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Working Paper 8805

LESSONS OF THE PAST AND PROSPECTS FOR THE FUTURE IN LENDER OF LAST RESORT THEORY

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August 1988

ABSTRACT

The origins of lender of last resort theory are so remote to contemporary policymakers that the underlying principles usually are not discernible. Even while the theory was evolving over the last 200 years, it usually was imperfectly understood, even by its makers.

The principal change in the theory, which was reasonably well understood in England into the 1880s and in the United States into the 1960s, involves the role of the lender of last resort as a source of solvency or capital support, as distinguished from liquidity support. The bases in logic and economic theory for solvency or capital support from a central bank, or from the Treasury when it acts as a monetary authority, are poorly defined, especially when most contemporary economists acknowledge the importance of open-market operations as the principal instrument of monetary policy. A solvency or capital rescue operation is better undertaken through the fiscal operations of the Treasury, in a manner that requires appropriations of funds on the public record and clear lines of political accountability for the actions taken. That is how similar operations were performed in the U.S. during the 1930s.

The often-expressed desire to have the central bank fund solvency or capital support efforts on a grand scale suggests that considerations of political convenience, not necessity, underlie that desire, which is strange indeed when we recall that one of the fundamental principles of public finance is that the central bank should not fund the Treasury's deficits.

Prefatorv Ouotations

But [in 19331 the debates over money, the gold standard and banking continued. Congress was being importuned by telegram, by telephone, by letter, and by Administration pressure to write into law the guaranty of bank deposits by the Federal Government.

To this Glass was opposed, pointing out:

> "Is there any reason why the American people should be taxed to guarantee the debts of banks, any more than they should be taxed to guarantee the debts of other institutions, including the merchants, the industries, and the mills of the country?"

His calm logic was to go unheeded.

-- From Rixey Smith and Norman Beasley,'Carter Glass: A Biography 357 (1939, reprinted 1972).

Liquidity. The state of [assets] ... readily converted into cash: liquid assets.

Solvency: [The state of assets] capable of meeting financial obligations.

Capital: The remaining assets of a business after all liabilities have been deducted; net worth.

Bailout: A rescue from financial difficulties.

-- The American Heritaae Dictionary, 2nd College Edition (1982, 1985).

I - Oriains of Lender of Last Resort Theory and Objectives of this Paper

The origins of a coherent theory of the lender of last resort (LLR) are attributed to the English economist Henry Thornton (1802),[1] although faint glimmerings of the theory may be found in Adam Smith (1776). Whichever

political economist is deemed father of the theory, the current thinking and practice of policymakers, lawyers, and even monetary economists has become somewhat muddled--it clearly is time for a refresher course.

The current crop of actual and potential LLR cases is quite ripe for the harvest. For example, the intriguing case of the Financial Corporation of America (FCA), a large California savings and loan holding company that continues to operate with a blanket guarantee (guarantee of payment to all classes of creditors) from the Federal Savings and Loan Insurance Corporation (FSLIC) while its principal thrift institution subsidiary is insolvent, even by generous regulatory accounting standards, takes us into unexplored territory: no depository institution in the history of the United States has remained open, while publicly acknowledged to be insolvent, with a guarantee of deposits from an insurance fund that is, by the published statements of its own spokesmen, also insolvent.[2]

Other cases have arisen, involving energy and real estate loans in the Southwest, in which all parties involved may be insolvent: customers of underlying borrowers, underlying borrowers, lending banks and savings and loans, and deposit insurance entities (FSLIC). Even the full faith and credit of the United States is not what it used to be: the national debt will exceed $2.5 trillion by the end of fiscal year 1988, and the U.S. is estimated to be the world's largest foreign debtor (about $400 billion of net debt of all classes of domestic borrowers owed to all classes of foreign lenders -- the net interhational investment position--by year-end 1987). So, if there ever was a proper time for a brief review of LLR theory, that time is now.

The principal objectives of this paper are to restate coherent distinctions between <u>liauidity</u> and <u>solvency</u>, between <u>discount window</u> and <u>open</u>

market operations of the central bank (Federal Reserve), and between legal and political necessity and convenience in mounting rescue operations through the central bank, as opposed to through directly and politically accountable entities. The paper does not deal with questions involving the international LLR--but it does seem probable that convenience is the driving factor in that issue, not necessity.

Enough fragments of and distinctions among historical accounts of LLR actions are pieced together in this paper to establish a framework for analysis of the discrete European and American versions of LLR theory. The European version would have the central bank rescue insolvent individual enterprises to forestall broader, allegedly systemic problems (a theory born in European traditions of political expediency, called here the "convenience" theory). On the other hand, the American version of the LLR theory historically has restricted the central bank's assistance to mere liquidity support of individual banks, on the security of sound assets, and has left the question of rescues of insolvent enterprises to Congress and the Treasury. Because the American LLR intervenes only in accordance with established constitutional and statutory authority, the American LLR theory is called here the "necessity" theory.

The coherent rationale underlying the American or necessity theory of the LLR is that the monies provided in a rescue operation belong to the public, after all, not to private entrepreneurs or to entities (either the well-connected or the too-big-to-let-fail). that are capable of taking advantage of the unfettered discretion of political agents. According to the necessity theory, LLR rescue operations should be administered with a view toward financial prudence in the administration of public funds and paramount

necessity, as distinguished from considerations of political expediency, convenience, saving face, and the like. Under a necessity framework, either explicit constitutional or statutory authorization, or clear and direct political accountability, are required to justify a rescue operation -- and quite possibly both are required. Otherwise, allegations that the LLR is being abused for the benefit of the rich and the not-so-rich-but-well-connected tend to acquire the ring of truth.

This distinction between a convenience theory and a necessity theory of the LLR illustrates the fundamental cleavage in the history of American political and economic thought, from the founding of the republic to the present day. Essentially, that division is between Thomas Jefferson, the exponent of clear necessity as the underpinning for all governmental action, on the one hand, and Alexander Hamilton, the exponent of broad, liberal constructions of governmental authority and of reducing necessity to little more than mere convenience, on the other hand.[3] The division in American LLR theory also is essentially the same as that between the views of those who favor rules over discretion in the conduct of monetary policy, on the one hand, and those who see no reason to limit the discretion of monetary policymakers, on the other hand. What is puzzling is how frequently those who describe themselves as belonging to the former camp in monetary policy blithely follow propositions favoring an activist, interventionist, discretionary LLR.[4] If the theory of the LLR is to be coherent and consistent, it must be stated in terms that are consistent with the relevant aspects of other monetary theories.

II. Theoretical Origins of the LLR: Europe

Most of the discussions of the LLR that have been hallowed by the passage of time were written in the gold-standard era.[5] Thus, a classical or neoclassical explanation of the capacity of the LLR to intervene in a financial crisis necessarily includes the concept that the LLR itself can go broke -- become insolvent. This insolvency traditionally manifested itself in a suspension of the central bank's or Treasury's redemption of its obligations in specie, in the heat of a financial panic.[6] Some writers have recognized the external limitations on what a central bank may do in fulfilling the LLR function by suggesting that central banks should not attempt to act as LLR by themselves and that LLR assistance is better provided in the "lifeboat" model followed by the Bank of England since the Baring Brothers crisis in 1890. That is, the central bank should provide "leadership" to the other commercial banks within its jurisdiction by starting the lifeboat operation, while committing only a fraction of the total support.[7] This European or convenience view of the LLR sidesteps the question of solvency vs. liquidity and assumes that discretion, not rules, always has primacy in practical political economy. That, of course, is the essential attractiveness of the convenience theory of the LLR for policymakers: direct political accountability is avoided, or at least may be diffused or deferred until another day. But such an approach is more consistent with either a centrally planned or a mercantilist economy than with one that still aspires to classical liberal notions of a free market. Also, the convenience theory of the LLR offers no consistent or coherent view of how central bank rescues of the Treasury or agencies funded by the Treasury should be handled,[8] while the necessity theory at least has the intellectual virtue of prohibiting most such rescues altogether.

The dominant English theory of the LLR, beginning with Smith and Thornton and running through the formal division of the Bank of England into Banking and Currency Departments (1844),[9] was expressed in the views of Walter Bagehot and the Banking School by 1873.[10] Bagehot recognized that an activist, interventionist LLR might risk becoming insolvent itself if its affairs were misconducted and, in such events, might have to have recourse to state aid to cure its insolvency.[11] Bagehot believed that the principal duty of the LLR, in time of panic, was to discount freely on all sound assets, but at a penalty rate. Bagehot did not believe, however, that the Bank of England should concern itself, in its LLR operations, with the survival of individual dealers -- the penalty rate was proposed to insure that credit-worthy firms would obtain all necessary accommodation, but the principal concern of the LLR was to be aggregate liquidity in the market place.[12]

By 1890, the role model for the modern Bank of England "lifeboat" operation was established. Baring Brothers had so extended itself on Argentine credits that, when the Argentine defaults began, the solvency of Barings was threatened.[13] Recognizing that it would have to suspend specie redemption if it attempted a unilateral rescue of Barings, the Bank of England refused a suspension indemnity bill and organized its first "lifeboat" operation. In effect, the U.K. banking community provided Barings enough solvency or capital support to cover its outstanding liabilities.

