AN INTERNATIONAL LENDER OF LAST RESORT, THE IMF, AND THE FEDERAL RESERVE

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Joint Economic Committee
United States Congress

February 1999

Executive Summary

Recent discussions relating to reform of the "international financial architecture" have drawn attention to the function of an international lender of last resort (LOLR). There are, however, few, if any, clear delineations of this important function, partly because of differing premises, definitions, and understandings of an international LOLR role. After summarizing well-established domestic LOLR functions, this paper describes the international LOLR role. The question as to whether existing institutions such as the IMF or the Federal Reserve can provide such international LOLR services is then addressed.

Under existing institutional arrangements, the IMF cannot serve as a genuine LOLR. Specifically, the IMF cannot create reserves, cannot make essential decisions quickly, and does not act in a transparent manner in order to qualify as an authentic international LOLR. The Federal Reserve, on the other hand, does meet essential requirements of an international LOLR. It can quickly create international reserves and money, although it has not openly embraced international LOLR responsibilities. The Federal Reserve can easily implement this function by employing several readily available market price indicators and global prices measure without jeopardizing longer-term price stability objectives.

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I. INTRODUCTION

Recent international financial turbulence has stimulated discussion about reform of the Ainternational financial architecture.@ Some of this discussion centers on the IMF and its potential role as an international lender of last resort (LOLR). Unfortunately, descriptions of the international LOLR function are particularly vague, with different premises, definitions, and understandings of that function creating semantic problems that often cloud the discussion.

This paper clarifies this discussion by briefly summarizing the functions of a domestic LOLR and describing two alternative ways such LOLR services can be supplied. The role of an international LOLR and the means by which its services can be supplied are then discussed. It is shown that international LOLR services cannot be provided by the IMF as it is presently constituted. Instead, under current circumstances, such services can be provided by the central banks of key reserve currency countries, and especially the Federal Reserve. Finally, recommendations as to how international LOLR services may best be provided are described.

II. A SUMMARY OF THE DOMESTIC LOLR FUNCTION

Relevant, key elements of the domestic LOLR function can be succinctly summarized in the form of the following propositions:[1]

- The need for a LOLR arises because of two important institutional characteristics of contemporary monetary systems, namely, fractional reserve banking and government monopoly of legal tender issuance. The first creates a need for a LOLR; the second, the means for satisfying that need. The LOLR is a money-creating backstop or liquidity guarantor which acts to prevent a panic-induced collapse of the fractional reserve banking system.

- The LOLR has a macroeconomic rather than a microeconomic responsibility. The monetary stabilization duty of the LOLR relates to market-wide (macroeconomic) effects and not to individual bank (microeconomic) effects. The LOLR function pertains to the responsibility of guaranteeing the liquidity of the entire economy but not necessarily the liquidity of particular institutions in the economy. Moreover, the LOLR role is not to prevent all

[1] For a thorough historical discussion of the lender of last resort, see Thomas M. Humphrey and Robert E. Keleher, AThe Lender of Last Resort: A Historical Perspective,@ *Cato Journal*, vol. 4, no. 1 (spring/summer 1984). This section=s summary of the domestic LOLR function draws from this earlier discussion.

disturbances to the financial system, but rather to minimize the secondary repercussions of such disturbances. Accordingly, the LOLR is charged with averting contagion, spillover, or domino effects which might threaten the stability of both the financial system as well as the value of money.

- In no case does the LOLR have a duty to sustain unsound banks. The LOLR should not intervene in the lending decisions of individual financial intermediaries. Poorly managed banks should be allowed to fail, with the LOLR only ensuring that such failures do not have important spillover effects. In short, the LOLR must distinguish clearly between promoting monetary stability and protecting the interests of bank owners and management. The former is a macro responsibility and the latter is not.

- The purpose of a LOLR is to prevent credit problems from becoming monetary crises. Although the operation of a LOLR should prevent system-wide runs on banks, large-scale loan call-ins, and collapses of asset prices, loans, and credit, its ultimate purpose is to prevent monetary collapses **C** to promote monetary stability.[2] To accomplish this goal, the LOLR must be able to respond both quickly and massively to a crisis.

- The LOLR function is a short-run stabilization role which does not conflict with longer-run central bank objectives. Prompt, vigorous LOLR action (activated only during temporary periods of emergency) will allay panic within a very short time and, consequently, well before longer-term goals such as price stability are threatened. As a result, any deviation of general prices from a longer-term target will be small in magnitude and duration. Price stability and LOLR goals, therefore, are complementary rather than conflicting central bank goals. Indeed, the pursuit of price stability normally results in the provision of last resort liquidity.

