CHAPTER 6

FOREIGN PORTFOLIO INVESTMENT AND VULNERABILITY

6.1 SPECULATION

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“Speculators may do no harm as bubbles on a steady stream of enterprise. But the position is serious when enterprise becomes the bubble on a whirlpool of speculation. When the capital development of a country becomes the byproduct of the activities of a casino, the job is likely to be ill done.”

John Maynard Keynes

Perhaps the severest criticism of foreign capital flows, particularly FPI, is that it is hot money that can flow in and out very quickly and at slightest provocation. Particularly, sudden outflows have the potential to destabilize the economy through massive fluctuations in financial markets. This problem of vulnerability of economies, particularly developing ones, to external shocks became a major issue after the East Asian Crisis of 1997. Critics of FPI in India have been quoting the East Crisis while arguing for caution in India’s FPI policy. Before we go into the nature and causes of the various crises caused by hot money outflows, it would be appropriate to discuss the various forms of hot money.
6.1 Speculation

According to Kaldor (1939), “Speculation …… may be defined as the purchase or sale of a good with a view to resale at a later date, where the motive behind such action is the expectation of changes in the relevant prices relatively to the ruling price, and not a gain relating to their use, or any kind of transformation affected on them, or their transfer between markets. What distinguishes speculative purchases and sales from other kinds of purchases and sales is the expectation of an impending change in the ruling market price as the sole motive of action. Hence ‘speculative stocks’ of anything may be defined as the difference between the amount actually held and the amount that would be held if, other things being the same, the price of that thing were expected to remain unchanged; and they can be either positive or negative.”

Kaldor emphasizes the expectation of an impending change in ruling prices as the sole motive of speculative activity. Bonds and shares are very good objects for speculation since they are standardized, durable, have very high value in proportion to bulk (storage cost is zero) and normally have a yield which is unrelated to the speculative activity.

Speculation can take various forms like very short term investment, day trading, hedging, arbitraging etc. It is important to distinguish between these various forms of speculation and their implications for the market.
6.1.1 Very short term investment

Some speculators buy/sell large quantity of securities expecting impending volatility in their prices in the short term. They either take delivery of the securities or hold long/short positions in the derivatives (Futures and Options) market. When the expected price changes happen, the securities are sold/bought or the long/short positions are squared. In India, such types of transactions attract short term capital gains tax whereas long term investments (involving a time horizon of more than a year) are exempt from capital gains tax.

6.1.2 Day trading

Day trading involves buying/selling of securities and squaring of the positions on the same day. Typically, day traders buy/sell in the morning and square off the position before trading ends in the afternoon. This form of day trading accounts for a major part of transactions in the non-derivative segment in the BSE and NSE, now. The advantage of day trading is that the transactions costs and the margin requirements are very low except under exceptional circumstances of volatility.

According to the Indian Income Tax Act, section 43 (5): “speculative transaction is one in which the contract for the purchase or sale of a commodity, including stocks and shares, is periodically or ultimately settled or otherwise than
by actual delivery of the commodity or scrip”. By this definition day trading qualifies as speculation.

### 6.1.3 Hedging

Hedging is widespread in securities, commodities and foreign exchange markets. It is the practice of covering risks associated with price fluctuations in the market. An investor or farmer or exporter who expects the prices of their ‘underlying’ to decline, can cover the risk by hedging. This is done by selling the underlying in the derivatives market. For instance, an exporter who expects the foreign currency, say the dollar, to depreciate can sell dollar in the forward market at the prevailing rates. Similarly, a farmer who expects the price of his product to decline can sell the same in the forward market at the prevailing rates. Investors of securities can also do this in the derivative market. An investor can hedge his entire portfolio and cover the risk of a market crash by buying ‘put options’ in the derivatives market.

Here, it is important to distinguish between hedging and hedge funds. Hedge funds are not funds that indulge in hedging. Normally, they are the private investment vehicles for ‘High Networth Individuals’ (HNIs – very wealthy persons). Hedge funds have nothing to do with covering the risk of an underlying portfolio. They are similar to mutual funds with the difference that they are not subject to the large number of controls which mutual funds attract. Mutual funds
are subjected to large number of controls since they deal with the savings of predominantly small investors. Since hedge funds invest for a few wealthy investors there is no need to protect them through regulation. This freedom gives the hedge funds the opportunity to make huge investments without disclosures and move funds across markets.

Hedge funds are often organized as private partnerships and resident offshore for regulatory and tax purposes. They are organized as limited partnerships with investors as limited partners and managers as general partners. Investors are charged a performance based fee. Successful managers are often paid performance based compensation. Since regulation of hedge funds is very low, they can yield superior returns if the costs of regulation of mutual funds are high.

6.1.4 Arbitraging

Arbitraging is another form of speculative activity. Arbitrageurs are those market players who exploit price differentials between markets. They buy from markets where the prices are low and sell in markets where prices are high. Arbitraging eliminates price differentials. The potential for arbitraging is low in the case of goods having high bulk and high bulk to price ratio since the costs of transportation and storage reduce the attractiveness of capitalizing on price differentials. But in the case of stocks listed in more than one exchange, even small price differentials open up possibilities of arbitraging since transactions costs are
very low. In India, many high liquid stocks are listed on both the major stock exchanges, viz., the BSE and the NSE. Therefore, minor price fluctuations are immediately exploited by arbitrageurs. Also, during times of high volatility, possibilities of arbitraging arise in the futures and options market also.