In mounting the first lifeboat operation, the Bank may have been aware of similar cross-lending arrangements (clearing house certificates) that the New York Clearing House Association had used during panics in 1873 and 1884. But the later experience with Clearing House rescues in New York was not altogether satisfactory--smaller and out-of-favor members of the Clearing

House were allowed to fail (1907-Knickerbocker Trust Co.; 1930-Bank of the United States>--so that size and "connections" seemed to determine who received Clearing House lifeboat rescues and who did not. The Bank of England still organizes lifeboats, as with Johnson Matthey in 1984, and the Federal Reserve has modified the lifeboat principle in what were called "safety net" operations in the 1970s and 1980s--but smaller and out-of-favor banks still are allowed to fail, in the U.S., with neither safety nets nor lifeboats. Size and connections apparently still matter after all -- no U.S. bank larger than $600 million total assets has been liquidated in toto.

In continental Europe, the experiences of central banks in the mid-nineteenth century also illustrated Bagehot's observation that they could become insolvent through excessive refinancings of insolvent commercial banks. The only relevance of the Continental European experience to this paper is that it supports the notion that generous central bank rediscounts, without regard to the solvency of the discounting banks or their underlying customers, lead ultimately to the insolvency of the central bank. Recognizing this hard fact of life in the gold-standard era, Continental European banks, earlier than the Bank of England, often mounted lifeboat operations instead, thereby spreading risks of insolvency.[14] In any case, the Continental European experience just is not part of the Anglo-American legal tradition, for better or worse--usually for the better, I think. In typical Central European regimes in the nineteenth century, effective, politically accountable controls on central banking activities just were not as strong as those in the U.K. or U.S., and such controls left much to be desired, even in the U.K. and U.S.

III. Theoretical Oriains of the Theory of the LLR: America

The traditional American concept of the LLR is derived more directly from Adam Smith than from Thornton or Bagehot. Smith noted, in his account of the Bank of England, that it

> advances to government the annual amount of the land and malt taxes, which are frequently not paid up till some years thereafter.... It likewise discounts merchant bills, and has, upon several different occasions, supported the credit of the principal houses, not only of England, but of Hamburgh and Holland.... Upon other occasions [1745] this great company has been reduced to the necessity of paying in sixpences.[15]

The idea of central bank advances to the government, upon expectations of future tax revenues, appealed strongly to Alexander Hamilton, the first U.S. Treasury Secretary, who mentioned approvingly the "convenience of loans to the government" several times in his opinion on the constitutionality of the First Bank of the United States (1791).[16] Because they could not imagine such loans as anything other than recoveries of the initial capital subscriptions of the First Bank, paid in by the government, both Speaker of the House James Madison and Secretary of State Thomas Jefferson spoke and wrote against the "convenient loans" rationale for approving the First Bank's charter.[17] Madison and Jefferson noted that Hamilton's arguments were founded on considerations of mere convenience, which Hamilton's permissive construction of the Constitution would have allowed, while their own strict construction of the Constitution would have allowed the chartering of a central bank, outside the specifically enumerated powers, only if it could be derived by necessary implication from one or more of the enumerated powers. Madison argued that

"the power vested by the [Bank] bill in the Executive, to borrow of the bank ... was objectionable" and observed that constitutional powers that are great and important

> ought not to be exercised without we find ourselves expressly authorized to grant them. Here [Mr. Madison] dilated on the great and extensive influence that incorporated societies had on public affairs in Europe. They are a powerful machine, which have always been found competent to effect objects on principles in a great measure independent of the People.. .. [Even if] the 'Government necessarily possesses every power' [in theory] ... [Mr. Madison] denied that it [that theory] applied to the Government of the United States.[18]

Madison's views on the intent and meaning of the original Constitution of 1787 are significant because he was its principal draftsman, kept the most extensive (and the only official) notes of the proceedings of the Constitutional Convention, and was one of the three authors of the Federalist papers (Hamilton and John Jay were the other two).

Madison further noted, "We reason ..., and often with advantage, from British models; but in the present instance [the debate on the Bank charter], there is a great dissimilarity of circumstances."[19] So it is also with respect to LLR theory--whatever the British or other European models may have been, and even though we may be able to reason from British and other European mode1s with advantage, we ought to recognize that American tradition and circumstances are greatly dissimilar. The debate at the origins of central banking in the U.S. made it abundantly clear that, notwithstanding Hamilton's desire for a broad grant of powers, the central bank would be watched closely and its powers interpreted strictly--rules over discretion,

in other words. President 'Jefferson[1] s Secretary of the Treasury, Albert Gallatin, understood these principles and, while he was favorable to a central bank, he did not favor an LLR that would protect the interests of the incorporated few against the interests of the unincorporated many. That broader use of the central bank was advocated instead by Henry Clay and his followers, but they were handicapped by Jeffersonian opposition until John Quincy Adams became President (1825).

When the Second Bank of the United States was chartered at the end of President Madison's second term in 1816, it continued the First Bank's LLR tradition--no excessive assistance to banks or others seeking discounts or rediscounts--although one of the charges that opponents later brought against the Second Bank was that it favored some borrowers (the established Eastern commercial and banking interests) over others (western farmers and the rising entrepreneurial class in New York). Nevertheless, Nicholas Biddle, the President of the Second Bank, understood clearly the Bank's LLR responsibilities (liquidity support only, not solvency support), as revealed in the following passage:

> Mr. Biddle, when the United States Bank was appealed to during the money scarcity which followed the "cotton panic" [1825] and the banks' strengthening of their position, made a reply which if not comforting to the sufferers, certainly contained needed truths:
>
> "It is the order of nature," said he, "that if men or nations live extravagantly, they must suffer till they repair their losses by prudence, and that neither man nor banks should impose on the community by promises to pay what they cannot pay. The laws of trade have their own remedy for such disorders, as infallible as the laws of animal life, which enables the human system to relieve itself from its own excesses. Both must

> have their course. But the Bank of the United States is invoked to assume that which, whoever attempts, invokes the ruin he will suffer. It is requested to erect itself into a special providence to modify the laws of nature, and to declare that the ordinary fate of the heedless and improvident shall not be applied to the United States. Our countrymen are to be indulged without restraint in the utmost extravagance of the luxuries of Europe, on credit from the banks; and when the day of payment arrives, the debtor shall not be called on for payment--the banks shall not be incommoded to pay their own notes, for the moment any inconvenience is felt, the Bank of the United States will certainly interpose and pay the debt. But if the Bank of the United States blends any sense with its tenderness, it will do nothing of all this."[20]

While this passage might not illustrate completely Mr. Biddle's understanding of the "moral hazard" problem, faint glimmerings of such awareness are visible there, nevertheless.

IV. Theory Brought Forward: Open-Market vs. Discount Window Operations

After the expiration of the charter of the Second Bank of the United States (1836), there was no central bank of the United States until the Federal Reserve Act was enacted in 1913. At various times, the subtreasuries and the New York Clearing House Association performed central banking functions, including, in a limited way, the LLR function. The reason for their limited LLR function (liquidity but not solvency support) was the same as in the preceding discussion--excessive advances to insolvent entities, on unsound collateral, could precipitate the insolvency of the LLR, a matter of greater moment in the gold-standard era than today. At one point, in 1895, J.P. Morgan and August Belmont had to act as LLR for the U.S. Treasury itself,

pledging their own credit to borrow gold abroad to restore the gold cover on the Treasury's obligations.[21]

The framers of the Federal Reserve Act originally organized the System with authority to conduct both discount-window and open-market operations, but initially there were comparatively few open-market operations as we would understand them today. At the discount window, there was clear intent that only liauidity, but not solvency, support should be provided because of extensive statutory and early regulatory requirements governing the eligibility of collateral for discount and the prohibition of discounts or advances for long maturities. No paper could be discounted with more than 90 days' remaining maturity, except for agricultural paper, and that paper was limited to six months' maturity.[22]

The Federal Reserve Banks did not discover the efficacy of open-market operations, principally in bankers' acceptances, for implementing monetary policy until 1922. After the death of Benjamin Strong, first Governor (President) of the Federal Reserve Bank of New York, the System lacked a forceful advocate of open-market operations at the time of the Great Contraction (1929–1933).[23]

The difference between discount-window and open-market operations is best illustrated by the statutory and physical separations of the two functions. The differences are badly understood outside the System, and that misunderstanding probably accounts for much of the terminological confusion regarding the LLR--do you mean the discount window, the open-market desk, or both?

Open-market operations are performed under the authority of Sections 12A and 14 of the Federal Reserve Act. The System's Open Market Trading Desk for

domestic operations is located on the eighth floor of the Federal Reserve Bank of New York. It buys and sells and enters into repurchase agreements covering U.S. government and certain government agency obligations and, prior to 1984, also dealt in banker's acceptances for its own and System account.

