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The Misuse of the Fed's Discount Window

I AM HONORED to have the opportunity to give the Homer Jones Memorial Lecture. In remembering him today, I pay tribute to his contributions to monetary policy making and to quantitative monetary research in his capacity as director of research at the St. Louis Fed. I got to know Homer during the period of his membership in the Shadow Open Market Committee. At our meetings he was diffident about his knowledge and insistent on scrupulous attention to statistical evidence as backing for the policy conclusions we reached. I cannot think of two more admirable qualities in an economist. It was a privilege for me to have had this association with Homer.

In 1925 the Federal Reserve Board collected data on the number of member banks continuously indebted to their Reserve Banks for at least a year. As of August 31, 1925, 593 member banks had been borrowing for a year or more. Of this number, 239 had been borrowing since 1920 and 122 had begun borrowing before that. The Fed guessed that at least 80 percent of the 259 national member banks that had failed since 1920 had been "habitual borrowers" prior to their failure. Of 457 continuous borrowers in 1926, 41 banks suspended operations in 1927, while 24 liquidated voluntarily or merged (Shull 1971, 34-35).

The reason for citing these statistics for the 1920s is to call attention to an early episode in Federal Reserve history that contravened the ancient injunction to central banks to lend only to illiquid banks, not to insolvent ones, and that is eerily similar to a current episode. The Fed apparently learned little from the earlier episode, since there is even less justification for the use made of the discount window in the current than in the earlier episode.

The current episode came to light after the House Banking Committee requested data on all insured depository institutions that borrowed funds from the discount window from January 1, 1985, through May 10, 1991. Regulators grade banks on their performance, according to a scale of 1 to 5. The grades are based on five measures known by the acronym of CAMEL, for Capital adequacy, Asset quality, Management, Earnings, Liquidity.[1] The Federal Reserve reported that of 530 borrowers from 1985 on that failed within three years of the onset of their borrowings, 437 were classified as most problem-ridden with a CAMEL rating of 5, the poorest rating; 51 borrowers had the next lowest rating, CAMEL 4. One borrower with a CAMEL rating of 5 remained open for as long as 56 months. The whole class of CAMEL 5-rated institutions were allowed to continue operations for a mean period of about one year.

At the time of failure, 60 percent of the borrowers had outstanding discount window loans. These loans were granted almost daily to institutions with a high probability of insolvency in the near term, new borrowings rolling over balances due. In aggregate, the loans of this group at the time of failure amounted to $8.3 billion, of which $7.9 billion was extended when the institutions were operating with a CAMEL 5 rating. Three months prior to failure, borrowings of all 530 institutions peaked at $18.1 billion. Rather than encouraging banks to pursue strategies to preserve their size, regulators often encourage institutions that are about to fail to shrink drastically first, so as to diminish the pool of assets that have to be liquidated after closing.

Some observers of bank performance have asserted that it is impossible to know whether an institution that applies for discount window assistance faces a liquidity or solvency problem. That assertion may be defensible for discount window lending in the 1920s even though an estimated 80 percent of long-time borrowers failed, since CAMEL ratings did not then exist. Currently, CAMEL ratings 4 and 5 are known promptly. Why should it be impossible or even difficult to distinguish between an illiquid and an insolvent bank?

Support by the Fed for banks with a high probability of insolvency in the near term is not the only recurrent problem with the discount window. Equally troublesome is the history of actual or proposed Fed capital loans to nonbanks. Such use of the discount window distracts the Fed's attention from its monetary control function. Recent experience reinforces earlier doubts about the need for the discount window. The time has come for a truly basic change: eliminate the discount window and restrict the Fed to open market operations.[2] This change would have the added value of obliterating the symbolic role of the discount rate and weakening the tendency to regard the Fed as determining interest rates.

In the rest of this paper, I document the erosion of the historic restriction, at least since the 1930s, of Federal Reserve discount window assistance to liquidity-strained banks on the security of sound assets. Section 1 deals with lending operations from the founding until the post-World War II period, during which loans to nonbanks first occur. I then discuss Federal Reserve actions in recent decades that have further blurred the distinction between liquidity and solvency, and also the emergence of various nonbanks as candidates for discount window assistance. I ask why these developments have occurred when there has been no change in official declarations of commitment to supply only liquidity, not solvency or capital, to individual banks, not nonbanks (section 2). In the next sec-

[1]Brief official descriptions of composite CAMEL 4 and 5 ratings follow:

CAMEL 4 "Institutions in this group have an immoderate volume of serious financial weaknesses or a combination of other conditions that are unsatisfactory. Major and serious problems or unsafe and unsound conditions may exist which are not being satisfactorily addressed or resolved."

CAMEL 5 "This category is reserved for institutions with an extremely high immediate or near-term probability of failure."

CAMEL ratings of banks are not uniform from one district to another. Some New York CAMEL 4 banks may be rated 5 elsewhere.

