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## A Study of Volatility of Capital Flows in India

## Vinti<sup>1</sup>\* Dr. Arun Kumar Srivastav<sup>2</sup>

Abstract - India's capital inflow trend and patterns are aligned with the general developments in other emerging markets. From 1992 to 1998 after the reforms the inflows of capital into the country spurred. The amount of capital inflows was however smaller for India as India remained less open to capital inflows in comparison with many other countries and retained capital outflow controls. The capital inflow trend is showing a clear break from the previous decades, with a significant growth in the mid-1990s, which reveals credible economic reforms and fosters foreign investor confidence, enhances the country's macroeconomic performance and attracts foreign capital. In the post-reform era, capital inflows moved mainly from public inflows to private ones and from debt inflows to non-debt capital inflows. FDI Inflows accelerated and peaked in 1995, but subsequently declined, tilting the compounding of capital inflows into portfolio inflows because FDI procedures were complicated and discretionary, and investment by FII via the financial market route was significantly simplified in India. Changes in a country or currency's economic condition lead to significant capital shifts, often occurring quickly if financial capital is involved. Their potential nature of asset prices over-heating, loss in export competitiveness, and vulnerability to a financial crisis create significant challenges for policy makers. Capital inflows are positively linked to the recipient countries' exchange rate appreciation. The exchange rate typically is greatly affected by equity investment flows, international lending, foreign aid, and foreign remittances flows, while foreign direct investment capital inflows do not significantly affect the exchange rate.

Key Words: Volatility, Capital Flows, India, Development, Market, India, Economic Reforms, Macroeconomic Performance, FDI Inflows

## INTRODUCTION

The role of capital in the economic growth of India is analyzed in this chapter. Capital flows into India have led to economic growth and industrial production. Neither the capital inflow amounts neither were appropriate nor were the amounts sufficiently used. At the same time, it also suggests that influxes of capital had no major effect on the growth or profitability of exports in India. Since barriers to capital inflows in countries have been reduced in the late 1980s and 1990s, there has been agreement among policy makers regarding the beneficial effects of capital inflows on growth in particular. Growth theories are divided into two ways of thinking: neoclassical and exogenous growth theory and endogenous growth theory, also known as the new growth theory. The main aspect of the neo-classical growth models was the fact that growth rates are converging. The models predicted a higher rate of growth for countries with less real per capita GDP. This is due to the assumption that returns to capital are rising. If labor and technology growth were expected to be zero, production growth was based on capital accumulation in keeping with neo-classical theories. The FDI (a type of capital inflow) could have

a level effect on per capita demand, under the neoclassical growth model, by increasing investment but not at the output growth rate. According to the neoclassic models, economic development was exogenous and primarily technological advancement had to come from outside of the system. The big departure from the old paradigm was that the growth rate was considered an endogenous growth rate. The new growth theory is often referred to as the endogenous growth theory. The fundamental assumption in this theory was that increased returns to scale are possible through a continuous increase in investment capital (both human and physical). It will enable the rate of growth of an economy to continuously increase. The new growth theory stressed the 'ideal divide,' which led the former to expand more rapidly than the latter, between developed and developing countries. The new theory assigns considerable significance to technical advancement as an illustration of the economic growth rate. Theoretically, open-capital globalization of the world economies provides a key mechanism through which growth rates, especially in a developing nation, may rise. According to the neoclassical growth theory, influxes of capital would contribute to the accumulation of wealth, which

