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THE GLOBAL CRISIS
AND THE REMEDIAL ACTIONS
A Non-Mainstream Perspective

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*Sunanda Sen**

[Abstract: The current global financial crisis has spread across countries and sectors, affecting both financial and real spheres of economies in advanced as well developing countries. This has been caused by policies based on 'rational expectations' models advocating de-regulated finance, with uncertainty and facilities for easy credit and derivatives, globalised exposures for financial institutions and long term contractionary effects with underconsumption which contributes to further instability and contraction of finance. The responses so far from monetary authorities in US have been ineffective to cure unemployment, low growth, the lost monetary autonomy in developing countries and distress in Euroland. There is a need for a strict curbing of speculation in finance and instituting of an "employer of last resort".]

Key words: Global crisis, expectations, ponzi, labor flexibility, policies

JEL classification: E2, 4, 5, 6; J2, 3, 6

The mayhem as started in the de-regulated financial markets of US at the end of 2008 spilled over by early 2009 to the rest of the global economy at large. Actions taken so far on part of policy-makers, especially in the advanced regions which also happen to be the major victims of the recent financial crisis, have not achieved success in deterring the systemic crisis and its sporadic outbursts in global financial markets. The crisis did not remain confined to pockets of US credit and security markets, as can be witnessed from its spread to other countries which include the Euroland (and of late the smaller countries in Southern Europe) along with the developing countries! Nor did it remain confined, from the very beginning, to the financial sphere, thus impacting the already squeezed space of the real economy. Thus, the shock which surfaced in the financial

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sector had its concurrence in the continuing real stagnation of these economies. As we would point out below, the disruptions in the financial sector as well as the under-performance in the real sector can both be related to the logic of the neoliberal growth models and the policy frame emanating therefrom.

Our analysis in the present paper has been arranged as follows: Section I offers a critical review of the dominant logic of the 'efficient market' paradigm which underlies the mainstream economic theory and policy to justify the de-regulation of markets including the financial sector. Section II generates a theoretical framework which we would like to offer as an alternative interpretation of the deepening slump in real activities along with the bursting of financial bubbles as happened recently. Our analysis relies, as theoretical foundations, on both the post-Keynesian structuralist framework of under-consumption led stagnation as well as the Minskian FIH hypothesis. Our arguments seek to provide an explanation of the recent turbulence in global financial markets and its long-term real stagnation over the last five decades. We also point at policies in advanced countries, which are often followed in the rest of the world, as responsible for generating under-consumption as well as the speculative bubble in the respective economies. Section III narrates the unfolding of the crises as took place in the financial markets, focusing primarily on US where it started, while drawing attention to its spread to other countries including Euroland and the developing countries. Section IV dwells upon the policy space, drawing attention to the limitations, especially in rich industrialized countries, of the recent moves to deter the financial crisis. Section V offers the concluding observations and an alternative plan which chalks out actions which we expect to be more effective, not only to contain the financial crisis, but also to regenerate real activities as can instill growth with distributional justice in these economies.

Section I.

Rationale for De-regulation of Financial Markets and its Critique

By postulating full information (relating to present and the future), along with rationality for all agents in the capital market (who are supposed to have free access to such informations), mainstream literature dealing with market decisions dispenses, by assumption, the notion of uncertainty. Formulations as above are identified in the literature as an 'efficient market' paradigm, with the claim that a set of 'rational' expectations can be made regarding all future outcomes in future, relating to decisions which are made today. Reliance is placed in these theories, while framing expectations, on what is viewed as probability of the future events. However, since a large enough sample to calculate the probability distribution is not easy to obtain, theories as above

use the record of past events as a proxy to guide the probability of future events. As held by critics, this amounts to an 'ergodic axiom' which allows the agents to 'presume that the future is merely the statistical shadow of the past'¹. With uncertainty having no role to play in the market for capital, speculation is naturally reduced to arbitrage even in inter-temporal space; and liberalization of finance to achieve optimal allocation of resources follows as a policy conclusion.²

Formulations as above in mainstream doctrines on financial markets include the portfolio (asset market) approach, which postulate an 'efficient market' equilibrium in allocating capital. Agents operating in the capital market are assumed to have full information relating to the expected changes in variables, thus ruling out uncertain prospects.³ Variants of the optimal portfolio models recognize the role of trading and information costs at equilibrium. However, it is also held that prices have a tendency to quickly adjust to such information which is never in private domain. It can thus be held that the system tends to set 'conventions' consistent with 'fundamentals', with the process similar to what has been described as a 'random walk along Wall Street!'⁴

In a different approach which is identified as New Keynesian Economics (NKE), short period dis-equilibrium in markets is explained by incomplete (or asymmetric) information. It is held that asymmetric information in the credit market limits the capacity of the lenders to separate out the 'good' ones amongst the borrowers from those which are the "bad" (or defaulting) types. In this the borrowers are assumed to have better knowledge as compared to lenders in terms of their own inclinations for default. They are also assumed to have the capacity to choose, and often prefer the high-risk high-return projects, which go with an ability to exit by default.⁵ For reasons as above,

¹ See for details, Davidson, Paul, "Risk and Uncertainty in Economics," Paper presented at the conference on *The Economic Recession and the State of Economics*, House of Lords, Westminster, London, February 6, 2009.

² See Sen, Sunanda (2003), *Global Finance at Risk: On Real Stagnation and Instability*, Macmillan-Palgrave, Houndsmills; Oxford University Press, Pp. 21–36, Delhi (paperback) 2004.

³ Davidson, Paul (1978), *International Money and the Real World*, Second Edition, London, Macmillan, Pp. 11–13.

⁴ Fama, E.F. (2001), "Efficient Capital Markets: A Review of Theory and Empirical Work," *Journal of Finance*.

See also E.F. Fama (1991), "Efficient Capital Markets II," *Journal of Finance*, 46(5), Pp. 1575–617.

⁵ Sachs, Jeffrey (1982), "LDC Debt in the 1980s: Risks and Reforms" in P. Watchel (ed.) *Crisis in the Economic and Financial Structure*, Lexington Books, Pp. 197–243.

Cooper, Richard N. and Jeffrey Sachs (1985), "Borrowing Abroad: The Debtor's Perspective," in G.W. Smith and J.T. Cuddington (eds.), *International Debt and the Developing Countries: A World Bank Symposium*, Washington, Pp. 21–60.

the lenders can resort to credit rationing⁶, which excludes a section of borrowers from the market.