[2]This recommendation has been disputed on the ground that establishing access to the discount window as a right — not a privilege — administered at a penalty rate would solve the problems that face the current administration of the window. It is not clear to me, however, that these changes would eliminate the problem of political pressures on the Fed to lend to nonbanks. As for the problem of loans to insolvent banks, access to the window as a right at a penalty rate might only result in worsening adverse selection.

See also Kaufman (1991), who argues that the discount window is not needed to protect the money supply — the basic justification for a lender of last resort — and that liquidity strains can be mitigated by open market operations without involving the Fed in discount window assistance. Credit-worthy banks can borrow at market rates, large ones in the Fed Funds market, small ones from their correspondent banks.

tion I examine the costs of Federal Reserve support for problem institutions that regulatory authorities eventually close and for nonbanks that would otherwise have to meet a market test (section 3). Finally, I consider whether reforms of discount window practices that have been proposed could remedy the inherent problems of the mechanism. I comment on provisions in the FDIC Improvement Act of 1991 that may be worthy reform proposals but do not address these problems (section 4). I offer my conclusions in section 5.

1. HISTORIC ROLE OF DISCOUNT WINDOW LENDING

A. Before the New Deal

Regulation A—the first one adopted by the Federal Reserve Board at its creation, in recognition of the expectation that the discount window at Federal Reserve Banks would serve as the main purveyor of member bank reserves—establishes the rules under which the Banks may extend credit. Periodically revised, the regulation has consistently set out the procedures that banks had to follow to gain access to the discount window. The initial regulation provided for rediscounting short-term agricultural, industrial, and commercial paper, defined as eligible paper. Later, to accommodate Treasury financing needs in World War I, the Reserve Banks were empowered to extend direct collateral loans to member banks, occasionally secured by pledge of eligible paper but usually by obligations of the U.S. government. Until the 1930s, even though the Federal Reserve had become familiar with open market purchases as a source of member bank reserves, bills discounted usually exceeded U.S. government securities in Reserve Bank portfolios.

The discount window provided accommodation for periods up to 90 days for a non-agricultural discount or advance collateralized by eligible paper or government obligations, but of up to nine months for agricultural paper. As noted earlier, continuous borrowing year in and year out in the 1920s was not uncommon. A later (1954) Federal Reserve document, deploring continuous borrowing, noted that "it was possible by the mid-Thirties to speak of an established tradition against member bank reliance on the discount facility as a supplement to its resources" (Shull 1971, 41). A similar statement appears in an internal Federal Reserve history of the discount mechanism: "extended borrowings by a member bank from its Reserve Bank would in effect constitute a use of Federal Reserve credit as a substitute for the member's capital" (Hackley 1973, 194). The 1973 version of Regulation A states, as a general principle, that "Federal Reserve credit is not a substitute for capital and ordinarily is not available for extended periods." Both the 1980 and 1990 versions of Regulation A state, as a general requirement, that "Federal Reserve credit is not a substitute for capital."

A broader statement of the foregoing principle, covering banks and nonbanks, appeared in 1932 in a conference report by representatives of the Federal Reserve Bank of New York, who had met with South American central banks: "Central banks must not in any way supply capital on a permanent basis either to member banks or to the public, which may lack it for the conduct of their business" (*Federal Reserve Bulletin* 1932, 43).

Legislative changes in the administration of the discount window, made in response to bank failures in the Great Depression, sometimes observed this advice. The Glass-Steagall Act of February 27, 1932, authorized Federal Reserve Banks (in a new section 10(b) added to the Federal Reserve Act) to make advances to member banks on their promissory notes secured by otherwise ineligible collateral, if acceptable to the Reserve Banks, for periods up to four months at rates not less than one-half percent per annum above the prevailing highest discount rate. No provision was made for solvency loans of capital or loans to receivers of closed banks.

Although no provision was made for solvency loans of capital, the Emergency Relief and Construction Act of July 21, 1932 (in a new section 13(3) added to the Federal Reserve Act), opened the discount window to nonbanks. It permitted the Reserve Banks to discount for individuals, partnerships and corporations, with no other sources of funds, notes, drafts and bills of exchange eligible for discount for member banks. The New Deal confirmed this type of authority (in section 403 of Title III of the Emergency Banking Act of March 9, 1933, that added section 13(13) to the Federal Reserve Act). It allowed 90-day advances to individuals, partnerships and corporations on the security of direct obligations of the U.S. government, at interest rates fixed by the Reserve Banks.

B. From the New Deal to Post-World II

Before turning to the New Deal change that involved Reserve Banks in extending capital loans to nonbanks, let me review the other changes in the Emergency Banking Act of 1933. Title II created conservatorships for national banks. Section 304 of Title III authorized the Reconstruction Finance Corporation, not the Federal Reserve, to subscribe to preferred stock "of any national banking association or any State bank or trust company in need of funds for capital purposes." It is significant that Title IV, referring to the Federal Reserve, conferred on it no authority to make solvency loans of capital. Section 402 authorized Federal Reserve Banks, until March 3, 1934, to make advances in exceptional and exigent circumstances to member banks on their own notes on the security of any acceptable assets, superseding the provision regarding advances to member banks in the February 1932 Glass-Steagall Act. By Presidential proclamation, this provision, the forerunner of the present section 10(b), was extended until March 3, 1935, when it expired (Board *Annual Report* 1933, 261-265). The new form of section 10(b) became permanent as part of the Banking Act of 1935.

