

Effects of The Global Financial Crisis

* Krishna Reddy Chittedi

** Santhosha Bathini

INTRODUCTION

The current financial crisis is a result of loss of asset values, the refusal to extend normally given credit and the great increase in defaults on obligations ranging from individual mortgages to the debts of banks. Transactions take place in financial markets and are subject to asymmetric information in which one party often does not know all that he or she needs to know about the other party to make correct decisions e.g when the potential borrowers select bad credit. It is more likely that loans might be made to bad credit risks, lenders may decide not to make any loans even though there are good credit risks in the market place. This is known as the 'lemons problem' that was analyzed by Akerloff (1970). This occurs in the debt and equity markets when lenders have trouble determining whether a lender is a good credit risk or is a bad credit risk. In this situation, a lender is only be willing to pay a price for a security that reflects the average quality of a firm's issuing securities- a price below fair market value for high quality firms but above fair market value for low quality firms. As a result, owners of a high quality firm know that their securities are undervalued and will not want to sell them in the market. As a result, asymmetric information prevents investors from determining whether some firms are high quality. These firms will not issue securities and credit market will not work well since many projects with positive net value will not be undertaken.

The sub prime crisis in US began with a sharp rise in interest rates, a stock market crash and an increase in uncertainty resulting from major financial or non-financial firms. The crisis caused an increase in uncertainty and a stock market crash increased the severity of the crisis. As a result, lenders did not lend which led to decline in investment and withdrawal of funds from banks because they worried that the banks might go broke. Therefore, the number of banks failed and there was decreased financial intermediation by banks. The net effect is that there is a further economic contraction. The slowdown in the world economy and the financial turmoil has led to a liquidity crisis in money and debt markets in many developed countries. As a result, M&A activity slowed down markedly. In the first half of 2008, the value of such transactions was 29% lower than it was in the second half of 2007. Corporate profits and syndicated bank loans also declined. Based on available data, estimated annualized FDI flows for the whole of 2008 were expected to be about \$1,600 billion; representing a 10% decline from 2007. UNCTAD's *World Investment Prospects Survey, 2008-2010* while also suggesting a rising trend in the medium term also points to a lower level of optimism than was expressed in the previous survey, and to more caution in TNCs' investment expenditure plans than in 2007.

The Depth and Severity of the Ongoing Financial Crisis provided the most important common ground at the beginning of the meeting. Participants considered it to be extraordinary by any standard since the 1930s Great Depression, including the debt crises of the 1980s and the Asian and Russian crises of the late 1990s. One called it "epochal" and "history making." What distinguishes the sub-prime crisis from the others is that:

- (1) It emerged from the United States, that is, from the center and not the periphery of the global system;
- (2) It reflects the collapse of a bubble in an economy driven by repetitive bubbles; and
- (3) The bubble has grown into the financial structure in a uniquely complex and intractable way, through securitization -- the bundling of mortgages and derivative products to investors.

The larger group believes that the country at the center of the world's financial system must maintain a current account deficit-otherwise we would not be able to supply the Treasury bills and bonds the rest of the world wishes to hold as reserves.

The housing crisis was infected by appraisal fraud, a fact overlooked and therefore abetted by the ratings agencies. "No one looked at the loan package." Now the integrity of every part of the system, from loan origination to underwriting to ratings and insurance is under a cloud. Fraud is deceit, a betrayal of trust. And it is trust that underlies valuation in a market full of specialized debt instruments, off-books financial entities, and over-the-counter transactions. That trust has, as of now, collapsed.

