3.1 Introduction

An empirical investigation cannot be conducted in the isolation of the works directly or indirectly related to the topic concerned. Due consideration has to be given to the existing knowledge and body of literature that contains the issues relevant. In order to achieve a better understanding of issues involved in the research literature conducted by past researchers due consideration is important. The validity of the same cannot be denied. Review of Literature guides the researcher to include concepts such as representativeness, plausibility, coherence and validity by quoting, conferring or criticizing the conclusions reached to by the past researchers.

The aim of this chapter is to highlight the conclusion and the research methodology adopted with respect to Foreign Direct Investment (FDI) Inflows and components of Balance of Payments by other researchers. The review is divided into two sections, that is, General Review and Specific Review. As the study is related to macroeconomic variables, under general review (Section 3.2), literature related to general macroeconomic variables has been expounded. On the other hand, Section 3.3 deals with Specific Review of literature. This section is divided into three sub-sections wherein review of literature related to FDI Inflows and Current Account, FDI Inflows and Capital Account and FDI Inflows and Overall Balance of Payments is presented containing the relevant details of the research technique and results obtained.

3.2 General Review

The study of causality and statistical relationship between macroeconomic variables has been a regular activity in Indian context. The econometric modelling in India with respect to macroeconomic variables including items of Balance of Payments has been an area of consideration for researchers. Particularly, application of econometric techniques for analysis of macroeconomic variables has emerged in the last few decades or so. Ranjan & Nachane (2004) has divided the development of macro econometric models in India into three phases or generations. These three phases were also identified by others (e.g. Krishnamurthy, 1992). The models in the first phase were primarily developed by Desai (1973) and to be specific the focal of the models remained on the issues of price behaviour in the economy (Marwah, 1963, 1972; Chakrabarti, 1977), investment behaviour and endogenous population growth
(Krishamurthy, 1964), foodgrain output, growth and price stability (Pandit, 1973), interaction between monetary and real variables in the monetized component of the economy (Bhattacharya, 1975), the structure of monetary and financial markets (Gupta, 1973; Mammen, 1973), external trade (Choudhary, 1963; Dutta, 1964) and growth in dualistic economy (Agarwala, 1971). The models in the first phase were aggregated due to non presence of time series data on individual variables for the study. This created a problem of heteroskedasticity and thus in the second phase, disaggregated models were developed. Another addition in the second phase can be traced to a large variety of rigorous empirical studies that has emerged since the 1960’s and an increased professional interest in econometric research. The major econometrics models developed were by Sreenivas (1974), Pani (1977), Brahmananda (1977), Chakrabarti (1977), Ahulwalia (1979), Bhattacharya (1975, 1982), Pandit (1973, 1977, 1982) and Srivastava (1981). The third phase of macro econometric modelling can be traced to the initial years of 1980’s. The main characteristic of the models developed in the third phase was that they were more disaggregated and were large. Apart from this they also included the concept of lags and lead. Some of the prominent models estimated in third phase were Ghose, Lahiri, Madhur & Roy (1983), Pani (1984), Bhattacharya (1984), Krishnamurty (1984), Pandit (1984, 1985, 1985a, 1988 & 1986a), Bhattacharya and Rao (1986), Ahulwalia and Rangarajan (1986), Pandit and Bhattacharya (1987), Bhattacharya (1987), Madhur (1987), Chakravarty (1987), Kannan (1988), Krishnamurty and Sharma (1989), Panchmukhi and Mehta (1991) and Bhattacharya and Guha (1992). Among the models of third generation, the policy oriented models were developed by Anjaneyulu (1993), Chakrabarty (1993), Singh (1993), Bhattacharya, Barman & Nag (1994), Rangarajan and Mohanty (1997), Palanivel and Klien (1998) etc.

The model given by Rangrajan and Mohanty (1997) covering data from 1971-72 to 1993-94 examined the various macroeconomic impacts of fiscal deficits in India. On the other hand, Palanivel and Klien (1998) estimated a macro econometric model with the objective to build a monetary sector model for India. On the same line, Rajan and Nachane (2004) were particular that exports in dollar terms do not seem to be affected by a lower exchange rate which invalidated the proposition of following a policy of aggressive depreciation in order to promote exports. They identified that the high savings rate that the Indian economy has achieved over the years has made the
economy robust enough to withstand any adverse economic development abroad. Studies have identified exchange rate and openness of economy as positively related with inflows of FDI in India. It highlighted that exchange rate and openness of economy are main components of FDI Inflows whereas GDP growth rate is negatively related with FDI Inflows in India (Pradhan, Norman, Badir & Samadhan, 2013). Another study between FDI and exchange rate in India highlighted that FDI flows have no significant impact on the change in real exchange rates in India. The period of the study was from July 2005 to November 2012. (Gaiha, Padhi & Ramanathan, 2014). Rath and Bal (2014) examined the relationship between three macroeconomic variables namely, Private Domestic Investment (PDI), FDI and Public Investment (PU) in India for the period 1978-79 to 2009-10. With the application of structural Vector Auto Regression (VAR) modelling, it was identified that FDI has “crowding in” effects on PDI but there is no such relationship between PU and PDI; though it was proved that shocks in PU and PDI positively improves FDI Inflows in India.

With respect to Intra-Asian Foreign Direct Investment the study by Petri (2012) concluded that it is dominated by flows from high technology economies to medium technology economies. The gravity model analysis highlighted that Asian FDI Flows in comparison to other FDI flows, favours hosts with relatively low technology achievement and relatively strong intellectual property rights regime. It was identified that significant spillovers in Asian economies are directly associated with FDI (Du, Harrison & Jefferson, 2012; Xinpeng & Sheng, 2012). Exploring the relationship between FDI and domestic investment in five South Asian countries during the period of 1965 to 1996, the study found complementary relationship between FDI and the nationally owned investment (Agarwal, 2000). The same conclusion was reached to in a study on Malaysia for a period from 1960 to 2003 (Agosin & Mayer, 2000). The Asian economies have obtained technology in recent years through FDI Inflows. This provided a rationale for active FDI policy in Asian economies (Petri, 2012). On the other hand, developed countries remained the main destination for Outward FDI flows, accounting for 59.2% of world’s total (World Bank, 1998). Outward FDI improves host country’s trade flows, boost export competitiveness and stimulates import competing production (OECD, 2000). FDI as a capital flow tool is more competitive way than exporting for operating in international market as it generates
the highest profits level (Lu & Beamish, 2001; Tang & Yu, 1990). Several authors have identified cost efficiency as one of the main reasons for firms to involve in Outward FDI (Griffin & Pustay, 2002; Eun & Resnick, 2004; Butler, 2000). Herzer (2008) has explained that Outward FDI allows firms to import cheaper semi-finished inputs, to produce greater volume of finished goods abroad at lower cost, to enter new markets and to access foreign technology. Later in another study he concluded that Outward FDI in general has a positive long run effect on domestic output in developing countries (Herzer, 2011). As India is treated a developing country the findings apply to it too. India has been steadily liberalizing Outward FDI by Indian companies in past recent years (Mohan, 2008; Prasad & Rajan, 2008).

Key factors behind Outward FDI are a desire to exploit low cost labour, to expand into the foreign market, and to follow a major customer into a new market (Kuo & Li, 2003). Due to MNCs cross country presence which means in other words Outward FDI flows, knowledge and competencies have transferred to foreign markets from home country (Mabey & Salaman, 1995). Regarding future of Outward FDI flows by MNCs, their fate depends on the response of economies as governments are rethinking about globalization and open door policy after the 2008 world economic crises (KPMG, 2012). MNCs expand their businesses through Outward FDI mode that has been identified as a competitive way in comparison to exporting for operating in international markets as it generates the highest profit levels (Lu & Beamish, 2001; Tang & Yu, 1990).