- The LOLR should be transparent. The LOLR=s objectives and operations should be fully acknowledged and widely announced to the public before any crisis occurs. Credible assurance of this kind reduces uncertainty about the LOLR=s willingness to act, in turn promoting confidence and thus generating stabilizing expectations that work to avert future panics and lessen the need for LOLR action. To minimize Amoral hazard@ problems, such advance announcement should indicate that assistance will not be provided to unsound banks but only Ato the market@ or to solvent, sound banks with good collateral, that are experiencing temporary liquidity problems. In short, advance widespread public notification should leave no doubt that insolvent banks will not be bailed out.

[2] The effective exercise of this emergency liquidity function will prevent a drastic, widespread call-in of loans as well as a dramatic fall (or collapse) of asset prices. Thus, in providing this function, the LOLR indirectly ensures that banks needing to sell liquid assets will not have to do so at large losses that might otherwise bring about insolvency and its adverse effects.

III. THE PROVISION OF LOLR SERVICES

LOLR services can be provided via alternative mechanisms: namely, through the central banks= discount window using traditional Bagehot principles or via open market operations.[3]

Traditional Bagehot Principles

Traditionally, LOLR services are provided via the famous lending rule of Walter Bagehot: lend freely to the market at a penalty rate on good collateral. ALending freely@ on good collateral ensures that adequate last resort liquidity is available to sound banks, thereby providing enough liquidity to prevent any serious internal (reserve) drains.[4] Penalty rates ration scarce reserves among eager borrowers; encourage lending to remain short-term; ensure borrowers will exhaust private sources of funds, thereby making such lending genuinely Alast resort;@ and work to attract foreign capital, thereby minimizing external drains or depreciation of the exchange rate.

This traditional approach, therefore, has the distinct advantage of working to resolve banking crises (internal drains) and currency crises (external drains) at the same time. The disadvantage of such lending is that some time is normally required to properly evaluate the condition or collateral of borrowing banks, ensuring that last resort lending might not occur as quickly as possible in a sudden crisis.

Open Market Operations

A second method of providing LOLR liquidity is supplying such reserves directly to the market via open market operations. Open market purchases are a particularly efficient way of providing liquidity to the market, having the advantage of (almost instantaneous) speed as well as of regulating the total amount of market reserves, but not its allocation among particular users. In situations where external currency drains or rapid exchange rate depreciation accompany internal liquidity demands, however, large scale open market purchases to provide LOLR liquidity could serve to (at least temporarily) exacerbate these drains or depreciation. In this sense, open market purchases are a crude instrument relative to the discount-window-based Bagehot rule. Nevertheless, for accommodating emergency demands for high-powered money, open market operations are quick, convenient, efficient, and flexible.

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[3] Historically, LOLR principles were developed by Henry Thornton, the Banking School writers, and most completely by Walter Bagehot, the editor of the *Economist*. Bagehot=s rule was to lend freely to the market on good collateral at a penalty rate. See Humphrey and Keleher, *op. cit.*, pp. 299-305.

[4] Under commodity (gold) standards, increased demands for liquidity could result in internal gold drains. In other regimes, internal currency drains could result from sharp increases in demand for liquidity.

IV. AN INTERNATIONAL LOLR

Most descriptions of the LOLR functions pertain to domestic LOLRs. While international LOLRs have been mentioned in the literature, descriptions remain particularly vague and ill-defined. Different underlying premises, definitions, or semantic problems often cloud the discussion. Analogous to domestic LOLRs, an international LOLR is relevant in circumstances of fractional reserve banking and an international medium of exchange serving as a world reserve currency. While no international legal tender monopoly exists, global reserve, key, and vehicle currencies persist under different exchange rate regimes.[5] History indicates that dominant international monies evolve very slowly in the market place and are not easily substitutable once well-established.[6] This suggests that in the very short-run **C** the time frame in which LOLR decisions often must necessarily be made **C** reserve currencies are for all practical purposes analogous to monopoly issuance. There are no ready alternative reserve currencies in such short-run time frames. This, in turn, suggests that in global financial crises (liquidity shortage) situations, managers of dominant international currencies should accept responsibility to supply needed world liquidity: to act as international LOLR.[7]

For an organization to function as an international LOLR, it must be able to create international reserves or money: i.e., to provide global liquidity quickly and in any amount on demand.[8] The world=s central banks would turn to an international LOLR only if such an entity was the ultimate source of international reserves.