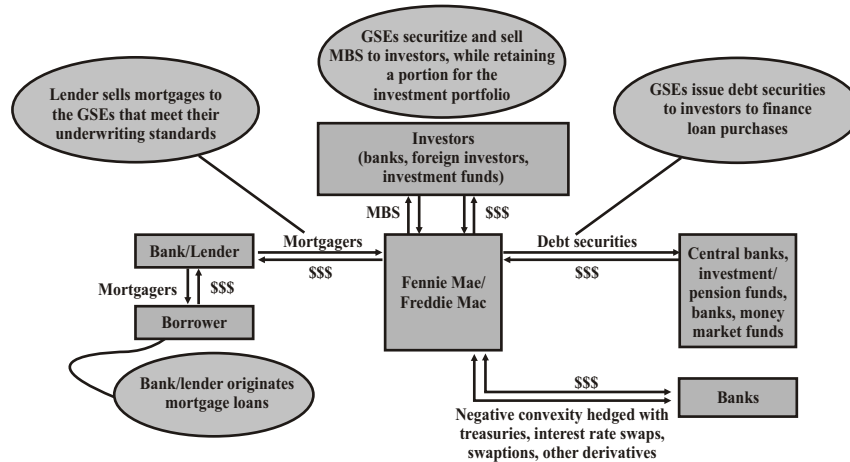
THEORY BEHIND THE CRISIS

Minisky believed that Keynes Investment theory of cycle is incomplete because it does not really analyze how investment is financed when the marginal efficiency of some capital assets exceeds the marginal efficiency of money. Minsky's most important contribution was to add the "financial theory of investment" to Keynes's

**Doctoral Scholar*, Center for Development Studies-JNU, Trivandrum, Kerala. Email: krishnareddy5111@gmail.com

***Lecturer*, Sri Venkateshwara Govt. Junior College, Valigonda, Nalgonda, Andhra Pradesh

Basic Structure of Government-Sponsored Enterprises' (GSEs) Business Practices



Source: IMF staff.

Note: MBS = mortgage-backed security; GSE = government-sponsored enterprise.

“investment theory of the cycle.” The two key elements of this theory are the “two-price system” and the “lender's and borrower's risk.” Minsky distinguished between a price system for current output and one for asset prices. Current output prices can be taken as determined by “cost plus mark-up” set at a level that will generate profits so long as the administered price can be maintained with adequate sales. Current output covers consumer goods and services, investment goods and services, exports, and even goods and services purchased by government. In the case of investment goods, the current output price is effectively a supply price of capital-the price just sufficient to induce a supplier to provide new capital assets (PI). This is possible when we financed out of internal funds only. If external (borrowed) funds are needed, then the supply price of capital also includes explicit finance costs-most importantly the interest rate, but also all other fees and costs-that is, total supply price (PIs) rises above the price administered by suppliers (PI) due to “lender's risk” that is covered by the finance costs of borrowed funds. There is a second price system for assets that can be held through time. Assets include capital assets, financial assets, and money-essentially anything that can be held through time as a store of nominal wealth. Except for money (the most liquid asset), these assets are expected to generate a stream of income and possibly capital gains. The important point is that the prospective income stream cannot be known with certainty, thus it depends on subjective expectations. By taking the price of old capital assets (PK) as a point of reference, we obtain a demand price for new capital assets (PID) from this asset price system: how much would one pay for the asset, given expectations concerning the future net revenues that it can generate? The quantity of investment goods purchased (OID) is determined where $PID = PIs$. Minsky's financial theory classifies the financing of the purchase of large real illiquid investment projects into three categories 1. Hedge finance 2. Speculative finance 3. Ponzi finance. In the hedge finance operation, the borrower expects that the cash inflows generated by the purchased real investment will easily meet the future contractual cash outflows specified in the debt contract.

In the Speculative financing, the borrowers are aware about the given terms of the debt contract, the contractual cash outflows to service the debt obligation will at some specific date in the future, exceed the cash inflows at the date generated by this investment even though over the life of the asset, enough cash inflows will be generated to pay for the investment. Thus on entering into debt contract, the debt purchaser knows that at some debt in the future, he will have to refinance the remaining contractual cash outflows. The basic theme is that when needed, the outstanding contractual debt obligation can be rolled over. If at the time of expected rollover of debt, no refinancing lender is available, the only option left is ponzi financing. In ponzi finance, the purchaser is aware that the expected future cash inflows generated by the investment are not sufficient to meet the future contractual cash outflows required to service the initial debt securities obligations. Accordingly, the ponzi finance purchaser issues a second set of debt securities that at least initially provide enough cash inflows to meet the upcoming contractual cash outflows. Unfortunately, however, this second debt insurance increases the level of future contractual cash outflows and so the purchaser is ultimately required to issue a third set of debt securities to meet the larger contractual cash outflows of the first two security issues. This leads to a Ponzi scheme. This financing pyramid must fall when there are no takers for the subsequent issues of securities to meet existing contractual cash outflows obligations. At that point, when the ponzi pyramid financial scheme collapses, we have a Minsky Moment. At the time of signing the initial subprime mortgage debt obligation, the borrower and the lender should

