Structural Contagion: Some Implications for the International Transmission of Fragility

Introduction

- There is little doubt that despite talk of decoupling, emerging markets, especially China and India have been adversely affected by the global financial and economic crisis

Three kinds of effects

- These effects are of three kinds:
  - The effects of the dependence on developed country export markets (more true of China)
  - The effects of the dependence on developed country capital, especially short term portfolio and debt capital (more true of India)
  - The effects stemming from the structural weaknesses of the domestic financial and economic system in these countries, that also makes them susceptible to the developments that led to the crisis in the developed countries.

Emphasis on the export route

- Tendency to assume that the third of these is not too important and the first is the most important
- The crisis affects developing countries, it is argued, because of the transmission of recession from the developed through a decline in exports
- In actual fact there could be countries (like India, for example) where the last two are far more important

Effect of dependence on capital

- Capital reversal in times of crisis because of need to sell assets to meet payments commitments or cover losses in the developed countries
- Such reversals can be particularly damaging if it comes in the wake of a supply-side driven surge
- Liberalization per se is only a necessary condition for attracting capital flows

Table 1: Major Items of India's Balance of Payments (US$ million)						
Item	April-June		July-September		October-December	
	2007-08 (PR)	2008-09 (PR)	2007-08 (PR)	2008-09 (PR)	2007-08 (PR)	2008-09 (P)
1	2	3	4	5	6	7
1. Exports	34,356	49,120	38,273	47,700	40,985	36,707
2. Imports	56,346	79,637	59,510	86,213	67,038	73,014
3. Trade Balance (1-2)	-21,990	-30,517	-21,237	-38,513	-26,053	-36,307
4. Invisibles, net	15,310	21,521	16,940	25,684	21,522	21,663
5. Current Account Balance (3+4)	-6,680	-8,996	-4,297	-12,829	-4,531	-14,644
6. Capital Account Balance*	17,880	11,231	33,533	8,095	31,269	-3,237
7. Change in Reserves# (-Indicates increase;+ indicates decrease)	-11,200	-2,235	-29,236	4,734	-26,738	17,881

*: Including errors and omissions. #: On BoP basis excluding valuation.

P: Preliminary. PR: Partially Revised.

The capital flow evidence

- Foreign investment flows to India rose sharply from $4.9 billion in 1995-96 to $29.2 billion in 2006-07 and then more than doubled to $61.8 billion in 2007-08.
- In 2007-08, capital inflows amounted to over 9 per cent of GDP even though the current account deficit in the balance of payments stood at just 1.5 per cent of GDP.

A note of caution

- Underlying the portfolio capital surge was a continuous process of liberalization of the rules governing such investment
- However, it must be noted that while liberalisation began rather early in the 1990s, the surge in foreign investment flows occurred much later.

The capital surge

- Capital inflows rose significantly long after India liberalised its financial sector. Liberalisation began in the early 1990s and was substantial by the middle of that decade.
- But, it was only after 2003 that India witnessed any surge in capital inflows. Till 2002-03 the maximum level that net inflows had touched was $8.2 billion in 2001-02.
- Capital flows rose to $15.7 billion in 2003-04, $21.4 billion in 2005-06, $29.8 billion in 2006-07 and $63.8 billion in 2007-08.

Commercial borrowing

- Capital inflows rose also due to large increases in commercial borrowing by private sector firms.
- As caps on external commercial borrowing were relaxed large Indian firms engaged in a version of the carry trade, borrowing money in foreign exchange from the international markets where interest rates were lower and making investments in India (besides financing investments abroad).

