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GLOBAL FINANCIAL CRISIS  
A Classic 'Ponzi' Affair?

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# **GLOBAL FINANCIAL CRISIS A Classic 'Ponzi' Affair?**

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# GLOBAL FINANCIAL CRISIS

## A Classic 'Ponzi' Affair?

*Sunanda Sen\**

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*[Abstract: This paper seeks to identify the roots of the financial crisis in US which is now has spread to the rest of the global economy. These include the dominance of uncertainty as a force in financial markets (usually ignored in mainstream economics) and the use of financial derivatives (largely with de-regulation of financial markets). These provide the ideal setting for flows of speculator finance which finally degenerate to a state of unsustainable ponzi finance.]*

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### **Introduction**

The current turmoil in the global financial market and its origin in US financial markets from where it spread has made it imperative that we need to question, once again, the validity and relevance of the neo-liberal theory and policies relating to the financial sector which in our judgement are responsible for such outcomes.

We try in the following pages, to interpret the current global crisis. This is done by identifying the *two* special aspects which in our judgement, explain its origin, the spread as well as intensity. We then look into the dominant precepts behind, an uncritical acceptance of which seem to have led to policies responsible for much of the current malaise in the financial sector. These relate to the mainstream or neo-liberal economic doctrines to achieve what in related literature is viewed as "efficient" financial markets. We then interpret the unfolding of various bankruptcies and bailouts in the US financial sector which have come out in public domain. Finally we pay attention to the actual and potential threats for the onset of a similar crisis as seem to prevail upon developing countries including India.

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## What triggers a financial crisis? Some theoretical concerns

To get at the background of the US (and currently global) financial crisis one needs to address issues which include, first, the prevalence of high stakes in financial markets with uncertainty. In such situations the risks (as are involved in holding financial assets) often turn out to be disproportionately high when one compares those to what eventually comes out as their realized returns. Transactions as above have been identified in the literature as 'ponzi' deals, which, as pointed out by the post-Keynesian economist Hyman Minsky<sup>1</sup> in 1986, are both unsustainable and hazardous as compared to acts of simple hedging (or even speculation) on asset prices.

With ponzi deals as above the high returns offered by borrowers to entice new investors to lend and invest, often fail to be realised in the market. To avoid an impending default and an interruption of business, it not only becomes necessary to continue with new investments but also that such investments be adequate to compensate the losses already incurred on previous investments. However, since confidence on financial assets acquired by lenders on the basis of these transactions gradually tends to be eroded, such dealings come to a grinding halt, leading to big holes in the balance sheets of the concerned parties.

Ponzi finance as above is very different from hedge finance which to some extent keeps the business going as long as hedging offsets the losses with possible gains. Even speculative finance, which dwells on more risk than under hedging, can be sustained until it becomes ponzi, with borrowings at high rates no longer generating compensating returns, a situation which has clearly plagued the US financial markets.

A second factor which similarly contributed to trigger the global financial crisis relates to financial innovations which go with de-regulation in financial markets. By generating derivative instruments which aim to protect asset values in uncertain markets, these innovations also make it possible to invest and acquire financial assets much more easily. For example, with 'futures', a typical derivative product which arranges for a contract in the security exchanges for sale and purchase of a financial asset in some future date, the deal can work to the convenience of both buyers and sellers by insuring against uncertainties in the market; while dispensing with cash transactions at the time of the contract. Thus the buyer contracting a 'long' (buying) position deposits only a fraction of the contracted price as 'margin', with the security exchange. Innovations and instruments as above have opened up vast potentials for an expansion in financial market transactions which today are no more constrained by availabilities of bank credit.

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<sup>1</sup> Hyman P Minsky, Stabilizing an Unstable Economy New Haven, Yale University Press 1986.

However, transactions as above and the agents involved can remain in business as long as the hedging works to minimise the risk under uncertainty and the risk-adjusted returns offered to those with long (buy) positions are realised by those who hold the short (sell) positions on assets. These may not materialise in a typical 'ponzi' situation, for reasons mentioned above.

It now remains to be seen as to how aspects as above are handled in mainstream theory and policy with their strong advocacy for wide-ranging de-regulations in financial markets. By postulating rational expectations and access to full information on part of all agents in the market; uncertainty, in these theories, does not get in the way of achieving efficiency as long as markets are left free. Accordingly speculation (under uncertainty) is reduced to arbitrage (in point of space) and hedging (in point of time). Under such circumstances the market is supposed to take care of uncertainty-related concerns by enabling the use of financial derivatives. From this angle security markets would perform at their best when no restraints remain on trading, in spot markets and in those for derivatives. In case banks as lenders are wary of potential defaults by borrowers due to incomplete and/or asymmetric information in the market, they may even resort to credit rationing, as held in the literature. But both borrowers as well as lenders are still viewed as rational beings who decide feely on their lending or borrowing activities in the market.<sup>2</sup> It is not difficult to see that positions as above, emanating from advanced countries, have continued to dominate policies in financial markets and financial institutions.