6.2 Role of speculation

Speculation is allowed, in fact encouraged, in stock markets. This is in recognition of the beneficial effects of speculation. But there has been differing views on speculation depending on the role they play and the markets in which they operate. According to Bakaert and Harvey (2000)ⅱ, “Throughout history and in many market economies, the speculator has been characterized as both a villain and a saviour. Indeed, the reputation of the speculator generally depends on the country where he does business. In well functioning advanced capital markets, such as the United States, the speculator is viewed as an integral part of the free market system. In developing capital markets, the speculator, and in particular the international speculator, is looked upon with many reservations.”

The greatest advantage of speculation is that it imparts liquidity to the markets. Short and long positions in the market create sufficient liquidity to individual stocks in particular and the market in general. It is this liquidity in the stock market that attracts investors to the primary market where companies raise
capital. Thus, speculators by providing liquidity to the market, play a crucial role in capital mobilization.

In the absence of speculation it is possible for a few manipulators or a cartel of manipulators or sometimes a single rogue trader to corner stocks and artificially jack up their prices. Low floating stock, poor liquidity and absence of speculation make this possible. The stock market scams engineered by Harshad Mehta in 1992 and Khethan Parekh in 2000 are testimony to this manipulation. Speculation, by encouraging long and short positions, preempts the possibility of jacking up the prices by cornering stocks with limited liquidity.

Foreign speculative activity can be particularly beneficial in emerging markets where liquidity is poor and manipulation is widespread. In emerging markets, even when the policy environment favours speculation, there may not have sufficient number of domestic speculators to ensure liquidity and market efficiency. This creates the right environment for manipulators to operate. The entry of foreign speculators, to a large extent, solves this problem.

Furthermore, speculation enhances the informational and allocative role of asset markets. This improves market efficiency. Price changes due to changes in demand and supply conditions are evened out by speculative activity. Speculators have better foresight than average economic agents. With this foresight they
accumulate when there is a temporary excess supply and decumulate when there is temporary excess demand. Thus, high level price fluctuations are evened out.

Further, speculation increases the depth of the market. Increase in the volume of transactions, whether day trading or arbitraging, create the right market environment for big ticket investment by institutions in the market. This improves the volume and turnover indicators of the market, and facilitates FPI.

6.3 Damage potential of FPI: Areas of concern

Concerns about FPI and its adverse fallout arise from many sources:

6.3.1 Exacerbation of Price Fluctuations

The possibility of speculation exacerbating price fluctuations instead of evening them out arises only if the average speculator has worse foresight than the average person. Such exceptional underperformances would lead to speculative losses and the elimination of average speculator through bankruptcies. But, speculation would be sustained by successful speculators, successfully forecasting other speculators’ expectations and making profits. As Kaldor remarked, “The losses of a floating population of unsuccessful speculators will be sufficient to maintain permanently a small body of successful speculators; and the existence of this small body of successful speculators will be sufficient attraction to secure a permanent supply of this floating population.”
6.3.2 Destabilization of Prices

Price signals play a very important role in resource allocation. Speculation can destabilize prices and affect resource allocation. Speculation not only affects future prices but also impacts on the spot price. For example: suppose poor monsoon next year is expected to raise agricultural prices by depressing supply; actual price rise will happen only next year. But speculators anticipating rising prices will accumulate stock and the consequent depression of supplies will result in prices rising this year itself. If expectations further react to increase in current prices, this may further lead to increase in both expected and current prices. The elasticity of expectations (how expected price change due to a change in current prices) and the elasticity of speculation (how much stocks are built in response to a change in expected prices) are crucial in determining whether speculation is price stabilizing or destabilizing.

Price fluctuations in shares are far greater than those in bonds or even in commodities. This is because of big fluctuations in the level of profitability and expectations regarding that. When the fortunes of companies fluctuate or are expected to fluctuate, their share prices also fluctuate. Experience in the stock market is that both expected increase and decrease in profitability are heavily discounted, more often than not over-discounted, by the market.
6.4 Hot Money Flows and Vulnerability

The strongest argument against and the severest criticism of FPI is that it makes the economy vulnerable to external shocks. Sudden hot money outflows can create currency crisis and stock market crashes with devastating consequences for the economy. Critics often refer to the recent episodes of vulnerability like the ERM (Exchange Rate Mechanism) crisis of 1992 and the South Asian Currency crisis of 1997 as examples of hot money destabilization. Critics feel that learning lessons from these instances of vulnerability, emerging markets should formulate policies that can avoid vulnerability at best or manage it at worst.

6.5 Cases of Vulnerability

During the last 25 years, there have been only 2 instances of vulnerability involving hot money flows: the ERM crisis of 1992 and the East Asian Currency crisis of 1997. The Latin American Debt crisis of the seventies and eighties, the Mexican Peso devaluation of 1984, the Argentine hyper inflation of 1999 and the Russian Ruble crisis of 1999 were instances of volatility which had their source in domestic economic mismanagement. The Debt crisis of 1980s was primarily caused by the unwinding of macro economic imbalances arising out of the oil shocks of 1973 and 1979. External fund flows had no role in those crises. However, external fund flows did play a role in the ERM crisis of 1992 and the South Asian Currency crisis of 1997.
We can examine the role played by portfolio flows play in these crises and the lessons that emerging markets like India can learn from these episodes of vulnerability. To get this issue in perspective we should examine these instances, their causes, nature and consequences.

