Central Banking and Money Market Changes:

A Reprise

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I. INTRODUCTION

In 1957 there may have been some novelty in pointing out that the monetary and financial instruments, usages, and behavior of the significant banking institutions and financial markets change - or evolve - in response to perceived profit opportunities: in 1984 it is commonplace to accept that such institutional innovations and evolution takes place.\(^1\) However, it is surprising that the acceptance of the fact that the substance of money has changed in many striking ways over the past four decades has not led to a significant change in the way monetary theorists think about money. The assumption of exogeneous money, that there is a well defined exogenously determined money supply that the Central Bank can control with adequate precision, still permeates monetary theory. In monetary theory banks are still viewed as passive reactors which transform high powered money into public money; profit maximizing behavior by business apparently does not extend to banks and bankers.

Over the two decades since the middle 1960s the Central Banks of the World - and our own Federal Reserve system - have been as much - as perhaps even more - concerned with the maintenance of the "integrity" of the banking and financial structure as with the control of "a" money supply in order to guide the economy to some desired performance goal. Beginning with the Federal Reserve's reaction to the credit crunch of 1966 and continuing through the recent episodes of domestic and international financial trauma, the Federal Reserve has episodically tossed aside any pretense of trying to achieve economic stability through monetary control in order to concentrate its interventions on defending and protecting the integrity of the financial system, by assuring that the nominal commitments of financial institutions on
liabilities are fulfilled. There is a conflict between a Central Bank's economic control "function" and its lender of last resort "responsibilities", which much of the monetary theoretic discussion continues to ignore. This neglect is due to the chief weakness of the dominant neoclassical theory which restricts its analysis to equilibrium states. Within the theory there is no possibility for the endogeneous development of situatuions that require lender of last resort interventions.  

This paper falls into five parts. The first is this introduction. In the second some aspects of the postwar financial evolution are taken up. The topics to be discussed are the nature of money, position making instruments, (including the change from asset to liability management banking), the structure of household assets and business liabilities and the internationalization of dollar based banking.

In the third part the problem of convertability and the determinants of the value of bank money are examined. The endogenous bank money system has as many "monies" as there are banks and the legal and regulation conditions for bank money imposes a "tight convertability" [to borrow a phrase of Liejohnufund] among these monies. But tight convertability means that they exchange at par, so that the determinants of the common value of bank monies needs to be examined.

The fourth part examines questions about the structures of regulation and Intervention. It is an apparent paradox that the system is being deregulated even as the serious lender of last resort interventions increase. However this apparent paradox is resolved when it is recognized that deregulation and the increase in the apparent need to intervene are both results of profit seeking innovations in banking that have forced the hands of the authorities.
The fifth and last section deals with policy issues. The argument is that the "policy" step of increasing the equity ratio will lower profits in an industry that is already under a profit squeeze. One conclusion of the essay is that a shift toward a central bank/banking system relation where reserves are acquired through the discount window rather than by means of open market operations is likely to give authorities tighter control over the stability properties of the banking system than they now possess.

II. POSTWAR FINANCIAL EVOLUTION

A. NATURE OF MONEY

The question of what is money is of critical importance to quantity theorists and is of importance to IS-LM Keynesians. The basic theory of monetarists - most especially of the new classical monetarists - depends upon a strong equilibrium of the real sectors of the economy and a dichotomy of the real and the monetary aspects of the economy. In this setup money is fundamentally natural with respect to all but the level of prices and wages. In order to square their theory with the facts that business cycles exist modern quantity theorists like Friedman and Lucas devise constraints by which money is transitorily not neutral but in principal, and in the long run, money remains neutral. Business cycles are explained by means of short run non-neutral adjustments to exogeneous monetary changes.

In the standard IS-LM "diagram" a change in money will shift the LM curve and will 'normally' affect the "equilibrium" interest rate and income. In both monetarist and IS-LM analysis monetary changes do not result from the internal operations of the economy; they are imposed from outside.
This theoretical literature - as well as the orthodox critiques of monetarisms - never models banking. Standards of theoretical purity can be so lofty that F. H. Hahn can publish a book on Money and Inflation in which the word bank or banker never really appear. If we recognize, with Keynes, that money is created in transactions in which banks add to their liabilities, which are money by, acquiring assets by which borrowers promise to pay money to the banks in the future, so that the creation of money is the first step in a process that has later steps in which money is to be destroyed, and that the money creation and destruction process centers around the profit (income) expectations of bankers and borrowers, then the very foundation of any economic theory which treats money as exogenous and which assumes a fundamental in principal neutrality to money is undermined. This is so because once a debt structure denominated in money exists the absolute level of prices, wages and profits matter, for the ability to fulfill contracts entered upon in the past and the current expectations that contracts entered upon today will be fulfilled depend upon what has happened and is expected to happen to money prices.