The New York Fed's discount window is located on the second floor of the same building and has an entirely separate staff, reporting to a separate chain of management command. The discount-window operations are carried out under Sections 10(b) and 13 of the Federal Reserve Act. Any sound collateral, acceptable to the Reserve Bank from credit and legal standpoints, may be pledged as collateral for advances. However, since the 1920s, the Federal Reserve usually has discouraged frequent or prolonged use of the discount window by individual institutions. Special emergency lending sections were added to Sections 10(a) and 13 during 1932 and 1933, but they were used only rarely and in small amounts then and generally have not actually been used since the 1930s.[24] Instead, the great bulk of the solvency (or capital) support lending of the 1930s, to both banks and nonbanks alike, was performed by a separate, free-standing, government-chartered credit agency, the Reconstruction Finance Corporation (RFC).[25]

The RFC had the explicit, full-faith-and-credit backing of the U.S. and was authorized to sell its own bonds to raise funds. Congress appropriated $500 million for its initial capital in 1932. In 1933, the RFC was given authority to purchase nonvoting preferred stock of banks, with maturities up to 10 years.[26] Using that authority, together with a general authority to make loans, the RFC extended $3 billion of solvency (capital) support to the U.S. banking system, including loans to conservators and receivers of distressed and closed banks. The Federal Deposit Insurance Corporation (FDIC) did not

begin operations until 1934 and did not provide significant assistance to the banking system during the 1930s. But more importantly, for the purposes of this paper, the Fed also did not provide significant assistance to banks during the 1930s, because it did not have to do so.

The RFC was abolished during the 1950s--it had become an indefensible political boondoggle after Jesse Jones was removed as chairman in early 1945 and was bad enough under Jones--and some of its functions were transferred to other cabinet departments. For example, the Export-Import Bank and the Small Business Administration originally were RFC subsidiaries. But most importantly, the authority to recapitalize insolvent banks expired with the RFC--it most emphatically was not transferred, then or later, to the Fed.

Under the Garn-St Germain Act of 1982, the FDIC and FSLIC received RFC-like powers to provide solvency (capital) support to poorly capitalized and insolvent depository institutions, but they were not explicitly authorized to borrow from the Fed to fund such operations. Fed forbearances regarding advances to depository institutions that the FDIC assumes, as was the case with the advances to Continental Illinois (1984) and Franklin National Bank (1974), are unique: the Fed never made such prolonged advances in such large amounts, prior to the Franklin case.[27] However, the point to consider regarding such new forms of rescues is whether, assuming that the FDIC now has sufficient financial resources to mount such efforts, then the FDIC, instead of the Fed, should use its RFC-like powers to assist depository institutions that require solvency or capital support. In other words, while Fed lifeboat operations might work (under the convenience theory) to support smaller institutions, it is far from clear that (under the necessity theory) large institutions, especially those with small percentages of insured deposits, can

or should be saved by any central bank-led lifeboat operation or FDIC solvency assistance. Before the Continental Illinois rescue, the largest completed lifeboat operation involved First Pennsylvania National Bank, which had about $9 billion of total assets at the time (1980).[28]

The distinction that must be made between discount-window and open-market operations in LLR theory is illustrated by the Great Contraction of 1929-1933. The generally accepted view of Federal Reserve operations during the Great Contraction, usually characterized as a failure of the LLR, does not distinguish between the Fed's discount-window and open-market operations.[29] The sum of adjusted bank and savings institution deposits, together with currency outstanding, shrank from $57.2 billion (October 1929) to $40.8 billion (March 1933), reducing the effective money stock, an ancestral form of M-1A, by 28.7 percent.[30] In the face of declining public demand for bank credit, the most generous discount window (LLR) in the world could have done little to sustain the 1929 money stock or price level. Indeed, the Federal Reserve regularly reduced the discount rate throughout the Great Contraction, from 6 percent (New York) in October 1929 to 2.5 percent (New York) in June 1932. The discount rate was increased from 2.5 to 3.5 percent on March 3, 1933, the day the bank holiday was proclaimed. The New York Fed's buying rate for prime 90-day bankers' acceptances was reduced from 5.125 percent in October 1929 to 0.25 to 0.375 percent in January 1933; that rate then increased to 1.125 to 3.375 percent during the March 1933 bank holiday.[31]

Thus, extremely generous discount-window policies did not avail--hardly anyone wanted to borrow money, even at discount rates as low as 2.5 percent or acceptance buying rates (proxy for open-market rates) as low as 0.25 percent. It was not possible to push on the monetary string from a passive discount

window, and the discount window usually must be passive to avoid moral hazard. Any coordinated and sustained policy of open-market purchases, at almost any rate, would have been a better policy and might have turned the monetary collapse around. Yet, such purchases would have constituted a policy of aggressively supplying bank reserves (liquidity) to the market in the aaareaate, not solvency or capital support to particular institutions. In any case, it should be obvious that the proper strategy for the Fed to have pursued, 1929-1933, would have been aggressive open-market operations to support general liquidity and to prevent localized liquidity shortages from causing general liquidity to implode. Monetary policy should not be confused with the prudent conduct of LLR policy. It is wrong to say that the Fed failed as LLR in 1929-1933, referring to discount-window operations, but it would be correct to say that the Fed was too cautious an operator of an open market trading desk then.

The following anecdote illustrates both the moral (or philosophical) and procedural differences between a properly conducted LLR (discount window) and a properly conducted monetary policy (open market operations): In the old days of royal coinage, the royal mint had two choices for expanding the local money supply. Option one, the necessitv theory, would have required the chancellor of the exchequer to toss the prescribed amount of new gold coins out the tower window periodically, without looking to see who caught the coins.* The aggregate supply of domestic money (liquidity) was expanded, and the chancellor's open-market duty was performed admirably. In the alternative, the chancellor could have offered the gold at public auction to the highest bidder. Thus, those with the greatest demand for liquidity

*I am indebted to James G. Hoehn, Federal Reserve Bank of Cleveland, for this analogy.

would offer the highest price and would receive the greatest supply of liquidity. This story illustrates the essence of Currency School-monetarist-rules-necessity theory, as applied to the LLR: a properly conducted open-market operation eliminates the need for a discount window LLR because aggregate liquidity is maintained. Particular firms may be insolvent and might fail, but that is of no concern to the chancellor, as long as sufficient aggregate liquidity is maintained.

Now let us consider option two, the convenience theory, the discount window (LLR) version of the preceding anecdote. Instead of tossing coins out the window or holding an auction, the chancellor descends to the courtyard, looks over the crowd, and offers bags of gold to (select one among these choices): (a) a few of his chosen friends, (b) those who offer the highest interest rate for the gold, or (c) those with greatest demonstrable need for the gold, at either a flat rate or a subsidy rate. The only choice that can be reconciled with Bagehot's supposedly classic theory (discount freely at a penalty rate) is (b), but the Federal Reserve says that its normal policy is (c), while outside observers allege that the policy' is (a).[32]

Without comment on which is the correct interpretation of current policy, it still should be clear that an opportunity for abuse of the LLR (discount window) exists under option two--the chancellor could select option (a), a few of his friends, and not much could be done about it if he were not politically accountable for his actions. Moreover, if the principal "friend" under option (a) were the king himself (the government or the Treasury), then (a) would seem quite a likely choice in the normal course of events. In such a circumstance, convenient loans, either directly to the government or to third parties that the government would have had to fund if the LLR did not

fund them, might be expected to proliferate. Once the monetary authorities and the government discover such convenience, the usual distinctions between advances for liquidity assistance, on the security of sound assets, and advances for solvency or capital support might become blurred. Recourse to option (b), a penalty rate, would become impossible because such a rate would make the marginally solvent newly insolvent and would deepen the insolvency of those already insolvent. Besides, if the government became a borrower, it would be difficult to charge it a penalty rate. Thus, the superficial attraction of the discount window as LLR is deceptive--it is easily abused and plays very much into the hands of proponents of Banking School-post-Keynesian--discretion-convenience theory.

It is puzzling that people who consider themselves adherents of the basic tenets of the Currency School (monetarists) sometimes advocate the LLR methodology of the Banking School (Keynesians), but that probably happens because of insufficient attention to the historical development of LLR theory in the U.S. and the maintenance of logically consistent arguments between the two rival camps. Mere political expediency, in fact, might have nothing to do with it. Nevertheless, people who ordinarily would be deeply troubled by advocacy of having the central bank fund the Treasury's deficits, because of the monetary implications of such a policy course, often are surprisingly willing to have the central bank provide solvency or capital support to insolvent institutions that either would have to be allowed to fail or would have to be funded directly by the Treasury itself in the absence of such central bank support.

This tendency of some monetarists to approve of an activist LLR may be attributed also to misreading Bagehot (1873) and Friedman and Schwartz (1963,

at 391-409). While Friedman and Schwartz describe clearly how some combination of Federal Reserve discount-window advances and open-market purchases of securities could have been used to counteract the monetary contraction (1929-1933), with open-market purchases the preferred operating vehicle, some writers who normally oppose the concept of the interventionist LLR and who may be presumed to be generally sympathetic with the objectives of this paper have written, nevertheless, that "the Fed ... did not have the same direct incentives as the clearinghouse to maintain the solvency of the banks, [and] failed to perform as well in dealing with the bank runs from 1929 through 1933 ... ." See, e.g., Kaufman (1988, at 571); Golembe (1988, at 10). Kane (1988, at 17-18) offers the following insight into this problem:

> The ability of powerful groups to extract government subsidies may be deemed to be part and parcel of the American system of free enterprise. ... A ... reasonable goal is merely to make the production of selective subsidies more painful to the agents who benefit from their creation.

Thus, recognition that convenient loans to insure the solvency of particular banks constitute a public subsidy to those banks is the beginning of wisdom on this issue and, If policymakers become persuaded by Kane's argument, may contribute to the exaction of greater pain in the future from the agents benefiting from the subsidy.

Some economists have noted and are troubled by the apparent inconsistency between official statements of devotion to the quantity theory of money, on the one hand, and reliance on the discount window as LLR, on the other hand.