6.5.1 The ERM (Exchange Rate Mechanism) crisis of 1992

The ERM crisis of 1992 was essentially a currency crisis. Member countries of European Monetary System (EMS) were converging to the European Monetary Union (EMU). This required high inflation countries to realign their exchange rates. Naturally, the exchange rates of high inflation countries had to depreciate. But the big question was: by how much will they depreciate? This opened up a great opportunity for currency speculators. Currency speculators bet that the extent of depreciation would be lower than the interest rate differential between high inflation and low inflation countries. The expectation regarding the extent of exchange rate adjustment led to carry trade. This carry trade involved borrowing from low interest ERM countries and lending to high interest ERM countries. In the forward currency market, this meant, taking a long position in the higher yielding currency and shorting the lower yielding currency.

Many currency speculators and funds went short on the pound sterling. According to Fung, Hsieh and Stsatsaronis (2000)iii: “George Soros, Manager of the Quantum Fund was widely believed to have held a $ 10 billion short position
on the British pound and to have made $1 billion for his fund as a result of the Pound’s September devaluation. As might be expected, other funds were active during the crisis and had estimated positions of $1.7 billion. Altogether, large hedge funds are estimated to have held short positions totalling $11.7 billion, a position more than twice that of the UK current account deficit in third quarter 1992 ($5.4 billion) and in excess of 25 percent of the government’s official exchange reserves in 1992 ($40 billion). As of August 1992, the official reserves of the eight countries involved in the ERM crisis (France, Germany, Italy, Ireland, Portugal, Spain, Sweden and United Kingdom) totalled $268 billion. By the end of September, the official reserves of the six countries that remained in the ERM had fallen to $17.8 billion, while their central banks had spent $82.6 billion in defending their currencies. The U.K. had issued private debt of Euro Currency Unit (ECU) 10 billion and Sweden issued ECU 11 billion (a total of 29.4 billion in intervention) to bolster their reserve positions. The German Bundesbank is estimated to have spent another DM 92 billion, or $53.2 billion to support the ERM currencies. By September 1992, central bank interventions in the ERM totalled roughly $100 billion. The hedge fund positions amounted to 4.4 percent of the official reserves of the ERM central banks and 11.7 percent of the amounts the banks spent to support their currencies. On the basis of these amounts, it is reasonable to conclude that the estimated $11.7 billion short position generated a material impact on the exchange rate and the external value of the British pound.”
Therefore, hedge fund activities had a material impact on the ERM crisis. It is reasonable to believe that the speculative hedge funds might have pushed the pound over the ERM band. However, Fung, Hsieh and Tsatsaronis (2000) conclude that the role of the hedge funds in the crisis was limited, since their primary focus in the late eighties and early nineties was on the traditional equity markets.

The relevant issue here is the role of speculators and the hedge funds in the crisis. It can be either a case of speculators and the hedge funds playing a role in the crisis and aggravating it or a case of speculators merely exploiting the discrepancies in economic fundamentals caused by an over valued currency. If the latter is the case, it is certainly a legitimate and even desirable economic activity. This issue can be examined in detail after discussing the East Asian Currency Crisis of 1997.

**6.5.2 East Asian Currency Crisis of 1997**

By 1990s the East Asian Tiger economies had become models of development, worthy of emulation by other developing countries. South Korea, Philippines, Malaysia, Indonesia and Thailand along with Singapore, Hong Kong and Taiwan came to be known as the Asian Tigers due to their sustained high growth over a long period of time. They ranked high in quality of life indicators and had almost eradicated poverty. Compared to India, the Asian Tigers were way
ahead in per capita income and poverty reduction. These countries, which were almost in the same league as India was in early 1950s, leaped far ahead of India within a short period of time. This is clear from table 6.1.

**TABLE 6.1**

**COMPARISON OF INDIA AND EAST ASIAN TIGERS**

<table>
<thead>
<tr>
<th>Country</th>
<th>Per capita income (in $)</th>
<th>Poverty ratio in percent (national estimates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>580</td>
<td>11.3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>3400</td>
<td>8</td>
</tr>
<tr>
<td>Thailand</td>
<td>1960</td>
<td>18</td>
</tr>
<tr>
<td>South Korea</td>
<td>8490</td>
<td>0</td>
</tr>
<tr>
<td>India</td>
<td>450</td>
<td>36</td>
</tr>
</tbody>
</table>


This enviable achievement within a short period of time came to be known as the East Asian miracle. This miracle was achieved with a combination of market friendly economic policies and government intervention.

The early part of 1990s saw huge capital inflows into these economies. The poor economic growth in the developed world and fast growth in the Tiger economies facilitated this capital flows. Furthermore, the fixed exchange rate regime which most of these economies had, gave confidence to both the lenders...
and the borrowers. These capital flows led to massive investment and high growth. Suddenly by mid 1990s the macro fundamentals, particularly the current account, of these economies began to deteriorate. The fixed peg did not hold. The crisis began with the crash of the Thai Baht. After ten years of pegging to the U.S. dollar, the peg had to be abandoned on July 2\textsuperscript{nd} 1997. This created pressure on other Asian currencies. The contagion spread and brought down the Malaysian ringitt, the Indonesian rupiah, the Philippine peso and the Korean won. By the end 1997, these currencies had lost between 44 and 56 percent of their value against the U.S. dollar. This led to business and banking bankruptcies; inflation surged, interest rates rose and these economies went into recession. This crisis had elements of currency crisis, banking crisis and foreign debt crisis, even though currency crisis and debt crisis dominated. This episode of crashing currencies and the consequent dramatic down turn in the fortunes of the East Asian countries is known as the East Asian crisis.

\textbf{6.6 Causes of the Crisis}

The hero and the villain of the East Asian Drama was the massive capital flow to the region. East Asia received substantial capital flows from the west. This was facilitated, among others, by:

i. liberalization of the East Asian capital markets in the early 1990s

ii. huge liquidity, but low interest rates in the U.S. and Japan
iii. policies favouring capital outflows in the developed world, particularly the U.S.