The evolution of the nature of money, so that today's money can be the checkable liability of a non-bank, can earn interest and can be internationally acceptable by means of a plastic card has taken place in response to profit opportunities or the income expenditure preferences of units that money issuing organizations finance. This financing relation - so that money is like a bond - is the essential characteristic of our economy that makes money not neutral. At any time a vast international network of payments denominated in monies exists. In the aggregate these payments can be made only if new financing commitments are undertaken by organizations whose liabilities are money that offset the money being destroyed as payment
commitments to banks are being made.

Thus no matter how the specifics of the money supply has evolved over the past forty years, the essential characteristics of bank money - that it arises in financing activity and, that such commitments to make payments that will destroy money in the money creating process includes - have not changed. What has changed is the nature of the organizations being financed. In the evolution of bank assets -the major shift being the change from bank portfolios dominated by government debt to portfolios dominated by business debt - the units that must make payments so that the second part of the money creating contract takes place has changed, and with the change the source of funds for paying banks has changed. If bank portfolios are dominated by government debt, then tax revenues provide the validating cash flows whereas if bank portfolios are dominated by business debts, profits are the source of the validating cash flows. The growth of business indebtedness to banks relative to gross business profits and sharp increases in interest rates in the context of highly indebted business tends to increase the instability of the bank related financing process. The asset structure of banks and the ratios of private indebtedness to private profits are part of the mechanisms which affects the stability of the financial structure; the likelihood that lender of last resort intervention will be necessary depends upon the asset structure of the banking system.

The change in the nature of the money supply that has deep meaning for system behavior is not the change in the payment mechanisms but is the change in the asset structure of banks and thus in the source of the funds that will meet the payments due on banks assets. The Keynesian financing veil has serious repercussions for the behavior of an accumulating capitalist economy.
B. POSITION MAKING INSTRUMENTS AND MARKETS

The changes over the past "forty" years in the position making instruments and in the markets affected by position making activity have been of equal and perhaps of greater significance than the changes in the nature of the money supply. At the end of World War II banks were loaded with an asset-U.S. Treasury Debt - which was readily marketable. When banks gained or lost reserves through the clearings they operated to bring their reserve position to the desired or legally required state by buying or selling an asset, Treasury securities. Position making was asset oriented and involved buying or selling Treasury securities. This regime was characterized by extraordinarily low interest rates - so that the transactions cost for placing idle reserve funds to use in overnight or very short term markets outweighed the potential gains.

As interest rates rose in the early 1950s the minimum balance it paid to put to use in overnight loans decreased. As a result a market in Federal Funds developed. With the growth of this market banks were able to "make position" by borrowing - by acting on their liabilities. With the further development of certificates of deposits, holding company commercial paper various repurchase agreements and borrowings and lendings to overseas affiliates a wide variety of position making options exist.

With the proliferation of bank liability forms and with the rise in nominal interest rates - bankers always live in a "nominal" world - the "free services" bankers offered depositors no longer compensated for lost interest. On both "retail" (household) and business accounts banks began to "buy" their deposits. Bought money combined with position making by operating on liabilities made banks more sensitive to the continued normal functioning of
financial markets. A potential for volatility and periodic position making difficulties exists in a bought money liability management banking that does not exist in a client based liability structure and position making through assets. The volatility of financial markets and the need for close Central Bank/bank relations increases as the banks become dependent on making their position through the placing of liabilities.

C. BANK ASSETS AND HOUSEHOLD AND BUSINESS LIABILITIES

There is no need to recapitulate the now oft told story about the changes in household and business liability structures and in the compositon of bank assets over the years since World War II. If we consider the Keynes veil of money in which money is like a bond in that it finances positions in assets, then what money "obscures" is the particular combination of assets that the monetary liability of banks finances. Bankers are profit seekers; like other business men they try to maximize profits. The shift in asset composition of bank portfolios and the increased leverage ratios by households and businesses reflected emerging profit opportunities.