<sup>&</sup>lt;sup>1</sup> Research Scholar of OPJS University, Churu, Rajasthan

<sup>&</sup>lt;sup>2</sup> Assistant Professor, OPJS University, Churu, Rajasthan

could improve the future growth trend. The endogenous theory of development and flows of capital will help countries close the "idea gap" within developed countries as exchange of ideas is a product of capital flows. Although neoclassical models project significant capital flows to developing countries, net equity flows are negative in those countries between 1996 and 2004. In addition to low and middle-income developed countries' savings, foreign capital investment will play a useful role in growth to raise their rate of investment. Foreign investment may also prove unproductive for emerging economies through their vulnerability to shocks and disturbances from elsewhere and their subjection to spikes in capital inflows or large capital flight outflows. Capital flows to developed countries declined from 1997 to 2001, but increasing marginally in 2002. The International Capital Flow will contribute to the benefit of emerging economies when flows are stable and financial system stability is not compromised. External flows of capital may come from private or public sources. The volume of private flows has increased considerably over the past twenty years relative to public flows. From 1980 to 1990, the annual Net Official Flows reached \$26.7 billion, and then decreased from 1991 to 2003 to \$21.3 billion. Net private investments, respectively, amounted to US\$ 20 billion and to US\$ 118 billion. The decline in official flows makes these private investments more significant. Not only does the private flow increase, it also increases volatility.

#### **CAPITAL FLOWS AND GROWTH IN INDIA:**

The political climate has primarily affected capital flows to India. Recognizing the limit on availability and stressina self-confidence. expected dependencies on foreign capital were deliberately kept to modest levels in successive plans. During the original years of economic growth, the economy with access to foreign capital was driven by the industrialisation and import substitution. Historically, exports could not be supplemented with international capital until the 1980s. In the 90s it was not until the compositional shifts in capital flows were made clear that elements of an export-led growth Strategy favored the commercial debt capital in the 1980s and the non-debt flows in the 1990s. Nevertheless, there was also a "big bang" solution to independence to limit individual capital account transactions.

The volatility in the international capital flow rose dramatically from \$16 billion between 1980 and 1990 to \$55 billion between 1991 and 2003, calculated by standard difference in net flows. Several kinds of investment in foreign capital were unpredictable than others. A more uncertain source of foreign capital is the investment portfolio of bonds and inventories issued by governments and corporations in developed countries. Net portfolio investment flows rose from 1992 to 1998, and then dropped sharply in 2000. Depending on the variance coefficient, portfolio investments since 1991 were 4.5

times more volatile than FDI. When the size of those flows is steady and predictable and when investment form is sufficient to fulfill the economic development needs, capital flows are most beneficial. Although foreign capital is aimed at growing domestic savings in order to improve investments, their uncertainty often leads to the contrary. Between 1981 and 1996, average savings of GDP for developing countries averaged 23.4%, while average investment of 25.7% thus contributed 1.3% of GDP for investments on average per year. Since 1998, however, the savings in developing countries has expenditure due to the net capital outflow. The pattern will continue in the near future. Foreign investment in capital is driven by a variety of factors, and the ultimate goal is a higher rate of return.

The continuously rising current-account deficit needs to be funded by India's capital inflows. Flows of capital may be categorized as non-debt capital generation and debt formation. Non-debt-creating capital flows include FDI, American Depository Deposits (ADR), World Depository Deposits (GDR) and FII, while domestic assistive debt capital inflows, foreign business borrowing (ECB), nonresident Indian deposits (NRIs), and bond inflows are included. The purpose of the policy in relation to capital inflows was the promotion of non-debt and long-term inflows of capital and the dissuasion of short-term debts. As foreign aid began to decline gradually from the 1950s to the 1990s. India replaced it with private equity inflows and international trade loans, bar IMF lending in 1991 or 1992. Equity influxes have taken on an increase in debt inflows over the years but debt inflows have risen substantially between 2010 and 2012, primarily due to Indian companies' foreign trade borrowings. Two parts are in the book. The first section contrasts the inflows of capital between the time pre-reform and after-reform. In the second portion, trends and patterns of capital components flow to India are analyzed. The second analyzes for the period 1991- 1997 and 1998-2013 are further graded.