Under such favourable environment, capital flowed into these economies which were growing very fast. This fund flow was facilitated by factors such as fixed exchange rate. The major factors responsible for the East Asian Crisis may be summarized as follows.

6.6.1 Fixed Exchange Rate

The excessive flow of credit to the East Asian economies and the consequent build up of foreign debt was primarily caused by the fixed peg system of exchange. The fixed peg system gave confidence to the domestic companies and banks in the official exchange rate. The foreign lenders, reassured by the fixed peg, never bothered to look into the uses to which the debt was put or the areas in which it was deployed. The central banks thought that the foreign loans could be continuously rolled over. But, the fixed peg will hold only so long as the economic fundamentals, particularly the current account, are sound. But, the current account deteriorated by 1997 and the fixed peg did not hold.

6.6.2 Highly Leveraged Corporate Sector

The corporate sector of the Tiger economies borrowed heavily. The average debt-equity ratio for the corporate sector was 4:1. After sustained investment in many productive sectors, profitability started declining and profitable avenues for
investment started drying up. But, capital continued to flow; money went into speculative activity like real estate which slowly started turning into a bubble. In a highly leveraged scenario, anything that disturbs cash flows can wreak havoc on the profitability of the corporate sector. With the real estate bubble bursting affecting cash flows and interest rates rising, corporate bankruptcies became the order of the day.

6.6.3 High and Unsustainable Level of Current Account Deficits

The current account is a crucial macro economic indicator. Current account deficit, in itself, is not bad. In fact, for developing economies, it is desirable since it represents foreign savings used by the economy. The important factors are the level and the mode of financing the current account deficit. FDI and FPI, being non-debt creating capital inflows, are better than commercial borrowings. However, the East Asian countries relied more on commercial borrowings. Worse, with CAD of 7.7 percent for Malaysia and 9.7 percent for Thailand, they had exceeded all limits of safety.

6.6.4 High Proportion of Short-term Debt to Total Debt

As important as the size of debt, is the structure of debt. The ratio of short term debt (maturity of less than a year) to total debt, ideally, should be very low. One reason why India was not affected by the East Asian contagion was that India
had a low proportion of short term debt to total debt of 6.3 percent. This ratio for the East Asian Countries was on an average 40 percent. Clearly, this was unsustainable.

6.6.5 Low Proportion of Concessional Debt to Total Debt

Equally important is the ratio of concessional debt (low interest soft loans from institutions like the IDA) to total debt. Ideally, this should be high. This factor also stood in favour of India during the East Asian contagion. For the East Asian countries, the level of concessional debt was very low.

6.6.6 Low Proportion of Foreign Exchange Reserves to Short term Debt

The East Asian countries completely mismanaged this crucial ratio. For Indonesia and Philippines, this ratio was 73 and 83 percent respectively. In other words, their foreign exchange reserves could not even cover their short term debt. For South Korea, this was just over 100 percent. Such low level of foreign exchange reserves as proportion of short term debt is an invitation to disaster during times of crisis. It creates panic in the market. Jeffery Saachs calls this rational panic. When the currencies started depreciating, funds started flowing out en bloc; because it was evident that if every one withdraws money, there would not be enough for every one. In the consequent rational panic situation, every one tried to get out before others, creating a stampede in the market.
The five East Asian economies of South Korea, Malaysia, Indonesia, Thailand and Philippines received between them capital flows totalling $230 billion, of which, $150 billion was short term debt; and the combined foreign exchange reserves of these five economies were only $120 billion. This was an ideal situation for rational panic at the slightest sign of trouble in the financial markets. And, the inevitable happened.

6.6.7 Defects of the Financial System

A major defect of the East Asian financial system was that it did not allow foreign banks. Therefore, the foreign lenders had no stake in the financial system. Reassured by the fixed peg, they heavily and blindly lent to the domestic banks, who in turn, lent for all sorts of speculative activity. Had the foreign banks been allowed to operate in these countries, with their stake in the financial system, they would have been more discrete in lending.

Singapore and Hong Kong, despite having full capital account convertibility, escaped relatively unhurt from the East Asian contagion because they had open banking systems with participation by foreign banks.

A combination of the above mentioned factors created the right environment for an external shock and vulnerability. Foreign lenders pulled out
and the fixed peg did not hold; a ‘rational panic’ ensued resulting in rising interest rates, hyper inflation, corporate bankruptcies and inevitable recession.

6.7 FII role in the crisis

It is evident from the above analysis that the roots of the East Asian Crisis can be traced to excessive flow of credit to these economies in total disregard to healthy and sustainable macro economic fundamentals. A comprehensive study by Adams, Mathieson, Schinasì and Chadha (1998) examined this phenomenon of excessive flow of credit facilitated by carry trade and the role of FIIs. They traced the flow of credit down the credit spectrum in Asia during the 1990s – from sovereign credit, to top tier commercial banks, to lower tier commercial banks and finance companies, and finally to firms – to the fixed exchange rate system. According to them FII in equities played no role in the crisis. Fung, Hsieh and Stsatsaronis (2000) reported that: “At the height of the episode some Asian government officials accused speculators and hedge funds of attacking their currencies and causing their downfall. A public debate ensued, and the International Monetary Fund responded by examining the role of hedge funds in the Asian currency crisis. The resulting study by Eichengreen, Mathieson, Chadha, Jansen, Kodres, and Sharma considers three potential causes of market disruptions: (1) a trader holding a single large position, (2) positive feedback trading (that is, the strategy of adding positions as the market moves in favour of
existing positions, and, (3) “herding” by traders mimicking other traders. Through interviews with other market participants, Eichengreen and his co-authors conclude that the hedge funds did not play a central role in causing the East Asian crisis.”