As a result of the growing indebtedness of business a larger share of the flows of business profits after taxes must now go to fulfill commitments on liabilities. In a similar fashion a larger portion of household income must now go to the validation of household debt. [The exploding Government Debt under Reagan means that a larger portion of government tax receipts must now go to validate government debt.] Bankers in turn finance their positions by "paying" for deposits, either in cash or in services. The difference between interest receipts and the expenses of acquiring and holding funds is the banks "fund income," and this fund income can be adversely affected by volatile - especially rapidly rising - interest rates. In particular, the
higher the ratio of sectoral indebtedness to sectoral incomes, the greater the likelihood that a rise in interest rates will lead to particular firms or households not being able to fulfill their payment commitments out of their "cash flows." Non-performing loans not only adversely affect bank income but they lead to a reconsideration of bank lending standards.

Over the years since the 1960's businesses direct access to financing by means of commercial paper has increased. Ever since the Penn Central/Goldman-Sachs fiasco of the late 1960's, commercial paper has been backed up by unused bank lines of credit, perhaps documented by a letter of credit. Such "back up" or "pre-endorsement" credit arrangements are a source of fee income for banks and a way in which bank customer financing is facilitated in a period of strong credit demand. What such arrangements do is formalize a 'refinancing' relationship; if the open market financing channel is blocked, if the borrower cannot rollover open market paper, then the bank will refinance the client's "position".

This refinancing commitment is analogous to the Central Bank's lender of last resort relation with member banks. The evolution of the financial structure towards increased complexity results in a variety of "refinancing" and "stand by" financing relations. Some of these are by government agencies: The Continental Illinois case demonstrated that F.D.I.C. cannot do its job without prior refinancing intervention by the Federal Reserve.

Thus hidden bank assets and contingent bank liabilities, as well as the contingent commitments by government organizations has increased the likelihood that short term movements in Federal Reserve credit will be determined by market conditions - by its lender of last resort responsibilities.
D. THE INTERNATIONALIZATION OF DOLLAR BANKING

The summer of 1984 was dominated by the Latin Debt Crisis and the de facto failure of the Continental Bank of Chicago. Although the Continental "failure" may be more directly linked to its U.S. assets than to its overseas assets, the "run" on the bank that was the proximate cause of its terminal difficulties is related to the current structure of international banking. Today's structure of international banking is dominated by a wide network of mostly dollar denominated bank debt; such dollar dominated bank debt need not be of U.S. chartered organization; the dollar assets owned by a bank need not be the debt of a U.S. entity, and the holder of bank debt as an asset need not be a U.S. citizen.

Such Euro or Asian dollar banking involves a commitment by the debtor bank to deliver dollars to whomever the creditor depositor desires, at the time the deposit contract matures. This means that the bank that runs a dollar book needs command over "dollars" that are acceptable for the covering of dollar clearing losses. Such "dollars" are New York dollars that can be converted if necessary into Federal Reserve Funds. Such New York dollars can be in the form of certificates of deposit in U.S. banks, quickly negotiable commercial paper, or short term Treasury securities. There is a market demand for short term and negotiable U.S. dollar assets (or U.S. lines of credit) that depends upon the volume of dollar denominated liabilities in non U.S. chartered banks.

In addition to their own New York dollar resources, a bank running a dollar bank offshore has access to dollars through its Central Bank. The Central Bank dollar holdings, the "swap" arrangements between its Central Bank and the Federal Reserve, and the terms upon which its Central Bank will make
U.S. dollars available determine the availability of Central Bank dollar refinancing to such banks. But if the terms at which an offshore Central Bank can sell New York assets to refinance one of its "member" banks that is in difficulty depends upon the action taken by the Federal Reserve System in the New York Market, the Federal Reserve is the de facto lender of last resort to the international financial structure.

Events in 1984 demonstrated that the Federal Reserve has responsibility in today's banking structure for more than the maintenance or orderly conditions and the availability of refinancing within the United States. After the "Volcker" article in the Wall Street Journal of Dec 7th (Friday), it should be clear that the Federal Reserve became monetarist in 1982 to protect the 'dollar denominated system' and abandoned monetarism three years later to protect the 'dollar denominated system'. The first time the actions were taken to halt a run from the dollar, the second time the actions were taken to halt a run to the dollar.

The Federal Reserve is now as a lender of last resort to the world dollar denominated banking system, regardless of where the banks that have the dollar book are domiciled.

III. CONVERTIBILITY AND THE VALUE OF BANK MONEY

Each bank promises its depositors that under terms as set out, its liabilities will be converted into some other money. In order to be able to fulfill this commitment each bank will keep some of the money it needs to be able to fulfill its commitment on hand. Normally each bank promises that it "convert" its liabilities into liabilities of other "banks", even into liabilities of the Central Bank. Thus reserves (assets) in the "money" that they promise to deliver are kept by banks and the asset structure of a bank
is managed so as to generate a flow in its favor of the money it promises to pay.