For example, Milton Friedman (1960, at 30-51, 84-86, 100) in lectures delivered in 1959, recommended that the Federal Reserve's power to make loans

to member banks, private individuals, corporations, or nonfederal public bodies be repealed, precisely because such power was seen to be inconsistent with a monetary policy that depended on open-market operations and with deregulation of banks' deposit-taking powers.

In particular, Goodfriend and King (1987) accomplished a significant breakthrough in sorting out the practical consequences of pursuing the two opposing theories of the LLR, described above as necessity vs. convenience. Their principal insight is that extensive reliance on a discount window LLR creates the need for an extensive and costly system of supervisory and regulatory compliance mechanisms to insure that the LLR is not abused. On the other hand, they argue, and I concur, a purely monetary (necessity) policy creates no real need for a discount window LLR at all and tends to foster increasing levels of financial services deregulation because no monitoring system is necessary to prevent abuse of the LLR. Some of Goodfriend's and King's conclusions (my adaptations) are as follows:

1. Monetary policy [open-market operations] can alleviate banking crises by increasing the money supply and smoothing nominal interest rates.

2. Banking policy [discount window] ordinarily [i.e., in small or modest amounts] influences neither high-powered money nor the aggregate supply and demand for goods.

3. "Central bank transfers to troubled financial institutions redistribute wealth between different classes of citizens at best; inappropriate incentives for risktaking and liquidity management may lead to more severe and frequent financial crises at worst."[33]

4. "Banking policy [discount window1 needs costly supporting regulation and supervision ... not to be abused."

5. "Monetary policy [open market operationsl can be accomplished in a manner that is anonymous... ." This is analogous to the point made above about the chancellor of the exchequer tossing the coins out the tower window without looking to see who catches them.

6. "Monetary policy [open market operationsl ... acts on economy-wide prices and interest rates, and therefore needs no supporting regulation and supervision."

7. "There is little evidence that public lending to particular institutions is either necessary or appropriate. Even if central bank lending served a useful purpose earlier in the century, today's credit markets have become highly efficient. [I am more skeptical than Goodfriend and King about that efficiency, but any solvent borrower should be able to obtain credit in today's credit markets.] We think it is important to begin to ask whether central bank lending, either through the discount window or through the payments system, is still necessary."

8. "We wonder whether the Federal Reserve's potential performance as a monetary authority [open market operations] would not be enhanced by shedding of its central banking [discount window and payments mechanism] functions."

On this latter point, it is worth noti'ng that some foreign central banks actively support price levels in government securities, obligations of government-sponsored credit intermediaries, certain commodities, and even, in Japan in the 1960s, the local stock market. But even if thev do such things, that does not necessarily mean that we should imitate their example. When LLR policy allows direct support of the price level on the stock exchange, option two (a) in the chancellor of the exchequer anecdote (loans to a few chosen friends) becomes more likely than not. Therefore, if Goodfriend's and King's conclusions are correct, and I believe that they generally are correct, then a wholesale rethinking of U.S. LLR theory is necessary.

V. Conclusion

A principally American, as distinguished from European, theory of the LLR has evolved in the United States, starting from the same origin as in England, the writings of Adam Smith. In the U.S., spurred by the concerns of Madison and Jefferson regarding too great a convenience in central-bank loans to the Treasury or to individual corporations, a view of the LLR emerged that was parallel to the thinking of the Currency School at the Bank of England. After 1890, the U.K. pursued actively an interventionist LLR policy, preferring to mount lifeboat operations to save arguably insolvent banks and merchant banks. U.S. policy usually did not follow that lead of the U.K. but remained within the broad outlines of a necessity theory of the LLR until the large failing-bank rescues of the 1970s. Friedman and Schwartz (1963) taught us that it is possible for the central bank to offer extremely attractive discount-window rates without stopping a liquidity implosion--only aggressive

open-market purchases, at any specified rate, can accomplish that objective. The new large-bank rescues (1970s and 1980s), with even more ominous portents of LLR rescues of governmental agencies, miss the point of RFC operations in the 1930s--only the government itself, which is politically accountable, not the central bank, which is not so clearly politically accountable, should mount solvency or capital support operations for particular institutions or agencies, as long as the central bank's open-market operations provide necessary aggregate liquidity to the markets. The American LLR should not attempt lifeboat, solvency, or capital-support operations to maintain targeted price levels in particular markets, no matter what the central banks in European and other foreign countries do--that is a matter of convenience for them, not necessity, and the American LLR is or ought to be governed by a necessity standard. Besides, no one accuses the Fed's open-market trading desk of supplying insufficient aggregate liquidity lately. Before expanding the Federal Reserve's LLR operations, policymakers should pause to consider the message of Goodfriend and King (1987): understand where a consistent and coherent theory of central banking lies, and then move policy ahead. To do otherwise is to opt for the convenience theory of the LLR, not the necessity theory.

Milton Friedman, writing in a 1985 symposium on the Keynesian heritage, quoted a letter that Keynes wrote to Friedrich von Hayek in 1944, on the occasion of the publication of Hayek's Road to Serfdom. While Keynes wrote of his misgivings about central planning, I believe that the same remarks apply with at least equal vigor to the advocacy of convenience or discretion in U.S. LLR theory:

> Moderate planning will be safe if those carrying it out are rightly oriented in their own minds and hearts to the moral issue. This is in fact already true of some of them. But the curse is that there is an important section who could almost be said to want planning not in order to enjoy its fruits but because morally they hold ideas exactly the opposite of yours [i.e. Hayek's] and wish to serve not God but the devil. Reading the New Statesman & Nation one sometimes feels that those who write there, while they cannot safely oppose moderate planning, are really hoping in their hearts that it will not succeed; and so prejudice more violent action. They fear that if moderate measures are sufficiently successful, this will allow a reaction in what you think the right and they think the wrong moral direction. Perhaps I do them an injustice; but perhaps I do not.[34]

In the Appendixes to this paper, there are three excerpts on the evolution of the American theory of the LLR in the twentieth century. They are all in the spirit of the following remarks of Michele Fratianni, delivered in a 1983 seminar:

> [It is] a fundamental error ... [to fail] to distinguish between insolvency and illiquidity. This has been a great theme in this ... [conference]: the separation of the problems of the individual bank from the problem of the system as a whole.
>
> I do not want to repeat this argument except to refer to Anna Schwartz's excellent presentation and make the additional point that bankers know the distinction very well. They do not care to make it, for it pays not to. It is not that we do 'not teach the principle in the schools; it is not that it is not well understood, but that it is convenient for individual bankers to treat insolvency, which is a micro problem, as a systemic problem. Perhaps if we were to find ourselves in the same position, we would be induced to do the same thing.[35]

Footnotes

1. Humphrey and Keleher (1984, at 282). They cite Thornton's An Enauirv Into the Nature and Effects of the Paper Credit of Great Britain (1802, reprinted 1939), among other sources, as the original study of the role of the Bank of England as LLR. The copy of Thornton's Enquiry available to me is reprinted in John R. McCulloch, ed., A Select Collection of Scarce and Valuable Tracts and Other Publications on Paper Currency and Banking (1857, reprinted 1966).

2. Press reports in April 1988 indicated that FCA's principal subsidiary, American Savings & Loan, Stockton, California, had negative net worth under regulatory accounting standards at the end of March 1988. Other press reports indicated that the FSLIC had negative net worth of $11.6 billion at year-end 1987, under regulatory accounting standards. Regarding Texas asset vaiues, see 6 Grant's Interest Rate Observer, no. 5 (March 7, 1988).

3. See. e.g., Adams (1929, at 83-97); Malone (1951, at 286-306, 337-350, 421-477).

4. It is entirely possible also that partisans of a noninterventionist LLR too often are intimidated, in the heat of a financial crisis, by the warning usually issued by the interventionists: "Remember, if there is a

systemic crisis because of your noninterventionism, it will be entirely your fault." This argument (?) is far from persuasive because the noninterventionist already understands that he will be politically accountable for nonintervention, while the interventionist usually intends to defer, diffuse, or avoid political accountability by intervening. Also, it may be that interventionist policies created the financial market or real economic instability that enabled the crisis to occur in the first place. Schwartz (1987) raises this issue directly, noting that the failure of central banks to maintain price stability after 1960 or so may have led bankers to enter into contracts whose prices could not be sustained when the external price regime changed, thereby creating deeper and more widespread insolvencies than previously was the case. Guttentag and Herring (1985a, e.g., at 49) raise this issue indirectly, noting that the costs of preventing individual banks from assuming insolvency-risking exposures are far less while the perceived risks are low and while the exposures are building than the costs of reducing those exposures, once they have been incurred and once the perceived risk is great. Separately (1987, at 221, Guttentag and Herring write that the LLR, "when confronted with a clear and present danger of an impending crisis, [seems invariably to ignore] concerns about the potential benefits of greater discipline.. .." Also (id. at 301, they write, 'We know of no single case where a crisis threatened an abrupt failure of a major bank and an LLR with the power to prevent it failed to do so." Schwartz (1987) warns against the "hyperactive" LLR, "pouring funds into the market when the occasion for doing so forecloses the adoption of fundamental solutions."

5. Humphrey and Keleher (1984, at 276-277). They write that

> Many authors who initially explained the LLR function did so from the perspective of a small open economy often operating under fixed exchange rates; that is, under an international commodity (or gold) standard.... Accordingly, the influence of fixed exchange rates in an open economy clearly dominated many of the early explanations of the LLR.

