Chapter 5: Summary and Conclusions

5.1 Introduction

Capital flows in developing countries contribute to growth that can help spur productivity and convergence of income and living standards. But those benefits may come with risks; therefore, there is a differing perception among the academicians and policymakers. Some may conclude that the costs may outweigh the gain, at least in some settings, or some may be strong about perceived benefits outweigh the cost. The global macroeconomic circumstances have undergone substantial change and evolved to question some earlier orthodoxies about free capital flows. We are living in a world of greater financial integration. In the advanced economies and significant currency block areas, interest rates have been very low for a very long time. Therefore, capital in those markets is constantly lookout for better returns in markets abroad. Changing market circumstances is creating new challenges for policymakers in developing countries. Because these countries had been capital-poor, their policymaker's experiences have been dominated by inflows rather than outflow. Whenever the developing countries face the challenges of reversing in the direction of capital flows, which means the movement of capital from developing to developed countries, it becomes difficult for the developing countries to cope with the reversal in the direction of capital flows. Therefore, a strategy to achieve resilience to both inflows and outflows in a world where a plethora of endogenous and exogenous events may drive or determine the direction of capital flows.

This thesis attempts to find out answers to these difficult questions for India in a post-liberalized Indian economy. Our analysis considers only inward capital flows, leaving aside significant capital outflow scenarios. FDI consists of equity

investment in unlisted entities and beyond a certain threshold in listed entities, reinvested earnings, and other capital excluded over repatriation/disinvestment. Portfolio flows include foreign institutional inflows consisting of securities and other financial assets. The inflow of foreign capital has a wide ramification for the Indian monetary policy as it brings shock, which is often uncalled-for. How best India can manage foreign influx will decide the country's outcome in economic growth and development.

For example, exchange rates as shock absorbers have been our orthodoxical thinking. Instead, empirical evidence suggests exchange rates could be shock amplifiers or shock transmitters under certain circumstances. The standard template to address foreign exchange crises is that at the beginning of the crisis, reduce interest rates to reduce the inflow of foreign capital. In practice, increasing interest rates may decrease foreign capital outflow and can prevent further mobilization of savings. Emerging markets need to manage foreign exchange reserves, but monetary policy tools of increasing interest rates are often used when capital outflow risks are already unveiled. It is more appropriate to take precautionary measures at the stage of inflows, such as macro-prudential measures and building buffers. Price stability (inflation) has become the primary objective of the central bank of India.

In this new setting, it is worth reconsidering our views on how to manage capital flows. Moreover, monetary policy, foreign exchange intervention policy, macro-prudential policy, and capital flow management policies may all fit together. The trade-offs among these different available mechanisms and tools are a subject of research. Formulating an appropriate policy response would require credible information about the effectiveness of alternative policies to deal with the challenges.

5.1.1 Implication of liberalization

There is hindsight to the liberalization of an economy too. Integration of an economy with the global financial system makes it more vulnerable to financial crises. Many a time, the factors triggering crises may not necessarily be domestic factors only. Financial crises lead to a situation in which many private or public institutions fail to meet their financial obligations. Financial crises are systemic crises that may blow out of proportion if adequate measures are not taken on time. It may put the entire financial architect of the country in great danger or may lead to collapse. There are three types of financial crisis: 1) sovereign debt crisis, 2) financial institutions crisis, and 3) currency crisis. The sovereign debt crisis is a situation where governments default on their obligations. In a financial crisis, financial institutions are unable to pay their debtors. They are in great trouble, which limits their capacity to meet their financial or business obligations. Whereas, in the currency crisis government may abandon its commitment to fixing the price of currencies for domestic currency. Government comes under tremendous pressure as markets start losing faith in government commitments. Crises are interconnected or contagious, i.e., the crisis in any one system may trigger a whole episode of default cascading effects across the system. The problem becomes severe when the economy is interconnected with the outside world. Given the wide ramification of capital flows on the domestic macroeconomic and monetary settings, we had studied the performance of major macroeconomic indicators over the last two decades when India experienced a visibly high level of activities on the foreign capital flow front. We are essentially looking at a gamut of more than 10-15 years starting from 2000.