Each "bank" therefore has its own money; what passes as money is really a summation of the "monies" of many different institutions. Each money is convertible into any other money - Bank of America money is convertible with Citicorp money. Not all banks use deposit at a Federal Reserve Bank as their clearing money; State Banks and Saving and Loan organizations typically use deposits at commercial banks. Euro dollar deposits are offshore liabilities of various banks; these banks promise to pay their depositors dollars when their deposit falls due - the deposits are almost all dated. The dollars they promise to convert their liabilities into are New York dollars.

As a result the reserve money for Euro dollar deposits are assets, such U.S. Treasury debt or Certificates of Deposit in various United States Banks, that are readily convertible into demand deposits in United States banks. The fact that U.S. bank deposits are high powered money for the Euro dollar market makes the banks in which these deposits are held of particular importance for the stability of the world financial structure. The Continental Illinois collapse was triggered when "withdrawals" of offshore deposits took place. The deposits that "ran" were defacto reserve deposits of offshore banks that run a book in dollars. The offshore dollar system was at stake in the Federal Reserve intervention in the Continental Illinois case; If the $7 billion of refinancing that the Fed provided was not forthcoming the ability to deliver New York dollars for all of the offshore dollar banking system would have been in doubt - and such doubt triggers runs.

Thus the Continental Illinois case shows that the Federal Reserve in the current structure of financial relations is the 'de facto' lender of last
resort not for just the United States chartered organizations but for all
banks that run dollar denominated banks.

The Federal Reserve therefore has responsibilities where it does not have
control; responsibilities which depend upon an acceptance of the importance of
maintaining the offshore dollar denominated banking system. I need not argue
that this informal arrangement carries with it dangers in that assumed
intervention may not be forthcoming; it is self evident. Furthermore the
system as it now stands leads to a demand for dollar assets - including
Treasury Securities - that is related to the growth and the currency of
denomination of the international offshore banking system. In good part the
United States financial structure depends upon the continued use of the dollar
as the international currency of denomination.

The issue of "convertability" leads to a related question - why is "bank
money" accepted. Given that there are as many different "bank dollars" as
there are banks with dollar deposits, why does anyone in his right mind accept
a bank dollar in exchange for an intrinsically valuable good or service. The
answer comes in two steps: any bank dollar is convertible at par into any
other bank dollar and a significant set of units are committed to "earn" bank
dollars in order to fulfill their obligations on debts that are owned by
banks. "Bank dollars" are valuable because units are operating in the economy
to get "bank dollars" so they can pay "bank debt", and in this process destroy
"bank dollars."

If we restrict ourselves to business debt to banks then it is business
gross profits - including funds acquired by selling out inventories - that
furnish the funds that lead to the fulfillment of bank debts. But if for a
moment we follow the heoric Kalecki relations business gross profits equals
gross investment - which requires bank financing. Thus fulfillment of bank debts requires that new debts be "booked." If the expected profitability of business investment declines the ability of business to fulfill debts can deteriorate.

Over the past four years, for both domestic borrowers and international indebtedness, a spate of cases of significant size have developed in which borrowers have not been able to fulfill their commitments on debts from their earnings. In these cases banks have either taken losses, rolled over the principal even as interest is paid, or "folded" the interest into the principal owned (i.e., capitalized interest). If we assume that the creation of bank money is inflationary and the destruction of bank money is deflationary, these "banking problems" of the recent past mean that the deflationary party the "bank money" relations have not been forthcoming. This means that there is a substantial deterior in the quality of bank money - which implies inflationary pressures.

Inflationary pressures in dollars can be overcome by large scale unemployment and by an appreciating dollar; both require high nominal and therefore high price level deflated interest rates. Of course to the extent that dollar denomination rules for many commodities, an appreciating dollar implies price level inflation in other countries. The requisities for United States system stability may be destabilizing in the various other economies.

IV. THE STRUCTURE OF REGULATION AND INTERVENTION

The recent deregulation mania has swept aside many of the lines of demarcation that separated banks from other financial institutions, even as the essential dominace of commercial banks in the primary creation of business nonbonded debt remained unaffected. If the point of view is the household
then the deregulation movement has led to an increase in the array of alternatives that are available. But if the point of view is that of a borrowing businessman, the basic dependency upon commercial banks for short term credit remains unchanged.