This is particularly relevant in circumstances of fixed exchange rates where national currencies are fully convertible into a common international reserve money.[9] In this case, for example, if the demand for an international medium of exchange increases and banks face runs from foreign depositors seeking to remove their money, it is possible that the respective central banks of these countries would face a run on their international reserves. If these central banks desire to maintain

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[5] Reserve currencies serve as reserve assets and provide a store of value function. Key currencies serve the unit of account function and are often used as a peg in defining parities. Vehicle currencies provide the means of payment functions and are often used as intervention currencies in foreign exchange markets. See, for example, the discussion of reserve, key, and vehicle currencies in Benjamin J. Cohen, *The Future of Sterling as an International Currency*, MacMillan, St. Martin Press, London, 1971, pp 16-22.

[6] See, for example, Benjamin Klein and Michael Melvin, ACompeting International Monies and International Monetary Arrangements,@ *The International Monetary System*, edited by Michael Connolly, Praeger, N.Y., 1982.

[7] Kindleberger, in effect, suggests that the responsibility of an international LOLR falls to reserve currency managers. See, for example, Charles Kindleberger, AKey Currencies and Financial Centers,@ *Reflections in a Troubled World Economy*, Essays in Honor of Herbert Giersch, St. Martin=s Press, New York, 1983, p. 84, 87; Charles Kindleberger, *Manias, Panics, and Crashes: A History of Financial Crises*, Basic Books, New York, 1978, p. 226.

[8] See R.G. Hawtrey, *The Art of Central Banking*, Frank Cass and Co., Ltd., London, 1962, p. 274.

[9] Even though many countries do not now operate under a fixed rate system, understanding its operation is important in order to grasp the international LOLR function under current exchange rate arrangements.

a fixed exchange rate, they may ultimately have to borrow from other central banks or from an international LOLR (the ultimate source of international money) which can supply such an international media of exchange rapidly on demand.

Although exact parallels cannot be easily drawn, the purpose of an international LOLR is to provide a backstop or mechanism to prevent a sharp collapse of international money or liquidity: i.e., to stabilize the value of such international money and to prevent various disturbances from developing into world money crises.

Under the post-Bretton Woods flexible exchange rate system, international (reserve, key, and vehicle) currencies have continued to exist. Many countries, for example, continue to use the dollar as a reserve asset, to peg their currencies to international reserve currencies like the dollar, and to denominate many of their transactions in terms of dollars. In short, there continues to be demand for such global reserve currencies even under current floating rate systems. Indeed, the magnitude of international reserve flows actually increased, rather than decreased, under existing floating exchange rate arrangements.[10] Under existing institutional arrangements, therefore, it should be recognized that the U.S. dollar has served as a most important international reserve or money.[11] Accordingly, it follows that Federal Reserve policy can importantly affect and create world reserves.

V. THE IMF: A POTENTIAL INTERNATIONAL LOLR?

The IMF is often characterized as an actual or potential international LOLR. Some analysts contend that the IMF currently can serve as an international LOLR since it has substantial financial resources, the power to both raise additional funds and to issue Special Drawing Rights (SDRs), as well as a sizable gold stock.

The creators of the IMF, however, deliberately rejected the notion of an international LOLR or world central bank. Various proposals for a reserve-creating international bank were explicitly rejected by the U.S. and other countries at the time because of concern that such an institution would create excessive international money. The original IMF architects, therefore, made sure that the IMF did not have money-creating powers. Instead, the IMF was designed to assist member countries with short-term balance of payments problems through extensions of short-term loans.

As currently structured, the IMF cannot qualify as a genuine LOLR because it lacks several of the necessary characteristics of such an institution. The IMF lacks distinguishing features of an international LOLR, including the following:

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[10] See, for example, Robert Mundell, "The Future of the Exchange Rate System," Paper Prepared for the Rocca di Salimbeni Conference, Monte dei Paschi di Siena, Siena, Italy, November 24, 1994, p.12.

[11] To a lesser extent, Japanese yen and German marks have served these purposes.

- The IMF cannot create international money or reserves. The IMF cannot truly serve as an international LOLR since it cannot create high-powered money or international reserves. The funds it can make available are those resulting from borrowing: i.e., limited contributions made by member countries. Under current practices, once these quotas are consumed, available funding is limited and cannot readily be replenished.[12] Therefore, the IMF cannot Alend freely@ without limit and therefore cannot prevent a sudden collapse of international money because, in accordance with its design, it simply does not have the necessary liquid resources to do so.