I now turn to the New Deal change that authorized the Federal Reserve to make solvency/capital loans to nonbanks. The Act of June 19, 1934, added a new section 13(b) to the Federal Reserve Act, which authorized Reserve Banks directly or in participation with a member or nonmember bank to make advances to established commercial or industrial enterprises for the purpose of supplying working capital if the borrower were unable to obtain assistance from usual sources. A participating member or nonmember bank had to obligate itself for at least 20 percent of any loss. The loans were for periods up to five years (Board *Annual Report* 1934, 50-51). Through 1939, the Reserve Banks had approved 2,800 applications and commitments amounting to $188 million at rates from 2.5 to 6 percent (Smead 1941, 259). Although the Reconstruction Finance Corporation then assumed a more important role in providing working capital for established businesses, the Reserve Banks continued to participate, approving an additional 742 applications amounting to $382 million through 1946 (Board *Annual Report* 1946, 10).

The aggregate amount of such loans was limited by law to the surplus of the Reserve Banks as of July 1, 1934, plus $139 million that the Treasury was to repay the Banks for their required subscription to the Federal Deposit Insurance Corporation in an amount equal to one-half of their surplus on January 1, 1933. The required subscription was stipulated in the Banking Act of 1933 that created the FDIC (Board *Annual Report* 1933, 276-277). A commentator has noted that this "is the only instance in United States history in which Congress required the central bank to expend its own funds to subscribe for more than a *de minimis* amount of the capital of another unrelated enterprise, other than obligations of the Treasury itself" (Todd 1988, 60). In any event, the Reserve Banks charged off the value of FDIC stock on their books in the same calendar year in which they paid for the subscription. Capital loans to nonbanks under the authority of section 13(b), unlike the FDIC subscription, were voluntary decisions of the Reserve Banks. In section 2 below, I note a more recent attempt by the Treasury that was foiled to require the Fed to expend its own funds in support of the FDIC.

Congressional authorization and Federal Reserve implementation of loans to nonbanks for use as capital was, in my judgment, a sorry reflection on both Congress's and the Fed's understanding of the System's essential monetary control function. In 1946 the Federal Reserve Board sought to eliminate its authority under section 13(b) to make loans directly to business enterprises and replace it with a mandate restricted to guaranteeing such loans. A bill introduced in Congress early in 1947 on the Board's behalf would have authorized Reserve Banks to guarantee, up to a maximum of 90 percent, loans, extended by banks for as long as 10 years to small- and medium-size business enterprises, subject to a fee charge that increased with the guarantee percentage. The bill also provided for the return of the amounts advanced by the Treasury (up to $139 million) for the Banks' industrial loan operations, and pledged that no further Treasury appropriations for this purpose would be required (Board *Annual Report* 1946, 8-10; 1947, 11-12).

Since the bill was not enacted, Reserve Banks for the next decade continued to make and co-finance working capital industrial loans. Section 13(b) was finally repealed by the Small Business Investment Act of 1958, under the terms of which the Reserve Banks restored to the Treasury the amounts it had advanced under section

13(b) (Board *Annual Report* 1958, 95). Chairman William McChesney Martin, in testimony before the Subcommittee on Small Business of the Senate Banking and Currency Committee, when it was considering this bill, stated well the Federal Reserve's considered judgment on its venture into capital industrial loans: Its primary objective was "guiding monetary and credit policy," and "it is undesirable for the Federal Reserve to provide the capital and participate in management functions" of the proposed small business financing institutions (*Federal Reserve Bulletin* 1957, 769).

I conclude this survey of Federal Reserve lending activities since its founding by noting its support for solvency/capital lending programs under wartime V-loan authority that it adopted on April 6, 1942, and revised on September 26, 1950 (Board *Annual Report* 1942, 89-91; 1950, 72-74). Federal Reserve Banks were authorized to act on behalf of the guaranteeing agencies (War Department, Navy Department, etc.) as fiscal agents of the United States, meaning, the Treasury was required to reimburse them for their outlays. In acting as a guarantor of defense production loans, the Federal Reserve provided a model of guaranteeing authority that was later invoked when bailouts of peacetime enterprises were proposed in the 1970s. Those developments and Federal Reserve lending since the 1980s to institutions with a high probability of insolvency in the near term represent a major departure from its historic mandate to provide loans to illiquid but not insolvent depository institutions. In the section that follows I discuss the apparent change in how the Federal Reserve regards its mandate.