6. For example, the Bank of England suspended specie redemption in the following years: 1797 to 1819, 1825, 1837, 1847, 1857, and 1866. Kindleberger (1984, at 90-92).

7. See e.g., Goodhart (1985, at 34-35, 52). Goodhart's arguments, written from the U.K. perspective, are generally accepted in banking circles favoring strongly interventionist, greatly discretionary approaches to discount-window LLR operations. Goodhart characterizes the distinction between. illiquidity and insolvency as a myth, observes that banks requiring LLR support because of "sufficient illiquidity ... will in most cases already be under suspicion about ... solvency", and dismisses the notion that central banks[1] assistance should be limited to illiquid-but-not-insolvent banks as "facile and unworkable." Goodhart assumes that moral hazard (inducing riskier behavior on the part of the insured entities) may be controlled by stronger monitoring and inspection by the central bank, but the U.S. experience in that regard, both in the 1920s and the 1970s-1980s, has been that the diffusion of direct political responsibility among several bank regulators, together with the lodging of the principal supervisory responsibility outside the central bank, have forced the moral hazard issue into the background and have made the deferral or avoidance of hard choices within the supervisory

apparatus a practical consequence of any LLR operation. Goodhart may be satisfied with the results of such operations in the U.K., but the long-term consequences of such politically motivated LLR operations in the U.S. may prove enormously expensive. Contra Goodhart, see Hall (1987) and Schwartz (1987). Hall reviews the Bank of England's behavior during the Johnson Matthey crisis of 1984 and calls for abolishing "the regulators' practice of launching 'lifeboats' to rescue ailing intermediaries in the interests of financial stability." Schwartz observes that arguments like Goodhart's in defense of an interventionist LLR "are contrived." See also, Kindleberger (1984, at 92), and Guttentag and Herring (1985b, at 19, 26). Kindleberger has observed that distinctions, such as those drawn here, between lifeboats or safety net operations and LLR operations (apparently meaning open-market operations) may be too sharp and that the liquidity vs. solvency distinction also may be too sharply drawn. Kindleberger's view, expressed in private correspondence with me, is that "If not enough is done to relieve liquidity, insolvency spreads, and there are occasions when one needs to relieve insolvency in order to keep that from propagating. The basic criterion ... is whether one can arrest spreading collapse." Guttentag and Herring argue that, while public policymakers normally assume that bailout lending is socially useful, outside observers find it difficult to determine the social utility of bailout loans because only previously existing creditors have incentives to participate in bailout lending.

8. See Moley (1939, at 158-161) for an account of the initial distrust within the Roosevelt Administration, in 1933, for all schemes involving central bank purchases of Treasury obligations and central bank loans to the Treasury. These issues were especially important at the time because a one-third gold cover applied to Federal Reserve currency notes outstanding. Cf. R. Smith (1939, at 358-3591, another skeptical account of the same episode. .

9. See. e.a., Kindleberger (1978, 1984); Goodhart (1985). For those who may have forgotten in whose camp they belong, the views of the Banking School are loosely consistent with those of post-Keynesian economists, while those of the Currency School are loosely consistent with the tenets of modern-day monetarists and some Austrian School economists. Cf. Kindleberger (1978, 1985).

10. Bagehot (1873).

11. Bagehot (1873, at 108-110, 121-134). Also quoted in part in Goodhart (1985, at 177-178).

12. It is not clear that Bagehot would have advocated letting one of the U.K. clearing banks fail--he is not clear on this point. Most of his sympathies were with the Banking School--he probably would have found a lifeboat operation a happy solution.

13. Kindleberger (1978, at 152-155; 1984, at 92; 1985, at 191-209).

14. See. e.g., Kindleberger (1984, at 108-113, 126-135).

15. A. Smith (1976, at i, 340). Smith nowhere mentions LLR assistance regarding insolvent institutions. He inferentially seems to condemn such an idea in his discussion of accommodation bills financing of Scottish banks (i, 320-337). However, in his chapter on public debts (book V, cp. 3), Smith depicts the chartered monopoly trading companies (which he calls "joint stock companies") as a group of mismanaged institutions that constantly crawl to Parliament for either foreign military assistance or financial rescues. Either way, the U.K. public debt is increased to alleviate the difficulties of the joint-stock companies. It is an unflattering description of the finances of the joint-stock companies.

16. Hamilton (1904, at 477, 490, 492). Hamilton was familiar with Smith's book and may have derived the "convenient loans to the government" argument from it.

17. See Clarke and Hall (1967, at 39-45, 82-85, 91-94). Madison cited Smith's Wealth of Nations by name (id. at 39), and Jefferson also was familiar with the book.

18. Clarke and Hall (1967, at 82).

19. Clarke and Hall (1967, at 83).

20. Lanier (1922, at 199-200).

21. Faulkner (1959, at 141-157).

22. See aenerally, Hackley (1973).

23. See aenerally, Friedman and Schwartz (1963, at 251-266, 298, 407-419). Cf. Chandler (1958, at 188-246).

24. See Hackley (1973).

25. See Jones (1951, esp. at 3-87); Upham and Lamke (1934). Guttentag and Herring (1987, at 20), while being more generally disposed than I toward central bank discount window LLR assistance, do note that a central bank might not be the optimal agency for providing LLR assistance to insolvent firms. But they note (id. at 21) that practice, in this regard, "does not entirely square with principle."

26. See Jones (1951); Upham and Lamke (1934). Cf. 1932 and 1933 Federal Reserve Bulletins.

27. For an account of the Continental Illinois rescue, see Sprague (1986). For an account of the Franklin rescue, see Spero (1980).

28. See Sprague (1986, 77-106.) Sprague writes, at 89, as follows regarding the Federal Reserve discount window's role as LLR:

> The Fed's role as lender of last resort first generated contention between the Fed and FDIC during this period. The Fed was lending heavily to First Pennsylvania, fully secured, and Fed Chairman Paul Volcker said he planned to continue funding indefinitely until we could work out a merger or a bailout to save the bank. Our position was clear. The Fed refuses to lend without impeccable collateral, so it is always protected. FDIC, however, is exposed. Beyond that, if Fed funding keeps an institution open longer than it should be, then uninsured depositors who withdraw their funds during this period receive a preference, and the ultimate bank failure is more costly to FDIC.

The point made in Sprague's last sentence above is accurate--Federal Reserve lending to insolvent institutions often merely enables one set of creditors of failing banks (usually insiders, sellers of brokered deposits, institutional investors, and the like) to receive a preference over another set of creditors, or over the FDIC itself. This point is badly understood by politicians, the general public, bankers, and even the Fed and the FDIC. The intervention of the LLR (discount window) usually is undertaken with the nonmalevolent goal of forestalling a perceived immediate financial crisis, and the unintended consequence of preferring one class of claimants over another usually is overlooked, at least initially, in the first heat of the crisis. However, such an approach cannot easily be reconciled with the <u>necessity</u> theory of the LLR. By the way, the FDIC's own capital forbearance and capital support programs, which often have used income capital certificates or net worth certificates since 1980, also prolong the life of insolvent institutions and create a preference for uninsured depositors--the Fed alone is not to

be blamed for acting this way in dealing with insolvent banks. Also, the supervisory authority that has none of its own funds at risk often tends to prolong the. life of insolvent institutions, creating preferences and increased insurance fund losses along the way. Cf. Kane and Kaufman (1986, at 115); Kane (1988, at 17-18). Anna Schwartz offers the following apt observation regarding the usual tendency of the monetary authorities to rescue particular firms to forestall perceived financial crises:

> In my lexicon, the events since the mid-1960s that have been termed financial crises or threats of a financial crisis have been ,pseudo-financial crises. Essentially, the response to each of these events has been a form of bailout for which the justification was that the action averted a crisis. Since no financial crisis would, in fact, have been experienced had a bailout not been undertaken, the events were pseudo-financial crises. Moreover, the policies adopted were economically inefficient or inflationary in effect. Taxpayers Foundation (1983, at 15).

29. See Friedman and Schwartz (1963, at 347-350, 358-359). As was the case with Keynes, Friedman and Schwartz are more insightful than many of their followers. They recognize that it was a failure of open market oeerationg, more than any failure of the LLR (the discount window), that caused the monetary contraction. They wrote, at 348, as follows:

> In our view, this interpretation [that monetary policy is like a string; you can pull on it but you can't push on it] is wrong.

Cf. Benston and Kaufman (1988, at 4-5): "The Fed could have stemmed the decline in the money supply with open market operations and reductions in the required reserve ratio."

30. Friedman and Schwartz (1963, at 712-713).

31. Federal Reserve Bulletins.

32. For official statements of the "too big to let fail" policy, see Sprague (1986, at 259) and Lever and Huhne (1986, at 17-22).

33. This latter point also could be expressed as the "too big to let fail" doctrine.

34. Friedman (1985).

35. Taxpayers' Foundation (1983, at 31-32>.

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Appendix A

Excerpts from an April 25, 1988 Aruument

by Walker F. Todd

On Federal Reserve assistance to deposit insurance auencies and the theorv of central bank assistance aenerallv.

Federal Reserve assistance to (deposit insurance aaencies) and the theorv of central bank assistance aenerally.