  While the IMF can issue SDRs, such issues are limited and not readily acceptable as international reserves. Furthermore, such issues are administratively clumsy since they cannot be made without prior authorization from membership. Similarly, the IMF gold stock is a (one-time) source of funds which, under current practice, in effect, is illiquid because of IMF fears that sizable gold sales will bring about sharp gold price declines in a thin gold market.

- The IMF cannot act quickly enough to serve as a LOLR. Genuine LOLR decisions often must be made very quickly, sometimes within hours (as in a banking liquidity crisis). Under current practices, however, IMF decision-making is ordinarily quite slow and cumbersome. For example, in providing money to a borrowing country, the IMF conducts lengthy negotiations involving reform programs and related conditionalities. Letters of intent and memoranda of understandings are drawn up. IMF executive board decisions are subject to the votes of executive directors who often consult their national authorities. All of this takes a good deal of time.

  Admittedly, there are inherent, informational reasons for some sluggishness in lending decisions. An international lender seeking to follow Bagehot=s rule simply does not have ready access to the information essential to making rapid lending decisions. As one analyst recently explained:

  > A...it is unlikely that (an) international lender of last resort would have the experience with countries, their financial systems, their assets and their collateral that national central banks have acquired by dealing with their banks every day.@[13]

  Accordingly, an international LOLR often simply does not have sufficient information to be able to quickly distinguish between an illiquid and insolvent entity.[14]

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[12] The IMF can borrow from world capital markets, although it has never chosen to do so.

[13] Geoffrey Wood, AA Lender of Last Resort? It=s a Foolish Proposition,@ *Wall Street Journal*, Thursday, October 29, 1998 (parenthesis added).

[14] See William A. Niskanen, AReshaping the Global Financial Architecture: A Comment,@ Paper presented at Cato Institute=s 16th Annual Monetary Conference cosponsored with the *Economist*, October 22, 1998, Washington, DC. See also Anna

- The IMF is not transparent. Successful LOLR practices also involve pre-announced objectives and procedures in order to both reduce uncertainties regarding the LOLR=s willingness to act and to generate stabilizing expectations working to avert panics. Further, such advance announcements serve to notify prospective borrowers that last resort lending is exclusively short-term, for sound, illiquid entities and not for insolvent entities involving long-term structural problems. By so informing prospective borrowers, such advance announcements work to minimize moral hazard.

  These transparent procedures are clearly not followed by the IMF; its practices routinely violate these conditions. Accordingly, IMF lending in recent years has worked to prop up insolvent entities and create serious moral hazard problems.

  As presently constituted, therefore, the IMF cannot act as an international LOLR.[15] It cannot create reserves or international money, cannot act quickly enough to serve as an international LOLR, and does not operate in a transparent manner. Further, IMF lending currently (indirectly) serves to bailout insolvent institutions, something wholly inappropriate for an international LOLR.

VI. THE FEDERAL RESERVE: AN INTERNATIONAL LOLR

One of the undeniable characteristics of current international monetary arrangements is the existence of and demand for reserve currencies. Despite the fact that major currencies float against one another, important currencies continue to serve and be held as international monies or reserves. The U.S. dollar remains the dominant and most important of these international monies or reserve currencies and it serves several functions for the global system. In particular, the dollar serves as an international reserve, key, and vehicle currency.

Circumstances involving international liquidity shortages or sharp increased demands for international liquidity normally entail increased demand for the dollar as a reserve currency or international money. Such situations highlight the responsibilities of an international lender of last resort. In such cases, the international LOLR should prevent any sharp decline in international liquidity or a collapse of international money: i.e., it should provide conditions supporting a stable price anchor for the international monetary system.

Schwartz, ATime to Terminate the ESF and the IMF,@ Foreign Policy Briefing, Cato Institute, August 26, 1998, pp. 6-7.

[15] Substantial restructuring of the IMF, however, could change this situation. For a recent proposal to restructure the IMF, see Charles W. Calomiris, "Blueprints for a New Global Financial Architecture," Joint Economic Committee, October 7, 1998.

! The Federal Reserve can act as an international LOLR. When such global liquidity shortages arise, the Federal Reserve **C** unlike the IMF **C** has international reserve or money-creating powers and, accordingly, can act to satisfy increased demands for liquidity; it can act as an international LOLR. In addition to powers to create acceptable international money, the Fed can act to create liquidity quickly via open market operations rather than through the slower, more cumbersome discount window mechanism.[16] Providing such reserves via open market operations rather than through the discount window would also be much preferable on political grounds.[17]

In short, the responsibilities of an international LOLR currently fall on reserve currency central banks. Since the dollar is the dominant reserve currency and the Federal Reserve is the principal institution that can create world dollar reserves, this responsibility falls largely on the U.S. central bank. In serving as an international LOLR, the Federal Reserve can prevent a collapse in international money or liquidity, help stabilize or anchor the value of international money, and thereby prevent various (e.g., credit) disturbances from developing into world monetary crises.