recognize the rolling over of the debt obligation. The borrower and the lender should recognize that rolling over the debt is not a viable option. Accordingly, Minisky's speculative finance operation is never available to subprime borrowers.

For a subprime mortgage borrower to engage in ponzi finance tractions, he or she would have to obtain a second mortgage to help pay the contractual cash outflows specified in the first mortgage debt. But subprime borrowers who have no equity would have no possibility of obtaining a second mortgage.

Therefore, financial market distress initiated by sub prime mortgages did not meet the speculative or ponzi finance operation characteristics specified by Minisky to describe his financial fragility situation. Therefore, the Minisky moment was never involved in the subprime crisis. After analyzing all the available theory, we conclude that the Fishers theory and Keynes investment theory and liquidity preference theory mostly explain the present shortfall in portfolio liquidity.

CAUSES OF THE SUBPRIME CRISIS

- Boom and bust in the housing market.
- Speculation.
- High-risk mortgage loans and lending practices.
- Securitization practices.
- Inaccurate credit ratings.
- Government policies.
- Policies of central banks.
- Financial institution debt levels and incentives.
- Credit default swaps (derivatives).

The WEO forecasts¹ that global growth will slow down in 2008 and 2009 and will recover by 2010. Annual global growth forecast for 2008 was put at 3.9 percent and 3.0 percent in 2009, from 5.0 percent in 2007. For India, the growth projections have been lowered from 9.3 percent in 2007 to 7.9 percent in 2008 and 6.9 percent in 2009.

The WEO² estimates of select macroeconomic indicators up to the year 2013 with respect to India is given in Table-1.

Indicators	2006 (actuals)	2007 (actuals)	2008 (estimates)	2009 (estimates)	2010 (estimates)	2011 (estimates)	2012 (estimates)	2013 (estimates)
GDP at constant prices (% change)	9.8	9.3	7.9	6.9	7.7	7.96	7.96	7.98
Average Consumer price inflation (year on year variation)	6.2	6.4	7.9	6.7	4.2	3.9	3.9	3.9
Population (millions)	1152	1169	1186	1203	1220	1237	1254	1270
Current Account Balance (US \$ billion)	-9.8	-15.5	-34.6	-41.5	-43.5	-44.3	-43.8	-42.0
Current Account Balance (% of GDP)	-1.1	-1.4	-2.8	-3.1	-2.9	-2.7	-2.4	-2.1
Source: WEO Database October 2008								

Table-1 shows India's current account deficit. In India's current account deficit, factor incomes mainly from IT and ITES covers up the deficit in the goods trade. As a result of the global economic slowdown, there could be a fall in remittance income, travel receipts, income earnings from IT and ITES. As a result, the goods trade deficit would remain largely uncovered leading to a large CAD. These considerations would have gone into the forecasts of the CAD by the WEO. GDP at constant prices is expected to increase only marginally, probably due to the

¹ WEO October 2008, Chapter-1, Table 1.1

² WEO Database

economic slowdown.

MARKET DOWNTURNS AND IMPACTS IN 2008

The crisis, which has roots in the closing years of the 20th century but became more apparent throughout 2007 and 2008 has passed through various stages exposing the pervasive weaknesses in the global economy.