However with the growth of new forms of credit, the basic businessman/banker relation has changed. With the growth and development of open market paper, stand by lines of credit have become of greater importance to business. Large "deals" that may require assurance of performance have also become more common. Bank credit is to some extent being replaced by bank guarantees. Furthermore with the growth of the size of individual financing needs, the inability of unit banks to wholly finance their customers has meant that markets in which paper is traded have grown. These markets go both ways: large banks get excess funds from smaller banks and smaller banks get pieces of large credits.

Marketing paper is a substitute for institutional consolidation. Thus the marketing of paper can be visualized as "doing" for independent banks what say the Bank of America does internally, and therefore may be considered to be a transitory phenomena until nationwide banking emerges. Alternatively, the marketing of paper can be seen as an efficient way to combine the concern with the smaller credits of unit banks with the capability of extending larger credits.

No doubt what has happened to date on deregulation and intervention is part of an unfinished story. The past several years have witnessed great interventionist successes in that the crisis of the thrifts, the crisis of the Latin-American Credits, and the failure of the Continental Illinois Bank did not lead to a cascade of reactions and thorough disruption of the economy. We should expect the lender of last resort interventions to become of even
greater importance if the transition we are now in leads to a consolidation of institutions so that their number is greatly reduced.

Lender of last resort interventions have been the dominant feature of the Volcker years as Chairman of the Federal Reserve. There seems to be an intuition recognition that disinflation will lead to threats of debt deflation and that the intervention must be managed so that the debt deflation does not occur and that seeds are not planted for an inflationary burst. The Incomes Policy that operated through unemployment and union bashing, together with the appreciating dollar, meant that inflation was contained even as lender of last resort interventions took place. Perhaps it can be argued that the Federal Reserve learned from the experience of 1967, 1969/70, 1974/75 how to prevent a debt-deflation without setting the stage for a succeeding inflation. Of course, if the expansion that began two years ago resumes with vigor, this economy will enter the range where further expansion of aggregate demand is increasingly transformed into inflationary price movements.

V. POLICY ISSUES - CONCLUSION

There is a conflict between any "rule" for Central Bank behavior and its responsibilities as "the lender-of-last-resort." This conflict is accentuated when the Central Bank has not only the responsibility for maintaining orderly conditions in the domestic money market but also responsibility for a vast network of offshore banking that is denominated in its currency and which gives a rise to serious positions by offshore banking institutions in your domestic money market. The Federal Reserve cannot stand aside and ignore destabilizing developments in dollar denominated banking in London or Singapore, for instability abroad will be quickly felt in New York. Similarly a run from abroad on the liabilities of a Continental Illinois
forced the hands of the Federal Reserve, not only to intervene in the specific case but to allow declarations to surface that liabilities of giant banks have a special protected position in the U.S. banking structure.

We can raise the question of how the peculiar United States Central Bank (an interigation of the Federal Reserve, the Federal Deposit Insurance Corporation and the Comptroller of the Currency?) can fulfill its lender of last resort function without giving a blank check to banks to adventure on their assets and liabilities. There is a "moral hazard" problem with regard to the protected multibillion dollar banks that does not exist for smaller banks: They can bias their "innovations" towards assets that can put their equity at risk.

As long as the Federal Reserve fears disasters -and the Federal Reserve holds that it acted correctly and prudently in the various crunches, debacles and affairs of the past two decades - the odds are with the giant institutions if it ever comes down to a dare to the Federal Reserve not to support their operations and refinance them when a "crisis" threatens. The Federal Reserve must not be afraid of calling any institutions bluff - of allowing it to fail and to wipe out not only its shareholders equity but also some of the depositors value. But the failure, in this sense, of a bank as large as the Continental Illinois would have led to "a morning after" run on a large number of other giant banks -here and abroad - and a need for a much greater infusion of reserve money than was necessary in the Continental case.

We therefore have a proposition that for the Federal Reserve to be able to stand aside and allow a bank to fail and depositors to take losses, the bank must not be so large that in the Federal Reserve's view its failure will trigger a "domino effect" burst of failures. This implies that there is a
maximum size to a bank that is consistent with the Federal Reserve being able to stand aside in the individual case and to intervene as a lender of last resort only when markets are in crisis. In today's economy this might set a $10 billion limit to the size of any bank. It is utopian and unrealistic to expect a reform of the banking structure in which the largest bank is of the order of $10 billion. Therefore we can expect "intervention" by the Federal Reserve to continue to take place when individual giant banks are in difficulties.