Apart from other factors, specifically with respect to India, economic freedom is one of the main determinants of growing Indian Outward FDI across the world (Anwar & Mughal, 2012). Using Karl Pearson Correlation it was observed that Outward FDI of India increases the growth rate of Indian economy. Another study, using the Cointegration and Vector Error Correction Model, has revealed that liberalization in trade, finance and investment by India has a positive effect on Outward FDI flows from the country (Chowdhary, 2011). It was also observed in a major research finding that major portion of India’s Outward FDI flow goes to developed countries and with respect to sectors it is in manufacturing (Zhao, 2011). Most of the Outward FDI of India was market seeking when tested through regression for the last decade (Morris, Subramanian & Sachdeva, 2010). In India, Outward FDI flows has been motivated due to factors such as access to high growth markets, acquiring high technology,
gaining management expertise for sourcing raw materials and increasing the scale of production across regions (Rajan, 2009). Bergstrom and Wanngard (2005) have identified that with the alleviation of trade and investment regulations smaller companies now have an opportunity to reap the benefits of international business, which in part also accounts for the rapid growth of Outward FDI. According to Eiteman, Stonehill & Moffett (2004) a joint venture is usually the best option when a company wants to get immediate understanding of the market and wants to enter the market through a less capital intensive approach. Labour costs, infrastructure quality, degree of internalization, the existing level of foreign capital and market size seem to influence the decision of where to invest. (Filippaios, Papanastassiou & Pearce, 2003; Wheeler & Mody, 1992; Braunerhjelm & Svensson, 1996; Brainard, 1997). Though findings are still not robust, but as a preliminary finding foreign capital exert both positive and negative impacts on the economy (Boubakri, Cosset, Debab & Valery, 2013; Todea & Plesoianu, 2013). When capital controls are used as tools of macroeconomic policy, the Indian economy functions in the fashion of emerging economies (Patnaik & Shah, 2012). There is a strong linkage between democratic governance and FDI (Yu, 2010; Jensen, 2003).

It was concluded that the capital flows exert a significant impact on main macroeconomic variables and effects are transmitted through financial markets, host country absorptive capacity and human capital (Seenivasan, 2014). Debates between proponents and opponents of FDI have died down and the debate has shifted to the optimal instruments of development since “no third world country considers excluding them” (Evans, 1998). Caves (1996) authored in the context of developing countries that MNC’s are not primarily an arbitrager of capital (and hence FDI) and this risk bearing consideration explains matching of local currency assets and liabilities. In this regard, TNC’s frequently borrow capital from host country capital markets. This has been proved from the approach pursued by previous studies in the structuralist tradition such as Blecker (1996) and Dutt (1998), in addition to drawing on the conceptual framework of the “dependent economy” family of models.

Feldstein (1994) found that only about 20% of the value of assets owned by US affiliates abroad is financed by international capital outflows from the US investors while the rest is financed locally. This highlights that FDI Inflows from home MNCs may not be major portion of total investment of the country and Balance of Payments.
Tax sensitivity of TNCs (another major issue) is greater for investment geared towards exports market and developing countries rather than developed countries (Mutti & Grubert, 2004). A more detailed discussion on the same issue has been taken up by UNCTAD (2001) and Nam and Radulesco (2004). Another macroeconomic relationship effecting FDI and Balance of Payments is the relationship between return on net foreign assets and exchange rate behaviour which has been suggested by a recent empirical literature originated by Gourinchas and Rey (2007). The effects on exchange rate behaviour in a dynamic model was captured by Razin and Sadka (1991) through liquidity model and Markusen’s model of endogenous markups. In addition to this, Cavallari (2007) finds out linkages in multinational activity with deviations from purchasing power parity. Purchasing power parity has a linkage with business cycle and return on assets and in this regard, Smith and Valderrama (2009) have identified the important business cycle properties of FDI. In addition, Antra and Helpman (2006) have pushed forward the micro level theory of internalization that questions the dictum between investor’s choice of FDI and Portfolio Investment.

The FDI can have different implications on business cycle in different countries. This issue is addressed by Cetorelli and Goldberg (2008) and De Blas and Russ (2008) with respect to financial verses non-financial industries. De Mello (1997) discussed extensively about the development in literature on the determinants of FDI and impact of FDI inflows on growth in developing countries. He reached to the conclusion that policy regime of the host countries is a potentially important FDI determinant. He elaborated on the basis of case studies such as O’Sullivan (1993), Bajo-Rubio and Sovilla-Rivero (1994), Wang and Swain (1995), Milner and Pentecost (1996), Lee and Mansfield (1996) that specify inflation, exchange rate, domestic expenditure and net trade ratio as important determinants of FDI. The capital inflows were low in emerging economies during 1980s and early 1990s but grew rapidly in the mid-1990s (Humanicki, Kelm & Olszewski, 2013). Investigation on the export determinant in India for the period 1970-1998 suggests that demand for Indian exports increased when its exports price fell in relation to world prices. The real appreciation in Indian currency adversely affects Indian exports. The finding suggested that foreign investors appear to have statistically no significant impact on exports performance even though coefficient of FDI was positive (Sharma, 2000). A study based on a sample of panel observations for 49 developing countries over the period of 1970-
2004 was conducted using fixed effects model with system of equations. The conclusion reached was that GDP, economic growth, domestic absorption and exports positively affect FDI. This result is consistent with market seeking behaviour of multinational corporations (Majeed & Ahmad, 2008).

In the last few years at macro level, the growth of FDI flows in many countries has exceeded the growth of their exports and imports. This has captured the attention of both academic researchers and policy makers (Wang, 2010). Size of GDP as well as rate of GDP growth is important parameter for attracting higher inflows of FDI in India. Apart from this, higher FOREX reserves are also partly helpful in attracting FDI Inflows. This conclusion was reached by using stepwise regression technique (Narayan, 2014). The studies between the variables FDI and Domestic Investment with respect to developing countries has proved that effect of FDI on Domestic Investment is not always favourable (Agosin & Machado, 2005; Kim & Seo, 2003). Several studies with myriad inferences have been conducted by researchers on the impact of Inward FDI in terms of economic growth and domestic productivity in the host country (Kokko, 1992; Balasubramanyam, Salisu & Sapsford, 1996; Borensztein, De Gregorio & Lee, 1998; Aitken & Harrison, 1999; Hejazi & Safarian, 1999; Hubert & Pain, 2001; Chakraborty & Basu, 2002; Choi, 2004; Blonigen & Wang, 2005; Wang & Yu, 2007). The proposition has been studied by various researchers that if Inward FDI decreases the amount of domestic investment also decreases (crowding-out) while inward FDI may encourage domestic investment (crowding-in) in the host country (Wang, 2010). Several studies have suggested that FDI has a positive impact on economic growth (Balakrishnan, Nowak, Panth & Wu, 2012; Reinhardt, Ricci & Tressel, 2013).

Crowding out may also occur if MNC’s finance their investment by borrowing in the host country that would increase the host country’s interest rate (Harrison & McMillan, 2003). When FDI stimulates backward or forward production linkages in the host country, this can also result in crowding-out (Markusen & Venables, 1999). Crowding-in can also occur due to the spillover effects of FDI. This happens when foreign firms with more advanced technology spillovers move towards domestic firms for enhancing their competitiveness (Wang, 2010). Singh (2012) examined the long run effects of public capital on private capital in India and found “crowd in” effect of public capital. It has to be linked with the fact that FDI has been an influential source of capital for
developing countries (Ramasamy & Yeung, 2010). It has been argued that foreign investment in United Kingdom increases competition in the product market and decreases the profitability of domestic firms (Driffield & Munday, 1998). Using data from 69 LDC’s from 1970 to 1989, it was found that total investment increases 1.5-2.3 times the increase in FDI, though such a positive effect is not robust to different model specifications (Borensztein, De Gregorio & Lee, 1998). It is to be noted that nature and volume of inward FDI are quite different in Developing Countries and Less Developed Countries and FDI tends to have different effects in these two categories of countries (Blonigen & Wang, 2005). Markusen and Venables (1999) theorized the relationship between MNC’s and domestic firms, with the outcome that entry of MNC’s creates a competition effect and a linkage effect. It has been illustrated that domestic firms first drop and then raises as the number of MNCs increases in the host country (Barrios, Gorg & Strobl, 2005). In the study Inward FDI has been used as a proxy for the number of MNC’s in the empirical estimation (Wang, 2010).