2. ASSISTANCE TO INSOLVEMENT NONBANKS AND BANKS SINCE THE 1970s

A. Assistance to Insolvent Nonbanks

An appropriate starting point is the official response to financial problems of the Penn Central Railroad that surfaced in 1970. Though it did not lead to discount window assistance, nonetheless it reveals clearly the pressures that were to lead to such a practice. The Nixon Administration proposed to give the company a V-loan as a bailout. However, for the loan to be of any use, legislative approval was required, since guarantees of loans for defense production were to expire on June 30. When legislation stalled in Congress, the Administration requested the Federal Reserve Board to authorize the Federal Reserve Bank of New York to give the company discount window assistance. The request was rejected and, as a result, the company filed for bankruptcy on June 21, 1970. On June 30, Congress approved a Joint Resolution, extending the Defense Production Act but limiting the maximum obligation of any guaranteeing agency (for example, the Federal Reserve) to $20 million, and stipulating that "The authority conferred by this section shall not be used primarily to prevent the financial insolvency or bankruptcy of any person, unless" the President certifies "a direct and substantially adverse effect upon defense production" (*Federal Reserve Bulletin* 1970, 720).

If the incident had ended at this point, it would have been remembered primarily as a political dispute between the Administration and the Congress. Penn Central's bankruptcy would have been regarded simply as the key to the restructuring of its operations. Instead, the Federal Reserve reacted as though the company's default on $82 million of commercial paper it had outstanding would generate a financial crisis. The Federal Reserve assumed that lenders would not discriminate between a troubled issuer and other perfectly sound issuers of commercial paper, so that the latter would be unable to roll over their issues. "It was made clear that the Federal Reserve discount window would be available to assist banks in meeting the needs of businesses unable to roll over maturing commercial paper" (Board *Annual Report* 1970, 18).

However, commercial paper issuers that faced difficulties did so not because of the condition of the market as such, but because of conditions peculiar to themselves (for example, Chrysler Financial and Commercial Credit) (Carron 1982, 398). The fully justified verdict of the 1971 *Economic Report of the President* (69) was that no "genuine liquidity crisis existed in mid-1970."

The Penn Central episode fostered the view that bankruptcy proceedings by a large firm created a financial crisis, and that, if possible, bankruptcy should be prevented by loans and loan guarantees: the "too big to fail" doctrine in embryo.

The financial difficulties faced by New York City in 1975 led the Federal Reserve to inform

Congress of its response to suggestions that it might serve as a source of emergency credit. Governor George W. Mitchell cautioned "against any proposals that would provide direct access to central bank credit by hard-pressed governmental units" (*Federal Reserve Bulletin* 1975, 410). Chairman Arthur F. Burns reiterated that caution and reported on contingency plans to increase temporary discount window lending to commercial banks in the event of a major municipal default. However, he added that if a default ultimately required "write-downs that could seriously impair the capital of some banks," the Federal Deposit Insurance Corporation, not the Federal Reserve, had statutory powers to assist federally insured banks that found their capital impaired (*Federal Reserve Bulletin* 1975, 635-636).

In the end, Congress passed a law guaranteeing New York City loans of up to $2.3 billion in 1975, reduced to $1.65 billion in 1978, but the Federal Reserve's involvement in the rescue arrangement was only limited fiscal agency services.[3] The Fed also acted as fiscal agent for Treasury loan guarantees issued during the bailouts of the Lockheed (1971) and Chrysler (1979) corporations.[4]

I have been unable to find any reference to the Fed's involvement in these three loan guarantees in any of its publications. By consulting the U.S. Code—a source for lawyers, not economists—however, I have been able to ferret out the details of that involvement. My guess is that the Fed was unwilling to publicize its role because it was not voluntary.

The most recent attempt to use the discount window to assist a nonbank involved the FDIC. In March 1991, the FDIC chairman, William Seidman, requested Congressional authorization for a direct loan of $25 billion by the Federal Reserve to the Bank Insurance Fund. Chairman Alan Greenspan, testifying before the Senate Banking Committee the next month, opposed such a loan. That did not deter Treasury Under Secretary for Domestic Finance Robert Glauber from renewing the request in testimony on May 29, 1991, before a subcommittee of the House Ways and Means Committee. The Federal Reserve's required subscription to the FDIC on its establishment in his view served as a precedent. The FDIC recapitalization and banking reform bill that the Treasury prepared included provisions authorizing the FDIC to borrow $25 billion from the Federal Reserve Banks and amending section 13 of the Federal Reserve Act, authorizing any Federal Reserve Bank "to make advances to the Federal Deposit Insurance Corporation, upon its request" (Treasury bill 1991, sec. 402, 245). The July 23, 1991, bill prepared by the House Committee on Banking, Finance and Urban Affairs did not include those provisions (H.R.6, 102nd Cong., 1st sess.). The final legislation, the FDIC Improvement Act of 1991, follows the House bill in increasing from $5 billion to $30 billion the FDIC's authority to borrow directly from the Treasury, not from the Fed.