The figures

- Net external borrowing by India rose from $24.5 billion in 2006-07 to $41.9 billion in 2007-08. The stock of India's liabilities in the form of debt securities, trade credits and loans has risen from $105.1 billion at the end of June 2006 to $175.6 billion at the end of September2008

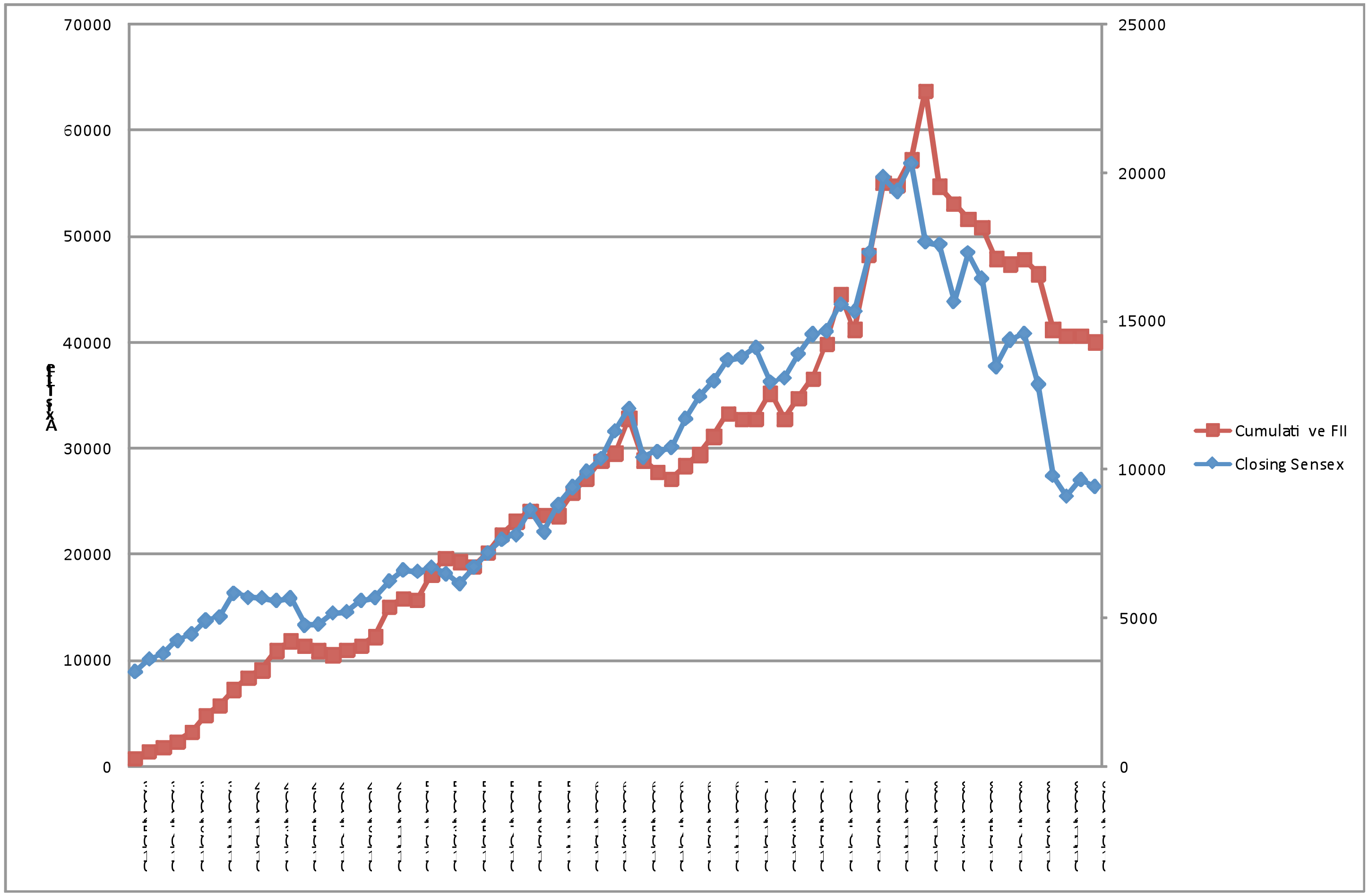
Capital exit

- Dependence on portfolio equity and debt inflows of this magnitude meant that if any development within or outside India warranted pulling out of that country, the exit could be as strong as the inflow of foreign capital.
- Over the year ending January 2009, the Reserve Bank of India estimates that the net outflow of FII capital amounted to $23.7 billion. Large when seen in relation to the estimate made by the RBI that the total stock of inward investment in equity securities stood at 103.8 billion at the end of December 2007. That stock had fallen to $80 billion by the end of September 2008.