Comparison of Financial Sector Loss Estimates - October 2008 (In billion U.S.dollars)

Base-Case Estimates of Losses on U.S. Loans							
	Outstanding	Estimated loss April 2008 GFSR	Estimated loss October 2008		Outstanding	Estimated loss mark-to-market loss April 2008 GFSR	Estimated loss mark-to- market loss October 2008
Subprime residential	300	45	50	ABS	1,100	210	210
Alt-A residential	600	30	35	ABS CDOs	400	240	290
Prime residential	3,800	40	85	Prime MBS	3,800	0	80
Commercial real estate	2,400	30	90	CMBS	940	210	160
Consumer loans	1,400	20	45	Consumer ABS	650	0	0
Corporate loans	3,700	50	110	High-grade corporate debt	3,000	0	130
Leveraged loans	170	10	10	High-yield corporate debt	600	30	80
Total for loans	12,370	225	425	CLOs	350	30	30
Base-Case Estimates of Mark-to-Market Losses on Related Securities				Total for securities	10,840	720	980
				Total for loans and securities	23,210	945	1,405

Sources: Goldman Sachs; JP Morgan Chase & Co.; Lehman Brothers; Markit.com; Merrill Lynch; and IMF staff estimates.

Note: ABS - asset-backed securities; CDO-collateralized debt obligation; CLO - collateralized loan obligation; CMBS - commercial mortgage-backed security; MBS - mortgage-backed security.

IMPACT ON THE INDIAN BANKING SYSTEM

- Narasimham committee of Banking Reform clearly demarcated our Banks from the 'Investment Banking'.
- Our Banks are financially stable .It has been achieved through perseverance of prudential policies which prevent institutions from excessive risk taking and financial market from becoming extremely volatile and turbulent .
- In order to increase the liquidity between July 6, 2008 to October 15, 2008, RBI cut CRR by total of 250 basis point.
- SLR reduced by 1 percentage. These policies considerably improved the liquidity position in the financial.The call money market is only 6.8 percent.
- The external saving utilization have been traditionally low, its reliance on foreign saving has remained about 1.5%.
- GDP growth rate in the first quarter of 2008-2009 was 7.9%, and is expected to grow between 7 and 7.5%.
- There was a downward movement in inflation (wholesale price index).
- Our export share to GDP is only about 17% and India has good domestic demand (50%) as compared to other countries and we have good middle class level.
- Depreciation of Indian currency helps to boost our exports and presently, it stands at 1\$=48inr.
- Foreign Exchange reserve increased from 247 billion in 2006-2007 to the present level of 297 billion.
- India receives remittance amount of 24 billion dollars every year. The depreciation of rupee against dollar helped to double the remittance value.
- After the crisis, funds are transferring to Indian Banks in the form of time deposit .It shows the confidence in our banking system.

IMF'S RELEVANCE

The IMF was created 64 years ago to help its member countries to manage and mitigate any balance-of-payments crisis that might be 'destructive of national and international prosperity". Yet nobody really demands that role of the IMF anymore.

The fading role of IMF should itself be a reason for it to look for new acts. Yet, even as the global crisis grew in size and complexity, the IMF had no relevant script or line of action. The crisis of the American banking system spread

to the European banks. Countries and central banks around the world made stuttered starts to cooperate and coordinate actions to support their respective banking system, and generally added to the sense of chaos. Nationally bailout in one part of the world has been looked upon with suspicion and even hostility by beleaguered financial sectors elsewhere. These are the times when governments and institutions must avoid beggar- thy- neighbor policies, strive for mutual co- operation, and attain global financial stability.

IMF DO'S:

1. Could have taken the lead in getting governments to coordinate their interest rate cuts and other attempts to increase financial liquidity.
2. The IMF failed to create any mechanism that would help the afflicted countries to avoid draining funds from each other's credit systems.

Above all, the world needs a sober influence on the global financial affairs, which can work towards solutions that lie entirely in even-handed and fair regulation, co- operation amongst central banks and strengthening of international financial system. Greenspan (former Chairman of the Federal Reserve) stated "The current credit crisis will come to an end when the overhang of inventories of newly built homes is largely liquidated, and home price deflation comes to an end. That will stabilize the now-uncertain value of the home equity that acts as a buffer for all home mortgages, but most importantly, for those held as collateral for residential mortgage-backed securities. Very large losses will, no doubt, be taken as a consequence of the crisis. But after a period of protracted adjustment, the U.S. economy, and the world economy more generally, will be able to get back to business."