Despite the restraint in the Act with respect to recapitalizing the FDIC, restraint is absent from another provision. The Act amended Section 13 of the Federal Reserve Act that deals with the Federal Reserve's authority to discount for nonbanks. The amendment eliminated the requirement that the notes, drafts or bills tendered by nonbanks be eligible for discount by member banks. As interpreted by Sullivan & Cromwell, a New York law firm, for its clients in a memorandum of December 2, 1991, this provision enables the Fed to lend directly to security firms in emergency situations. Traditionally, commercial banks, knowing they had access to the discount window, have lent to brokerage firms and others short of cash in a stock market crash. It is not clear why the traditional practice was deemed unsatisfactory. In my view, the provision in the FDIC Improvement Act of 1991 portends expanded misuse of the discount window.

To this date, the Fed has apparently been a reluctant participant in loans and loan guarantees to nonbanks. The question must be asked whether it will be firm in the future in resisting pressures to fund insolvent firms that are politically well-connected.

B. Assistance to CAMEL 4- and 5-Rated Banks

In 1974 the Federal Reserve behaved contrary to traditional principles when uninsured depositors started a run on the Franklin National Bank after news surfaced that it had large foreign exchange losses.The Comptroller of the Currency did not close it promptly. The decision of the

[3]See U.S. Code (1975, 1978).

[4]See U.S. Code (1971) for Lockheed and U.S. Code (1980) for Chrysler.

regulators was that the Federal Reserve discount window, starting in May, would provide loans until the FDIC found a purchaser of the failed institution. Over the next five months, the Federal Reserve Bank of New York lent continuously to Franklin; the maximum amount lent, on October 7, 1974, was $1.75 billion, representing nearly one-half of Franklin's assets. On October 8, the bank was declared insolvent and taken over by a foreign consortium.

Among the precedents established by discount window lending to Franklin National was that its London branch assets were accepted as collateral, and that, for the first time, the borrowings covered withdrawals from the London branch as well as Franklin's domestic branches. Although, on one hand, Franklin National simply borrowed at the discount rate, what was unusual in this episode was that in September 1974 the Federal Reserve assumed responsibility to execute Franklin's existing foreign exchange contracts, since bidders for the bank were unwilling to honor them. It also agreed to extend discount window assistance, if needed, to the purchasing bank. The FDIC, moreover, did not immediately repay the discount window loan—its normal practice—but signed a three-year note obligating itself to do so as the collateral Franklin supplied was liquidated. In effect, the Federal Reserve lent capital funds that the insurance agency contributed to the purchasing bank. The interest cost to the Fed of subsidizing loans to Franklin has been estimated at $20 million (Garcia and Plautz 1988, 228). In executing Franklin's foreign exchange contracts, the Fed also incurred opportunity costs of staff time and lost interest on part of its portfolio.

The rescue of Franklin National Bank shifted discount window use from short-term liquidity assistance to long-term support of an insolvent institution pending final resolution of its problems. The bank was insolvent when its borrowing began and insolvent when its borrowing ended. The loans merely replaced funds that depositors withdrew, the inflow from the Reserve Bank matching withdrawals.

The undeclared insolvency of Continental Illinois in 1984 was also papered over by extensive discount window lending from May 1984 to February 1985, albeit with smaller subsidies than in the case of Franklin National—an amendment to Regulation A as of September 25, 1974, permitted application of a special rate on emergency credit after eight weeks that was closer to a market rate. The borrowing covering Continental's holding company as well as the bank at some dates amounted to as much as $8 billion. Again the FDIC assumed the bank's loan, which it eventually repaid from the proceeds of liquidating the bank's assets, concluding with one large $2.1 billion payment in September 1989—an enormous cash drain.

The discount window has been valued by the Federal Reserve as a mechanism for directing funds to an individual bank with liquidity problems. It regarded its loans to Franklin National and Continental Illinois as exceptional occurrences. However, when hundreds of CAMEL 4- and 5-rated banks, as noted at the beginning of this paper, were receiving extended accommodation even though they faced a high probability of near-term failure, discounting can no longer be regarded simply as a means of providing temporary liquidity. What explains this transformation in practice?

C. Why the Departure From the Historic Norm of Discount Window Use?

In the United States, with federal spending budgeted at an all-time high, policy makers see the discount window as a mechanism for providing funds off budget. Legislation is necessary to authorize the Fed to provide assistance to favored nonbanks, so the use of the window isn't kept secret, but it may seem a cost-free way of funding them because repayment can be rolled forward indefinitely. This may explain the recent spate of efforts to use discount window assistance for nonbanks.

With respect to loans to banks with a high probability of insolvency in the near term, it is noteworthy that in 1974 only four banks failed. By the late 1980s, failures were numbered in triple digits, and the FDIC's problem banks, in four digits. Having once set the precedent of lending to such problem institutions, at least two explanations may account for this practice by the Federal Reserve: (1) As in the case of Franklin and Continental Illinois Banks, its actions may have been taken at the bidding of the FDIC, or perhaps on its own initiative, in order to mitigate the FDIC's plight. (2) The Federal Reserve may regard failure of a large institution as potentially triggering a financial collapse or a run on the dollar. Fear of contagion may have become the Federal Reserve's overriding concern.