Similarly, a study by Fung, Hsieh and Stsatsaronis (2000) using daily and weekly data found no evidence of FII or hedge funds causing the crisis. They concluded that: “The Thai Central Bank was betting that the foreign currency loans could be rolled over, while speculators were betting the contrary. The Central Bank was wrong. Did hedge funds play a role in the crisis? Of course, they did. Did hedge funds cause the crisis by causing investors to flee the Asian carry trade? No.” They went on to add: “Although it is tempting to extrapolate from the speculative activities at the peak of a crisis, it would be erroneous, on that evidence alone, to attribute the market’s disruption solely to hedge funds that came in at the end of a trade. As is often the case, the proverbial straw that broke the camel’s back is no more responsible than any of the other straws.”

6.8 Merits of Sound Finance: the case of Taiwan

The East Asian contagion, surprisingly, did not spread to Taiwan. The reason was very simple. Taiwan had a low current account deficit and her foreign exchange reserves very comfortably covered her short term debt. Because of these strong external sector macro economic fundamentals, there was no rational panic
in Taiwan and consequently no capital outflows. Thus, Taiwan stood like a rock amidst the contagion storm. The case of Taiwan alone is adequate to explain the importance of strong external sector macro fundamentals and its role in averting a possible crisis.

6.9 Why was not India affected?

The East Asian contagion did not spread to India. There was neither a flight of capital nor an attack on the currency. Foreign portfolio investors did not leave the country. We shall now examine why this didn't happen in India.

Even though India progressively liberalized her external sector since 1991, it was a carefully calibrated policy. Capital account liberalization went along with controls. To quote the then RBI Deputy Governor, Dr.Y.V.Reddy: “It may be useful to recognize the background that saved India from the contagion. Management of our external sector was governed by parameters indicated by the High Level Committee on Balance of Payments (Rangarajan Committee). The report, which guided us, recommended, inter alia, a flexible exchange rate, sustainable current account deficit, preference to non-debt creating flows, limits on the quantum, use and cost of external debt, and highly restrictive approach to short term debt. The importance of monitoring of external debt was also recognized and a transparent disclosure system was mounted on the basis of the Report of a policy group on External Debt Statistics.”
This carefully formulated policy of managing capital flows stood India in good stead. Her macro economic ratios, particularly those relating to short term debt, were much superior to those of the East Asian countries. This is shown in table 6.2.

**TABLE 6.2**

**COMPOSITION OF CAPITAL ACCOUNT INFLOWS**

<table>
<thead>
<tr>
<th></th>
<th>1997-98</th>
<th>96-97</th>
<th>95-96</th>
<th>94-95</th>
<th>93-94</th>
<th>92-93</th>
<th>91-92</th>
<th>1990-91</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total capital inflows (net, in $ millions)</td>
<td>10,984</td>
<td>11,287</td>
<td>4,678</td>
<td>9,156</td>
<td>9,695</td>
<td>2,936</td>
<td>3,777</td>
<td>7,188</td>
</tr>
<tr>
<td>Of which: (in percent)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Non-debt inflows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a, FDI</td>
<td>44.7</td>
<td>51.7</td>
<td>100.4</td>
<td>52.5</td>
<td>43.6</td>
<td>14.3</td>
<td>3.6</td>
<td>1.4</td>
</tr>
<tr>
<td>b, FPI</td>
<td>28.4</td>
<td>22.4</td>
<td>41.9</td>
<td>13.4</td>
<td>6.0</td>
<td>8.1</td>
<td>3.5</td>
<td>1.3</td>
</tr>
<tr>
<td>2. Debt creating inflows</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a, External assistance</td>
<td>8.3</td>
<td>10.0</td>
<td>21.6</td>
<td>16.7</td>
<td>19.6</td>
<td>48.4</td>
<td>77.7</td>
<td>30.7</td>
</tr>
<tr>
<td>b, E C B #</td>
<td>35.3</td>
<td>25.0</td>
<td>29.2</td>
<td>11.3</td>
<td>6.3</td>
<td>-9.2</td>
<td>40.0</td>
<td>31.3</td>
</tr>
<tr>
<td>c, Short term credits</td>
<td>-1.3</td>
<td>7.4</td>
<td>0.6</td>
<td>4.3</td>
<td>-7.9</td>
<td>-26.7</td>
<td>-13.4</td>
<td>15.0</td>
</tr>
<tr>
<td>d, NRI deposits $</td>
<td>10.5</td>
<td>29.7</td>
<td>24.6</td>
<td>1.9</td>
<td>12.4</td>
<td>51.3</td>
<td>10.6</td>
<td>21.4</td>
</tr>
<tr>
<td>e, Rupee debt service</td>
<td>-6.8</td>
<td>-6.3</td>
<td>-20.0</td>
<td>-10.8</td>
<td>-10.9</td>
<td>-19.7</td>
<td>-29.3</td>
<td>-16.6</td>
</tr>
<tr>
<td>3. Other capital @</td>
<td>9.3</td>
<td>-17.5</td>
<td>-56.4</td>
<td>24.1</td>
<td>36.9</td>
<td>41.6</td>
<td>10.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Stable flows*</td>
<td>85.0</td>
<td>63.3</td>
<td>40.9</td>
<td>56.6</td>
<td>70.3</td>
<td>120.5</td>
<td>113.3</td>
<td>85.0</td>
</tr>
</tbody>
</table>

# Refer to medium and long term borrowings

@ Includes delayed export receipts, advance payments and errors and omissions

$ Including NRNR deposits

* Stable flows are defined to represent all capital flows excluding portfolio flows and short-term trade credits.