As pointed out by critics, on scrutiny, these models around asymmetric informations seem to rely on rational agents in the credit markets, both as borrowers and lenders. In absence of the former, the equilibrium reached would thus correspond to the Pareto optimal. In this regard it has been pointed out that even regulations like a Tobin tax on currency speculation, which aims to curb noise traders in the market, even when effective, are expected to reach equilibrium which will be Pareto optimal.⁷

Critics of the 'efficient market' hypothesis have pointed at its limitations, both on logical grounds and on grounds of the failure of these theories to relate to the reality. It is observed that shortcomings as above are mostly due to an inadequate handling of uncertainty in these formulations. Questioning, in particular, the legitimacy of the portfolio (or asset market) approach and the efficient market equilibrium, critics in the Keynesian tradition point at the difficulties of calculating the probability of these risks with actuarial precision, especially under uncertainty. Interpretations as above are consistent with Keynes's position on probability in the *General Theory* (1936) and later in his *Economic Journal* (1937) article. The notion of 'animal spirits' is further clarified by Keynes as follows: "...By "uncertain" knowledge, let me explain I do not mean merely to distinguish what is known from what is probable ... About these matters, there is no scientific basis on which to form any calculable probability whatever. We simply do not know."⁸

Dwelling further on related positions, it can be suggested that knowledge (and its absence which is uncertainty) tends to be subjective. Hence, it can never rely exclusively on past events and thus be ergodic. Also knowledge (or uncertainty) is not a natural phenomenon which is time invariant. It is ontological and is embedded in social reality

⁶ Stiglitz, Joseph E. and Weiss Andrew (1981), "Credit Rationing Models with Imperfect Information" *American Economic Review*, Vol. 70, Pp. 393–410.

⁷ Davidson, Paul (1999), "Thoughts on Speculation and Open Markets" in Paul Davidson and Jan Kregel (eds.) *Full Employment and Price Stability in a Global Economy*, Edward Elgar, Pp. 91–2.

⁸ *The Collected Works of John Maynard Keynes*, Vol. XIV, 1973, London, Royal Economic Society, p. 114;

Keynes, J.M. (1937), "The General Theory of Employment," *Quarterly Journal of Economics*, February.

which, as Shackle described it, is 'kaleidoscopic'—and also one which relates to what Joan Robinson labeled as 'historic time.'⁹

As for the implications of the policies advocated in the mainstream literature, it is not difficult to see that it is the combination of uncertainty and easy access to credit which can be held responsible for financial crises under deregulation. By making possible the short-run entry and volatile exit of players in the financial market, financial liberalization makes for short-termism, especially with the high returns on the high risk assets which often fail to generate real assets in the long run. Instead the demand for financial assets are guided by prospects of 'quasi-rents' as determined by profits and losses in the short run.¹⁰ With availability of credit and the information technology which make for fast communications, perceptions are also prone to quick revisions. This explains the bandwagon effects as are often observed in the financial markets.¹¹

Reflecting further on what we have mentioned above, it can be held that knowledge (and its opposite, uncertainty) can *improve* if institutions like contracts and conventions remain 'stable'; a situation warranting policies of effective intervention and stabilisation on part of the regulatory authorities.¹² It is sometimes argued that uncertainty is 'gradable' and that it is a subjective notion which is based in part on 'epistemic' theories of probability and otherwise on properties of real world.¹³ This view is based on the notion that both uncertainty and knowledge are 'gradable'. To quote, "...if uncertainty is gradable, government action may reduce it and thereby increase confidence."¹⁴ The above is particularly relevant in a money economy where it matters to "...protect the sanctity of

⁹ Shackle, G.L.S. (1974), *Keynesian Kaleidics: The Evolution of General Political Economy*, Edinburgh University Press.

¹⁰ Davidson, Paul (1999), "Thoughts on Speculation and Open Markets," in Paul Davidson and Jan Kregel (eds.), *Full Employment and Price Stability in a Global Economy*, Edward Elgar, Pp. 91–2.

¹¹ Connected with the above sequences is the social construction of credit, which speaks for the social exclusion of borrowers relatively weak in terms of their ability to enter the credit market. These borrowers, however, have a great deal of potential in a recession-prone economy due to their higher consumption propensities. See for an elaboration of the argument, Dymski, Gary (1994), "The Social Construction of Creditworthiness: Asymmetric Information and Trivialization of Risk" (mimeo), October.

¹² See Dequech, David (1995), "Different views on uncertainty and some policy implications," in Paul Davidson and Jan A. Kregel (eds), *Improving the Global Economy*, Edward Elgar, London.

See also Terzi, Andrea (1999), "Financial Market Behaviour: Rational, Irrational or Conventionally Consistent?" in Davidson and Kregel (eds.), Pp. 109–22. Lawson, T. (1988), "Probability and Uncertainty in Economic Analysis," *Journal of Political Economy*, Pp. 38–65.

¹³ Dequech, *loc. cit.*; Terzi, *loc.cit.*; Lawson, *loc. cit.*

¹⁴ Dequech, *ibid.*

money contracts....(and) the essence of the entrepreneurial system we call capitalism.”¹⁵ As it has been held, there exists a role in the above context for the ‘market makers’ to provide an assurance to those who hold financial assets “...that the market price of their holdings will always change in an orderly manner.”¹⁶ The need thus arises for a ‘credible market maker’ to provide an anchor to “market psychology”. One can here distinguish between private and public agencies, say, the former with expert advice from Merrill Lynch or similar private bodies which finally failed to fulfil their promises to investors during the recent global crisis in USA.¹⁷

In a paper dwelling on investment decisions in Keynesian theory,¹⁸ the authors stressed the role of the weight attached to expectations in these decisions. The approach, as argued, is consistent with what Keynes visualised as ‘expectations of future profitability’ and the ‘confidence with which we forecast the future’. Thus investment is driven by the expectations of future profits on the part of the decision-making business manager and also by the confidence as are assigned to them on the basis of these forecasts based on expectations. Their approach, as claimed, “can be viewed more broadly as a test of those theories that suggest that expectations matter in the determination of investment.” The authors provided an empirical test of their hypothesis to explain investment in a market economy.¹⁹ The model specified in the paper goes as follows:

$$I = f(\text{BEF, weight})$$

where I : investment;

BEF: business executive forecast and weight, or confidence associated with that forecast.