Despite the continuing dominance of the mainstream doctrines on policy, the magnitude and the intensity of the latest problems in global financial markets seem to have jolted a bit the entrenched positions held by establishment, a fact borne out in terms of the efforts to bend the standard rules of monetarism and free market norms under capitalism. Otherwise how can one interpret the huge bail-out packages from the state in a country (or countries) which till recently had pledged to remain as ardent advocates of free-market capitalism?

### **Turbulence in financial markets – The sub-prime loan market crisis in US**

Back in the 1970s, the US economy was subject an unprecedented wave of credit squeeze as Alan Greenspan, the Fed Chairman launched a series of monetarist restraints on credit in a bid to contain inflation. Reacting to these, financial innovations led way in devising alternate channels of credit creation beyond the usual banking orbits. By this a large

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<sup>2</sup> See for an elaboration and a critique, Sunanda Sen, Global Finance at Risk: On Real Stagnation and Instability Palgrave Macmillan 2003 and OUP 2004.

number of US firms were able to access short-term credit by using, as collaterals, securitised assets which in the market were treated like commercial papers.<sup>3</sup> As the wave of securitisation (of assets) caught on, new forms of financial intermediation followed with investment banks re-packaging these securities which were marketed easily to other banks or non- bank financial units including other investment banks as well. It is important here to point out that since these transactions were outside the orbit of conventional banking channels, the Fed had no regulatory power over those. Instead these deals were subject to the jurisdictions of the Securities and Exchange Commission (SEC) of USA. One witnessed, as a consequence, a 50% decline in the proportion of US financial assets as were held by banks between 1950 and 1990. Credit and transactions related to securities were thus made easy along the non-banking channels, with rates charged on loans at much lower spreads as compared to those along conventional banking channels. Transactions as above facilitated the churning of multiple asset-backed securities (ABS), generated on the basis of the original (or the underlying) asset, while propping up multiple counterparties which held those assets. Leveraging played a major role in the creation of these debt financed assets, which continued as long as there was trust and confidence in the uncertain markets on these newly created financial assets.

Mortgages on property opened up new profit opportunities for the financial sector in the US economy around late 1980s. By creating a market for housing which targeted the section of US citizens so far financially excluded on grounds of race and/or income, it became an opportune moment for banks and other non-bank intermediaries to venture out for good business. Incidentally the potential house-owners who were targeted were so-far excluded from the financial markets by banks which followed credit-rationing which ruled out such loans.<sup>4</sup> Possibilities as above to securitize the mortgaged assets opened up new channels of investments, for the broker-mortgage firms, the issuers and insurers of asset based securities(ABS), investment banks who readily purchased and repackaged the ABS, and other financial institutions. Each, by acquiring an asset, were able to leverage by obtaining credit against the latter.

As the process continued, a large number of people with low incomes were now endowed with a mortgaged property and a liability to pay monthly instalments, usually to the broker-mortgager cum bank which organised the deal. These assets were backed by loans which later were discovered as 'sub-prime', with the mortgaged collaterals

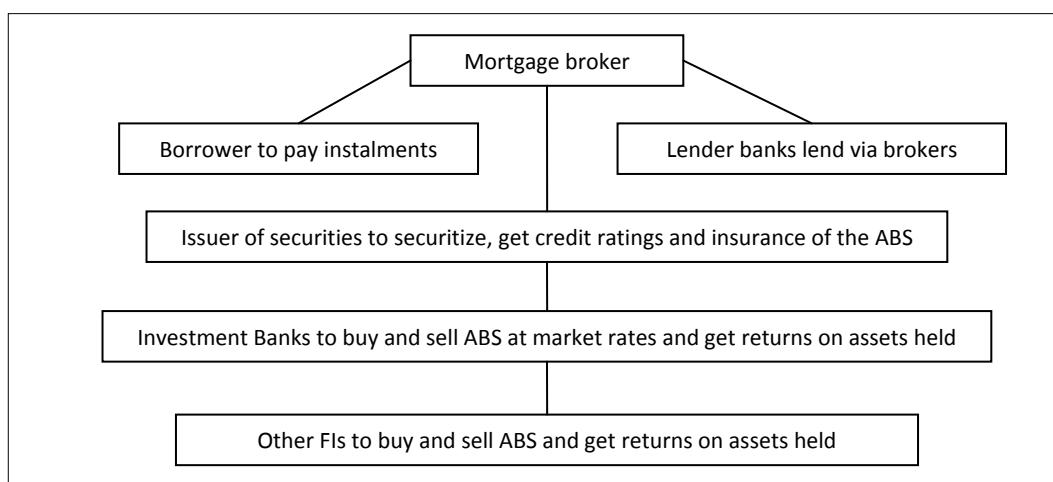
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<sup>3</sup> Randall Wray, "Financial Markets Meltdown: What can we learn from Mynski?" Public Policy Brief No 94, 2008, The Levy Economics Institute of Bard College. [www.levy.org](http://www.levy.org)