Source: RBI Annual Report, 1997-98
It is evident from the table that debt creating capital receipts declined from 85.6 percent in 1991-92 (the year in which reforms began) to 46 percent in 1997-98 (the period of the East Asian crisis). Also, the share of non-debt creating capital receipts increased from 3.6 percent to 44.7 percent during the same period. This structural change in the capital receipts to India certainly played a crucial role in preemitting an East Asian type crisis in India. This structural change in capital receipts from debt creating capital receipts to non-debt creating capital receipts prevented capital flight from India \textit{a la} East Asia. Along with this, strict controls on short term debt and reliance on long term concessional debt enabled India to escape from the East Asian contagion.

There are other factors too. By 1997 India’s macro economic indicators had changed for the better. For the first time India achieved a 7 percent growth rate for three years from 1994 to 1997. Growth rate in GDP of this magnitude is sure to have favourable impact on ratios relating to crucial macro economic indicators. This, along with better external sector management, improved most of the macro indicators. Table 6.3 shows India’s superior macro economic indicators in 1995-96 in comparison with that of East Asian economies and Mexico during their crisis year. It is important to note that these crucial indicators in India in 1991-92 (her crisis year) exhibited similar weaknesses.
# TABLE 6.3

**B o P: COMPARISON BETWEEN EAST ASIA, MEXICO AND INDIA**

<table>
<thead>
<tr>
<th>Macro Indicators</th>
<th>Indonesia</th>
<th>Malasia</th>
<th>Philippines</th>
<th>S.Korea</th>
<th>Thailand</th>
<th>Mexico 1994</th>
<th>India 90-91</th>
<th>India 95-96</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreign Reserves (import cover month)</td>
<td>4.4</td>
<td>3.7</td>
<td>3.4</td>
<td>3.2</td>
<td>6.6</td>
<td>1.0</td>
<td>1.0</td>
<td>6.3</td>
</tr>
<tr>
<td>Foreign Reserves (% of short term debt)</td>
<td>73.0</td>
<td>186</td>
<td>84.0</td>
<td>147.0</td>
<td>109.0</td>
<td>20.0</td>
<td>26.0</td>
<td>385.0</td>
</tr>
<tr>
<td>Foreign Debt (% of GDP)</td>
<td>47.0</td>
<td>39.0</td>
<td>54.0</td>
<td>17.0</td>
<td>46.0</td>
<td>35.0</td>
<td>31.0</td>
<td>29.0</td>
</tr>
<tr>
<td>CAD (% of GDP)</td>
<td>3.7</td>
<td>9.7</td>
<td>1.7</td>
<td>2.3</td>
<td>7.7</td>
<td>7.8</td>
<td>3.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Domestic savings (% of GDP)</td>
<td>29.0</td>
<td>32.0</td>
<td>19.0</td>
<td>32.0</td>
<td>36.0</td>
<td>15.0</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td>Fiscal Balance (% of GDP)</td>
<td>-2.4</td>
<td>0.7</td>
<td>0.9</td>
<td>1.0</td>
<td>2.9</td>
<td>-0.7</td>
<td>8.4</td>
<td>5.9</td>
</tr>
<tr>
<td>FDI+CAD (% of GDP)</td>
<td>-1.8</td>
<td>-3.8</td>
<td>0.0</td>
<td>-2.1</td>
<td>-7.5</td>
<td>-5.6</td>
<td>-3.2</td>
<td>-1.0</td>
</tr>
<tr>
<td>Under valuation of Currency</td>
<td>-26.0</td>
<td>-36.0</td>
<td>-30.0</td>
<td>19.0</td>
<td>-20.0</td>
<td>5.0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

The figures for the East Asian economies are for 1995-96

In 1995-96, India’s import cover at 6.3 was better than most East Asian countries and Mexico. Again, India had the best ratio for foreign exchange reserves to short term debt at 385 percent. Malaysia, which was second, was far behind India with 186 percent. This crucial ratio for Indonesia was a dangerous 73 percent. In 1990-91, India’s situation was pathetic with foreign exchange reserves to short term debt of a mere 26 percent. The importance of this ratio in managing the external sector and preventing an external shock can hardly be exaggerated. Similarly with regard to other important indicators like foreign debt to GDP, CAD to GDP India had improved her position substantially. In brief, by the time of the East Asian crisis, India had improved her important macro indicators, particularly those relating to the external sector management. The government and the Central Bank deserve credit for this excellent external sector management, which ultimately prevented the East Asian contagion from spreading to India.

Yet another important reason which prevented the East Asian contagion from spreading to India was the relatively lower level of foreign trade orientation of the economy compared to the East Asian economies. The East Asian economies are export oriented economies with a high level of reliance on foreign export markets. On the other hand, the Indian growth story is powered by domestic consumption. Consequently, India’s vulnerability to external shocks is limited. Thus, lower level of foreign trade orientation helped India weather the East Asian contagion.
6.10 Instances of Vulnerability in India

Since liberalization and the opening of the economy to FPI, there had been five instances of vulnerability in India. These are:

i. The East Asian crisis of 1997

ii. Vulnerability from the economic sanctions following the Pohkaran Explosion of 1998

iii. The Stock Market Scam of 2001

iv. The Black Monday of May 17th 2004 and

v. Vulnerability following the global market meltdown in June 2006

The FII’s investment behaviour during the East Asian Crisis is shown in table 6.4.
TABLE 6.4
FII BEHAVIOR DURING THE EAST ASIAN CRISIS