## ROLE OF CAPITAL CONTROLS IN STABILIZING THE GROWTH PROCESS

The debate on the potential advantages of an open capital account on the one side and the selection of capital controls on the other, in order to stabilize the development process, has led national authorities to liberalize their capital accounts at a different rate and sequence according to national circumstances. Country experiences indicate that countries enforce capital controls for a variety of purposes (i.e., to (a) protect children's industries-a second best option, whereby the authority imposes an offsetting distortion in order to correct certain distortions that cannot otherwise be right; However, capital controls have some negative consequences. They can result in insufficient resource allocation with productivity implications. Capital controls restrict domestic and

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foreign replacement assets and create a structural wedge between domestic and foreign interest rates. Outflow controls will lower internal interest rates with adverse domestic savings consequences. Differential reserve requirements for the domestic liabilities of banks in relation to foreign currency discriminatory and hinder monetary policy performance (Bekart et Campbell 1998). Limiting quantity variable adaptation results in increased volatility of the exchange rate / equities price because of the burden of shock modification of the investor's portfolio allocation. Capital controls require compliance costs which make it difficult which expensive to have access to attractive sources of international capital. In addition, many countries used capital regulation as a soft choice and used it to introduce difficult financial sector reform initiatives which would otherwise have been beneficial over the long term.

### The Indian Approach

India treats capital-account liberalization as a mechanism rather than as a single event. India distinguishes specifically between inflows and outflows with asymmetric treatment between (less restricted) inflows, (free) outflows and others (more restricted). although easing capital Differential limitations apply to non-resident citizens. corporate and financial institutions. The residents' differential limitations are extended too. A mixture of direct and market-based control instruments complies with the criteria of a cautious approach to capital account management. The control system also seeks to ensure that the portfolio assets are adequately diversified and the composition of capital flows is adjusted in favor of non-debt and a higher share of longer-term debt in aggregated debt liabilities. The ECB's strategy is thus largely influenced by nominal annual thresholds for foreign trade borrowings (ECB) along with limits on maturity and end-use. A slowly expanding automated track and a diminishing case-by - case route are attracting foreign direct investment (FDI). The investment portfolio is limited to select participants, in particular approved institutional investors and NRIs. Capital gains in the short term are paid at higher rates than capital gains in the long term. Indian companies are also allowed, subject to stated guidelines, to enter foreign markets through GDRs / ADRs. Therefore, both automatic routes and case-by - case Capital outflows (FDI) in the form of Indian joint ventures abroad are approved. The Capital Account Convertibility Committee presenting its 2006 report highlighted the benefits of a more transparent capital account, but also warned that the convertibility of the capital account (CAC) could cause enormous financial pressures. The Report proposed several indicators and preconditions, three of them critical in relation to financial restructuring, an inflation target required, and a strengthened financial sector, in order to ensure a more stable transition to the CAC. The timing and pacing of the CAC in India will also

have an impact on international developments, in particular on efforts to improve the international system to tackle the issue of a country's balance of payments capital account. In the dynamics of India's development, capital flows have begun to play an important part. Evidence that domestic investment is quite complementary indicates that capital flows boost the overall investment climate and encourage domestic investment, particularly though part of capital flows are primarily consumed in the form of reserve accretion. The increased position of foreign capital, however, appears to have been reduced by the low level of actual and expected foreign capital absorption in India.

# TRENDS AND COMPOSITION OF FOREIGN CAPITAL INFLOWS INTO INDIA

In the 1990s, the essence of the movement of capital into India changed dramatically. From a pure absence of private capital inflows until 1992, these flows now account for a large share of total flows (the Non-Resident Indians expect those). As an international assistance, the official flows reflect 75-80 percent of flows through 1991, with subsidies and loans from bilateral and multilateral sources. In 1994, it decreased to approximately 20% in end of the 1990s and fell below 5%. During the past 10 years, India's foreign investment has exceeded during US\$ 40 billion. During a time when there is a significant decline in private capital flows into developed countries, private flows into India have increased to a estimated US\$ 9 billion or 10 billion annually, more than 55% of which constitute FDI and portfolio flows. In addition, there has been limited use by the Indian corporate sector of bank borrowing or borrowing abroad as RBI and government have sought to restrict exposure to such borrowing in a policy of restricting debt inflows to a few large private corporations with high credit ratings. For several years, however, these debts have generated large flows and represented approximately 40% of influxes. The liberalization of the portfolio investment resulted in increased capital inflow for Indian equity and corporate (and subsequently sovereign) bond markets on primary and secondary sector investments. Some 460 foreign institutional investors (FIIs) entered the Indian market and pulled together the remaining portfolio inflows of GDR and ADR, in excess of US\$ 14 billion, floated by the Indian corporate sector. As the table shows, from 1993 to 1994 India has gained some EUR 22 billion and more than US\$ 18 billion in portfolio investments. The portfolio flows began in 1993, with India hitting over five billion dollars in a few months, and rising at 2-3 billion dollars annually to the end of Asian crises. A small outflow from the Indian stock market took place in 1998, but the inflows returned quickly to a point of 2-3 billion dollars.