<sup>4</sup> Gary Dymski, "Financial Risk and Governance in the Neoliberal Area" (mimeo) September 10, 2008.

subject to valuation in a sliding market, loans at interest rates higher than the ruling rate in the market, and with little accountability of the borrowers, many of whom were not bankable in terms of the conventional practices followed earlier. The euphoria, fed initially by the rising property prices on the one hand and the eagerness on part of the financial community to profit by using the securitisation route on the other (which temporarily shifted the risk to counterparties), did work as long as it lasted. All this business, led by investment banks, as we have mentioned above, was outside the purview of the Fed, while the SEC did not find any reason to interfere.

To follow the sequence as led to the recent sub-prime crisis of the US we provide below a rough sketch of the possible links in the system:



The above schema of sub-prime loans which prompted the upswing in the asset market eventually failed to work. As mentioned earlier, the high property prices of mid-1990s made possible for banks to advance loans against mortgaged houses at high interest rates to low income borrowers who had very little credentials in the financial market. Repackaging of these to back securities (which exchanged hands to generate further assets and credit opportunities) finally proved to as an Achille’s heel by impairing the credentials of the entire financial system in US. Use of futures and other derivatives (swaps, options etc) expanded the scale of operations by making it possible to bid on positions in the security market with small margins of the final transaction in cash until full payment was due when the contract matured.

To recapitulate the sequence as above, it may be worth to follow the following *four* stages of the upswing in the financial market and the subsequent *three* stages of the reversal:

## The build up of the boom

1. Loans advanced by banks, via broker-dealers of mortgages, to borrowers in housing markets at sub-prime rates. Borrowers committed to regular installments to parties as above.
2. Mortgaged assets get repackaged by issuers of securities as collateralised debt obligations (CDOs) which are the asset based securities (ABSs or Mortgage backed securities) sold to investment banks
3. Investment banks has sold these asset based securities to other financial institutions.
4. Market prices of these financial assets determine the returns to the investor.

## The approach to the crash

1. Drop in property prices, house-owners fail to service debt, announce foreclosure of the mortgage deal.
2. Issuers of ABS and investment banks face losses due to non-payment by borrowers, facing losses which are aggravated by sharp declines in ABS prices in the market.
3. Losses for other FIs who hold such assets as above.

The sequence is also captured by the following formulation:

$$q = f(A, r)$$

where  $f'_A$  and  $f'_r$  are positive as long as  $\partial A$  and  $\partial r$  are both positive.

Thus  $dq = r \cdot f'_A + A \cdot f'_r < 0$  when  $\partial A$  and  $\partial r$  are both negative, which, as mentioned above, is likely in the downturn.

Symbols used include

$q$ : average return on ABS

$A$ : average market value of ABS

$r$ : the initial rate of average down-payments on mortgaged houses

To follow the sequence in reality, a major financial crisis in the US first hit the hedge fund Long term Capital Management (LTCM) in September 1998 when it was rescued by the Fed which injected \$3.6bn to help out its excessive leverage ratio. A sense of doubts and failing trusts continued and intensified over the next decade until it reached a climax by the third quarter of 2008 when two major investment banks (Fannie Fae and Freddie Mac) were taken over by the Treasury and another major investment bank AIG was recapitalised by the Treasury with an injection of \$85bn against 80% equity stake with AIG, all happening in the first two weeks of September 2008. The AIG deal was to protect