A study on the two Asian economies regarding causal relationship between Foreign Portfolio Inflows and Economic Growth using Granger Causality test employing data from 2001 to 2013 concluded that there is no direct causality between Foreign Portfolio Inflows and Economic Growth of China and India (Ahmad, Yang & Draz, 2015). The same conclusion was reached to by Durham (2003) and Duasa and Kassim (2009). FDI and FPI both are financial transactions with different ownership thresholds and are impacted by the distance between the two countries while investing (Hattari & Rajan, 2011; Abid & Bahloul, 2011). FDI Inflows are better instruments as compared to FPI as witnessed by Asian crisis for emerging economy (Uctum & Uctum, 2011). In a study evaluating a bivariate causality link between FDI and economic growth it was found that GDP per capita and FDI are integrated in the long run. Two evidences were found; one that there exist bidirectional relationship between FDI and growth and two that there was FDI led growth in post liberalization era. Toda and Yamamoto Granger causality technique was used by the researchers (Kaur, Yadav & Gautam, 2013).

3.3 Specific Review

3.3.1 FDI Inflows and Current Account of Balance of Payments

The literature on FDI Inflows and Current Account of Balance is largely sparse and due to this fact studies relating to the issues has been captured. As per the recent
literature, in a study attempting to identify the role of exchange rates in current account imbalances has highlighted that one of the key variable affecting Current Account is FDI (Gnimassoun, 2015). Another important component relevant for Current Account is the Terms of Trade which is introduced in current account models (Lane & Milesi-Ferretti, 2012). On the basis of panel data for 66 countries for the period 1990-2007, it was found that countries with less developed capital market are more likely to run current account surpluses (Tan, Yao & Wei, 2015). It was also concluded that in the process of development of strengthening domestic investment, importing capital is inevitable (Bussiere, Cazorzi, Chudik & Dieppe, 2010). The model application of Araujo, Li, Poplawski-Ribeiro & Zanna (2016) reveals that development considerations such as capital scarcity and borrowing constraints generate current account norm estimates. The findings relating to causal relationship between Capital Account Balance and Current Account Balance for India shows that there is a unidirectional causality running from Non Debt Flows especially FPI to Current Account. It further suggests that volatile component of capital flows deteriorate the Current Account Balance of the country (Garg & Prabheesh, 2014). Jansen (1995) carried an investigation on the impact of Foreign Direct Investment on Economic growth, private investment and current account balance for the Thailand economy. The global recession of 1980s lagged not at all in dismantling even the nations that got a stranglehold on the economic growth rates. With an economic growth rate of 7.5%, the Thai economy marked among constantly developing economies but to its dismay was unable to shoo off the consequences of global recession of 80s on its economy. The Foreign Direct Investment Inflows, however gained momentum after 1986 and poised a prominent imprint on the macroeconomic picture of the country. The study concluded varied statements on the issue. For its relationship with the private investment, the results demonstrated a positive impingement and the same followed for Foreign Direct Investment relationship with the economic growth of the Thai economy. However, the effect of Foreign Direct Investment Inflows on Current Account Balance of Thailand, as indicated by the results was found to be in contrast to that determined for private investment and economic growth. The results reflected that with the increment in Foreign Direct Investment Inflows into the country, the Current Account Deficit broadened more prominently than the accentuation acknowledged in the FDI figures. The causal factors adding to this conjecture were found to be the augmentation in imports and the
Chapter 3

Review of Literature

export oriented feature of Foreign Direct Investment Inflows. Khater (2014) did an analysis of the impingement made by Foreign Direct Investment Inflows and Real GDP on the Current Account Balance of Sudan. The study analysed the area for a period ranging 1972 to 2011; incorporating time series data for the required variables. Applying econometric techniques of checking stationarity characteristic of the time series data for the variables encountered in the study and Vector Error Correction Modelling (VECM) and also the Johansen Cointegration, the study comments on the short run and long run association of the variables.

In addition to the said approaches, the study also takes into account Impulse Response Function to represent the association amid the variables. Precisely, the study concluded in respect of the association between the three variables that all three of the taken variables were found to be cointegrated in the long run and also the exclusive impact of Foreign Direct Investment on the Current Account was concluded to be negative and antagonistic; both in the short as well in the long run. When the same was conducted on the data for India, the results were robust but not satisfying enough so as to conclude causality among FDI Inflows and Current Account Balance. More clearly, Foreign Direct Investment, Real Gross Domestic Product (GDP), and Current Account were found to be co-integrated in the long run and the Vector Error Correction Model (VECM) explained a negative effect of Foreign Direct Investment on Current Account in Sudan in the short run as well as in the long run for the period 1972-2011.

According to Siddiqui and Ahmad (2007) FDI and Current Account are Cointegrated. Campbell (2001) based his research expedition on the economy of Barbados for finding out the impact Foreign Direct Investment has on the Current Account dynamics, particularly for a time span from 1970 to 1999. Incorporating into the analytical framework the approaches of Maximum likelihood of the Johansen Cointegration analysis, the study determines the long run and short run Current Account dynamics in relation with Foreign Direct Investment. The results suggested the influence of Foreign Direct Investment in depressing the Current Account Balance of Barbados. This result of the study was found for short run and long run alike. Also, the study threw enormous light on the influence of the increasing imports in degrading the Current Account Balance equally; as a consequence of which foreign exchange reserves appeared to be dismantling over the period. Moreover, the study
recommended that such loopholes should be overlooked so as to elevate the status of foreign investment in sectors where it is the heaviest such as that of manufacturing sector, tourism sector and the services sector. Saluja, Bhatia & Patel (2013) did an in-depth research as to find the relationship of Foreign Direct Investment with both of the constituents of the Balance of Payments of India; viz. the Current Account and Capital Account. His study mainly delved into finding the long term relationship between Foreign Direct Investment and Capital Account and Current Account but also touched the short run dynamics of the issue. Collecting quarterly data from the Reserve Bank of India for the period 1991 to 2012 on the stipulated variables, the study carried the long run analysis by way of Johansen Cointegration approach and under that the Maximum Likelihood method and Eigen Value Statistics were taken into action.

For ascertaining the short run dynamics of the issue, Vector Error Correction Modelling was acted upon to reach on the results. The study made an important conclusion that there happens to be an opposite relationship among the Foreign Direct Investment and Current Account of India’s Balance of Payments. Thus, the results of analysis defined that as Foreign Direct Investment in the country increased, the Current Account Balance of the country declined or moved in the opposite direction. Mencinger (2008) analysed the repercussions of Foreign Direct Investment on the Current Account of the New Member States (NMS) of the European Union. He, in his study reckoned on the fact that there are both direct and indirect effects of Foreign Direct Investment on Current Account of NMS. With his insights he elaborated that the direct effects may not be very apparent with the naked eye but eventually the effect comes into vision when the similar factors affect the Current Account Balance indirectly. Also, the indirect effects have only given a monotonous life to the impact of direct effects poised by the Foreign Direct Investment on Current Account Balance. There is history of widened Current Account Deficits in the New Member States since the 90s period; which was felt in the backdrop of reasons like enlarging trade deficits. The study concluded that in the short run as well as in the long run, the Foreign Direct Investment and Current Account Balance are found to be negatively related. The study acknowledged the causal forces of this negative relationship among the Foreign Direct Investment and Current Account Balance being prominent Inflows of FDI in the region in the guise of sale of assets which got the NMS region huge flow of
earnings but eventually it was all used up in paying for the import activities instead of channelizing investments out of it. The study also commented on the relationship between Foreign Direct Investment and Investment Account of the region to be of a strong nature. Moreover, the Foreign Direct Investment flows governed the Income account balances of the New Member States and Foreign Direct Investment majorly governed the Current Account Balances of the NMS.