The above can also be expressed as

$$I = f(\text{BEF, MISS})$$

where MISS: forecast inaccuracy which is the inverse of weight such that $\text{MISS} = 1/\text{weight}$.²⁰

¹⁵ Davidson, Paul (2009), “Risk and Uncertainty in Economics” (mimeo), February.

¹⁶ *Ibid.*

¹⁷ *Ibid.*

¹⁸ Keynes, *The General Theory of Employment, Interest and Money* (1936), Macmillan, 1964 Edition, p. 315; and Keynes, *op. cit.*, 1936, p. 48, cited in Michael Anderson and Arthur H. Goldsmith (1997), “A direct test of Keynes’s theory of investment: assessing the role of profit expectations and weight,” in Paul Davidson and Jan A. Kregel (eds.), *Improving the Global Economy: Keynesianism and the Growth in Output and Employment*, Edward Elgar, Pp. 63–78.

¹⁹ *Ibid* p. 64.

²⁰ *Ibid* Pp. 67–68

Testing the model on the basis of sample data, the authors arrive at the conclusion that ‘...whether ill-informed or not, whether rational or not, whether stable or not, they (*managers with their subjective perceptions*) are of fundamental importance in the determination of investment, and hence, macroeconomic stability.’²¹

One can here interpret the low weight (or the high MISS observed by the manager) as ‘paucity of evidence’ in terms of probability. Thus, uncertainty implies situations where knowledge is incomplete and not totally reliable. This is also consistent with the theoretical position subscribed by the authors that ‘...uncertainty is not total ignorance.’²² One can here dwell again on the influence the ‘market maker’ can have on the ‘weight’ associated with forecasts of business managers, as in the model mentioned above.

Section II.

On Interpreting the Crisis: An Alternative Viewpoint

To provide a well-rounded view of the recent crisis in the global economy one can here mention the short-term factors which relate to the flare-up of the financial crisis (with its spill over to the real sector in recent times) and distinguish those from forces of a longer duration. The latter relates to the structural changes in the pattern of growth and distribution as have taken place in the global economy. In our judgment those structural changes can also be related to the recent mayhem as has happened in the financial markets.

We would first dwell on the pattern of structural changes which can also be held responsible for the recent mayhem in financial markets, to be analyzed later in this paper. In providing our analysis we have made use of supportive argument in recent studies which use the under-consumption thesis to explain the recent crisis.²³

²¹ *Ibid* p. 72.

²² Dequech, David (1997), “Different Views on Uncertainty and Some Policy Implications,” in Paul Davidson and Kregel (eds.), *op. cit.*

²³ Cripps, Francis, Alex Izurieta and Ajit Singh (2010), “Global imbalances, under-consumption and over-borrowing: the state of the world economy and future policies” (mimeo);

Boyer, Robert (2010), “The Collapse of Finance bur Finance Remains Weak,” *Socio-economic Review*, 8(2), Pp. 341–376;

Boyer, Robert (2000), “Is Finance-led growth a viable alternative to Fordism? A preliminary Analysis”, *Economy and Society*, Vol. 29, Issue 1, February;

Patnaik, Prabhat (2010), “The Diffusion of Activities,” *Economic and Political Weekly*, March 6.

A symmetric change in wages and labour productivity marked the beginning of the post-Second War period when both were rising with production subject to Fordist expansions over the next three decades. Successive changes which affected the international economy over these years included the oil price hikes causing inflationary potentials and current account imbalances in the advanced economies. These developments initiated a regime change in economic policies with monetarism superseding the earlier policies which made for a Keynesian welfare state. While de-regulation of markets which came as a logical corollary to the shift in policies, what came up was a systematic pattern where expansions in financial activities were no longer backed by proportionate growth rates in the real economy. The above contrasted the pattern in the earlier years, often described as the "Golden Age of Capitalism". The tardy growth in employment and wage rates in the advanced countries could be attributed to the flexible labour policy which was a component of the ongoing liberal economic policies. With de-regulated finance providing high returns on financial assets in the market, investments in the real sector sounded much less attractive. Also, the competitive pressures and consequent globalization of markets led to further compressions of labour costs in the flexible labour market. The competitive pressures also led to an upgrading of technology with rising capital-labour ratios which considerably reduced the wage share in aggregate output.

Structural transformations as above have been responsible for a chronic under-consumption tendency, not only in advanced countries, but also in the developing areas. As for the advanced countries, goods produced at home faced demand shortfalls within the country. This was both with a lack of competitiveness *vis-à-vis* cheaper imports and a drop in domestic demand as were caused by the ongoing wage squeeze as well as unemployment. This created a situation which can also be identified as one of a 'realization crisis' at home. However, the tendency for under-consumption did not surface in the aggregate as long as liberal credit in the de-regulated financial markets continued to provide facilities for leverages, largely to take advantage of capital gains in the overpriced property and stock markets. The above resulted in tendencies for 'over-borrowing' by the private sector, which was reflected in the continuing deficits in the current account balance, especially of United States. The excess spending as resulted with those borrowings, however, was not necessarily directed to generate additional import demand from the developing world because much of those financial flows were recycled within the financial sector.

As for the financial boom under de-regulated finance, the pace of financialised investments were triggered off with rising expectations, of future value as well as returns on assets held with the financial sector. One can here observe the connection between investment and finance, changes in both of which are subject to the state of expectations under uncertainty. We refer to the initial formulation of the above link in Keynes's

General Theory (1936), where liquidity preference has been related to asset prices and new investments.²⁴ Thus, uncertainty and the state of expectations are expected to shape the level of confidence relating to movements in yield as well as asset prices and also the need for liquidity held as a contingency. A rise in the level of confidence, held by all who operate in the asset market, is expected to contribute to expectations of higher yields as well as a rise in future prices of assets which reduce the need for contingent reserves of liquidity.²⁵ There exists, therefore, a clear connection between investment and the need for finance as a contingent, with the two moving in opposite direction under uncertainty.