Robert Mundell has long recognized this Federal Reserve responsibility:

> "The Federal Reserve… has the power to determine… the size of foreign exchange reserves abroad… In a practical sense, the Federal Reserve System is the lender of last resort to the international banking system, and the determinant of the dollar value of world reserves."[18]

! The Federal Reserve should explicitly recognize this function. While the Federal Reserve can quickly generate international reserves and thereby serve as an international LOLR, the Federal Reserve has not embraced this role in a transparent manner. The Federal Reserve should explicitly recognize this important role and openly clarify its international responsibilities before a crisis occurs. Credible assurance of this kind would not only reduce uncertainties about the provision of international LOLR services, but would also work to promote confidence and generate stabilizing expectations, thereby reducing the need for future LOLR action. By pre-announcing that LOLR assistance will be provided to the market, but not to insolvent, unsound entities, moral hazard problems would be minimized.

Notably, the provision of this short-term crisis function need not jeopardize longer-run objectives such as price stability. Prompt LOLR action activated only during temporary periods of emergency will allay panic within a short time, and, consequently, well before

[16] Since the global economy is closed, the international LOLR need not be concerned about external drains; attention can be focused on satisfying liquidity demands.

[17] International reserve-creating central banks should never lend to insolvent institutions via the discount window.

[18] Mundell, Robert A., *International Monetary Options*, Cato Journal, vol. 3, no. 1, Spring 1983, p.191.

longer-term goals such as price stability are threatened.[19] Consequently, any deviations of prices from a longer-term target will be small in magnitude and duration. International LOLR and price stability objectives, therefore, are complementary rather than conflicting goals for central banks with international reserve creating powers.

- This function can be readily implemented. The Federal Reserve can implement these responsibilities by using a number of indicators to supplement their domestic indicators. These indicators become relevant for policymaking during periods when international liquidity shortages emerge. Accordingly, these indicators should provide useful, timely information relating to the movement of global prices and world liquidity. Because LOLR decisions must often be made very quickly (sometimes in a matter of hours), data requirements also call for high frequency, readily available sources of data. Fortunately, there are a number of relevant indicators that meet these requirements. Several measures of global price movements, for example, are available. Such measures should be monitored in conjunction with a set of readily available market price indicators that provide up-to-date information highlighting actual and prospective global price movements and world liquidity. In particular, measures of world commodity prices, various bi-lateral and multi-lateral measures of the dollar exchange rate, and indices of global bond yields can be jointly assessed to gain information on prospective global price movements and world liquidity.[20]

  When international liquidity shortages (or sharp increases in the demand for international liquidity) occur, for example, these indicators often provide useful information when assessed together with global price movements. In this case, world inflation may be declining at the same time the dollar appreciates, world commodity prices soften, and global bond yields decline. Risk spreads may be widening at the same time. When all of these indicators signal a global liquidity shortage, the Federal Reserve should consider appropriate policy response: i.e., a more rapid supply of reserves or liquidity than would otherwise be the case. This easier policy stance is appropriate until the above-cited indicators suggest the liquidity shortage has abated.

VII. SUMMARY AND CONCLUSIONS

Recent discussions relating to reform of Athe international financial architecture@ have focused attention on the function of an international LOLR. There are, however, few, if any, clear delineations of this important function, partly because of differing premises, definitions, and understandings of an international LOLR role. After summarizing well-established domestic LOLR functions, this paper describes the international LOLR role. The question as to whether the IMF or Federal Reserve can provide such international services is then addressed.

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[19] Responsible international LOLRs would absorb reserves later, after liquidity crises abate.

[20] These data can be supplemented with data measuring changes of liquidity preference, various risk spreads, bank stock movements, and other data pertaining to financial crises.

Under existing institutional arrangements, the IMF cannot serve as a genuine LOLR. Specifically, the IMF cannot create reserves, cannot make quick decisions, and does not act in a transparent manner in order to qualify as an authentic international LOLR. The Federal Reserve, however, does meet the essential requirements of an international LOLR. It can quickly create international reserves and money, although it has not openly embraced international LOLR responsibilities. The Federal Reserve can easily implement this function by employing several readily available market price indicators and global price measures.

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