The short and long run relation between Foreign Direct Investment and Current Account Balance is time variant and also country variant depending on the effect Foreign Direct Investment has on domestic savings and economic growth of the particular country. Jurcic, Bilas & Franc (2011) in their research work carried out an effort to find out the impulse that the inflow of Foreign Direct Investment has on selected macroeconomic indicators of recipient countries. The study analyzed the phenomenon for three selected countries i.e. Croatia, Hungary and Ireland for the time bounding 1999 to 2009. The fundamental hypothesis underlying the analysis was that even if there happens to be a positive effect of Foreign Direct Investment on the recipient countries initially, it will transform into negative effects in the long run. The effects of Foreign Direct Investment were analyzed by taking Balance of Payments data. The authors came to the explanation that positive spillover effects of Foreign Direct Investment Inflows on the recipient countries are apparently recognized only in the short run as in the longer period the foreign investors lose interest in reinvesting in the same country and eventually land up in repatriating profits to their mother country. This whole effect of FDI Inflows is explained by way of three stages; each according to the movement in the behaviour of foreign investor. The first stage begins with an explanation on the amount of FDI Inflows pouring into the host countries i.e. Hungary, Ireland and Croatia, respectively. The second stage elaborated on the reinvestment character of the inflow of Foreign Direct Investment. Each of the mentioned three countries made an attempt into entering the period of high reinvested earnings with Croatia enjoying a bump in 2003 and 2005-08 period. Hungary tracked highest for the period 2002-06.

The third and the final stage clarifies the behaviour of foreign investor in repatriating the profits to their home country and their losing in the interest of investing in the same country. The third stage is the mark when the positive effects of FDI gets mutilated and changes into negative effects and thereby degrading the economic
growth of these host economies along with a choking impact on Balance of Payments and the Financial Account. Akcaci & Akkaya (2012) investigated the way in which the Foreign Direct Investment Inflows has committed towards the Turkish Current Account Balance for a period ranging 1982 to 2008. The study fetched data for Foreign Direct Investment Inflows and Current Account Balance of the economy of Turkey from the IMF Database and acted upon it the econometric techniques of Cointegration and conventional Granger Causality Test to ascertain the role of FDI Inflows in dilapidating or accentuating the Current Account Balance.

The study, upon following the analytical framework reached to the conclusion that an Inflow of Foreign Direct investment in Turkey Granger causes Current Account Balance of Turkey. Also, there was no Granger causality devised other way round that is Current Account Balance of Turkey does not Granger cause Foreign Direct Investment Inflows. Thus, the study gave strong evidence of Foreign Direct Investment committing to Current Account position of the Turkish economy. Fry (1996) based their study for the economies of pacific Basin in assessing the influence of Foreign Direct Investment on Current Account for a period ranging 1983-92 and whether this effect of FDI on Current Account of these economies is in the favourable direction or in a debilitating direction. The study also tried to find out whether the same kind of foreign capital is responsible for having favourable repercussions on the Current Account of control group economies. The study analyzed the issue by considering a five equation model and using the three stage least squares regression. The study analyzed the effect of increase in Foreign Direct Investment Inflows on all five indicators in sections, with each analysis maintained and carried out by particular equations. The reason for the inclusion of FDI Inflows effect on Economic Growth is that, for studying and to picture the effect of FDI Inflows on Current Account, the effect it poses on economic growth rates was worth pondering because of its connected effects on domestic investment and national savings. Considering all the mentioned macroeconomic indicators and the effects of Foreign Direct Investment Inflows on them, the study reached on the conclusion that Foreign Direct Investment Inflows in the selected economies of Pacific Basin has gone into improving the Current Account position of the economies. However, the same concluding remark does not follow for the repercussion of Foreign Direct Investment Inflows on the Current Account position of the economies grouped under the control set. In fact, the
same surge in Foreign Direct Investment Inflows when checked, portrayed a positive effect on Current Account of Pacific Basin economies thereby showing an increase in savings, domestic investment, exports, imports and economic growth. Iqbal, Shaikh & Shar (2010) investigated the causality dynamics between Foreign Direct Investment and Trade and Economic Growth for the economy of Pakistan considering 1998 to 2009 as the research period. Collecting quarterly figures of Foreign Direct Investment, Trade and Economic Growth, the research study acted upon the econometric approach of Johansen Cointegration and Granger Causality Test. Also, the study managed to propose effective policy plans for the economy of Pakistan with some categorical protocols to be followed by some particular regions of the economy.

As for the nature and characteristics of data, the data was first transformed into base year data of 1994 using GDP Deflator and second the time series data was checked for possessing unit root by using Augmented Dickey Fuller Test. The results ascertained the data on all variables to be integrated of order one $I(1)$. The results of Granger Causality Test demonstrated a bidirectional causality among Foreign Direct Investment and Gross Domestic Product. In addition, the results also reflected that a unidirectional causal connection flows from Imports to Foreign Direct Investment and Gross Domestic Product. The results generated through econometric approach confers perfectly with the existing growth theories and FDI determinants theory and properly validate the notions of these theories. The study solicits certain policy implications, one being the enhancement of government representation in the Foreign Direct Investment scenario on a global level by acting well on the grounds of determining protection to the investors and the other being region specific.

The unidirectional causality was found from FDI to Current Account and FDI and Current Account were found to be cointegrated in the long run for India. The study was based on the data for the period 1975-2009 using Toda-Yamamoto Granger Causality. With the help of Impulse Response Function, impact of FDI on Current Account has been identified (Kaur, Yadav & Gautum, 2012). With respect to China for the period 1983 to 2005, Liuyong and Yanping (2007) identified that FDI has a negative effect on Current Account. Borensztein et al. (1998) analyzed the repercussions Foreign Direct Investment has on the Economic Growth of host economies for the period starting from 1970 reaching over to 1989. The study included, in their group of host economies 69 developing countries. Besides reaching
on the main motive of determining the effects of FDI on Economic Growth of 69 developing countries, the study also catered to finding out the effect of FDI on domestic investment. For carrying out analysis, Seemingly Unrelated Regression analysis was acted upon the panel data of variables incorporated in the study viz. Foreign Direct Investment Inflows, Domestic Investment, Income Growth Rate and Government Consumption. To reach to the final effect of Foreign Direct Investment on economic growth, the study followed the path of analyzing how the Foreign Direct Investment Inflows get across with human capital, how it affects investment and its efficiency. The availability of human capital, in this study through secondary school attainment, to a large extent, explained the impact of FDI Inflows on an economy. The study revealed that the countries achieving secondary school achievement above 0.52 will gain from FDI. 46 out of 69 developing countries looked up in the study and matched up to this value of secondary school attainment in 1980s. Those with very low degree of human capital demonstrated negative effect of FDI Inflows. In addition to this, Foreign Direct Investment was found to create a crowding effect, acting complementary to domestic investment. Talking about the effect of Foreign Direct Investment on Economic Growth, the results of the analytical approach demonstrate Foreign Direct Investment Inflows to be affecting Economic Growth of these 69 developing economies in a positive manner with an equal positive influence on human capital, income and government consumption.

Sen (1995) centered their work to find out how much Foreign Direct Investment Inflows are concerned with enhancing or degrading the Balance of Payments situation in the short run framework and does the country require additional modes of finance for managing Balance of Payments issues. The crux of the study revolved around an understanding, on which vast majority of countries situated their thoughts in the period predeceasing 1980s. This basic hypothesis of the study was that Foreign Direct Investment Inflows are much more effective in elevating the status of Balance of Payments in comparison to other sources of finance. This brain wave of seeing Foreign Direct Investment as a better tool in ameliorating the Balance of Payments situation gave rise to the idea of formulating policies by organizations like OECD and others as well aiming at propping up Foreign Direct Investment so as to make it a consistent part of Balance of Payments policy. Be that as it may, the belief that Foreign Direct Investment gives a vision to Balance of Payments situation was
overlooked by the result of studies going into analyzing the said matter. Incorporating the simple macroeconomic model with a set of assumptions viz. open economy, production of two goods; one being the export good and the other being home good, restricting capital account, unemployment etc. to name some. The results of the simple macroeconomic model delivered a judgment that Foreign Direct Investment carrying a stipulated debt-equity ratio of 1.8:1 would lead to a dampening in the Balance of Payments of the country. However, after incorporating the institutional and behavioural factors, the results predicted that the repercussions of Foreign Direct Investment would come out to be different. The study however missed out on the front of not including in the model the financial and monetary sectors of the countries.