Analysing the pattern of changes in the financial institutions of the advanced countries over the last two decades, the unprecedented boom in which, in our view, was a major force driving the crisis, a considerable part of these sequences (as described in Section III below), can be explained by relying on Minsky's characterisation of de-regulated financial markets and the 'unstable economy'. Considering the new-fangled sources of credit, especially with the involvement of banks in the security market under universal banking, Minsky drew attention to the fact that in the new institutional setting, banks and non-bank financial entities can follow an 'originate and distribute' model which involves a re-packaging of assets and their sales. In this the shifting of risks to counterparties generates more profits than is possible from the simple 'commitment models' which rely on the rate spread at the loan officer's desk.²⁶ These practices, according to Minsky, made for higher profitability with market-based funding, as compared to bank-based funding of projects. In the process banks got involved in the

²⁴ As formulated by Keynes, *net* returns on individual assets (including money) are determined by the expected yield in physical terms (q), carrying costs (c), the liquidity cost (l) (for holding the asset) and expected changes, if any, in the price of the asset (a). One thus arrives at a notion of the 'own rate of interest', on assets including money and measured in terms of itself (as $q-c+l+a$). The 'own rate' also reflects the marginal efficiency of capital for each such asset. As Keynes viewed it, to continue with the purchase of individual assets (new investments), the respective own rate of interest (marginal efficiency as defined above) has to be higher than those on other assets including money. However, for assets other than money, the own rates of interest are likely to fall with additional investments, especially due to a drop in yield (both actual and expected). But such declines are absent for money (which as held by Keynes, has no intrinsic yield, carrying cost or price appreciation during the short period). Thus, a point will come when the own rate of interest on money will be equalised to those on other assets, indicating an equilibrium situation where the returns on *all* assets including money are equalised. Keynes, John Maynard (1951), *The General Theory on Interest Rate, Employment and Money*, McMillan & Co, London, Pp. 225–229.

²⁵ See also Kregel, Jan, "Managing the Impact of Volatility in an Uncertain Market," Levy Economics Institute Working Paper No. 558.

²⁶ See Wray, Randall and Eric Tymoigne (2003), "Macr-economics meets Hyman Minsky: The Financial Theory of Investment," Levy Economics Institute Working Paper No. 543, September.

security market. Thus there is, as held by Minsky, a 'symbiotic relation' between the universalized financial structures (which contrasts the earlier pattern of segregated banking) and the related securitisation of financial instruments.²⁷

Pointing at the role of securitization and the use of security-based assets, the above version draws attention to the changing character of money as had already taken place by late sixties, especially with credit flows no longer constrained, by the value of reserves and capital held by banks as it had been the case under a fractional reserve system. Thus "...securitization implies that there is no limit to bank initiative in creating credits for there is no recourse to bank capital and because the credits do not absorb high powered money (bank reserves)."²⁸ This also considerably lowers the weight of central banks to protect credit, as evident in the recent financial crisis. Efforts on the part of monetary authorities (following monetarist norms) to raise interest rates in order to control inflation may even lead to a collapse of stock prices and hence to a financial crisis rather than to a state of financial stability.²⁹

It has been pointed out that the range of assets in the portfolio choice by the investor can be spaced between liquid (cash and short-term financial assets) and physical assets (which include real estate). Given the above asset structure, the investor may prefer to move away from long-term to short-run financial assets which are relatively liquid when uncertainty extorts a heavy toll on the discounting of future. Similar to Keynes's liquidity trap, such situations characterize the tendencies of 'short-termism' in a money/credit economy. Assets here, however, are not subject to a binary classification (of money/bonds) as in Keynes, but have a range with varying degrees of liquidity along a whole spectrum.³⁰

According to some, the 'financial excess' as above was a major driver of the neoliberal growth models which relied on borrowing along with asset-price inflation, both facilitated by financial de-regulation.³¹ Thus, the financial boom played a critical role in the advanced economies by providing sources of demand which came from outside the real sector. However, the system was essentially an unstable one, as was witnessed by the collapse of the economy which started with the financial sector in 2008.

²⁷ See Minsky, Hyman, "Securitization" with preface and afterword by Randall Wray in *Securitization*, Levy Economics Institute of Bard College, Policy Brief 2008/2.

²⁸ *Ibid.*

²⁹ *Ibid.*

³⁰ Hicks, J.R. (1974), *Critical Essays in Monetary Theory*, Oxford University Press.

³¹ Palley, Tom, "The Limits of Minsky's Financial Instability Hypothesis as an Explanation of the Crisis."

As for the developing countries, inadequate domestic demand (with shortfall of purchasing power, especially of the wage earners) often led these countries to follow export-oriented strategies, which require further disciplining of labour in a bid to save on labour costs. The shortfall in domestic demand could hardly be compensated by rising exports to advanced countries which, as explained above, were also subject to low growth rates. Not much space is thus left for expansions in the real sphere in either the advanced or the developed nations, for reasons which are not too different from each other. On the whole, the world economy has thus been subject to a lop-sided pattern of expansions, with growth in the real sector falling behind the unprecedented growth of the financial sector, subject to sporadic gyrations in recent past which have been unprecedented.

The alternative perspective on the melt-down of the global economy provided above contests the notion of an 'efficient market' postulated by the mainstream school. Drawing attention to the under-consumptionist tendencies of product markets in advanced countries which are tagged by export-drives in the developing world, our analysis highlights the repression of labour in these liberalized regimes which rely on labour flexibility. The shortfall in demand, while partially compensated by the brisk churning of asset-backed securities, failed to sail through when financial market in advanced economies virtually collapsed by late 1980. A major reason for the latter was the erosion of confidence in those transactions, an aspect which mainstream theory and policy never recognized. The alternative position we offer looks at the uncertainty-ridden trail of markets, which often deviates from the predictions of the private 'market makers'. A position as above has a considerable significance for policies as are appropriate to mend the system.

Section III.

The Melt-down of Financial Markets and the Real Economy

The crumbling down of financial markets which started in late 2008 has been instrumental in generating varieties of arguments on the causes of the crisis and large numbers of remedies as are considered appropriate. While views differ, especially in identifying the specific factors as might have led to the crisis, it is now well accepted, even in circles subscribing to mainstream economic policies, that the theme of growth under the 'efficient market' paradigm has failed to deliver what it initially had promised. We dwell, in this section, on the sequence and intensity of the crisis in the real and the financial sectors of the advanced economies along with its spread to other regions.