REMEDIAL MEASURES

- US addressed failed investment banks, insurance companies, other banks; Injection of liquidity, nationalization of banks and other FIs with equity states, mergers and takeovers, recapitalization, dithers on bailout of auto firms subject to wage cut proposal.
- **What are the possibilities in developing countries like India?**
 - ✓ Need to cater to real sector by creating job opportunities and sources of demand in the home market to ward off the contractionary effects of global recession.
 - ✓ Encourage banks to participate in inclusive growth, but do not politicize their lending decisions.
 - ✓ Give Bold Fiscal Stimulus to Maintain a Growth Rate of around 7 percent.
 - ✓ Need for regulations which dampen speculation and revive real sector growth.
 - ✓ Need to change banking regulations which by following risk-calculations (Basel norm) deny credit to the SMEs and poor.
 - ✓ Need to put emphasis on agriculture, on exports as worthy candidates of priority loans for the PSBs.
 - ✓ Need to monitor and alleviate the distress inflicted on poorer sections as are due to the external shocks.
 - ✓ Need to avoid cost cutting at the expense of labour.

CONCLUSION

The policymakers and regulators also need to distinguish between financial development and financial engineering in the days to come and foresee the complexity of the latter in allowing for more openness and reforms in the sector so as to prevent contamination of our wholesome financial system with somebody else's toxicities. They should rethink the model of 'privatization of profit and the socialization of cost'. It is also necessary on the part of the regulators to recognize the growing challenges of the financial sector regulation and to equip themselves to meet such challenges so as to detect abuses in financial markets and also to make sure that everybody behaves prudently and discourage risky behaviors.

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Appendix 1

Table 1. Estimates of Financial Sector Potential Writedowns

(In billions of U.S. dollars)

	Base Case Estimates of Writedowns on U.S. Loans			Writedowns on U.S. Loans				
	Outstandings	April estimated losses	October estimated losses	Banks	Insurance	Pensions/ Savings	GSEs and government	Other (hedge funds, etc.)
Subprime	300	45	50	35-40	0-5	0-5	—	10-15
Alt-A	600	30	35	20-25	0-5	0-5	—	5-10
Prime	3,800	40	85	25-30	0-5	0-5	45-55	0-15
Commercial real estate	2,400	30	90	60-65	5-10	0-5	—	10-20
Consumer loans	1,400	20	45	30-35	0-5	0-5	—	10-15
Corporate loans	3,700	50	110	80-85	0-5	0-5	—	25-30
Leveraged loans	170	10	10	5-10	0-5	0-5	—	0-5
Totals for loans	12,370	225	425	255-290	5-40	0-35	45-55	60-100
	Base Case Estimates of Mark-to-Market Losses on Related Securities			Losses on Securities				
	Outstandings	April estimated mark-to-market losses	October estimated mark-to-market losses	Banks	Insurance	Pensions/ Savings	GSEs and government	Other (hedge funds, etc.)
ABS	1,100	210	210	100-110	40-45	35-55	10-15	10-25
ABS CDOs	400	240	290	145-160	55-75	30-45	15-20	15-30
Prime MBS	3,800	0	80	20-25	10-15	10-20	20-25	0-5
CMBS	940	210	160	80-90	20-25	15-35	10-25	15-20
Consumer ABS	650	0	0	—	—	—	—	—
High-grade corporate debt	3,000	0	130	65-75	20-30	20-35	—	5-20
High-yield corporate debt	600	30	80	45-50	10-15	15-20	—	5-15
CLOs	350	30	30	15-20	0-5	0-5	—	5-10
Total for securities	10,840	720	980	470-530	155-210	125-215	55-80	55-125
Total for loans and securities	23,210	945	1,405	725-820	160-250	125-250	100-135	115-225

Sources: Goldman Sachs; JP Morgan Chase & Co.; Lehman Broghers; Markit.com; Merrill Lynch; and IMF staff estimates.

Note: The Prime residential loans category includes a portion of GSE-backed mortgages securities, ABS-asset-backed security; CDO-collateralized debt obligation; CLO-collateralized loan obligation; GSE - government-sponsored enterprise; CMBS - commercial mortgage-backed security; MBS - mortgage-backed security.