Besides this limitation the study fulfils the objective by concluding that Foreign Direct Investment must not be recognized as an element to cater to needs of Balance of Payments in the short run. Krishnaswamy & Kanagasabapathy (2013) in their research paper assesses the need of understanding the Balance of Payments situation witnessed in the present era and the era of 90s. Also, the study delves into understanding the reasons that led to the widening of Current Account Deficits of the India’s Balance of Payments. The study caricatures how the Current Account Deficit percentages have only seen an upturn since 2008-09, which marked the period of global financial crisis. The period saw huge unfavourable transformations in regard to trade deficit on account of mounting increase in oil and gold imports and a reduction in export figures. These bewildering transformations shoved the Current Account Deficit to a poor figure of US$ 88.2 billion in 2012-13 from a somewhat relaxing figure of US$ 27.9 billion experience in 2008-09. However, net invisibles surplus acted as a cushion for Current Account Deficit problem but it could not sustain for longer durations and it soon declined to US$ 107.5 billion in 2012-13 from US$111.6 billion experienced two years back. The study concluded on the situation of Balance of Payment comparing the present scenario to that of the 1990s that the circumstances are almost same as those witnessed during the 1991 crisis. The net effect of FDI is positive on Current Account of Balance of Payments (Hossain, 2008). Wang (2010) in his research piece investigates the impact of Foreign Direct Investment Inflows on domestic investment of 50 host countries for a period starting from 1970 and reaching over to 2004. Gathering data for the period on the incorporated variables from the International Financial Statistics (IFS) and World Development Indicators, the study
applied three models of regression analysis; namely the random effects estimation model, the fixed estimation model and the generalized moment estimation model for reaching onto results. The results of these three models determined the consequences of Foreign Direct Investment Inflows on the said group of 50 developing and less developed countries to be of varying nature. Depending on the differential impacts as witnessed due to FDI Inflows on domestic investment of different countries, the results of the study reflects that FDI Inflows pouring into the developing countries have debilitating effect on domestic investment of these DC’s. However, Foreign Direct Investment Inflows have a negligible impact on domestic investment of less developed countries.

The aggregate effect of Foreign Direct Investment Inflows on domestic investment in turn reflects out to be neutral for developing countries whereas it derives out to be positive in the case of less developed countries. This is well proved by the negative value of the coefficient of Foreign Direct Investment at 1% level of significance. This in succession leads to a crowding out effect of domestic investment. Yet another model of regression including lagged Foreign Direct Investment demonstrates the linkages and spillover effects of inward FDI. The coefficient of lagged FDI shows a positive sign stating clearly a crowding in of domestic investment as the time exceeds the prescribed period. The study finally resolves over the judgment that exclusively for less developed countries, an amelioration in Foreign direct Investment Inflows can reaffirm hold of domestic investment because of its crowding in benefit of domestic investment in the case of LDC’s.

Gulzar (2010) executed a research expedition to extract out the agents that gives way to Pakistan’s Balance of payments problem. Recalling the era that experienced the beginning of large Trade and Current Account deficits, the study surfaced the Balance of Payments problems experienced by the Pakistan economy since 1949. However, the situation of trade enhanced significantly during 1954-55 and 1955-56. The complications witnessed in the Balance of Payments however wiped off with a tide marked by the September 11, 2001 happening that brought along with it huge wind down in trade deficit, a twofold increase in foreign remittances and backing benefits in the form of financial allocation from allied partners in the war in the event of terror stricken economy of Pakistan. All these happenings led the Balance of Payments to run a surplus for the first time after 1956-57. The study investigated that the
consideration given to export and import of selected commodities gave a set back to the Balance of Payments of Pakistan. In addition, factors such as Foreign Direct Investment, workers remittances, inflation, gross domestic saving also retrograded the Balance of Payments of Pakistan. Undoubtedly, Pakistan has witnessed an astounding proliferation since last five financial years but the amelioration has been concentrated majorly on some particular products like agricultural products, cotton and rice. The exports are being concentrated too much towards countries like USA, UK, Germany, Hong Kong, Japan and Dubai. Similar is the case with imports that are being hovered over a limited range of commodities such as petroleum products, machinery and transport equipment, fertilizers etc. The low inflow of Foreign Direct Investment in Pakistan has also emerged one reason for the depressing condition of Balance of Payments. Even if the level of Foreign Direct Investment Inflows increase in a particular period, the fluctuating behaviour of the inflows offset the increasing behaviour of Foreign Direct Investment. The study also proposes a number of policy implications so as to balance these economic agents in order to reach an optimistic juncture in the Balance of Payments of Pakistan.

Foreign Direct Investment can cause serious deterioration in Balance of Payments by causing Current Account Deficit in the long run (Kaur, Yadav & Gupta, 2013). Mastroyiannis (2012) in his research work used the Granger Causality Test to find out the causality among Foreign Direct Investment and Current Account of Portugal. The research work first gathered data on the variables for a period ranging 1980 to 2009 and then it followed the series of scrutinizing the stationarity property of time series data and then finally applying the Causality Test. The Dickey Fuller test, Augmented Dickey Fuller Test, KPSS tests and the Phillips Perron test were laid into action to find whether the data of both variables are stationary at level. The Granger Causality Test demonstrated that there exists a bidirectional causality between foreign capital inflow and Current Account for the economy of Portugal. In the short run, foreign capital inflows granger causes Current Account and the causality runs vice versa also. The study proposes that policies should be designed to attract foreign capital by keeping a check over the impingement foreign capital has on the Current Account position of the country.

After the second oil shock of 1979-80, it was argued that there should be greater control over imports in order to overcome the Balance of Payments crisis. In the early
1970s, OPEC surpluses had two diametrically opposite effects on the Balance of Payments of the less developed countries with little variations. At the outset, massive import bills of the oil importing less developed countries resulted in Balance of Payments surpluses of OPEC. Apart from this, OPEC countries financed a construction cum consumption boom in West Asia which attracted human and material resources from the rest of the world including the less developed countries. The result of this was great inflow of foreign exchange in India due to substantially larger exports and remittances and this helped in financing a part of the burgeoning oil bills that the oil imports had to meet (Chandrashekhar, 1985). The interest on accumulated debt of the country particularly in case of India determines the Current Account Deficit. There is a probable relationship between the two. What is to be noted is FDI Inflow increase suggest subjective fall in debt or at least if it becomes constant that is favourable for Current Account in the long run (Sen & Chandrashekhar, 1991). Due to this reason it was in the period of 1981-85 that the government decided to follow the policy of liberalizing imports with the aim of providing an opportunity to boost exports to an extent to overcome BOP crisis (Chandrashekhar, 1985). The main cause of Current Account Deficit is mainly due to fall in merchandise trade (Kaur, Yadav & Gupta, 2013). Several authors have argued that the high Current Account Deficit and the inflow of foreign savings (or foreign capital in other words) are related in a manner that the latter is responsible for former when investment in the system far exceeds its saving capacity resulting into a process of overheating that spillover into the Balance of Payments. Authors thus have concluded that because of this, the required BOP adjustment has to occur through a deflationary policy of cutting back investment. Since private investment is not a variable directly under the control of the government, this has to be ensured through a cutback in government capital expenditure that would simultaneously reduce the fiscal deficit of the government (Sen & Chandrashekhar, 1991).