the biggest insurance agency and investment bank in the country which by this time owned a trillion dollar assets spread over 130 countries and a \$441bn exposure to credit default swaps. Loans by the Treasury to AIG was supposed to carry a rate of interest of 11.5%, to be paid back by selling its assets within two years. In between another big investment bank Lehman Brothers went bankrupt on September 12<sup>th</sup>. By 11th September funds injected by the Fed in the financial market, was around \$900bn a sum which has kept on rising by each day as the market fell further. The latest move by the Treasury to pump in a huge sum of \$700bn and its ratification by the US legislators and even the rate cuts by most central banks in OECD is yet to bring a reversal of the downswing in asset valuations and a general recessionary trend in the global economy. Steep rise in call money rates for inter-bank lending and sharp fall in yield on US Treasury bonds, considered so long as safe investments, are aspects which speak for themselves. In all the story reflects a scene of systemic crisis with greed and miscalculation as is typical when it ends with a ponzi strategy.

The crisis has already spread to the real sector, not just by cracking the housing bubble but with problems faced by auto and other major industries. This was far from a surprise, given the large exposure which the real sector in recent times had to the booming financial sector, both by holding the financial assets which till recently were attractive in terms of high returns and also by sharing the prosperity with a booming financial sector. Financial crisis in the US economy has also cast a shadow to other advanced countries across the Atlantic, a concerns on which are evident in the agenda laid out for the recent meetings of the EU in Europe and England. Currently the fear of job cuts and production losses dominate the official policies and concerns expressed from different quarters, not only in advanced countries but also in developing countries which today are closely linked with the rest of world.

### **How does it affect the Indian economy?**

As with other developing countries which today are closely integrated with overseas markets, India at the moment faces a considerable risk of a severe downturn as a consequence of the global financial crisis. Despite the large size of the country, both in terms of the geographical spread and population which provides the potential for a large home market, India's reliance on overseas markets have recently risen considerably. The reasons include at least four factors which include, *first* the free play of FII investors since 1993 when India's stock markets were thrown open to such short term investments. Speculatory flows as above have been responsible for phenomenal expansions in the country's stock markets, with capitalisation as well as P/E ratios moving up to

unprecedented levels.<sup>5</sup> *Second*, there has been an extensive use of derivatives, on a legal basis in security exchanges and as OTCs. This has led to rapid increases in their use, especially after 1992 when much of these were legalised. Derivative trading in the future market has been at least 6 times the turnovers in spot trading at the National Stock Exchange till the meltdown started in these markets.<sup>6</sup> *Third* foreign presence in the capital market has been prominent, especially with FII inflows in the secondary markets for stocks, which not only contributed to the rising turnovers but also to vulnerability in terms of sudden flight of capital. The rising level of official reserves, to the extent propped up by these inflows, are already facing a depletion. These have also affected the exchange rate of the rupee, currently heading a downward spin, despite efforts on part of the monetary authorities to manage the rate. *Fifth*, with both banks and corporates having a considerable exposure in the global equity market it remains one of the imponderables as to how much the balance sheet of these financial and industrial units would be damaged by the global financial melt-down. As recently estimated by the author, for corporate units as a whole 40% of their portfolio consists of short term assets.<sup>7</sup> *Finally*, with the onset of recessionary forces in the real sector of the advanced nations, export markets will be generally hard hit for countries like India. Of late advanced areas have been absorbing 40% of India's merchandise exports. A drop in the latter, along with a decline in other exports (with another 30% used to be absorbed by developing countries) would cause serious crises, both in foreign exchange earnings and in jobs related to the labour-intensive export industries. In addition jobs and services as are related to the outsourcing by foreign companies and the Business Processing Organisations (BPOs) would get serious jolt.

One ought to feel positive about the economy with the confidence and positive thinking on the part of policy makers in India, currently devising ways to avoid the contagion effects on the domestic economy. It may not be as simple and easy, however, for the country to come out unscathed in the current global scenario which has been described as financial tsunami! It is even less likely that world's financial markets and its economies will be immune to such shocks in future if the prevailing norms of de-regulated finance remain unchanged. After all even a top billionaire like Warren Buffet was convinced to make a statement in 2002 that "...Derivatives are like financial weapons of mass destruction, carrying dangers which now latent, are potentially lethal!"<sup>8</sup>

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<sup>5</sup> See for details, Sunanda Sen, "De-regulated Finance and the Indian Economy" in Alternate Economic Survey of India 2008.

<sup>6</sup> Ibid.

<sup>7</sup> This aspect has been discussed in my article "Labour in De-regulated Financial Markets" in Philip Arestis and Luiz DePaula (ed) Global finance and Emerging Markets Elgar 2008.

<sup>8</sup> www.berhshirehathway.com

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