Several Indian companies issued DDRs and listed them in European exchanges such as Luxembourg

in the first phase of capital markets liberalisation. As can be seen in table 3.2, more than half of the investments in the portfolio of 1993-1995 were the Indian companies' Global Depository Receipts (GDR) and, the other half, FII investments. Initially, the FII investment was limited to a selected stock group and was excluded from the growing bond and government securities market. We were only admitted into the latter in the late 1990s. Approximately 40 percent of total inflows were obtained from India via GDR. Nevertheless, the GDR and FII equity (and recently the bond market), the main source of portfolio in floods, decreased sharply in the second half of the 1990s. While private foreign investment in India constitutes over 55% of all flows in the period of less than a decade. The significant proportion of India's overall market capitalization is the net inflow of \$22 billion in equity investments. The Indian economy entered a stable foreign exchange position for the first time thanks to massive inflows. The rising reserves have also reduced the economy's vulnerability to minor shocks and also produced substantial Non-Resident Indian (NRI) investments. A major reduction in the capital flight was triggered by the liberalization of imports and the black market premium on foreign exchanges. The black market premium vanished. This culminated in the transfer of payments from illegally to banking networks (in particular payments from workers abroad). Transaction payments rose dramatically from two and three billion dollars in 1991-92 to between 11 and 13 billion dollars by the end of the 10's.

#### **Capital Flows to India**

India had a highly regulated financial system with a rigid currency regime before the beginning of 1991. It had a closed capital account and administrative controls limited capital mobility. Financial sector climate, with a lack of instruments before 1991, was characterized by segmented and underdeveloped financial markets. Foreign capital was encouraged by trade and investment policies. In contrast to the other Asian economies and foreign portfolio flows, foreign direct investment (FDI) was strictly regulated and tiny. India had initially been totally dependent until the beginning of the 1980s on multilateral and bilateral concessional external flow financing. The country began to replace traditional forms of borrowing with commercial borrowing, with short-term borrowing and deposits from non-resident Indians (NRIs), as the current accounts deficit subsequently grew. As a result, India faced a balance of payments crisis in 1991 and had to devalue currency. Because of its global downturn, official assistance was not available; India had to engage in economic reform programs in order to turn the controlled economy into a market-oriented one. Included within the overall economic reforms, the financial liberalization agenda included removing capital controls, trade and investment policy reforms, etc. India has liberalized its foreign investment policy. FDI has been limited to a small group of major

regulated industries and a large number of domestic investment firms with 40% equity ownership until 1991. In 1991 the Industrial Policy Statement called for majority control and 100% control in a large number of industries in several industries. Such lists were then puffed up and most sectors have been opened up to FDI since 1995. Foreign institutional investors (FIIs) were allowed to invest in a global portfolio in 1992. The Global Depository Receipts (GDRs) and American Depository Receipts (ADRs) were enabled to swell Indian companies with high credit rates. Such initiatives, which deliberately attempted to integrate the financial markets of India with the world markets, have resulted in a fundamental change in the quantum and essence of the flow of capital to India.