In recent years, most of the literature in India has tended to focus on the merchandise account (Nachane & Ranade, 1998) or on the Current Account of the Balance of Payment (Palanivel & Klein, 1998). With respect to macroeconomic consequences of Foreign Direct Investment for the Balance of Payments, Jansen (1995) developed a calibrated model of Thailand where output in the economy was demand constraint. Jansen’s simulations concluded that FDI Inflows reduces total demand and production
capacity. Due to greater fall in supply, the real exchange rate appreciates negatively impacting exports. Finally, imports and investment income payments fall resulting in an improvement in the Current Account Balance of BOP. The strong upward pressure exerted on the price of exports by greater international demand could lead to an overall Balance of Payments surplus through valuation effects (Razmi, 2009). The cyclical analysis gives a contrast result with respect to Current and Financial accounts in nine industrial countries (Clausen & Kandil, 2005). In their study, Bergin and Sheffrin (2000) developed testable inter temporal model of the Current Account allowing for variable interest rates and exchange rates. The additional variables acted as channels through which external shocks may influence Current Account Balance.

A Current Account Deficit along with a Capital Account Surplus is identified as a relatively favourable economic condition in a country. This contrast to the perspective of Current Account surplus signals competitiveness. Particularly in the developing countries, fluctuations in the FDI flows leads to fluctuations in the Financial Account. While domestic cyclical conditions determine FDI Inflows and Outflows and private financial flows, management of public debt may be a key component of other financial flows (Kandil, 2009). Jaffri, Asghar, Ali & Asjed (2012) also analyzed for the economy of Pakistan the impact of Foreign Direct Investment Inflows on Current Account and Income outflows. The study however excluded current transfers while analyzing the impact of FDI Inflows on Current Account. For a dataset pertaining to 1983-2011, the study laid into practice the Cointegration approach for reaching to results. The study incorporated two models for ascertaining the impingement made by FDI Inflows. Both the models specified different variables as dependent and independent variables. While the first model took log income outflow as the dependent variable, the second model took Current Account excluding current transfers as the dependent variable. The independent variable in the first model was log of FDI and in the second model, the Foreign Direct Investment was stipulated as the independent variable. After analyzing the dataset of Pakistan using the Autoregressive Distributive Lag Approach (ARDL), the results identified that an inflow of Foreign Direct Investment into Pakistan has had an opposite influence on Current Account in the short run period as well as the in long run period. Zafir (2012) analyzed the relationship between a variety of Foreign Capital flows and Current
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Account of Turkey for the period 1992 to 2011. The research paper also went into
deciding the best capital inflow that finance the deficits in Current Account Balance.

The research work tried to cater to the objective of gauging the causality among
Foreign Direct Investment, Private Investment and Current Account Deficit. Acquiring quarterly data for the different kinds of Foreign Capital flows and Current
Account, the study moved on with analyzing the data by applying methods of
Cointegration, Vector Error Correction Modelling (VECM) and Granger Causality
Test. The results of these techniques reflected a negative association of FDI, PI, PD
and PSD with Current Account Deficit of Turkey. Regarding the decision of the best
financing tool for Current Account Deficit among the variety of Foreign Capital
flows, the results identified Foreign Direct Investment as the most efficient tool to
finance the deficits of Current Account.

Siddiqui & Ahmad (2007) also came up with related conclusions. They based their
investigation on the economy of Pakistan. For a time frame bounding 1976 to 2005,
the study used Cointegration, Vector Error Correction Modelling (VECM) and
Granger Causality Test to ascertain both short run and long run dynamics of the issue
and also to determine the causality between Foreign Direct Investment and Current
Account. The results of the Vector Error Correction Modelling (VECM) displayed
that Foreign Direct Investment and Current Account of Pakistan are related and also
there is a long run association among the two for the period starting 1976 and ending
in 2005. Granger Causality test determined that the two variables cause the other only
uni-directionally. More clearly, the Foreign Direct Investment granger cause in the
longer time frame with no causality devised for shorter time frame. The study wraps
up by concluding that an inflow of Foreign Direct Investment degrades the Current
Account of Pakistan economy. Thus, this result is in line with the other studies based
for Pakistan.

Current Account Balance deteriorates with respect to currency depreciation and the
reduction in the value of exports with respect to currency depreciation correlates with
a reduction in the value of imports. The combined effect cancel out individual effects
on the trade and Current Account Balance in industrial countries (Kandil, 2009). On
the other hand, there is no significant effect on the Current Account Balance in
industrial countries of currency appreciation with respect to nominal value changes in
exports and imports (Kandil, 2009). The ability of a country to properly manage Current Account Deficit may attract foreign investors in the form of capital flows (Arora, Dunaway & Faruqee, 2001; Cooper, 2001; McKinnon, 2001). Economic theory and empirical researches suggest that the Current Account of the Balance of Payments should be sensitive to domestic economic conditions (Obstfeld & Rogoff, 1995; Lane, 1999). It has been observed that Current Account Balance of most industrial countries are affected by changes in real GDP growth rates. Along with it the conclusion reached was that deficits widens during expansionary part of a business cycle and it becomes a surplus as real GDP growth declines (Freund, 2000).

Current Account Deficit was considered as powerful predictors of BOP crisis (Kulkarni & Kamaiah, 2015). The sustainability issues of the Current Account i.e. the importance of exchange rates in influencing the trade balance and the role of high and rising inflation needs to be considered skeptically while studying Current Account Deficit (Rangrajan & Mishra, 2013). Pushing up exports is another point to save the Current Account Deficit (Rangrajan & Mishra, 2013). The cautious point is that the additional borrowings in international market for financing Current Account Deficits may lead India to “debt-trap”. Thus, FDI Inflows should be encouraged because it is not a debt trap (Keshari, 2013). Generally, developing economies are increasingly becoming dependent on capital inflows for financing the widening Current Account Deficit; a study on South Africa substantiated this view (DeBeer & Rangsamy, 2015).

The results of Mukherjee, Chakraborty & Sinha (2014) indicated that there exists a unique long run relationship among Foreign Direct Investment and Current Account Balance with two endogenous structural breaks. A unidirectional causality from India’s Foreign Direct Investment to Current Account Balance has been detected at 5% level of significance. FDI was seen by the authors as beneficial source of financing the Current Account Deficit. Positive balance of Current Account of Balance of Payments particularly in 1970s was the cause of remittances by non-resident Indians. This contributes today also. The major threat in the oil price hike of 1973-74 was tackled by revenues from exports to West Asia and remittances from Indian resident abroad that posted to India’s Balance of Payments crisis. On the basis of this, India’s Current Account Surplus increased heavily. However, the situation in the second oil phase of 1979-80 where the prices has risen to about 150 percent over two years changed. In the same period, Indian exports also negatively affected when it...
fell by a substantial rate of 4.5% in 1980-81 (Chandrashekhar, 1985). Other considerations that are important for BOP includes exports earnings from FDI, import, intensity of the project, reinvestment and repatriation of profits etc. (Sen, 1995).