Even if these explanations account for the change in Federal Reserve discount window practice, neither may justify the change. Before dealing with this issue, it is important to assess the costs of wholesale discount window lending to insolvent institutions, to which I now turn.

3. COSTS OF LENDING TO INSOLVENT INSTITUTIONS

For the Fed to lend directly to the Treasury or to government agencies that the Treasury would otherwise fund through regular appropriations is a slippery slope. The costs are politicization of the money supply process. The Fed's charter wisely prohibits such lending.

Discount window accommodation to insolvent institutions, whether banks or nonbanks, misallocates resources. Political decisions substitute for market decisions. Institutions that have failed the market test of viability should not be supported by the Fed's money issues.

A depository institution traditionally was said to be eligible for discount window assistance when it was illiquid but solvent. In recent years, it has been given assistance when it was liquid but its insolvency was undeclared. On a market value basis, an institution is insolvent when assets are less than liabilities. Since book values are the usual measure of assets and liabilities, the divergence between assets and liabilities may only be revealed long after the market value of its assets has fallen below the market value of its liabilities. In addition, an institution may be liquid but insolvent, so long as its cash flow is positive.

A decision to declare an institution insolvent is the prerogative of the chartering agency: the Comptroller of the Currency for national banks, state authorities for state-chartered banks supervised by the Fed and the FDIC. The FDIC, since 1989, however, can both remove deposit insurance and substitute itself as receiver of state banks. It can force a state to close banks and, as the thrift insurer, close insolvent insured thrifts. (It does not have authority to close credit unions.) If the chartering agency has delayed closure, the Federal Reserve has acted as if a troubled institution is entitled to discount window assistance provided it can furnish acceptable collateral. The question I raise is whether the Federal Reserve's position is defensible when inferior CAMEL ratings provide independent evidence on the likelihood of insolvency in the near or immediate future.

Since the Federal Reserve routinely sterilizes discount window reserve infusions, does it make any difference whether the reserves are provided to solvent or insolvent banks or whether the period for which the reserves are provided is limited or extended? After all, if the reserves were not made available through the discount window, open market purchases would add an equivalent reserve contribution to the banking system.

I believe that it does make a difference whether reserves are injected by open market purchases or by discount window lending, especially if insolvent banks are permitted to borrow for extended periods. Discount window lending may not affect proposed monetary growth, but it has other effects that make it an undesirable source of reserves.

Open market operations are anonymous. The market allocates reserve injections or withdrawals among participants according to their relative size and current opportunities. Much greater discretion is exercised by the Federal Reserve in the allocation of reserves through discounting, since the Fed knows the institutions that request discount accommodation. The public learns about the magnitude of both open market operations and discount window credit from the data the Federal Reserve publishes, but it does not learn the names of the banks that received loans. The data made available to the House Banking Committee in 1991 revealed the names of the institutions that had failed despite extended discount window loans, but not the names of the few banks that had received such loans but had not failed.[5] The secrecy may be good public policy, but it leaves open the question whether provision of loans on a case-by-case basis assures equal treatment for all. This is an argument against discount window lending in general, not specifically to insolvent banks, an argument that has often been made in the past without reference to the specific problem of insolvent banks (for example, Friedman 1960, 38).

[5]It was only extended credit borrowers that failed in the data the House Banking Committee obtained from the Fed in 1991. Banks that obtained seasonal credit at the window did not fail. As footnote 2 on page 59 contends, the discount window is not essential for this use.

Since the 1970s, the Federal Reserve has extended long-term discount window assistance to depository institutions that by objective standards were likely to fail. It has done so in the belief that, in the absence of such assistance, contagious effects would spread from the troubled institutions to sound ones. The belief is particularly entrenched for large troubled intermediaries, reflecting an apprehension that halting the operation of such institutions would have dire unsettling effects on financial markets. Before 1985, the goal of such discount window assistance was a restructuring of the problem institution as a viable entity with both insured and uninsured deposits made whole.

That was the situation in 1984 when Continental Illinois was rescued. The implication was that any other response would have brought on contagion. Yet if the bank had been closed before its net worth turned negative, the institutional depositors, foreign bank depositors and creditors who ran on it might well have redeposited their withdrawals elsewhere or bought financial assets to replace the certificates of deposit Continental issued and that they were no longer willing to buy. Even if some interbank depositors that held as much as half their equity in uninsured deposits at Continental had obtained only a fraction of their claims immediately upon the closing, they would ultimately have recovered the full nominal value of their claims after liquidation of the bank.[6] The market would have known that the claimants on Continental were not in jeopardy. Even if closing Continental had led to runs on the foreign interbank depositors — ostensibly the reason for keeping Continental in operation — the lenders of last resort in the nations concerned could have provided adequate liquidity in their markets to tide the banks over if the Continental deposits were their only problem. Fear of contagion should not determine a regulator's decision to keep an insolvent bank open. It should lead the Fed to lend to the market to prevent the contagion.