## FOREIGN PORTFOLIO INVESTMENT FLOWS TO INDIA

As described above, portfolio investment flows are a major force that has altered the quantity and essence of foreign capital flows to India). India has seen a decade of portfolio flows and with each passing year they become more relevant. Throughout the Indian economy, it has become dominant. Spending in the fund requires investment in American Depositary Receipts (ADRs)/Global Depository Receipts (GDRs). Global investment funds in India have become important and can be seen as a follow-up on the Financial System Recommendation of the Narasimham Committee in the Indian capital markets. The Committee recommended that the capital market be opened slowly for investment in the foreign portfolio while at the same time making efforts towards increasing its market scope by encouraging the issuance of new equity forms and novel debt instruments. On 14 September 1992 the government of India released the FII guidelines. Prior to 1992, the portfolio investment in India could only be made by Non Resident Indians (NRIs) and by Overseas Corporate Bodies (OCBs). Three years ago, in November 1995, the Securities and Exchange Board of India (SEBI), which is largely based on the previous guidelines released in 1992, Foreign Institutional notified the Regulations. In addition to offering discretionary and non-discretionary portfolio management services FIIs will open their bourses for direct participation by pension funds, mutual funds, assets trusts, wealth management companies, nominees and corporate institutional portfolio managers or their power as lawyers. Such investors are welcome to invest in all the securities offered, including securities of companies listed on stock exchanges in India, including the OTC bursaries, in primary and secondary markets. Such investors are not only welcome. Those include equities, shares, bonds and schemes provided by the mutual funds of domestic markets. In order to allow SEBIs the buying and sending of securities, opening foreign currency accounts and permits, and repatriating capital, SEBI requires the FIIs to register with them and to obtain

their approval under the Foreign Exchange Regulation Act (FERA) 1973. FII investments are available for all practical purposes, absolute rupee convertibility. The scale of FII's operations in India has slowly increased, and the total investment limit for FIIs is now 24 per cent, subject to approval of the Board and the Company General Body, of the paidup capital of the Indian company which may be raised to the sectors oral / statutory limit.

Portfolio movements and Indian direct flows are synonymous with investment from FIIs. Portfolio flows in India FII flows, which in 1992-93 were just one million US dollars, rose over time and reached 1505 million US dollars in 2001-02 and 377 million US dollars in 2002-03. Each year from the year of their admission, net investment flows from FIIs have been always positive except in 1998-99. The net investment flows from the FIIs during 1998-99 were negative largely due to uncertainty after India attempted a number of nuclear bombs in May 1998 and the US, Japan and other developed countries placed economic sanctions. The portfolio of FIIs has steadily improved and from the following years has been a profitable net investment. During the first quarter of the 2004 calendar the inflow international portfolio into equity and debt markets amounted to approximately Rs. 130 billion in the same calendar period of 2003 and to 447% above Rs. 24 billion. The FII's capital expenses amount to Rs. 112 billion, compared with Rs. 17 billion in the same period last year, between January and March 2004. During the first quarter of Calendar 2004. FII equity investments accounted for almost 50 percent of the total Rs.244 billion equity investments made during 2003.

## **CAPITAL FLOW LIBERALISATION IN INDIA**

The CAD deficit in India declined dramatically to 3.2% of GDP in 1990-1991 as a result of domestic and foreign bottlenecks1; India has reached the point of failure to deliver on its international commitments. With tight control of access to international commercial banks and of short-term credit, currentaccount deficit financing became unsustainable and foreign reserves depleted to US\$ 975 million in August 1990 (equivalent to imports of less than three weeks) from \$3.1 billion in August 1990, which resulted in crises. Nonetheless, a net outflow of NRI deposits occurred between October 1990 and December 1991. In 1991, a series of reforms were launched to bring in national sentiments against the existing and new regimes, which led India to fulfill the international liability by borrowing the IMF from Indian Reserve Gold by pledging 67 tons (india airlifted 47 tons of gold to Bank of British rule and 20 tons of gold to Union Bank of Switzerland to collect \$600 million). A dual exchange rate implemented in 1992 with liberalized exchange rate management, which allows exporters to sell only 60% of their foreign currency earnings to authorized forex retailers at a market rate and the remaining

forty percent to the RBI at an official rate. LERMS aimed to create foreign exchange reserves and prevent unnecessary imports since the devises were given only for the most essential import purposes.