3.3.2 FDI Inflows and Capital Account of Balance of Payments

As Current Account Balance was discussed in the previous section, researchers have identified that widening current account deficit cannot be seen in isolation as this problem is associated with capital inflows that are part of Capital Account of BOP (Calvo, Leiderman & Reinhart, 1996). It is to be noted that far less research work has been conducted on Capital Account than Current Account of Balance of Payments. The decision to resort to IMF loan in order to tackle BOP crisis of 1970’s was based on the principal argument that it would provide India with a three year respite during which India could carry out necessary structural adjustments that would boost exports and curtail imports to an extent required to substantially reduce Balance of Trade deficit in the year 1970-80 (Chandrasekhar, 1985). Such a situation resulted in pressure created by the multilateral aid agencies and OECD governments on developing countries to actually engage and encourage FDI as an integral part of their BOP management strategy. The importance of FDI in managing BOP problem in the short run was highlighted by the study wherein FDI in the specific sense represents an equity investment which is directly related to the creation of new real capacity. The short run referred to the period in which the economy’s productive capacity and structure assumed to remain constant (Sen, 1995). The study identified that total BOP effects of the new investment was given the difference between the inflows in the Capital Account and the total outflow in the Current Account. As a result of FDI, the BOP will always worsen in the short run, unless the capital inflow is actually substantially higher than the value of tied imports (Sen, 1995). Catao & Milesi-Ferretti (2014) has seen crisis in the light of debt rescheduling by the emerging economies and on the basis of IMF assistance program related to debt. This directly is related to Capital Account of BOP. Against the background of the liquidity crisis of BOP before 1991 liberalization, management of the Capital Account has assumed critical importance in the overall framework of macroeconomic decision making in India (Ranjan & Nachane, 2004). The Capital Account of India has shown a rising trend since 1990’s as highlighted
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by Kaur, Yadav & Gautam (2013). Achieving macroeconomic stability through BOP is the pre-condition for optimizing external sector policies affecting trade, exchange rate and the management of reserves. The policies to be adopted with respect to Capital Account of BOP must include the understanding on the issues such as characteristics of capital flows (FDI Inflows), cost consideration (including transfer pricing) and modalities of monetary and fiscal policies in the interests of macroeconomic stability (Ranjan & Nachane, 2004). Few earlier studies which carried out numerical simulations or empirical analysis of the Balance of Payments effects of FDI on developing countries and found cause of concern. Without working out a general equilibrium solution, recent studies have attempted to address related issues (Razmi, 2009).

The evidence suggests that there is difference between the anticipated effects of currency appreciation and depreciation on major components of Current Account Balance and Capital Account Balance. In this study, the evidence across developing countries is supportive of the positive response of export growth to currency appreciation and depreciation. Thus, the effect of exchange rate fluctuations on export competitiveness appears to be limited in developing countries. This has far reaching impact on Balance of Payments (Kandil, 2009). A study on China highlighted that for the period 1983 to 2005, FDI had a positive effect on Capital Account (Liuyong & Yanping, 2007). The Capital Account of BOP records all the capital flows and for which the major categorization is: Portfolio Flow and Direct Investment Flow. The increased integration among the financial markets has changed the scenario. The modern portfolio theory and CAPM theory have demonstrated the advantages of the portfolio investment. Thus, Capital Account is not affected in isolation through FDI but also by FPI (Noman, Rahman & Naka, 2015). It is to be noted that randomness of capital flows cannot be ignored. Thus, in general, capital flows appear to be random in many developing and industrial countries with limited evidence regarding systematic correlation with exchange rate fluctuations. The effects of currency fluctuations appear to be mixed on FDI flows. Currency appreciation increases the cost of FDI and thus consistency emerges with a reduction in net FDI flows. But in few other countries currency depreciation decreases returns on FDI and have a depressing effect on these flows (Kandil, 2009). Sarode (2012) carried out an investigation into the follow-up of Foreign
Direct Investment on Capital Account, Current Account and GDP of the Indian Economy for the time duration of 1997-2011 using Granger Causality Test and Impulse Response Function. Also, Augmented Dickey Fuller unit root tests were used to check for the stationarity of time series. The results generated reflected Foreign Direct Investment negatively affecting Current Account and positively affecting Capital Account. Ranjan & Nachane (2004) in their study gave special emphasis to the analysis of Capital Account of Balance of Payments in India. The study made use of a simultaneous equation model with a thorough insight into the reasons underlying the usage of the model over other econometric models. Acquiring annual data for the period beginning 1970-71 and elongating up to 1998-99, the model worked in five divisions of equations. The five divisions involved Current account of Balance of Payments, Capital account of Balance of Payments and external debt, output and price determination, money supply and bank credit and fiscal sector consisting market borrowings. The model explained the link between Balance of Payments and the economy through an effect on Current and Capital account, monetary sector, and fiscal sector. Determining the expression of Capital Account and other macroeconomic variables in accordance with a switch in policies underlines the basic motto of the study. These major twist and turns in policies which disturbs the working of Capital Account are changes in world income and in non-interest government expenditure. Changes in CRR (cash reserve ratio) or the bank rate impinge a restricted consequence on the Capital Account. Moreover, each constituent of the Capital Account in isolation was found out delicate to push factors like world income growth. Portfolio investments came out to be susceptible to variations in exchange rates. Also, external borrowings provided a strong evidence of being conscious of debt service ratio and nominal imports. Besides, the alteration in oil prices and interest rates between domestic and foreign countries reacted quickly with non-resident deposits. The study devoted profoundly to India’s macroeconomic scenario because of its standout character of focusing on Capital Account of the India’s BOP contrary to the existing reservoir of literature.

An important study on Capital Account constraint specifically reached to a conclusion that any FDI which involves a debt equity ratio of above 1.83:1 will always make the BOP worse. Apart from it, it was also highlighted that FDI’s normally have a significantly higher Capital Account entry associated with them.
than the corresponding Current Account entry (Sen, 1995). Another aspect related to Capital Account is currency appreciation. According to studies, it does not matter substantially as they do not yield significant results on the Current Account Balance. The evidence provides a stronger support for improvement in the Current Account Balance with currency depreciation in many developing and industrial countries having an opposite impact on Capital Account (Kandil, 2009). With the changing composition and dimensions of capital flows, the focus is rapidly shifting towards individual constituents in the Capital Account. As an example to cite, in recent years, the Capital Account has been dominated by flows such as FDI, PI (including GDR issues), commercial borrowings and non-resident deposits. Though it is a fact that traditionally for India the major item in Capital Account was external aid (Ranjan & Nachane, 2004). The crucial role to the valuation effects of relative price changes on the Balance of Payments is based on the logical and plausible assumption of price inelastic international demand. Wage suppression or increased labour productivity in the non-tradable sector leads to an unambiguous negative impact on the Balance of Payments which is primarily due to income redistribution towards the owners of capital, thus affecting Capital Account of BOP (Razmi, 2009). Contrary to the popular belief, a fall in the Current Account Balance correlates with an increase in net FDI flows and the Capital Account Balance across developing countries. With respect to industrial countries, currency appreciation increases the nominal value of exports and imports. Thus, trade followed by Current Account Balance may improve or deteriorate as an outcome and it will also show up in Capital Account of BOP (Kandil, 2009).

The model of Capital Account of BOP developed by Ranjan and Nanchane (2004) focused on two interactive channels through which the Capital Account of BOP impacts the rest of the economy. However, it is assumed that Capital Account would supplement domestic savings to raise gross investment in the economy which would further affect output growth. When and if capital inflows (FDI particularly) are large, such inflows are absorbed by RBI which leads to a rise in the foreign exchange reserves and subsequently to money supply accelerations. Ultimately, it was concluded that in context of India, Capital Account is adversely affected as a result of slowdown in world income which has also resulted in less inflows of foreign savings into India. Thus, when the world GDP declines, though real growth
rate of India is not affected the impact of the same can be felt on other parameters like capital inflows (FDI Inflows), reserves, money supply, inflation and revenue collection of the government of India (Ranjan & Nachane, 2004). Saluja et al. (2013) in their study looked into explaining the relationship of Foreign Direct Investment with both Capital Account and Current Account of India and attempted to find whether or not there exists a long term relationship between them for the period starting from first financial quarter of 1991 to last financial quarter of 2012. The Johansen Cointegration approach was used to empirically evaluate the relationship between the variables and Augmented Dickey Fuller test was taken into execution to determine the stationarity of the time series data; gathered and furnished from the Reserve Bank of India. Also, the Maximum Likelihood Method and Eigen Value Statistics as a base of Johansen Cointegration were used to ascertain the long run dynamics of the variables. For explaining the short run dynamics, Vector Error Correction model was adopted. The findings suggested that here appeared a positive and long term relationship between Foreign Direct Investment and the Capital Account of India as it was indicated by the long term equilibrium value of 0.530781. Tax concessions for owners of capital in the EPZ are likely to have unfavourable consequences for the Balance of Payments primarily due to the shift in income distribution towards groups whose spending is more import intensive. While in the presence of strong backward linkages and by raising utilization in EPZ the situation may change. Overall the impact of a nominal devaluation on the BOP is ambiguous and depends on the extent of backward linkages to affect Capital Account of BOP (Razmi, 2009).