5.2 Major findings

5.2.1 India's macroeconomic indicators over the last two decades

By many accounts, liberalization of the Indian economy could be dated back to the 1980s, but these reforms were inward-looking and had more to do with domestic policies. It was more of relaxing or doing away with the communist baggage of license raj and letting Indian industry ramp up production to operate at their true potentials rather much to do with the foreign capital. However, this was the beginning. The process of reform India followed was prolonged and steady (incremental). In 1991, unprecedented circumstances on the balance of payment front and macroeconomic scenarios forced the countries to take a big liberalization step. It was for opening up of Indian economy to the outside world. It was more holistic and broad-based reforms but still very gradual and slow-paced. There is a widespread view that reforms led to faster growth, whereas on the contrary Indian economy did not experience growth momentum in the immediate aftermath of reform. Dani Rodrick and Arvind Subramanian comparing India's growth experiences in the immediately preceding decades, found that the 1990s were only marginally better than the 1980s for the Indian economic growth story. It raises the obvious question that does opening up of economy worked for India to accelerate the growth momentum. However, Indian economic growth started seeing momentum in the following immediate decades, particularly after 2004 onwards. The growth rate accelerated, and India began to move on the path of long-term high growth. Through this experience, one may infer that there may be a gestation period for reforms translating into higher growth for India. One may also read it as the Indian reform process was slow and steady. Hence, it does

take time converging into substantial positive benefits for the economy.

The early episodes of capital inflows in India were driven by bank and non-bank flows, possibly because of interest rate differential or relaxation of borrowing norms. Portfolio inflows and FDI peaked up later on till the financial crisis of 2008-09 triggered with the collapse of Lehman Brothers-an investment bank behemoth. Reversal of capital flows was also driven by bank and non-bank outflows followed by portfolio equity, whereas FDI flows remained reasonably constant. It can be inferred that FDI is the least risky of investment flows, followed by portfolio equities and then foreign currency debt. The sharp swings in the volatility of flows amplify the complexity of macro-management of the economy.

5.2.2 Causality between capital flows and major macroeconomic indicators

Conventional causality analysis and frequency domain causality analysis are two starkly different methodologies that explain the relationship between variables. Former uses a single test statistic whereas later generates exceptional results for each frequency distribution across spectra. Test statistics specific to each frequency domain disentangle the impacts separately on individual macroeconomic series in the short and long run. Similar to conventional analysis, this technique is also appropriate to generate bi-directional impact. Understanding the bi-directional impact is immensely desired by academics or the policy-making fraternity.

The causality running from foreign inflow to GDP is significant between only specific frequencies, i.e., four to seven quarter's cycles. It may lead to the conclusion that foreign inflows provide substantial predictive power for GDP growth even beyond

a year. The inverse causality (from GDP growth to FDI) is significant in over three years only, and the coherence coefficient reaches its peak in the twenty-ninth quarter.

Foreign capital inflows expand the domestic monetary base without a corresponding increase in real production, which leads to inflation. The result thus suggests that the foreign inflow Granger causes inflation in the short run but stabilizes in the long run. Inflation does not Granger causes capital inflows. The result of the Granger causality test for money supply and foreign inflow shows that capital inflows granger causes money supply at a frequency corresponding to four-five quarter cycles. The causality test for the money supply to foreign inflow does not yield any significant result.

5.2.3 Macroeconomic implications of capital inflows for India

The theoretical frameworks to deal with capital flows are motivated by the experiences of developed economies only. Unlike developing economies, developed economies are generally endowed by developed and well-functioning capital and money markets. India is an open emerging economy; hence the standard theoretical framework analyzing implications of capital flows may have specific limitations. Therefore, this study made a modest attempt to adapt the existing theoretical framework for developing economies to analyze impacts on a relatively liberalized Indian economy.