As for the advanced economies, despite the rather poor record of their real activities experienced over the last three decades, they witnessed marked expansions in their financial dealings till the onset of the financial crisis in late 2008. The latter pulled down further the output and employment growth rates which already were low in those economies, thus putting both financial and the real sectors in a serious disarray. Growth rates of GDP in the OECD, which was hovering around 2.8 to 2.9 percentage points on an average between 1986 and 2006, dropped sharply, reaching an average of 0.6 per cent between 2007 and 2010. For US the average growth rate fell even more, from 3.3 per cent during 1997–2006 to 0.5 per cent by 2007–10.³² Unemployment rate, even by official statistics (which is often an underestimate) showed an average of 8.3 per cent for OECD as a whole by May 2009, and recording higher rates in individual countries like Spain (18.9 per cent), Portugal (10 per cent), Ireland (12.2 per cent) and US (9.4 per cent).³³ According to US Bureau of Labour Statistics, US unemployment rate edged up from 8.8 per cent to 9.0 per cent over April 2010, with respective rates for Blacks and Hispanics at 16.1 per cent and 11.6 per cent.³⁴ There has not been any significant degree of reductions in unemployment rates and/or a rise in output growth rates in OECD countries between 2009 and 2010. As we will point out later, a comprehensive policy package under the head of ARRA was introduced by the US President in February 2009 to combat unemployment.

Dwelling on the great turbulence in global financial markets, its origin can be traced back to the crisis in the sub-prime loan market of USA. A boom in the latter over the last few years ended up in a crash by the autumn of 2008. Even before that, the booming financial market in the US had been spurring transactions in derivative markets. The latter included the Asset Backed Securities (ABS) and the Credit Default Swaps (CDS). Those got a boost as the booming property market in US opened up newer profit opportunities on the mortgaging of houses, which turned out as both easy and lucrative. While the housing market was targeting the US citizens so-far excluded by banks from the financial markets on grounds of race and/or income (as well as on grounds of the risk-weighted credit-rationing),³⁵ it became an opportune moment for banks and other non-bank intermediaries to venture out to these new markets with easy sources of credit for leveraging. Possibilities as above to securitize the mortgaged assets threw open new channels of investments; for the mortgage-brokerage firms, the issuers and insurers of ABSs, for investment bankers as well as for other financial institutions which readily

³² *OECD Economic Outlook*.

³³ www.oecd-ilibrary.org/employment/unemployment-rate_20752342-table1

³⁴ www.bls.gov/news.release/empsit.nr0.htm

³⁵ Dymski, Gary (2008), "Financial Risk and Governance in the Neoliberal Area" (mimeo), September 10.

purchased and repackaged those securities. Each, by acquiring an asset, was able to leverage by obtaining credit against the same, which in turn was no longer subject to monetary control by the Fed. In the event, a large number of US firms were able to access short-term credit by making use of securitised assets as collaterals which were even treated in the market as commercial papers.³⁶ Transactions as above facilitated the churning of those ABSs, generated on the basis of the underlying (or the original) asset, while propping up multiple counterparties which held those assets. Credit flows as above (along non-banking channels of the derivative markets, described as 'shadow banking'³⁷) were not only unrestrained, but also offered at rates which had much lower spreads as compared to those usual along conventional banking channels. The wave of securitisation spread to financial markets in other parts of the advanced region and to developing countries which were all following a globalised financial structure. It also resulted in a massive increase in the use of derivatives.

In the de-regulated financial markets, the changing pattern of the financial transactions have been generating myriads of derivative instruments (like futures, swaps, options and so on), which aim to protect asset values in uncertain markets. Financial instruments as above have made it possible to invest in and to acquire assets far more easily, as compared to what it could be otherwise. Financialization as above did open up, since 1980s, vast potentials for an explosion in the financial markets of advanced nations which included the US. These transactions were no more constrained by the availability of bank credit. Nor were these subject to the regulations and the surveillance of the Central Bank like the Federal Reserve in US.

Transactions as above in the financial sector could be sustained as long as the instruments used for hedging worked to minimize and compensate for the risks under uncertainty. It also was needed that the risk-adjusted returns/losses on assets with long (buy) positions (of assets) had to be more than covered by the losses/returns on short (sell) positions on assets.³⁸ An outcome as above failed to materialize in a typical 'ponzi' situation which we will define in the following pages. It can be observed that a 'ponzi' situation came up during the recent financial crisis which rendered the ongoing financial

³⁶ Wray, Randall (2008), "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

³⁷ Nersisyan, Yeva and Randall Wray (2011), "The Global Financial Crisis and the Shift to Shadow Banking" Levy Economics Institute Working Paper No. 587, February.

³⁸ As pointed out in a recent study, "Financialization is the concept that marries Minsky's ideas about financial instability with new Marxist and structural Keynesian ideas about demand shortage arising from the impact of neoliberal economic policy on wages and income inequality", *Monthly Review*, April 2010.

transactions insolvent since leveraging to service past debt was no longer made possible by accessing fresh credit.

Dwelling further on developments which of late had been instrumental in pushing the de-regulated financial markets to a state of virtual collapse,³⁹ the easy access to credit provided the finance needed, initially for *hedging* when the realized and the expected income flows, under favourable circumstances, were adequate to cover (and *hedge*) the mandated payments liabilities on interest and repayments. However, hedging often ended up in *speculation* when such income flows fell short of the payments liabilities and attempts are made to 'roll over' past debt, thus making for what has been described as 'balance sheet flows'. Finally, a state arose when payments liabilities as were due could only be met by additional borrowings. This is a typical case of 'portfolio flows' with speculation leading to a state of '*ponzi finance*' which ushers in fragility and a potential collapse of the system.⁴⁰

With ponzi finance as described above, the high returns the borrowers promise to pay the lenders in order to entice new loans, are not necessarily realized when these funds are invested. To avoid an impending default and an interruption of business, a need arises, on part of borrowers, to speculate and roll-over the debt related liabilities on previous investments. However, with declining state of confidence on the value of financial assets held by lenders, such dealings in the market come to a grinding halt, leading to big holes in the balance sheets of the concerned parties and heralding the onset of a typical ponzi crisis. The high stakes prevailing in the financial markets under uncertainty thus may turn out to be disproportionately high as compared to what eventually turns out as their realized returns. Transactions as above, are both unsustainable and hazardous as compared to acts of simple hedging (or even speculation) on asset prices in these financial markets.