If fear of contagion is a lesson the Federal Reserve has learned from the banking panics of 1930-33, it is the wrong lesson. Contagion then occurred in an environment in which the Fed permitted the money supply to decline drastically, rendering banks insolvent not because of their own actions but simply because of the collapsing economy. The right lesson is that contagion need not arise if open market purchases are made adequate both to reassure the market and to prevent a collapse in the quantity of money. Examples are the Fed's provision of liquidity to cushion the economy from the effects of the 1987 stock market crash and the collapse of Drexel Burnham.

Since 1985, prolonged discount window assistance has generally terminated not with restructuring but with closure of the insolvent banks. When banks are known to be insolvent, postponement of recognition of losses that have occurred might well have increased current losses. Uninsured depositors have more time to withdraw their funds. The insurance agency, which is to say the taxpayer, ultimately bears any added costs of delayed closure. By lending to the banks in question, the Federal Reserve encourages this practice. Absent regulatory restraints or incentives to the contrary, the policy clearly encourages risk-taking and invites moral hazard problems. If a bank with the least desirable CAMEL rating can obtain subsidized discount window assistance, that institution obtains a competitive advantage over solvent ones for as long as the Federal Reserve supports it.[7]

The Federal Reserve Banks decide whether they will extend a loan on the basis of collateral that the would-be borrowers offer. This decision is undoubtedly influenced by the condition of the insurance agency: whether it has the funds to pay off depositors and take over the failing bank's assets when it cannot arrange a merger of an insolvent bank with a solvent one or arrange removal of existing management by placing an institution in receivership. The condition of the insurance agency in turn is also affected by a chartering agency's forbearance or prompt action in declaring the insolvency of one of its constituents. The Federal Reserve has cooperated by extending long-term support to an institution with a high probability of failure until a resolution of its problems was arrived at.

Discount window lending to insolvent banks might cease if, under the terms of the FDIC Im-

[6]This assumes that the bank's value would have been realized in a forced sale of assets.

[7]The subsidized rate may have risen to take into account rates on market sources of funds but it is still a subsidy compared to what deposit brokers and other non-Fed sources of funds would charge if the dying banks were left to fend for themselves in the market.

provement Act of 1991, the Fed no longer advanced funds to keep critically undercapitalized institutions in operation, and the insurance agency took prompt corrective action to appoint a receiver for those institutions.[8]

4. COULD REFORM REMEDY WHAT'S WRONG WITH THE DISCOUNT WINDOW?

Would discontinuation of Fed lending to insolvent banks establish the inviolability of the discount window? For many reasons that is not the case.

Regardless of one's attitude to discount window lending for seasonal and adjustment purposes—the private sector could accommodate those needs—many economists customarily assign one indispensable function to the discount window, namely, as lender of last resort: The Federal Reserve should use discounting in "exceptional circumstances" (in the words of Regulation A) to provide extended credit to solvent institutions with liquidity problems.

However, the Federal Reserve does not need the window to serve as a lender of last resort. The case against operation of the discount window has rested on grounds that open market operations are sufficient for the execution of monetary policy in both ordinary and exceptional circumstances, that individual banks that need and can justify special assistance can receive such assistance through the federal funds market, and that discounting invites discretionary subsidies to banks favored by the Fed (Goodfriend and King 1988, 216-53).

There is still another reason that the discount window serves no useful purpose. A review of the use of the discount mechanism by the Federal Reserve since its founding demonstrates a series of misconceptions on its part about what it can achieve by affording banks the opportunity to acquire borrowed reserves. The misconceptions have varied over time, depending on the objectives the System pursued.

Let me note some of the misconceptions:

(1) The Federal Reserve can determine whether borrowed reserves serve "productive" rather than "speculative" use of credit.

(2) Banks borrow only for "need" and not for profit.

(3) The absolute level of free reserves or borrowings indicates whether banks choose to acquire or liquidate assets.

(4) The spread between discount rates and market rates does not affect bank borrowing.

(5) The tradition against continuous borrowing is a satisfactory substitute for a penalty discount rate.

(6) Borrowing by banks signals bank weakness.

(7) Little bank borrowing signifies money market ease.

(8) "Technical" adjustments may explain discount rate changes, but their announcement conveys useful information to financial markets.

(9) Banks can be dissuaded from excessive use of the discount window by Reserve Bank appeals and exhortations instead of discount rate increases.

Since the 1970s, the Federal Reserve has acted on the belief that discount window assistance to banks with a high probability of insolvency in the near term, especially large ones, will, by delaying closure, eliminate contagious effects on financial markets.

In practice, the Federal Reserve's discount window activities have created perverse incentives, shifting risk from depositors to taxpayers. If a threat of systemic bank failures did arise, the Fed should counter it by open market operations, rather than by assistance to individual institutions. However, if the Federal Reserve prevents serious declines in the money supply, it is highly unlikely that the failure of an individual bank, however large, would trigger systemic bank failures.