Impact on stock markets

- One consequence of capital outflow is a collapse of India’s stock markets, because capital inflow had earlier triggered a speculative bubble in both stock and real estate markets.
- FII investments have been an important force, even if not always the only one, driving markets to unprecedented highs

Sensex and Cumulative FII



Rupee depreciation

- A second consequence of the outflow of capital is a sharp depreciation of the rupee. This is one of the more visible ways in which the global crisis has affected India.
- This occurred despite the still strong performance of India’s services exports and the large reserves held by the central bank. The increase in India’s external debt and future foreign exchange interest and amortization payment commitments may be generating adverse expectations about the India’s external strength.

Forex speculation

- Those with forex commitments due are buying up foreign exchange and speculators are holding on to and not repatriating back forex to the country or are transferring foreign exchange out of the country.
- For example, outward remittances under the liberalised remittance scheme for resident individuals, which totalled $9.6 million, $25 million and $72.8 million in the three years ending 2006-07, shot up to $440.5 million in 2007-08.
- Threatens bankruptcy of those exposed to debt.

Structural contagion

- Countries seeking to attract capital have to liberalize their financial policies in two ways:
  - Provide space for the carriers of capital or foreign institutions
  - Relax regulations relating to the markets, institutions and instruments that constitute the financial structure to provide an appropriate environment to global firms
- "Immature" financial systems in developing countries reshaped in the image of the increasingly 'market-based' systems characteristic of the developed capitalist world
- Allows for the proliferation of financial institutions and instruments and in the practice of risk transfer through processes such as securitization
- Makes growth dependent on credit financed consumption and investment.

Impact 1: Credit Expansion

- Scorching pace of expansion of total bank credit from 2005 onwards, at more than double the rate of increase of nominal GDP. The ratio of outstanding bank credit to GDP initially declined from 30.2 per cent at end-March 1991 to 27.3 per cent at end-March 1997; over the next decade, the ratio of bank credit to GDP more than doubled to reach about 60 per cent by end-March 2008.
- The rate of growth in bank credit which touched a low of 15.8 per cent in 2002-03 accelerated sharply to 31.7 per cent in 2004-05 and 30.8 per cent in 2005-06. Though there has been a decline to 28.5 per cent in 2006-07 and a further deceleration to 23.1 per cent during 2007-08, credit growth still remains high.

Credit expansion 2

- Growth in credit out-performed the growth in deposits between 2004-05 and 2005-06 resulting in the increase in credit deposit ratio from 55.9 per cent at end March 2004 to 72.5 per cent at end March 2008. The incremental credit deposit ratio which increased from 56.5 per cent in 2003-04 to 111.6 per cent in 2005-06 declined to 72.0 per cent in 2007-08.
- The increase was accompanied by a corresponding drop in the investment-deposit ratio, which declined from 51.7 per cent to 36.2 per cent during the same period. This indicates a shift of preference from SLR investments to advances.

Impact 2: Pattern of lending

- Retail loans, which witnessed a growth of around 41 per cent in both 2004-05 and 2005-06, have been one of the prime drivers of the credit growth in recent years, despite a moderation of the growth rate to 30 per cent in 2006-07 and 17 per cent in 2007-08. Sharp increase in the retail exposure of the banking system, with overall personal loans increasing from slightly more than 8 per cent of total non-food credit in 2004 to close to a quarter by 2008.

Maturity profile

- The maturity profile of deposits, advances and investments of the banking system reveals that since March 2001 there has been a steady rise in the proportion of short-term deposits maturing up to one year. Deposits maturing up to one year increased from 33.2 per cent in March 2001 to 43.6 per cent in March 2008. At the same time, the share of term loans maturing beyond five years increased from 9.3 per cent to 16.5 per cent. While this could imply increased profits, the increased asset liability mismatch has increased the liquidity risk faced by banks.