A standard way to get around moral hazard problems is coinsurance. In banking this implies a thick equity position, although, given the division between ownership and control, it is questionable that equity risk is really relevant. After all a shareholder of Continental Illinois who owned the stock in June 1982 (before Penn-Square broke) and kept it until the reorganization lost well nigh all of the investment.

Increasing the ratio of bank equity to bank assets will have an adverse affect on bank profitability. The returns on stockholders equity in a bank (or in any other levered institution) can be written as

$$\pi = \frac{\pi}{B} \times A$$

where $\pi$ is profits, $B$ is the book value of the bank, and $A$ is the assets of the bank. Thus, if a bank makes 0.75% on Assets and has a "book value" equal to 5% of assets, the return on book value ($\pi/B$) will be 15%.

Over recent years there has been sharp pressures on bank profitability due to the rise in the costs of funds; the profits from fund management have been squeezed. Although banks have tried to supplement fund income with fee income, the effort has not as yet yielded major benefits. If the authorities succeed in raising required equity, so that the assets to equity ratio falls
to 15, then the banks would have to raise their net after taxes fund income to 1%, if they are to achieve a 15% rate of return on book value.

A healthy financing system depends upon the financial institution being profitable. Thickening capital as a means of reducing the moral hazard in banking - of banking innovations being biased towards unwarranted risk taking - may be inefficient if it lowers bank profitability.

A tighter regulatory regime may be an alternative to thickening capital as a way of getting around the moral hazard involved in banking with Central Bank protection. To suggest greater regulation at this time is certainly going against the tide. However bankers themselves "regulate" their customers and in the passing of credits around from bank to bank they allow their standards for structuring and supervising loans to meet the test of their partners in syndication.

Bankers accept that their credit standards can be subject to peer review when they market parts of the lines they initiate. The Penn-Square case is an example of peer review failure during an euphoric boom. If commercial banks normally borrowed from the Federal Reserve, if the discount window was the normal source of a large percentage of bank ability to lend, then the regional Reserve banks would really be bankers to bankers - with all the right to structure and supervise credits that is normal in banking.

Thus one way in which an efficient banking system, in which the ability of banks to force the hands of the Federal Reserve by means of periodic threats of bank failures is attenuated, can be brought into being is to make the bank - Federal Reserve relation a normal banking relation. This implies a shift away from open market operations banking and a return to principles that guided the system over its first decades.
When I think of reforms that can really attenuate instability I am forced into rather farfetched changes: increase equity, sharp limits to bank size and a return to the discount window as the prime source of reserves. However imperfect though the present system is, the combination of big government and ad hoc Federal Reserve refinancing has kept downslide instability within reasonable though not wholly satisfactory bounds over the past twenty years of financial fragility. The resiliency of the system does not reflect any inherent properties, but rather is due to the bounds and constraints placed upon the possible economic system states by the ability and willingness of government to sustain business profits by massive deficits and Federal Reserve refinancing interventions. As long as government is big and the Federal Reserve is a responsible lender of last resort the disasters inherent in an accumulating capitalist economy are likely to be avoided. Muddling through at the standard in which nothing much worse than 1981-82 occurs is a distinct possibility with the present structure of massive deficits in recession and prompt lender of last resort interventions.
There is a multitude of real assets in the world which constitute our capital wealth—buildings, stocks of commodities, goods in course of manufacture and of transport, and so forth. The nominal owners of these assets, however, have not infrequently borrowed money in order to become possessed of them. To a corresponding extent the actual owners of wealth have claims, not on real assets, but on money. A considerable part of this ‘financing’ takes place through the banking system, which interposes its guarantee between its depositors who lend it money, and its borrowing customers to whom it loans money wherewith to finance the purchase of real assets. The interposition of this veil of money between the real asset and the wealth owner is a specially marked characteristic of the modern world.
Axel Leijonhufvud sets out the notion that real and monetary convertibility for Central Banks is not mutually exclusive.

"However, the role of the central bank is not really diminished by the recognition of its ineffectiveness in preventing inflation as well as in stemming deflation. The central bank's function is to act as a lender of last resort and therefore to limit the losses due to the financial crisis which follows from the instability induced by the innovations during the boom. A combination of rapid central bank action to stabilize financial markets and rapid fiscal policy action to increase community liquidity will minimize the repercussions of the crisis upon consumption and investment expenditures. Thus a deep depression can be avoided. The function of central banks therefore is not to stabilize the economy so much as to act as a lender of last resort. This they are able to do."