### 3.3.3 FDI Inflows and Overall Balance of Payments

India did not started working on macroeconomic variables immediately after Independence but it did so in the accounting year 1950-51 when it compiled its Balance of Payments data to show the position of the economy. In the period 1950-1980, there was no change in the policy with respect to macroeconomic decisions and regime remained stable in collection and presentation of macroeconomic data, particularly the Balance of Payments data. Studies have already covered the development in the overall BOP crisis in 1956-57 which paved the path for exchange rate control along with import substitution policy. Due to natural calamities and lack of international aid the overall BOP position deteriorated in mid-
1960s. The outcome was devaluation of rupee and policies regarding tariffs and subsidies were transformed. However, in 1970’s the BOP position improved due to inflows of substantial amount of capital. Thus, capital inflows which comprised of FDI Inflow were a good source of improving the BOP position (Nag & Mukherjee, 2012). Balance of Payments is a matter of concern for emerging economies given the history of their development (Kulkarni & Kamaiah, 2015).

Things changed as the new regime of 1980’s was of great interest for the economists with respect to India’s Balance of Payments. The changes in BOP were substantiated with arguments based on three premises. First, that a higher growth rate over seventh plan would require a better utilization of domestic resources and a major thrust into international market. This was expected to impact the Current Account of BOP. Second factor was the expected transformation from the license and restrictive raj on international trade (imports from India’s point of view) towards a less restrictive policy regime for imports followed by dismantling of controls. It was to bolster international competitiveness by promoting free imports of capital and technology. The third was the expected outcome of this liberalization. It was expected that this liberalization in a medium term would lead to a faster expansion in exports that would ultimately finance larger imports but it was also accepted that this would have to be aided with an adequate inflow of commercial loans and concessional assistance in the short run (Chandrasekhar, 1985). Studies of that period focused on greater imports control to tackle the problem of BOP crisis but it lacked in acceptability of results and often lacked in identifying causality (Chandrasekhar, 1985). A BOP crisis refers to a sharp devaluation of a currency in the face of speculative attack or the inappropriate foreign exchange reserves insufficient to meet a country’s external obligations and import needs (Kulkarni & Kamaiah, 2015).

The scenario substantially changed in the next decade of 1990 with fresh and much larger liberalization policy. In the year 1990’s the Debt GDP ratio had doubled for the preceding decade and was expected for a trajectory growth which was a concern for BOP (Sen & Chandrasekhar, 1991). Again in 1991, India witnessed a BOP crisis and this time it got out of the problem with the help of liberalization reforms pushed up by IMF that allowed for more FDI Inflows to follow (Nag & Mukherjee, 2012). The sum of these current and capital account transactions together constituted the
basic balance on BOP and theoretically it was finally rounded up and the double entry accounting was closed with the help of purchases and repurchases from IMF essentially as an international agency for the country’s BOP. Apart from it, under it, SDR and country’s own reserves were also included (EPW, 1993). In reality, due to discrepancies in the BOP transactions arising from differences in timings, coverage, valuation and possible inaccurate estimation including due to clandestine capital flight through various devices, the credit side of the double entry accounting did not exactly matched the sum of all debit entries. Therefore, balancing act was performed by an item called “Errors and Omissions” (EPW, 1993). Scholars have used the early warning systems to predict BOP crises in order to avoid economic catastrophe (e.g. Frankel & Rose, 1996; Kaminsky, Lizondo & Reinhart, 1998).

The post debt crisis of 1980’s characterized by the view of the researchers that FDI had a more salutary effect on the Balance of Payments of developing countries in contrast to debt finance (Sen, 1995). The empirical evidence also suggested that FDI may have a more positive impact on the BOP of the originating country than on the recipient country (Reddaway et al, 1967; Hufbauer and Adler, 1968; Bergsten, Horst & Moran, 1978; Swedenborg, 1979; Lipsey & Weiss, 1981, 1984; Blomstrom, Lipsey & Kulchycky, 1988; Bergsten & Graham, 1994). Even the World Bank in 1990’s muted its otherwise enthusiastic advocacy of FDI by conceding that profits on FDI often climb quite steeply after an initial period of non-profitability. Thus, it suggested that FDI should be viewed as a means of financing Balance of Payments needs over the medium term (World Bank, 1993). Even in the presence of the pessimistic view of the medium term effects of FDI, it was still touted as a solution to short term BOP management problem (Sen, 1995). Early and mid 70’s have been considered as a comfort period in India’s Balance of Payments (Nag & Mukherjee, 2012). It was concluded that FDI if not managed properly can cause serious deterioration in BOP by causing Current Account Deficit in the long run (Kaur, Yadav & Gautum, 2013).

With this background, Rajan & Nachane (2004) developed a model of BOP divided into five equations including (a) current account of BOP (b) capital account of BOP and external debt (c) output and price determination (d) money supply and bank credit (e) fiscal sector including market borrowings. He reached to a conclusion that the model showing exchange rate adjustment would not lead to substantial
improvements in macroeconomic conditions. An endogenized model of FDI Inflows in a structuralist general equilibrium framework was studied with respect to Balance of Payments. The commonly pursued policies and an export processing zone (EPZ) are likely to have a negative impact on the Balance of Payments due to redistribution of income towards groups more likely to spend on imported goods. Higher capacity utilization in the more import intensive EPZ and the excess supply of non-tradable goods has an adverse effect through a real internal appreciation. However, strong backward linkages may help offset the adverse impact through a favourable valuation effect (Razmi, 2009). The deviations in the realized exchange rate from agent’s forecasts determine fluctuations in components of the Current and Capital account of the Balance of Payments in a sample of developing and industrial countries (Kandil, 2009). As per the study conducted by Kandil and Greene (2002) cyclical effects of payments play an important role, a generalization based on data of United States, though appear replicated in India. The empirical analysis consisted of annual time series data of both Current Account and Capital Account along with major economic components such as exports, imports, trade balance, net capital flows, and net FDI flows. The sample consisted of 21 developing and 25 developed countries and period was 1971-2000 (Kandil, 2009). Hossain (2008) has reported that the net effect of FDI on BOP is positive. Another study on the relationship between FDI and Balance of Payments position of Malaysia concluded that FDI is attracted on the basis of BOP position. This outcome may also apply to India as both are emerging economies, though needs to be empirically tested (Phang, 1998). Both FDI and FPI, apart from market efficiency contribution help to finance the deficit of BOP and preserve the foreign currency reserves (Ahmad, Yang & Draz, 2015).

A point to be added is that researchers have identified that FPI and FDI are both financial transactions with different ownership thresholds (Agarwal, 1997; Hattari & Rajan, 2011; Abid & Bahloul, 2011). Several studies such as Knill (2005), Duasa and Kassim (2009), Boubakri et al. (2013) and Todea and Plesoianu (2013) have identified that foreign capital exerts both positive and negative impact on the economy though findings were not robust for all components. Literature has identified the positive impact of FDI on economic growth and it cannot be overruled that it will be affecting Balance of Payments (Durham, 2004; Baharumshah & Thanoon, 2006; Balakrishnan et al., 2012; Reinhardt et al., 2013). FDI is influential
in developing countries as it affects the overall Balance of Payments (UNCTAD, 2007; Ramasamy & Yeung, 2010). It was identified that services exports also have favourable impact on Balance of Payments and in the history it is evident as the deficit in overall BOP faded off after 1995 due to surplus in trade and services (Kothe & Sawant, 2010). A study on service led growth and BOP constraint in India has argued that present service led growth of India may end in coming decade of a new industrial policy towards manufacturing, infrastructure and research sectors (Nabar-Bhaduri & Vernengo, 2012).