Implications

- One important consequence of this transformation of banking was excessive exposure to the retail credit market with no or poor collateral. This resulted in the accumulation of loans of doubtful quality in the portfolio of banks.
- A significant but as yet unknown proportion of this is likely to be "sub-prime" lending. According to one estimate, by November 2007 there was a little more than Rs.400 billion of credit that was of sub-prime quality, defaults on which could trigger a banking crisis.
- This would mean that as the crisis in India intensifies there is a real danger of increased insolvency in the India financial sector.

Sensitive sectors

- Exposure of the banking system to the so -called “sensitive” sectors, like the capital, real estate and commodity markets at the end of financial year 2007was 20.4 per cent of aggregate bank loans and advances, with the figure comprising an 18.7 per cent contribution of real estate, 1.5 per cent contribution of the capital market and a small 0.1 per cent from commodities.

Interest rate teasers

- It also appears that to attract such borrowers the banks have been offering attractive interest rates. The period of increased credit off-take has also seen an increase in loans provided at interest rates below the benchmark prime lending rate (BPLR). The share of such loans in the total rose from 27.7 per cent in March 2002 to 76.0 per cent at the end of March 2008. This increase has been marked in the case of consumer credit. According to the FSAR the rise in sub-BPLR loans can be attributed to “an increase in liquidity, stiff competition, buoyant corporate performance which lowered credit risk and growth in retail credit (housing).” That increase, in its view, reflects a mispricing of risk that could affect banks adversely in the event of an economic downturn.

Off balance sheet exposure

- Off-balance sheet (OBS) exposure has increased significantly in recent years, particularly in the case of foreign banks and new private sector banks. The notional principal amount of off -balance sheet exposure increased from Rs.8,42,000 crore at end-March 2002 to Rs.1,49,69,000 crore at end-March 2008. The ratio of OBS exposure to total assets increased from 57 per cent at end-March 2002 to 363 per cent at end-March 2008.
- The spurt in OBS exposure is mainly on account of derivatives whose share averaged around 80 per cent. The derivatives portfolio has also undergone change with single currency IRS comprising 57 per cent of total portfolio at end-March 2008 from less than 15 per cent at end-March 2002. The current accounting standards do not clearly specify how to account for loss and profit arising out of derivatives transactions.

Increase in securitisation

- Finally, the Indian financial sector too had begun securitizing personal loans of all kinds so as to transfer the risk associated with them to those who could be persuaded to buy into them. As the US experience had shown, this tends to slacken diligence when offering credit, since risk does not stay with those originating retail loans.
- Although net interest income has remained the mainstay of banks, fee income has been contributing a significant portion to the total income of NPBs and FBs in recent years. Treasury income, which was the second most important source of income until 2003-04, has declined to negligible levels due to the upturn in the interest rate cycle.

The crisis and India

- These changes in the financial sector and its interaction with the real economy associated with financial liberalization point to two other ways in which the crisis can affect India. First, the credit stringency generated by the exodus of capital from the country and the uncertainties generated by the threat of default of retail loans that now constitute a high proportion of total advances would freeze up retail credit and curtail demand, as is happening in the developed industrial countries. Second, individuals and households burdened with past debt and/or uncertain about their employment would prefer to postpone purchases and not to take on additional interest and amortisation payment commitments. Thus, the offtake of credit can shrink even if credit were available, resulting in a fall in credit financed consumption and investment demand.

Impact on real economy

- Since growth in a number of areas such as the housing sector, automobiles and consumer durables had been driven by credit-financed purchases encouraged by easy liquidity and low interest rates, the curtailment of credit provision by a damaged or cautious financial sector would reduce demand, increase inventories and lead to job losses in industries directly or indirectly catering to such credit-financed investment and consumption.
- Damaging when seen in the context of the fact that the stimulus to growth has been transfromed .