks distinct differences in the patterns in different Federal Reserve districts. See, for example, Melichar, *op. cit.*, pp. 130-131.

¹⁴ The behavior of seasonal borrowing post 1980 could be due to the Monetary Control Act or to the behavior of interest rates. Post 1980, increases in interest rates during the year have tended to occur at the same time that seasonal borrowing would normally be expected to increase. Similarly, in several years after 1980, decreases in interest rates have tended to occur when seasonal borrowing would normally be expected to taper off. Thus, it may be difficult to distinguish economic and institutional factors affecting seasonal borrowing.

CHART 4
Other extended credit as a percentage of total borrowing



Source: *Federal Reserve Bulletin*

large financial institutions with regard to loan quality and interest rate forecasts.

Clearly these recent events are not unrelated to one another or to the behavior of interest rates. The years 1974 and post-1979 have been characterized by relatively high levels of nominal interest rates. This high level of rates has contributed directly to the liquidity problems of some financial institutions and accelerated the process of financial innovation and deregulation. However, the connections among interest rates, deregulation, and extended borrowing are not easy to distinguish as witnessed by the large increase in extended borrowing in 1984. Even though interest rates were lower in 1984 than in 1980-82, the increase in extended borrowing in 1984 is clearly a lagged response to the liquidity strains created in prior years.

Extended credit and monetary policy

Generally speaking, the Federal Reserve has broad responsibilities both in maintaining the stability of the financial system and in using monetary policy to promote noninflationary economic growth. This section examines the relationship of extended credit borrowing to these two goals and describes how the Federal Reserve incorporates extended credit into its monetary policy decisions.

Discount window borrowing can play a valuable role in promoting financial stability by keeping the liquidity problems of individual financial institutions from weakening the structure of the financial system. Unlike the Federal Reserve's use of open market operations which provides reserves to the entire financial system, the discount window pro-

vides reserves to individual institutions with the greatest liquidity needs. The availability of the discount window allows the Federal Reserve to pursue broad monetary objectives without having to worry about cushioning the impact of policy on individual institutions.

Historically, adjustment credit has played an important role in cushioning financial markets and interest rates from temporary reserve adjustment problems of individual institutions.¹⁵ More recently, the extended credit program has enabled the Federal Reserve to prevent longer term and more serious liquidity problems of individual institutions from spilling over into financial markets.

Despite this important function of the discount window, however, there are clearly situations in which borrowing could compromise monetary policy goals. Reserves provided to individual institutions through the discount window augment the total supply of reserves to depository institutions. These reserves provide the basis for deposit and credit expansion. Thus, for example, to the extent that liquidity problems of individual institutions occur during a period of monetary restraint, discount window borrowing could potentially lessen the degree of restraint.¹⁶

¹⁵ See Gordon H. Sellon, Jr., "The Role of the Discount Rate in Monetary Policy," *Economic Review*, Federal Reserve Bank of Kansas City, June 1980, pp. 3-15, for a discussion of how the discount window cushions the money market from various financial disturbances.

¹⁶ The impact of borrowing on reserve growth and interest rates depends importantly on the type of operating procedure used by the Federal Reserve. Under an interest rate targeting procedure, the effects of unexpected changes in discount window borrowing on interest rates are automatically offset by open market operations. Under a nonborrowed reserve or borrowed reserve operating procedure, however, unexpected changes in borrowing will have an impact on interest rates and reserves unless a decision is made to alter open market operations. The discussion in this section assumes a nonborrowed or borrowed reserve operating procedure.

The Federal Reserve can reconcile the goals of providing liquidity to selected institutions while maintaining a desired degree of monetary restraint by coordinating discount policy and open market operations. By selling securities in the open market to drain reserves at the same time that additional credit is advanced through the discount window, the Federal Reserve is able to provide reserves to institutions most in need of liquidity without changing the total amount of reserves in the financial system and without altering the stance of monetary policy.

In practice, the Federal Reserve treats other extended credit differently in conducting monetary policy. Borrowing under the other extended credit programs is generally offset by open market operations. Thus, for example, the extended credit borrowing by Continental Illinois in 1984 was offset by the open market sale of securities. That is, reserves provided through the discount window were offset by an equal reduction in reserves through open market operations. In this way, the Federal Reserve prevented this borrowing from affecting the overall level of interest rates and the degree of monetary restraint.

Despite its classification as extended credit, seasonal borrowing is generally treated like adjustment credit in conducting monetary policy. That is, unexpected increases or decreases in the amount of seasonal borrowing are not routinely offset by open market operations. As a result, these changes in seasonal borrowing generally affect market interest rates and reserve availability.

Seasonal borrowing is treated differently from other extended credit for two reasons. First, until recently, seasonal borrowing has been a small fraction of total borrowing. Thus, as a practical matter, unexpected variation in the amount of seasonal borrowing

would probably be expected to have only minor effects on interest rates and reserve availability. Second, as discussed in the preceding section, both seasonal and adjustment borrowing are interest sensitive and they both behave similarly over the course of the business cycle.

The treatment of seasonal borrowing may need to be reexamined, however, in light of recent developments. Seasonal borrowing increased unexpectedly sharply in 1984. If this increase is maintained, seasonal borrowing could have a larger impact on interest rates and reserve availability in the future. In addition, if substantial amounts of borrowing occur under the recently revised seasonal program, seasonal borrowing could behave more like other extended credit than like adjustment credit. If this occurs, some part of seasonal borrowing might appropriately be offset in conducting monetary policy.

Summary

In recent years an increasing amount of discount window borrowing has occurred under programs for seasonal and other extended credit. This article has described the various borrowing programs and documented the increased role of extended credit borrowing. While discount window borrowing provides necessary liquidity to individual financial institutions and thus promotes the stability of the financial system, this borrowing also has monetary policy implications. Generally speaking, monetary policy instruments are used to offset the impact of borrowing under the other extended credit program to keep this borrowing from having an impact on interest rates and reserve availability. In contrast, borrowing under the seasonal program is not offset. Thus, unexpected changes in seasonal borrowing have an impact on interest rates and reserve availability.