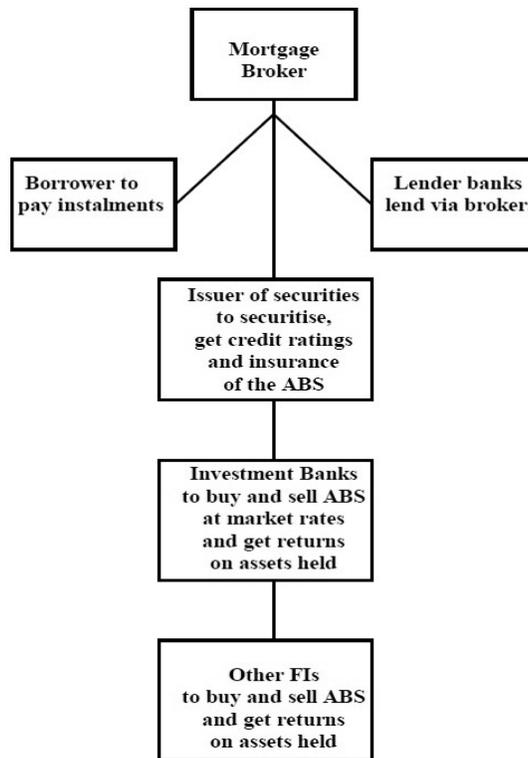
Ponzi finance as above is very different from hedge or even speculative finance which to some extent keeps the business going. Speculative finance, which dwells on more risk than under hedging, can be sustained until it becomes ponzi, when borrowings at high rates no longer generate compensating returns. A situation as the latter, as we point out below, did clearly plague the US financial markets in the fall of 2008.

³⁹ See for a lucid analysis of the 'Ponzi constitution of today's financial system', Nesvetailova, Anastasia (2008), "Ponzi Finance and Global Liquidity Meltdown: Lessons from Minsky," Working Papers on Transnational Politics, City University of London, October.

⁴⁰ Minsky, *op.cit.*, p. 203.

It may be relevant at this point to highlight the point that ponzi finance is another name for fraudulent behaviour on part of financial agents, as can be seen in the various scams and related acts in recent times.⁴¹

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



To look at the statistics relating to derivatives, the gross market value of outstanding OTC derivatives steadily shot up, from \$9.79 trillion at the end of December 2005 to \$35.28 trillion by December 2008. The latter, incidentally, was more than 60 per cent of world GDP in 2009. This was followed by a temporary dip during 2009 when these

⁴¹ See Sen, Sunanda (2009), "Speculation Scams and Frauds: Theory and Facts," *Economic and Political Weekly*, Vol. XLIV, No. 12, March 21–27.
See also Nesvetailova, *op.cit.*
See also, Black, William, "The Best Way to Rob a Bank is to Own One".

reached \$21.54 trillion, with a reversal in 2010 with the value of outstanding OTC derivatives climbing up again, to \$24.67 trillion by June 2010.⁴²

As mentioned above, the creation of the debt financed assets through leveraging (often to finance derivatives) could continue only as long as there was trust and confidence on these newly created financial assets in the uncertain financial markets. This was evident in the temporary drop of the outstanding gross market value of derivatives, as mentioned above, during 2009. As for the flow of private finance via the security sector, aggregate flow of equities across nations dwindled over 2008–2010 since the crisis started, recording a significant drop from the previous three years between 2005 and 2007. Similar declines were visible with debt finance, and especially from private sources. Thus, trading in derivatives continued to dominate the financial market, even when transactions in the aggregate had tapered off.

As mentioned earlier, the boom in the market for financial assets eventually gave way to a lull in USA. The financial crisis was prompted by a slump in the over-priced property market. These developments made it difficult to continue by riding on the expanding mortgage market. Repackaging of these mortgage-based assets (which exchanged hands to generate further assets and credit opportunities) finally proved to be an Achilles' 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.

The crisis of confidence which started in the sub-prime loan markets of USA spread to the real as well as the financial sectors of all advanced nations including the US, which were sharing the inter-linked financial institutions and trade across the region. The drop in financial flows via securities and loans, were matched by similar cuts in the flow of trade. Thus, the average value of exports and imports of the advanced regions during 2008–10 as compared to the respective values for 2005–07.

The financial crisis further pulled down the already low output and employment growth rates in the advanced economies, thus rendering in serious disarray both their financial and the real sectors. It may be pointed out that despite the massive financial bail-out in USA there has neither been any significant reduction in unemployment rates nor a rise in output growth rate since 2009. While the contagion spread to the major European countries financial institutions which were having high exposures to those in USA, real

⁴² *BIS Quarterly Review*, various issues.

activities were also hard hit adversely in these countries with the dampening of trade flows across the region.

Of late, the spread of the crisis to the Euro-land has taken a form which is different but no less severe. Some EU members in Southern Europe are experiencing a similar crisis, which is of serious proportions. In particular, financial institutions in Greece and Ireland have been affected very badly, which has damaged the credit-worthiness of those nations in the international credit market. A large part of these developments were related to the management of the de-regulated financial institutions. The impact, as can be expected, was not confined to the financial sector alone, a fact which was apparent with the sharp contractions in real activities since 2008.

The financial crisis which erupted in Greece and Ireland, while sharing a pattern which was similar, seem to be different if one traces back the nature of the problems. With Greece it has been a typical case of insolvency caused by public borrowings, which was made possible with Greece's entry to the EU in 2002, helping the country to sell public bonds floated by the monetary authorities in the de-regulated capital market. This was especially true with interest rates hovering within a low range as was consistent with the rates fixed elsewhere within the EU. Public debt of Greece started rising since the country had resorted to the 'Restoration of Democracy Act' in 1979, which directed expenditures to the public sector. In the meantime, Greece's GDP was growing reasonably well at 4.2 per cent between 2000 and 2007. Between 2007 and 2009 the government was run by a conservative party led by Costas Karamanlis, replacing the pro-socialist government led by George Papandreous, who was re-elected by 2009.