Closing the discount window would free the Fed not only from likely future misconceptions but also from the recurrent pressures, to which it has been subject since the New Deal, to accommodate nonbanks, not to mention pressures from the Treasury to fund government agencies off budget.

5. CONCLUDING COMMENTS

I've surveyed the changes in Federal Reserve discount window practices since the System's founding. Early on the System emphasized that

[8]For an alternative view of the possible consequences of a prompt corrective action strategy, see R. Alton Gilbert (1991).

borrowing was supposed to be limited to short-term reserve needs. By the 1980s, hundreds of banks rated by regulators as having a high probability of failure in the near term and which ultimately failed were receiving extended accommodation at the discount window.

My reading of this recent experience is that the change in discount window practices, by delaying closure of failed institutions, increased the losses the FDIC and ultimately taxpayers bore.[9] Recent legislation limits use of the discount window for long-term loans to troubled banks. More important, it also provides that a supervisory agency is to appoint a receiver for an institution that falls below a critical capital ratio, curtailing the regulator's discretion regarding when to intervene in the case of an undercapitalized bank.

These changes, even if implemented—it is not yet known whether they will be—do not sanctify the continued operation of the discount window. Individual banks that need assistance, if creditworthy, can obtain loans without subsidies from the federal funds market. The Fed can be an effective lender of last resort if restricted to open market operations. In administering the discount window, the Fed has been prone to mistake the effects of its actions. These mistakes have marred its execution of monetary policy.

Without a discount window, the Fed will avoid pressures to lend off budget to nonbanks and to government agencies, which should be funded through regular appropriations. Without the distraction of monitoring collateral and deciding which bank applicants qualified for assistance, it can concentrate its energies on open market operations, the single instrument it needs to control the quantity of money. Without a discount window, there will be no announcement effects since the Fed will not have to set the discount rate. That should dispel the impression that it controls market interest rates.

A Federal Reserve System without the discount window would be a better functioning institution.

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[9]My conclusion from reading the 1991 Senate and House hearings on the long-delayed closings of the Bank of New England and Madison National Bank is that delay increased resolution costs. The condition of the institutions deteriorated as the Fed continued to lend to them — they were already rated CAMEL 5 when the continuous loans began. With the value of liabilities greater than of earning assets in these institutions, the gap grew as interest incurred on liabilities exceeded earnings on assets.

Delay, moreover, allowed outflows of uninsured deposits. Had the institutions been closed promptly, the earnings deficiency could have been offset at least somewhat by reducing the principal paid to uninsured depositors. Even so, at the closing, Bank of New England held $2.3 billion in uninsured deposits, of which $1.25 billion were brokered. At their peak, Fed advances amounted to $2.26 billion. The FDIC's loss was $2.5 billion. As L. William Seidman testified, the FDIC decided to protect all depositors of the Bank of New England, at "the additional cost [of] somewhere in the $200 to $300 million range up front" (see his statement in Senate Hearings on the failure of the Bank of New England, pp. 25-26).

In the absence of Fed lending to a bankrupt institution, early closing would have prevented a flight of uninsured deposits. In effect, Fed lending merely replaced withdrawals of uninsured deposits. Before it was declared insolvent, the Fed had lent the Madison National Bank $125 million, which kept the bank open to permit withdrawals of $108 million in uninsured deposits. The FDIC's final loss was $156 million.

The FDIC suffers losses not only in cases in which it liquidates failed banks but also in cases in which it arranges some form of purchase and assumption. When it liquidates a failed bank, the FDIC pays depositors the face value of their claims and suffers a reduction in its reserves measured by the full difference between book and current values of the assets that support the deposits. When it arranges a purchase and assumption, it transfers the deposits to the buyer and, depending on the purchase price it has accepted, the FDIC is responsible for the remaining difference between book and current values of assets that support the deposits transferred.

In my opinion, delay in recognizing losses that already exist cannot be justified by the claim that the FDIC uses the time to improve the behavior of the bankrupt institution, even if it were true that supervisors would be successful at this late date in the institution's history in reforming it. Delay may, however, be helpful to the FDIC's public image by postponing a publicly disclosed decline in the stated value of the reserves in the fund. That may be the real reason the FDIC welcomes delay.

The FDIC has stated that the value of a bank to potential bidders goes down when it is already involved in resolving a failed bank case, as if that would validate delay. In fact, it is the difference between book and market value of a bank's assets which a potential bidder learns that accounts for any decline in the bank's value, not the fact that an effort at resolution is under way.

What needs to be explained is why the Fed is the lender and not the FDIC, which has had the authority since 1982 to lend to open bankrupt banks and since 1989 to conservators. Some buyers might argue that assets are worth more if FDIC can step in after it has fixed a price in a purchase and assumption transaction and abrogates contracts the institution has with third parties, e.g., for rent, utilities, etc. That would be harder to do legally if the FDIC already controlled the bank or had an outstanding loan to it. That is not an argument that should encourage the Fed to lend instead of the FDIC.

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