<table>
<thead>
<tr>
<th>Month</th>
<th>BSE Index for the Month</th>
<th>FII Investments (Rs.crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1997</td>
<td>4256.11</td>
<td>1002.8</td>
</tr>
<tr>
<td>August 1997</td>
<td>4276.31</td>
<td>493.66</td>
</tr>
<tr>
<td>September 1997</td>
<td>3944.78</td>
<td>598.59</td>
</tr>
<tr>
<td>October 1997</td>
<td>3991.75</td>
<td>641.59</td>
</tr>
<tr>
<td>November 1997</td>
<td>3611.83</td>
<td>-289.87</td>
</tr>
<tr>
<td>December 1997</td>
<td>3515.54</td>
<td>-182.38</td>
</tr>
<tr>
<td>January 1998</td>
<td>3472.87</td>
<td>-374.97</td>
</tr>
<tr>
<td>February 1998</td>
<td>3402.96</td>
<td>629.05</td>
</tr>
<tr>
<td>March 1998</td>
<td>3816.89</td>
<td>472.22</td>
</tr>
</tbody>
</table>

Source: Handbook of Statistics on the Indian Economy

The East Asian Crisis started in July 1997; and, the currency crash and market volatility continued till early 1998. During this period of roughly nine months FIIs were net sellers only during three months. More importantly, the net sell amounts were not significant enough to cause volatility. The net FII investment during this nine month period was Rs.2990.69 crores: inflows of Rs.3837.91 and outflows of 847.22 crores. It is important that when the FII
investment turned negative during November 1997 to January 1998, the amount was insignificant at Rs.847.22 crores: only around 25 percent of the total investment during this period. It is also important that the Indian stock market was not significantly affected by the crisis: there was no sell off, no capital flight and no pressure on the currency. Between July 1997 and February 1998, the BSE SENSEX reacted only less than 20 percent; and, this is quite normal by the standards of volatility in the Indian market. In brief, Indian markets were unaffected by the East Asian crisis.

The FII’s investment behaviour during the Pokharan Nuclear Explosion, 1998 is given in table 6.5
The Pohkaran nuclear explosion of May 1998 caused big volatility in the market. Immediately after the explosion, the U.S declared sanctions against India. Other countries like Japan followed suit. This led to a crisis of confidence in the Indian economy and FIIs voted with their feet. The impact on the market was severe; the market corrected by more than 25 percent during the six month period from May to October 1998. During this period, the net FII sell off was Rs. 2181.26. As can be seen from the table, there were only insignificant positive flows during two months and big negative flows during four months.
But, it would be difficult to hold the FIIs responsible for the market crash. All market players - domestic mutual funds, retail investors, FIIs - sold during the period. This was evident from the fact that the market was declining with increasing volumes. The market sell off was a rational reaction to the market perception that the economy will be hurt by the sanctions and that consequently corporate fundamentals will be adversely affected.

The FII’s investment behaviour during the Stock Market Scam 2001 is given in table 6.6.

**TABLE 6.6**

**FII BEHAVIOR DURING THE STOCK MARKET SCAM 2001**

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>BSE Index for the Month</th>
<th>FII Investments (in Rs.crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2000</td>
<td>3928.10</td>
<td>1090.11</td>
</tr>
<tr>
<td>December 2000</td>
<td>4081.42</td>
<td>-461.78</td>
</tr>
<tr>
<td>January 2001</td>
<td>4152.39</td>
<td>3971.58</td>
</tr>
<tr>
<td>February 2001</td>
<td>4310.13</td>
<td>1574.14</td>
</tr>
<tr>
<td>March 2001</td>
<td>3807.64</td>
<td>2204.80</td>
</tr>
</tbody>
</table>

Source: Handbook of Statistics on the Indian Economy

In the stock market scam and the market crash of 2001, the FIIs played no role at all. The market was single handedly manipulated by Khetan Parekh in a repeat performance of the infamous Harshad Mehta episode. Parekh, too siphoned
money from some banks and accumulated some stocks (around ten stocks which came to be known as the Khetan ten), which hit dizzy heights. The leveraging process became unsustainable, the carried forward positions became huge and finally the market crashed. But FIIs did not sell during the crisis; in fact, except for an insignificant amount during December 2000, they were net buyers. Therefore, it can be argued that the FIIs played a positive role in stabilizing the markets during the scam.

The FII’s behaviour around Black Monday, May 17, 2004 is given in table 6.7.

Table 6.7

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>BSE Index for the Month</th>
<th>FII Investments (in Rs.crores)</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 2004</td>
<td>5204.65</td>
<td>-3151.29</td>
</tr>
<tr>
<td>June 2004</td>
<td>4823.87</td>
<td>511.00</td>
</tr>
<tr>
<td>July 2004</td>
<td>4972.88</td>
<td>1292.83</td>
</tr>
</tbody>
</table>

Source: Handbook of Statistics on the Indian Economy

The biggest crash and the worst crisis in Indian stock market history till then happened on 4th May 2004. The market crashed by 840 points in intra day trade. The SENSEX crash was a huge 15 percent in a single day. For the first time
in the history of the Indian stock market, circuit breakers had to be applied to prevent a total market melt down and consequent systemic collapse. This dramatic development was triggered by totally unexpected political developments. In the 2004 General Elections to the Indian Parliament, in a totally unexpected development (all psephologists and pollsters had predicted an NDA victory), the ruling NDA was defeated. The Congress party led coalition (UPA) came to power. The UPA consisted of the left parties who decided to support the government from outside without joining it. Suddenly the Left became very powerful and inevitable. Some very important leaders of the left made some remarks about the reforms and even hinted that the reforms will have to be rolled back. This created utter panic in the markets and the FIIs panicked and sold. The situation was brought under control and the markets stabilized when P.Chidambaram, well known for his pro-reform attitude, became the Finance Minister and the architect of reforms in India, Manmohan Singh became the Prime Minister. The sell off and outflows reversed in subsequent days.