A major conceptual issue arises in connection with any hypothetical request for Federal Reserve assistance to the deposit insurance funds. Covering the funds' own obligations might be proposed to include Reserve Banks' forbearances with respect to their advances to depository institutions that the deposit insuror 'later assumes, or the obligations of insured banks that the insuror either cannot cover, or does not wish to cover, in whole or in part.

It has been the long-settled tradition of central banks in the United States (First and Second Banks of the United States and Federal Reserve Banks) that, in their lending function, they provide necessary liquidity (but not capital or solvency) support, on the security of sound assets. In the gold-standard era, the central bank had to observe this rule because advances in excess of its' specie or bullion cover might cause the illiquidity (suspension of redemption in specie) of the central bank's circulating notes (paper currency). If the central bank were so imprudent as to advance funds without security, or on bad security, the central bank itself could become insolvent and face liquidation if its borrowers became insolvent and failed to repay the central bank. The Federal Reserve Act, which was enacted in the gold standard era, provides explicitly for the liquidation of the Reserve Banks, among other things, to cover such situations. See 12 U.S.C. section 248 (h) (Section 11 (h)).

The traditional and statutory remedy for a central bank's illiquidity was suspension of the central bank's statutory authority to pay out specie or

bullion in exchange for its own or the Treasury's notes. Such suspension had to be authorized by statute, by executive order, or, in the national bank era, by order of the Secretary of the Treasury or the Comptroller of the Currency.

The remedy for a central bank's insolvency during the gold-standard era had to be even more drastic. For one thing, the central bank's insolvency might force the Treasury into the hard choice among a public debt issue (to raise gold and Treasury securities with which to restore the central bank's gold cover and backing for the note issue), a tax increase to recapitalize the central bank, or the liquidation of the central bank (which might entail paying off its obligations at less than par).

If the Federal Reserve Banks attempted to fund an insolvent deposit insuror, then the current fair value of the Reserve Banks' assets would become substantially less than the value of their liabilities if the insuror's obligations were discounted at par, but the value of the insuror's rehypothecated assets were substantially less than par. Also, the quality of the Reserve Banks' assets would diminish anyway if holdings of full-faith-and-credit obligations of the Treasury were liquidated and were replaced by claims on insurors known, or widely suspected, to be insolvent. The .technical, legal backing for the Federal Reserve note issue (currency) would be weakened correspondingly. Central banks in developing countries already are loaded up with nonperforming, government-guaranteed assets. There is no good reason for the Federal Reserve to imitate their example.

But even more fundamental reasons for not attempting to have the Reserve Banks postpone a deposit insuror's insolvency include the following:

1. It is simple, textbook political economy that the central bank should not subordinate its credit decisions to the Treasury's need to finance its deficits because to do so weakens fiscal discipline and inexorably ushers in a new era of inflation. The same principle applies to central bank funding of the Treasury's indirect deficits; that is, the payment of obligations of government agencies or instrumentalities that the Treasury would have to finance elsewhere, if the central bank were not induced to do so. It is misleading to think of the financing of a deposit insuror's or any other government agency's debts as either ordinary or extraordinary assistance that a central bank must provide, of necessitv. It would be, to be sure, very convenient to governmental officials who would prefer to defer confronting their responsibility either to recapitalize or to liquidate the government -sponsored credit agencies, to have the central bank fund them instead. Also, because the central bank's assistance necessarily spares political figures from making hard choices in these cases, the discipline of political accountability is lost. One just cannot think of a deposit insuror or any other government agency in the same way that one thinks of a commercial bank, or even an independent commercial enterprise. that requests central bank assistance in comparable circumstances. The deposit

insurors and government agencies have no special claim on central bank funding, and almost always should be denied such funding, precisely because of their governmental or quasi-governmental status.

Beyond being bad fiscal policy, it might be bad law for the Federal Reserve to fund the government or its agencies, other than by the provision of central bank credit for government obligations in the open market, on a one-for-one, market-value basis. The Federal Reserve Act provides explicitly that Reserve Banks may purchase the Treasury's obligations only in the open market, not directly from the Treasury. See 12 U.S.C. section 355 (Section 14 (b) (2)). More to the point, it was Federal Reserve System policy for nearly 50 years that the Thomas Amendment to the Agricultural Adjustment Act of 1933, the source of the former, limited ($3 billion) authority of the Reserve Banks to lend currency directly to the Treasury, should be repealed--in 1981, the last vestige of the Thomas Amendment was allowed to expire under a sunset statute. See former Section 14 (h); 1983 Federal Reserve Bulletin 426. Cf. Raymond Moley, After Seven Years 158-161 (1939). Since 1981, there has been no statutory authority for the Reserve Banks to lend either their own or the Treasury's obligations directly to the Treasury. See former Sections 14 (b) (3) and 14 (h). With the anachronistic exception of

the Federal Intermediate Credit Banks, under an authorization that has been part of the Federal Reserve Act since 1923 but apparently never has been used, there is no current statutory authority for the Reserve Banks to lend directly to or for the account of any federal agency or instrumentality. See 12 U.S.C. sections 349, 350 (Sections 13a (2), (3)).

Alexander Hamilton once wrote that one of the conveniences (not necessities) of a central bank was that the Treasury could obtain loans from it in time of need. However, it should be noted that Hamilton was writing under the constraints of the gold-standard era, that he would not have advocated loans that might imperil the central bank's solvency, and that his successors in office eventually came to understand the evils of central bank funding of the Treasury's accounts.

3. Lending to the Treasury indirectly, by lending to a deposit insuror or a government agency under one of the emergency lending statutes, such as Sections 13(3) and 13 (13) of the Federal Reserve Act, also distorts the intent of those statutes, which are aimed at individuals, partnerships, and corporations. Those statutes always have been interpreted in the past as requiring the borrower to demonstrate that it could not obtain adequate amounts of credit elsewhere,

"from other banking institutions." (Section 13(3)). It would be a circumvention of that statute for a deposit insuror or government agency to obtain credit from a commercial bank, which in turn rediscounted that borrower's note with a Reserve Bank. Section 13 (13) authorizes advances to individuals, partnerships, and corporations on the security of "direct obligations of the United States or ... any agency of the United States." If anyone holds such obligations today, it should be able to obtain adequate amounts of credit from commercial banks. Also, presumably, if a deposit insuror or government agency held acceptable collateral, of any type, it probably could obtain credit from commercial banks. Without acceptable collateral, why should either Reserve Banks or commercial banks lend to such a borrower?

But, for the reasons indicated above, the Reserve Banks should not extend new credit to or for the account of a deposit insuror or government agency, even with acceptable collateral, even valued fairly at current market prices. For example, the statutes governing FSLIC and the FDIC clearly contemplated that they depend on Congressional appropriations, once their normal resources were exhausted. The statutory lines of Treasury credit are $750 million for FSLIC and $3 billion for the FDIC.

The deposit insurors and some government agencies may be "corporations," as a matter of legal form, but they also are federally owned or controlled

corporations, and, like it or not, that makes them different. So different, in fact, that the Reserve Banks should not lend to them without explicit congressional authorization. Otherwise, the lessons of the principles discussed above would be rendered meaningless. *See* Moley at 158-161 if this point still is insufficiently clear.

Until the last 10 years or so, Federal Reserve, Treasury, and congressional officials generally understood the principles described here and did not violate them. The greatest exception to the principle that the central bank should not fund a government agency was at the creation of the FDIC, in 1933, when one-half of the cumulative surplus of the Reserve Banks, about $139 million, was appropriated to fund the FDIC. But that measure was enacted by Congress specificially for that purpose, and the great financial rescue agency, the Reconstruction Finance Corporation (RFC), was prohibited by the terms of its own authorizing statute from funding itself with Reserve Banks' credit. Decades later, when the Franklin National Bank failed (1974), the Federal Reserve forbore collection of the loan outstanding at the closing ($1.7 billion) for up to 3 years to enable the FDIC to conduct an orderly liquidation. But the Reserve Bank did not increase the amount of the Franklin advance, other than incidentally, after the closing was decided upon (September 1974) and made no new advances to the FDIC after the closing (October 1974). Similarly, when Continental Illinois was rescued in 1984, part of the Federal Reserve's advance outstanding on the rescue date (up to $3.5 billion) was forborne for up to five years, again to enable the FDIC to conduct an orderly liquidation of Continental's bad assets. Again, no new advances were made to the liquidating bank after the rescue date, and the FDIC has not yet formally requested a renewal or extension of the original, five-year forbearance, which expires in September 1989.

Thus, there is neither a legal tradition nor sufficient precedent for the Reserve Banks to become a funding mechanism for any deposit insuror or federal agency or instrumentality, except with a full Treasury guarantee and on a fully reimbursable basis, pursuant to an explicit act of Congress.

The proper way for the Reserve banks to behave in a financial crisis is to guarantee sufficient aggregate liquidity to the banking system, through open-market operations. Letting it be known in Washington, D.C., that the Reserve Banks are available to fund insolvent operations that the Treasury is reluctant to fund risks becoming a dead-certain formula, a self-fulfilling prophecy, for eventual fiscal and monetary disaster.