There was strong growth in the capital inflow in post-liberalization India. The trend of inflows shows visibly apparent decadal breaks. There are many internal and external factors attributed to these changes in inflow. A significant policy change was introduced based on learning from the country's unprecedented balance of payment (BoP) crisis. The new policy

focus was to encourage non-debt-creating and long-term capital inflows. At the same time, short-term debt-creating inflows were discouraged. These policy changes also bring forth a significant difference in the composition of capital inflows. The share FPI and FDI inflows in total inflows show it dominated the former in most years. The absorptive capacity of capital inflows depends on the size of the current account deficit. Given the limited absorptive capacity, large capital inflows put stress on the economy. In this study, the macro-econometric model examines the impact of capital inflows upon important macroeconomic aggregates. The effects of capital inflows are observed on the exchange rate, monetary expansion, interest rate, export, import, economic growth, etc. Impacts of capital flows on these wide ranges of economic variables analyzed through the econometric model are discussed below:

Economic growth: VECM model developed in this study does suggest a strong linkage between FDI and economic growth. At the same time, the role of FPI in augmenting growth is a subject of further research. Beyond the macroeconomic stimulus from the actual investment, FDI influences growth rate in many other ways, such as raising the productivity of labor, capital management practices, availability of the latest technology, etc.

Exchange Rate: the study found a statistically significant relationship between foreign flows and exchange rate level in the short run, but results indicate that foreign exchange levels and foreign inflows are not correlated in the long run. To be more precise, the results showed that foreign inflows only cause an exchange rate appreciation in the short run.

Inflation: with a predetermined exchange rate large inflow of capital is likely to generate a balance of payment surplus.

Therefore, to avoid an appreciation of the nominal exchange rate central bank would intervene in the forex market to buy an excess supply of foreign currency. This would lead to monetary expansion, implying inflation. Capital inflows also raise aggregate demand and aggravate the inflationary pressure in the economy.

Interest rate: interest rate differentials between capital importing countries (India and any third country exporting capital into India) and the rest of the world drive capital flows into India. At the same time, it is inappropriate to look at merely interest differentials in the absence of expectations regarding exchange rate changes to understand the flow of foreign capital. In India, the prevailing higher domestic interest coupled with stable growth during the study period successfully attracted foreign capital. At the same time, capital flows influence the interest rate arithmetic of the financial markets.

Monetary aggregates: There was a clear relationship observed between capital inflows and money supply. RBI is now following an inflation-targeting policy. Given the new mandate to RBI, if the money supply induced by capital inflows disrupt the monetary growth target, then RBI would apply other measures to insulate the impact of capital flows upon money supply.

Export and Import: general logical submission is that capital inflows put appreciation pressure on the exchange rate makes domestic goods dear compared to imports. Exchange rate appreciations also reduce export competitiveness. It implies that capital inflows reduce export and increase imports. Therefore, in the event of continuous capital flows, appropriate exchange rate management may strengthen export competitiveness. A strategic import substitution policy would check the import by leveraging

the large domestic market size and appropriate industrial policy measures.

5.3 Policy recommendations: monetary policy for an open economy

Capital flows have been perceived as presenting policy challenges to the central bank. Understanding how the central bank handles spillover from volatile capital flows is an important policy consideration. In particular, allocation of policy burden across monetary policy, exchange rate, reserve management, capital flow measures, etc., are important policy choices that the central bank has to decide regularly. The primary objective of monetary policy can best be formulated to maintain full employment and stability in the currency's domestic (inflation) and international prices (exchange rate).

The open capital account may accelerate the convergence of capital-scarce countries by allowing them to invest more than they save. The experience suggests that FDI has historically been a more stable form of inflow, driven by the recipient country's positive long-term economic outlook. FDI involves physical investment in plants and machinery, which is difficult to reverse. Contrary to this, short-term bank debt has been a volatile form of inflow. It is driven by short-term earning motives (speculative) only. Market-based finance is accounted for virtually all of the flows for the last decade to the emerging world. The central bank had a limited choice of instruments at the face of capital outflows than capital inflows. An intervention in the currency market in the event of outflow is an attempt by the central bank to defend a particular exchange rate or contain the exchange rate movement. At the same time, it can even provoke more panic than calm down the market sentiment as it may give rise to more speculative

behavior. Therefore, the central bank's obvious question is what could be the right policy tool for capital flow management. There can't be a simple answer, and there can't be a single tool that will work in all circumstances a central bank may have to adopt a right mix of three tools: depending upon circumstances 1) free-floating exchange rate regime, 2) absence of domestic imbalances, and 3) accumulation of buffer can insulate the economy from shocks. How these three factors can, we used to depend upon many other prevailing circumstances almost all of these tools from policy mix except capital flow management.