The Government created, in 1993, the High Level Committee Balance Payments of recommended the 1994 unified exchange-rate scheme and rupee made freely convertible for the BoP current account transactions. The Committee warned the government of the prolongation of NRI deposits concessions and prioritized all external debts for end-use purposes and refused the approval of commercial loans of less than five years' maturity. The Committee was committed to replacing debt inflows with equity inflows and growing foreign reserves to a sufficient level of fulfillment of CAD, debt servicing obligations and maintaining minimum import coverage of three months. Reforms were introduced in order to promote non-debt capital inflows, such as FDI and FII. However, it was introduced. Capital accumulation thresholds and markets have been improved and compliance processes have been rationalized for current account transactions. Indian businesses were given access to US Depository Issues (ADR) and Global Depository Issues (GDR) capital inflows. In equity and debt markets, FII has been allowed and its limits have periodically been raised with facilities for hedging risk in derivative instruments. A map for the liberalization of capital flows in India was developed in 1997 by the Government of India, a Committee for Convertibility of Capital Accounts. It proposed three clear financial sector conditions for the convertibility of capital accounts in India, i.e. fiscal consolidation, lower inflation and stronger financial system. In the Committee on Fuller Capital Account Convertibility (FCAC), the question of capital accounts liberalisation was re-examined. The FCAC's objectives were: to promote economic growth with greater investment, to reduce equity investments and the cost of debt capital; to boost financial sector performance by raising competition, to reduce the cost of intermediation and to provide incentives for resident investment diversification.

#### CONCLUSION

The solution for India is, therefore, to open and further strengthen at least the stable components of FII capital inputs including pension funds and the SWF. The improvement in market players' perceptions also resulted in a big decrease in rupee in 2013. For much of the time the usual rupee trend has been appreciating. In 2013, the GDP rate of growth dropped below 5 per cent for the fundamental r4eason, prompting foreign investors to withdraw money from Indian capital markets. The recovery of the US economy from the financial meltdown and Fed's announcement that it would end its (85 billion dollars / month) quantitative easing and tightening liquidity measures to increase rate of interest added a catalyst for capital outflows from all

emerging markets. There was a huge FII retirement from India for investment in the US economy, more ready than India for growth. The European banks were not in their best shape and started to reduce their balance sheet and their growth, and the shortterm credit supply to emerging markets inevitably declined. For all these factors, equity and debt flows have decreased in capital inflows in emerging markets like India. Investors are looking for economic growth rates because this is the basis of returns. In particular the infrastructure sector, where investment is massive, needs to be speeded up reform in land acquisition and in GSTs that are landmarks of output growth. In conclusion, we seek to conclude that in the event of capital inflows the rupee trend is appreciated and in times of sudden and significant capital reversals such as crisis events which substantiate the main objective of this study-that capital flows influence currency volatility. The rupees pressure appreciated faced upwards and overheating in financial markets due to sudden and wide inflows of capital and triggered bubbles in financial assets. Since FII's large composition of the total capital inflow in India was high, the trend was that in the event of currency appreciation and overheating, foreign institutional investors sold their financial assets. The reversals of capital resulted in drastic depreciation of the exchange rate. In the episodes of the 1997-98 East Asian financial crises, India witnessed abrupt capital inversions; the 2007-2008 global economic crises; the 2010-2011 eurozone crises and the declaration by the Fed of QE conversions in 2013. The rupee depreciated in all these cases. The instability of capital inflows is a major concern for the economy. The option is either to reduce rupee volatility or to subsidize risk mitigation costs. In this respect, the study found that liberalizing capital flows through gradualist and sequencing policies have helped to equilibrium the cost-benefit impacts of the Indian economy.

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## **Corresponding Author**

Vinti\*

Research Scholar of OPJS University, Churu, Rajasthan