Appendix B

Excerpts from an April 17, 1987 letter

by Walker F. Todd

On the requirement that the Treasurv secure its deposits and on the Treasury's incapacity to create monev

The [U.S.] Treasury ... is required, by statute, by common sense, and by traditional United States economic theory, to insure that its account balances held in the commercial banking system are secured by adequate pledges of collateral. 31 U.S.C. Sections 323, 3122 (1983). Cf. receipt of tax monies under 26 U.S.C. Sections 5703 (c) and 6302. Under Section 323, there is no apparent authority for the Secretary of the Treasury to waive the "secured by pledged collateral" requirement for deposits of the Treasury's operating cash in the commercial banking system. The origins of the TT&L collateral requirement are found in the subtreasury system that was implemented in 1846. The Treasury discovered that state banks occasionally failed, causing some loss of the Treasury's deposits. To prevent such loss, an 1846 law required the Treasury to keep its funds only in the subtreasuries. See Davis R. Dewey, Financial History of the United States 253 (1903). Despite the law, the Treasury did act from time to time to stem banking panics by placing its funds in the banks. Charles P. Kindleberger, Manias. Panics and Crashes 168 (1978). The fiscal agency functions of the subtreasuries were assumed by the Federal Reserve Banks under the Federal Reserve Act of 1913, including the acceptance of the Treasury's deposits. However, the Treasury did not begin to transfer its funds from the subtreasuries to the Reserve Banks until 1916, and it was not until 1921 that the last subtreasury was closed. Paul Studenski and Herman Krooss, Financial Historv of the United States 261 (1952). In 1917, the Treasury was authorized to place bond proceeds in banks (Section 3122) and, in 1977, Section 323 was amended to authorize the Treasury to deposit its operating cash in commercial banks. As Kindleberger observes, (at 168), "The Treasury could absorb money in deposits and pay out surpluses from existing funds, but apart from the greenback period [1862-1878] it could not create

money." Thus, it makes good sense for the Treasury's funds on deposit in commercial banks to be secured by pledges of banks' assets at the Reserve Banks because, to obtain replacement funds, the Treasury would have to issue new Treasury debt.

Appendix C

Excerpts from an October 22, 1986 araument

by Walker F. Todd

Outline of an argument on solvency

The most intriguing, and most explicit, statement by the Federal Reserve System regarding the proper role of central banks with respect to solvency/capital support of other entities is in a report on a conference of South American central banks that appears at 1932 Federal Reserve Bulletin 43. Advisors to the conference, representing the Federal Reserve Bank of New York, were Professor E. W. Kemmerer, Princeton University; assistant deputy governor (later president) Allan Sproul; and Eric F. Lamb, foreign department. The views of those gentlemen clearly were reflected in the conference report, from which relevant excerpts follow:

> It is necessary, therefore, to state emphatically once more that the central banks were not created as a substitute for commercial banks and cannot be regarded as a source of panaceas for economic ills which are subject to a slow and painful process of recovery.. .. 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.
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> ...
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> In cases where the central banks, by reason of their constitution, have to incorporate in their assets long-term investments of slow realization, it is advisable to separate the total of such accounts from their other assets and place it with any other organization or bank, the purpose and functions of which are compatible with such investments.
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> Considering that the investments of a central bank must be maintained at all times wholly in a state of liquidity and that, therefore, the provision of permanent capital or long-term credits is entirely opposed to its purposes, the conference would recommend that new credits should not be extended to those commercial banks which, during an agreed-upon period of time, have continuously made use of the rediscount privilege at the central bank.

> ...
> In cases of urgent necessity it is recommended that requests for credit on the part of a member bank which has not been out of debt during the previous calendar year be attended to in any event after the soliciting bank has agreed to submit to an inspection by the central bank, for the purpose of establishing beforehand its solvency and liquidity, the examination to show that the member bank's operations are conducted with its own resources and to establish the urgent need for assistance.
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> ...
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> Obviously there must always be for the common good perfect harmony between the fiscal policy and banking policy. There should be clearly established within this concept the necessity for absolute independence of the central banks from any intervention by partisan politics and from any influence on the part of the government or of its officials beyond the scope of their usual powers.
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> ...
> The conference would recommend particularly that for the efficient discharge of these functions [control and inspection, or bank examination], those intrusted with their performance should, in all cases, insist on the strict application of the law, free of any outside influence whatever which might cause them to swerve from their proper mission.
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> ...
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> Every central bank should always be administered first for the public interest, with the payment of dividends a seccndary consideration.

Comparable themes reappeared in Federal Reserve literature nearly 40 years later, in two places. In Report of a System Committee, 1 Reappraisal of the Federal Reserve Discount Mechanism 3, at 19 (1972), the following statement appears:

> This responsibility Can effective role as "lender of last resort,"] is not construed as placing the Federal Reserve in the position of maintaining the financial structure in statu quo. The System should not act to prevent losses and impairment of capital of particular financial institutions. If pressures develop against and impair the profitability of institutions whose operations have become unstable, inappropriate to changing economic conditions, or competitively disadvantaged in the marketplace, it is not the Federal Reserve's responsibility to use its broad monetary powers in a bail-out operation.

In a separate essay in the same collection, by Bernard Shull, Board of Governors staff, Report on Research Undertaken in Connection With a System Study, 1 Reappraisal 31, at 41, the following citation appears, taken from a 1954 System committee study of the discount mechanism:

> A major lesson brought out by the bank credit liquidation (in the early 1920's) ... was that it was unsound for any member bank to use continuous indebtedness to its Reserve Bank as a resource for conducting regular banking operations.... In the severe banking crisis and liquidation in the early Thirties, adjustment problems of the aggressive, continuous borrowing banks made evident the hazards to safety of deposit funds [because assets that might have been sold or delivered to satisfy claims of current depositors already had been pledged to Reserve Banks to obtain funds that already were spent to satisfy claims previously presented by

> creditors]. ... Because of this costly lesson, 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.... Future discount policy ... should build on the tradition as a keystone.

Then, in Hackley's 1973 treatise, the following statement appears at 194:

> Still another reason for the policy [against continuous borrowings by member banks from the Reserve Banks] is that 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 bank's capital. Thus, the 1973 revision 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."

Room is left within that statement of principle for extended credit in emergency situations, interpreted in recent years within the Federal Reserve System as allowing extended advances to an insolvent institution to facilitate an orderly closing or merger, when such orderly closing or merger

is in view, but the statement of principle clearly does not contemplate the substitution of Federal Reserve credit for a borrower's capital. That statement of principle is continued in the 1980 revision of Regulation A (the current version) at 12 C.F.R. section 201.5(a) ("Federal Reserve credit is not a substitute for capital"). This view of the System's role in not providing solvency/capital support to others is the traditional view of the proper role of central banks in the United States, regardless of how frequently and how extensively foreign central banks have performed the solvency/capital support role in their economies, and regardless of how frequently academic literature or politicians urge the Reserve Banks to expand the operations of the discount window to include a solvency/capital support component. The burden of proving the need and authority for a shift of the Reserve Banks away from their traditional role regarding solvency/capital support should be borne by the advocates of such a shift, not by those of us who believe that the status quo represents a reasonably accurate distillation of all the wisdom of the past regarding central banking in the United States.

- In January 1932, in the throes of the Great Depression and at the outset of an election year, the Hoover Administration created the Reconstruction Finance Corporation (RFC), a reprise of the War Finance Corporation of 1918, with expanded powers. The RFC, a separately chartered, separately financed government agency, was authorized to lend to banks and other enterprises for terms of up to three years, with renewals permitted for up to five years from the date of the first loan, against "full and adequate security."

Later, the RFC Act was amended to authorize renewals of loans until 10 years from the date of origination. The RFC also could make limited amounts of loans to receivers of banks that were closed or in the process of liquidation. Bank conservators did not yet exist. No power to lend to liquidators then was given to Reserve Banks. Carter Glass still was very much alive and by then was very much involved in Senate banking legislation. Carter Glass was a scholar of Shakespeare, Burke, and Jefferson, and considered himself the heir and standard-bearer of the Virginia traditions of governmental theory. Glass was the twentieth-century United States Senator whose views most closely paralleled those of Thomas Jefferson himself. Glass would not, as long as it was within his power to prevent it, have allowed his creations, the Reserve Banks, to become involved in a politicized undertaking, such as the loans the RFC was authorized to make, for the benefit of the Hoover Administration. See 1932 Federal Reserve Bulletin 94, 95-96, for the text of relevant portions of the RFC Act. As further protection from having the Reserve Banks finance the operations of the RFC itself, Section 9 of the RFC Act provided explicitly that obligations of the RFC "shall not be eligible for discount or purchase by any Federal Reserve Bank." 1932 Federal Reserve Bulletin at 97. As is noted below, the principle that the Reserve Banks should not provide solvency/capital support to other entities was breached only once by Congress, when the Federal Deposit Insurance Corporation (FDIC) Act (former Section 12B of the Federal Reserve Act) was enacted as part of the Banking Act of 1933. At

that time, the Reserve Banks were required to subscribe for approximately 48% of the capital of the new FDIC. Also, as Jesse Jones, former chairman of the RFC, expressed it, in 1932, "Few members of Congress probably thought that the government could afford to put its credit behind our whole economy, which we later did under Roosevelt." Jesse H. Jones, with Edward Angly, Fifty Billion Dollars: My Thirteen Years With the RFC (1932-1945), at 84 (1951).

- Section 10(b) was added to the Federal Reserve Act on February 27, 1932. It authorized advances to member banks on the security of any satisfactory assets, in exceptional and exigent circumstances. It did not authorize solvency/capital support or loans to receivers of closed banks.