The large debt and the rising fiscal deficit which Greece incurred since the early years of 2000 deviated from the Maastrich Treaty of the EU, which stipulated the respective upper limits for debt to GDP ratio and the budget deficit at 60 per cent and 3 per cent. To remain in business, especially in international capital markets, attempts were made by the Greek government to camouflage the official figures. As disclosed later from official and other sources, attempts had been there to downplay the actual figures, with borrowings backed by trading in currency (treated as swaps) and with upfront cash payments by investors, the latter against future trading of expected revenues from sources like highways, airports, etc. Deals as above to conceal actual figures were often attributed to the policies followed by the short-lived right-wing government during 2007-09. Currently the Federal Reserve Bank in US has been engaged in an investigation of these deals, implicating Goldman Sachs for manipulating the transactions involving the use of derivative instruments.

The rising deficits and debt ratios relating to Greece have become a cause of concern for the global financial community, especially when made public. By December 2009 international credit ratings of the country were downgraded, in quick succession, by Fitch and by Standard and Poor, rendering Greek bonds a junk status. The spread between the respective returns on Greek bonds and German bonds were more than 4 per cent in the market. With private source of credit beyond access, Greece could avoid a possible default of the past loans only by seeking official loans which were finally sanctioned by the ECB, the EU and the IMF, with strict conditionalities which introduced austere economic policies. The government announced the passage of an 'Economy Protection Bill' which initiated a series of contractionary fiscal measures. The latter had its toll on GDP growth and employment, both of which have fallen during the subsequent years. While record of the officially unemployed rose to 10.6 per cent (and 27.5 per cent for young people) GDP growth was reduced to 0.7 per cent by 2010. Developments as above also included severe cuts on social sector expenditure which were met with rising protests within the country.

Ireland, of late, has been facing a situation which is similar to Greece's experience in terms of a near insolvency in the world's capital markets. Unlike what it has been with Greece, Ireland's debt problem lies with the private borrowings accumulated by the actions of the Anglo-Irish bank, a major financial institution. With GDP growth faltering around (-)7.06 per cent ,unemployment rates in Ireland were hovering around 11.8 per cent and public debt (which was privately incurred) was at around 64.8 per cent in 2009⁴³. Ireland was clearly in a tight corner, especially as it sought fresh credit to meet the debt charges. Domestically, the taxpayers had already paid heavy tax at a swooping €84 billion (or 56 per cent of gross domestic product) for the bailout of banks, while the government had applied by end of November to international agencies for a bailout amounting to €85 billion⁴⁴. The Anglo-Irish bank, which was the major scene of trouble, has since been closed down by the regulators. In the meantime credit ratings for the country were slashed by Fitch to BBB+ which is below investment grade⁴⁵.

Financial crises in Ireland or Greece do not represent isolated cases and can be followed by similar episodes in several other countries within the EU in coming years. As pointed out by Herman Van Rompuy, the President of the EU, the situation is one of a 'survival crisis', with the risk of contagion spreading from Ireland across the continent.⁴⁶ This also

⁴³ *World Fact Book*, Central Intelligence Agency, USA.

⁴⁴ Alderman, Liz (2010), "Ireland Strives to Rebuild Trust in its Banks," *New York Times*, December 10.

⁴⁵ www.cnbc.com

⁴⁶ Kollwe, Julia (2010), "Ireland crisis could cause EU collapse, warns president," *guardian.co.uk*, *contd...*

explains the concerted move of the 27 member EU to budget a €750 billion fund for bailing out member nations, of which Ireland and Greece have respectively obtained €85 billion and €110 billion already.⁴⁷

Section IV.

Responding to Crises: How has it Worked?

In response to the sub prime crisis and the successive bankruptcies of major financial institutions, the US Fed and the European Central Bank sought to inject liquidity in the respective countries, largely in a bid to avoid a credit squeeze. An initial move, often mentioned as Quantitative Easing I was launched in October 2008 by George Bush. It aimed to buy assets from financial institutions by committing \$700 billion under the Troubled Assets Recovery Programme (TARP). Of the sum committed as above, \$382 billion were spent. Later monetary authorities in US tried to bail out several financial institutions, especially when a failure to act led to the bankruptcy of Lehman Brothers, a major investment bank. The cumulative sum deployed to rescue the ailing financial system included around \$11 trillion as committed funds by 2011. Of above, the rescue package for the giant insurance company AIG alone amounted to \$182 billion as committed and \$127 billion as invested funds. Other categories of rescue packages included programmes designed to revive the housing market and to prevent foreclosures by earmarking \$745 billion (committed) and \$130 billion (actual investment) funds.⁴⁸

Responses to mitigate the financial crisis also included a series of regulatory proposals which were introduced in June 2009. These addressed, among others, consumer protection, executive pay, financial cushions or capital requirements for banks, expanded regulation of the shadow banking system and derivatives, and enhanced authority for the Federal Reserve to safely wind-down systemically important institutions. In January 2010, President Obama proposed additional regulations limiting the ability of banks to engage in making speculative investments that do not benefit their customers. Supporting the move, Paul Volcker had argued that such speculative activity played a key role in the financial crisis of 2007–2010.⁴⁹ The measure, introduced as the Dodd-Frank Wall Street Reform and Consumer Protection Act⁵⁰ sought to limit bank activity in

November 16.

⁴⁷ Crimmins, Carmel and Luke Baker (2010), "Europe set to bail out Ireland as debt crisis grows," *Reuters*, November 27.

⁴⁸ *CNN Money.com's bailout tracker at www.CNN.com*

⁴⁹ *Ibid.*

⁵⁰ *banking.senate.gov/public/_files/070110_*

speculation, especially in the context of the security market and also in terms of bailing out corporate, often considered as 'too large to fail!'

While the earlier bail outs and recent regulatory measures in USA to provide consumer protection in the financial sector somewhat worked to directly address what these measures were targeted for, the real sector continues to be in disarray. As pointed out by critics, the regulators, while framing the Act, completely ignored the message from Minsky's work in terms of the need to shift production from capital-intensive areas to investment in job-creation. The latter, as pointed out by Minsky, was capable of ensuring both stability and an equitable income distribution⁵¹. It may be mentioned here that for Minsky, the state should operate as 'the permanent employer of last resort.'⁵²

On 10th February 2009, a package of spending along with tax cuts known as the American Recovery and Reinvestment Act (ARRA) was introduced in USA by its President. The ARRA was expected to create or save approximately 3.5 million jobs by the end of 2010. The transfers and tax cuts included in the legislation were expected to provide relief to low income and vulnerable households, which included those especially hurt by the economic crisis. Also, the measure was supposed to support aggregate demand. It has been pointed out that the stimulus required per new job created could be much higher for tax cuts than outlays under all scenarios. This is because, first, consumption spending was constrained by the large outstanding household debt and also, a part of additional consumption could be absorbed by cheaper imports from abroad.⁵³

As pointed out above, according to the US Bureau of Labour, unemployment in USA rose from 8.8 per cent to 9.0 per cent over April 2010, with respective rates for Blacks and Hispanics at 16.1 per cent and 11.6 per cent. After some early signs of recovery in the fall of 2009 and the spring of 2010, economic growth has slowed down. With jobs generated by the private sector negligible, unemployment in USA is stuck near 10 per cent. Counting the number of unemployed who were outside the organised sector, the picture has been even worse.