Sustainability is the primary defense of financial stability. A measure that may undermine the openness of an economy and undermine investor confidence is bad sustainability. The leverage should be under control at all three levels: 1) government level, 2) household level and, 3) corporate level. At the same time, we also have to consider the volatility and timing of flows and how best they can serve the purpose of financing for investment. Fiscal discipline can control government debt and different macro-prudential measures, including risk weights adjustment on consumer lending. Capital control has a short-term stabilization effect on the markets, but the long-term, lasting impact is negative because of shaken investor confidence.

An open economy where trade accounts for a substantially high percentage of GDP also possesses deep bond markets. The policy mix should depend on the risk that is being managed then. In case of an unfavorable trade balance, the exchange rate can act as a shock absorber. The traditional view is that if the exchange rate is allowed to appreciate, it tends to restrain more capital inflow. Whereas it often does the opposite, allowing the exchange rate to appreciate it draws in more flows and becomes a positive feedback

loop rather than a negative one. Often it is driven by a more specific monetary policy to elevate growth rates domestically. But we should inhibit sustained unilateral unidirectional intervention in the exchange rate. But in the event of policy uncertainty at the domestic front, allowing the exchange rate to be a shock observer can be a shock amplifier. Effective intervention could be a good policy to manage the capital outflows at the point of time. Bank intervention in the exchange markets is to build buffers and put limits on leverage. When we have more profound and more liquid financial markets, we can allow the exchange rates to take some of the impact of capital flows without a considerable movement.

Financial stability is a mandate for the central bank. The bank should manage the financial stability risks in such a way so that the money market and foreign exchange market remain oddly to facilitate real economic activities. One shouldn't just think about what the recipient country should do, but we have to take a much broader, more global perspective considering where these spillovers come from in the first place. It is a general view that so long as each one keeps their own house in order, the global financial system worked quite effectively. Suppose the country faces a low inflow of capital, a combination of monetary policy and allowing the exchange rates to move could be a good policy choice. However, if there is a sustained period of very accommodative policy, capital responds and searches for higher yield in other countries.

Capital flows follow heard behavior, creating a situation wherein unprecedented inflows are possible under a favorable climate, whether for the short run or the long run and move out mainly at the time of lousy market sentiments. Hence, the flows are not entirely up to the receiving country. When it comes in the

form of debt, it becomes a challenging claim, and when it wants to go out, one starts exploring every way to accommodate it leaving, or it creates problems domestically. It is a great mistake to treat them as permanent and do everything you can to absorb them. The policy of building buffers at times these flows comes in and ensuring the exchange rate doesn't move too much with the flows. For the developing economies, these often are based on events elsewhere accompanying these capital flows. This issue has become more poignant as the global economy has been recording a constantly increasing share of the emerging development in the worldwide economy. But the relative weight of the US dollar and US dollar proxies has remained the same.

Three factors influence capital flows 1) push factors, 2) structural liquidity issues, 3) pull factors, and 4) the domestic factors comprising microstructure and depth of markets institutional credibility of the central bank's, fiscal policy, macro-prudential policy, etc. The global financial cycle and the push factors are strong or weak, and having a coherent and consistent view informs policymakers domestically about the kind of risks that they could be facing. For example, domestic debt can sometimes be fed from easy inflows, but it's also a domestic prudential and macro-prudential responsibility.

In general capital, inflows are good for the economy if it boosts economic growth and productivity. However, capital inflows at the late stage of the growth cycle can only accelerate the overheating of the economy, and that's why we need to use macro-prudential measures. An intervention in currency rate to smooth currency volatility is pertinent. At the same time, one doesn't know the equilibrium exchange rate, and if we start intervening in every case, we may experience a significant deviation from

fundamentals. This will undermine the central bank's credibility. The central bank's monetary policy's first goal is price stability. Central banks can have the credibility not to have a simple scheme to shift gears; having different approaches for different situations is undesirable. It becomes difficult for the bank to maintain the credibility and clarity of the policy regime. Policy consistency and a clear strategy to deal with situations are desirable by all the stakeholders, including policymakers.

FDI and FPI are an integral part of an open and effective economic system; hence no country could avoid them. Therefore, one needs to learn how to manage them.