The FII’s behaviour during the crash of June 2006 is given in table 6.8.
TABLE 6.8

FII BEHAVIOUR DURING THE CRASH OF JUNE 2006

<table>
<thead>
<tr>
<th>Month, Year</th>
<th>FII Investments (Rs. crores)</th>
<th>BSE Index for the Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 2006</td>
<td>5177.18</td>
<td>9539.67</td>
</tr>
<tr>
<td>Feb 2006</td>
<td>7859.26</td>
<td>10090.08</td>
</tr>
<tr>
<td>Mar 2006</td>
<td>6347.74</td>
<td>10857.03</td>
</tr>
<tr>
<td>April 2006</td>
<td>722.07</td>
<td>11741.74</td>
</tr>
<tr>
<td>May 2006</td>
<td>8930.32</td>
<td>11599.16</td>
</tr>
<tr>
<td>June 2006</td>
<td>1781.87</td>
<td>9934.75</td>
</tr>
<tr>
<td>July 2006</td>
<td>1073.16</td>
<td>10557.15</td>
</tr>
</tbody>
</table>

Source: Handbook of Statistics on the Indian Economy

The latest episode of a serious market crash in India was in June 2006. By 12th June the market corrected by more than 25 percent (in one month) and the SENSEX fell below the 9000 mark. As can be seen from the table, there was absolutely no FII sell off and outflows from India during this crash. During all the months from February to July 2006, the net FII investment was positive. This crash in the Indian market was part of the global market meltdown of June 2006. The global meltdown, which was severe in the emerging markets, was triggered by the crash in the metal prices in the London Metal Exchange. This created a big crash in metal stocks which led to a market crash in the developed countries and eventually led to a global market meltdown. But very soon the markets recovered. FPI, which had slowed down resumed in full flow again. It is very important to note that the
FIIs had absolutely no negative role in the crisis. On the contrary, the FIIs played a positive role in stabilizing the market through their positive investment during the crisis, particularly in the meltdown month of June, with a net investment of Rs.1781.87 crores.

**Test of hypothesis**

The study made the following hypothesis:

Unregulated and unbridled capital flows will lead to volatility in markets and will expose the economy to external shocks.

Short term capital flows are, indeed, ‘hot money’. The study found enough evidences of hot money flows exposing economies to external shocks. The study found the East Asian crisis of 1997 as a classic case of hot money outflows adversely impacting financial markets and causing serious economic crisis. The hypothesis, therefore, is valid.

However, study of the several episodes of vulnerability in India revealed that capital flows due to FII neither caused major volatility in stock markets (except in market crisis following the Pokharan explosion) nor adversely impacted the economy. In fact, during many episodes of volatility FII had been a stabilizing rather than a destabilizing factor. It is important to note that FII did not cause huge volatility in Indian markets because capital flows to India have been properly
controlled and regulated. In brief, the hypothesis is generally valid, but the recognition of this fact by the authorities in India resulted in proper control and regulation which avoided major volatility in markets and external shocks to the economy.

Conclusion

From the above analysis of the various crises and the role of portfolio flows in the crises, the following conclusions can be drawn.

FIIs and Hedge Funds played a role in the market volatility and crises in some countries. But their role had not been decisive, only marginal.

During crises and capital outflows, domestic funds and investors were also sellers in the market. Therefore, FIIs alone cannot be faulted for selling and exiting the market.

In all the economies that had been through the crises and external shocks, the crises were initially caused by the unwinding of macro economic imbalances. Particularly, poor external sector management as reflected by high proportion of short term debt to total debt, and low proportion of foreign exchange reserves to short term debt, lay at the root of most crises. Unsustainable current account deficit, within a fixed exchange rate regime, proved to be disastrous. This was the
root cause of the problem in East Asia. FPI did not cause the crisis. But, when the crisis broke out, FPI outflows aggravated the crisis.

In the ERM crisis, the root cause of the problem was over valued currencies in the context of the imminent European Monetary Union. Speculators attacked overvalued currencies by selling them short. FPI did not play any role in the crisis.

Study of the instances of vulnerability in India does not indicate any decisive role of FIIs in causing the volatility, except during the Pokharan explosion. But even here, the FII reaction was part of a rational market panic created by the sanctions against India.

During the South East Asian crisis of 1997-98, the Tech meltdown and the market crash of 2000, the crash of 2004 following unexpected election results and the crash of June 2006, FIIs did not play any negative role in causing or aggravating the crisis. In fact, their role during all these periods of volatility was positive, i.e., they attempted to stabilize the markets through positive net investment.

During crises and capital outflows, domestic funds and investors were also sellers in the market. Therefore, FIIs alone cannot be faulted for selling and exiting the market. FIIs might have aggravated the crisis, but they did not cause the crisis.
In India, there are no instances of serious financial market crisis caused by FII sell off and capital flight.

Considering the benefits of FPI (discussed in detail in chapter 4), it needs to be welcomed and encouraged. However, like fire, it has to be properly handled. While formulating policies encouraging FPI, care should be taken to ensure macro economic stability. Particularly, sustainable current account deficit within a flexible exchange rate framework and sustainable fiscal deficit are important.

Notes and References:


iv Ibid., pp. 415-421