⁵¹ "Minsky on the Reregulation and Restructuring of the Financial System: Will Dodd-Frank Prevent it from Happening Again?" Levy Economic Institute, April 2011, www.levyinstitute.org/files

⁵² Minsky, Hyman (1986), *Stabilizing an Unstable Economy*, Mc-Graw Hill Company, Pp. 308-13, cited in Gregg Hannsgen and Dimitri B. Papadimitriou, "Fiscal Stimulus, Job Creation and the Economy: What are the Lessons of the New Deal?" Levy Economics Institute Policy Note, October 2009.

⁵³ Lindsay, James S., "New Congress: How Foreign Policy Shifts," Council on Foreign Relations, November 3, 2010, www.cfr.org/us-strategy-and-politics/new-congress-foreign-policy-shifts/p23297

Of late the monetary authorities in USA have been trying to revamp the economy by directly injecting money via Quantitative Easing, as done earlier in 2008–09 in terms of TARP. Known as QE II, the measure intends to inject \$600 billion of liquidity in the market by buying back Treasury Securities. The goal behind is to let banks have the excess liquidity which will lower interest rates by adding on to bank reserves. The above has coincided with a shift in policies as a result of the recent election in the House of Representatives with Republicans favouring monetary policy over fiscal deficits as tools of expansionary strategy. A similar policy-shift seems to be underway in Europe with moves for tax hikes and expenditure cuts.⁵⁴ Increases in liquidity and the consequent drop in interest rates may not, however, achieve much expansion in real activities, with the insensitivity of investments to cuts in rates, which is common in situations of stagnant demand. The overhang of debt held by households after the mortgage crisis and the record number of bankruptcies in US at 1.4 million in 2009–10⁵⁵ bear testimony to the limits of measures like QE in generating consumption expenditure. However, the effectiveness of QE II in generating domestic demand may also be subject to other limitations including potential leakages via imports and capital flights to other destinations. Incidentally, QE II in US has provoked reactions from nations facing excess inflows of capital. These countries are often driven to respond by adjusting their exchange rates and/or monetary policy in a manner which is not, strictly speaking, in national interest. Critics have labeled the phenomenon as an ‘impossible trilemma’, which is commonly observed in the Emerging Economies like China and India.

On the whole efforts on part of monetary authorities in advanced countries to rejuvenate their respective ailing economies have generated rather limited results. While helping to thwart further downslides in the financial sector in terms of bankruptcies and closures of financial institutions, the measures have not remedied the structural weaknesses of the system as are related to tendencies for short-termism and speculation in financial markets. No amount of financial injection can bring back the system to a stable and sustainable order of functioning which is free of potential shocks unless these caveats are addressed squarely. Similarly, policy measures like ARRA in US may not address the squeeze in consumption of households as are related to their outstanding debt burden. Like that the large injection via QE may lead to capital outflows in response to the higher interest rates abroad, and more so, when domestic rates in US falls as a consequence of the credit injection.

⁵⁴ Papadimitriou, Dimitri B., Greg Hannsgen and Gennaro Zezza (2011), “Jobless Recovery is no Recovery: Prospects for the US economy,” Levy Economics Institute of Bard College, *Strategic Analysis*, March.

⁵⁵ “Bankruptcy in the United States,” http://en.wikipedia.org/wiki/Category:Bankruptcy_in_the_United_States

The recovery in terms of real sector activities has still been slow and almost insignificant, for reasons already discussed above.

Section V.

Concluding Observations and Some Policy Proposals

Our alternative perspective on the melt-down of the global economy contests the theory and related policy prescriptions as are based on the 'efficient market' hypothesis of the mainstream school. Drawing attention to the under-consumptionist tendencies of product markets in advanced countries which in the developing world are tagged by export-drives, our arguments highlight the role of labour flexibility in these liberalized regimes which speak for the wage squeeze. The shortfall in demand as is caused by the wage-productivity gap direct investments to the short-term high-profit high-risk areas of finance. The latter, while partially compensating the slow growth in the real sector, by the brisk churning of asset-backed securities and high leverages financing the derivative financial instruments, have failed to work out when financial market in advanced economies collapsed, simultaneously and also in succession, by late 2008. A major reason for such collapse was the erosion of confidence in those financial transactions, an aspect which mainstream theory and policy never recognized. The alternative position we offer looks at the uncertainty-ridden trail of markets, which often deviates from the predictions of the private 'market makers'. A position as above has a considerable significance for policies as are appropriate to mend the system. This is also confirmed by the failure of what all were tried with massive bail-outs of the financial institutions along with limited measures to stimulate the real sector with fiscal devices.

Policy moves in the advanced economies have not so far addressed the two major issues which are continuing to plague the global economy. These include the dominance of the speculation-led transactions in the markets for financial assets and the relatively higher returns on such investments as compared to those backed by real assets. With wages trailing far behind the growth in labour productivity, growth in the real sector often tends to be demand-constrained, a situation described as one with tendencies for under-consumption. With slow or negative growth rates in the real economy, and the profit opportunities moving up in the booming financial sector, investments had a natural tendency to be directed to the latter. As we mentioned earlier, a boom in the financial sector often created little opportunities for expansions in the real economy.

Incentives to invest can be generated in the real sector with higher growth rates therein. This requires an expansionary strategy of public policy with expenditure targeted to generate additional demand by creating employment. At the same time curbs on speculation in the financial market has to be there, both to contain the volatility as well as

to dampen the pace of short-term speculation in these markets. As with an expansionary strategy to revamp the real sector, a move to control speculation and short-termism in the financial sector needs to prop on state level regulation, both at a national level and an international level.

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