- Section 13(3) was added to the Federal Reserve Act on July 21, 1932. It authorized discounts for individuals, partnerships, and corporations in unusual and exigent circumstances, secured by eligible paper (short-term, self-liquidating obligations). It did not authorize solvency/capital support.

- On March 9, 1933, the Emergency Banking Act was enacted. The principal draftsman was Walter Wyatt, then general counsel of the Federal Reserve Board. Title II of the Act is the Bank Conservation Act, creating conservatorships for national banks. See Jones, supra, at 21-22. Section 304 of the Act authorized the

RFC (the Federal Reserve is not mentioned in that section) to purchase preferred stock of banks "in need of funds for capital purposes either in connection with the organization or reorganization of such [banks]" (emphasis added). Section 402 extended the authority for emergency advances to member banks by Reserve Banks on any satisfactory assets under Section 10(b) for one more year. No authority for solvency/capital support by Reserve Banks was included in Section 402 or Section 403. Section 403 added Section 13(13) to the Federal Reserve Act, authorizing 90-day advances to individuals, partnerships, and corporations on the security of government obligations. See 1933 Federal Reserve Bulletin 115 et seq. According to Jesse Jones, it was the RFC's preferred stock purchase program that reestablished the stability of the United States banking system. Jones, supra, at 33-34, 39-40, 46-47. Jones writes that Wyatt personally drafted the RFC's preferred stock purchase provision (Section 304). Id. at 22. Therefore, the Board's own aeneral counsel should be presumed intentionally to have given the solvency/capital support power to the RFC, not the Reserve Banks. I believe that Wyatt knew what he was doing by conferring the solvency/capital support powers on the RFC, not the- Reserve Banks, thereby distancing the Federal Reserve from the ultimately corrupting influence of politi-cized decision-making regarding the continued existence of individual banks with governmental solvencylcapital support. Jones's book makes it clear that the decisions undertaken by the RFC in the preferred stock purchase program were filled with political

pressures, from both the Roosevelt Administration and the bankers. To his credit, Jones tried to make the result of the program approximate the likely outcome of continued free-market operations: solvent or nearly solvent banks survived, and hopelessly insolvent banks were liquidated.

- On June 19, 1934, former Section 13b was added to the Federal Reserve Act. Section 13b was the most remarkable amendment of the lending provisions in the entire history of the Federal Reserve Act because it was markedly inconsistent with the spirit and original intent of the other lending provisions of the Act. Under Section 13b, Reserve Banks were authorized, in exceptional circumstances, to make loans to, to purchase obligations of, and to make lending commitments to "established industrial or commercial businesses" to provide the businesses with "working capital" for terms of up to five years. A showing of unavailability of such funding "from the usual sources" was a prerequisite to Reserve Banks' assistance under Section 13b. The Reserve Banks also were authorized to cofinance banks' working capital loans to businesses for up to five years (up to 80 percent of the risk could be assumed by Reserve Banks). The total amount of Section 13b assistance was limited to the surplus of the Reserve Banks on July 1, 1934, together with $139 million that was supposed to be repaid to the Reserve Banks by the Treasury for their purchases of the stock of the newly-created Federal Deposit Insurance Corporation. The FDIC was created under Section 8 of the Banking Act of 1933 (June 16, 1933), and the

Reserve Banks were required to subscribe for FDIC stock in an amount equal to one-half of their surplus as of January 1, 1933. See 1933 Federal Reserve Bulletin 385, 388. That 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. Later during the 1930s and the 1940s, the Roosevelt Administration often used the RFC to fund indirectly activities that the Administration did not wish to fund directly or through the ordinary appropriations process, but the Reserve Banks were not used for such purposes again after 1934.

Anyway, Section 13b was not used often during the 1930s--most working capital loans to businesses were made under similar provisions of the RFC Act. It is noteworthy that, according to Hackley (Walter Wyatt's successor as the Board's general counsel in 1948, I believe, and the Board's general counsel until 1969), even Section 13b "was not intended to authorize the Reserve Banks to make loans [merely] to enable businesses to refinance outstanding indebtedness or to build, improve, or replace plant and machinery." Hackley, supra, at 133-145, 137. After World War II, use of Section 13b did become something of a political boondoggle, as did use of the RFC's working capital lending authority to an even greater extent.

Both entities made thousands of working-capital loans during the postwar era. Regrettably, the Board participated willingly in the continuation of the boondoggle, even attempting to liberalize the working capital lending authority by having Reserve Banks guarantee up to 90 percent of banks[1] loans to businesses for up to 10 years. Fortunately, the requisite statutory changes were not enacted. See Marriner S. Eccles, Federal Reserve Guarantee of Business Loans Made Bv Chartered Banks, 1947 Federal Reserve Bulletin 521; Hackley, supra, at 144-145. By 1955, the RFC already was on the road to abolition. Under a 1953 statute, all RFC functions were to be terminated or transferred to other agencies by 1957, and final payment of RFC funds to the Treasury was to be made by June 30, 1959. See historical note under 15 U.S.C.A. section 601 (1976). Thus, in an atmosphere of phasing out the 1930s special lending agencies, under former Chairman William McChesney Martin, the Federal Reserve began in May 1955 to attempt to withdraw from the working capital lending business. Martin expressed well what I believe to be the proper, guiding precept before a Senate Banking subcommittee in June 1957 when he said "that the primary duty of the Federal Reserve System was to guide monetary and credit policy and that, in the Board's opinion, it [is] ... 'undesirable for the Federal Reserve to provide the capital and participate in management functions' in the [then] proposed small business investment companies." Hackley, supra, at 145. On August 21, 1958, the Small Business Investment Company Act was enacted. Section 601 of that Act repealed Section 13b, effective August 21, 1959, thereby fulfilling Chairman Martin's expressed desire.

- The Federal Reserve has not attempted to renew the Section 13b authority in any Congress since the authority expired in 1959. Thus, with neither the RFC nor the Reserve Banks' Section 13b authority on the scene at present, it requires a great leap of faith to assume that Reserve Banks either still have or ought to have solvency/capital support lending authority.

- It is clear that Reserve Banks may make advances to depository institutions to support their need for liquidity on the security of any sound (satisfactory) assets, fairly evaluated. It is less clear that Reserve Banks are authorized to apply creative evaluations to banks' assets (other than government securities), even to support their liquidity needs. During the 1930s, Jesse Jones applied the following rough test to banks to decide whether they were hopelessly insolvent or could be made to prosper eventually with a reasonable amount of RFC assistance:

  - Mark all assets to current fair market value.
  - Mark all liabilities to present value, excluding capital (which presumably was nonexistent anyway).
  - Do the resulting asset values cover at least 90% of the liabilities, excluding capital?
  - If yes, then save the bank by purchasing nonvoting preferred stock, redeemable in 10 years.
  - If no, liquidate the bank--it is too insolvent to bother with saving.

Jones, supra, at 27-28. As a measure of how few banks could satisfy the Jones test of solvency, there were 17,000 commercial banks on March 1, 1933. By January 1, 1934, when the FDIC began operating, only 12,000 banks remained, and 6,000 of them were borrowing at least some of the capital they needed to satisfy the FDIC's minimum capital requirements from the RFC. Large New York banks borrowing capital from the RFC included:

Guaranty Trust Company - $20 million.

Chase National Bank - $50 million
(33% of pre-March 1933 capital).

Manufacturers Trust Company - $25 million.

Banks elsewhere borrowing capital from the RFC included:

Bank of America - $27.5 million

Continental Illinois - $50 million
(67% of pre-March 1933 capital).

First National Bank of Chicago - $25 million.

Source: Jones, supra, at 35-35, 38, 47-49. For perspective on these amounts, nominal gross national product (GNP) in 1933 was $55.6 billion; in June 1986, nominal GNP was $4.182 trillion. Federal budget outlays in fiscal year 1933 were $4.6 billion; budget outlays as of March 31, 1986 were running at an annual rate of $972 billion. The consumer price index (June 1986) was 8.6 times its 1933 level.

- Since World War II, the Reserve Banks have been asked to participate from time to time in solvency/capital support programs on a fiscal agency basis. That is, the Reserve Banks have acted as guarantors of defense production loans (V-loans) either as guarantors subject to reimbursement by the Treasury or as fiscal agents, and as fiscal agents for the Treasury's bailouts of Lockheed, New York City, and Chrysler Corporation. See Hackley, supra, at 147-161, regarding V-loans. All of the solvency/capital support activities described in this paragraph were mandated explicitly by Congress.

- Only once, in wartime, did the Reserve Banks guarantee defense production loans without explicit Congressional authorization to do so, and then it was done under an Executive Order of the President. The Executive Order was ratified by Congress 11 weeks later, in June 1942. See Hackley, supra, at 149. In 1970, when some advocates of a bailout for the Penn Central Transportation Company attempted to obtain a V-loan for the company, Congress responded by amending the Defense Production Act of 1950 specifically to limit the guaranteeing authority of any agent (read: Reserve Bank) to a maximum of $20 million, "except with the approval of Congress, and [to prohibit1 ... the use of the V-loan authority for the purpose of preventing the financial insolvency or bankruptcy of any person unless the President certifie[s] that the insolvency or bankruptcy would have a direct and substantially adverse effect upon

production." The President's certification must be transmitted to Congress at least 10 days before the author1ty may be used. Hackley, suura, at 152. Thus, the solvency/capital support authority of the Reserve Banks cannot be found by analogy to V-loan authority.