

Trends in the Flow of FDI into India

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Abstract

Foreign Direct Investment (FDI) plays a very important role in the development of the nation. It is very much vital in the case of underdeveloped and developing countries. A typical characteristic of the developing economies is the fact that these economies do not have the needed level of savings and income in order to meet the required level of investment needed to sustain the growth of the economy. In such cases, foreign direct investment plays an important role in bridging the gap between the available resources or funds and the required resources or funds. It plays an important role in the long-term development of a country not only as a source of capital but also for enhancing the competitiveness of the domestic economy through the transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities. In India, FDI is considered as a developmental tool, which helps in achieving self-reliance in various sectors and in the overall development of the economy. India after liberalizing and globalizing the economy to the outside world in 1991, there was a massive increase in the flow of foreign direct investment. This paper analyses FDI inflow into the country during the Post-Liberalization period, especially during the period of fifteen years from 2000-01 to 2014-15. The paper tries to examine the various sets of factors which influence the flow of FDI with special reference to the recent campaign called 'Make in India'. In the models, the dependent variable is FDI. Independent variables are the growth rate of per capita GDP, inflation rate, infrastructural growth, the degree of openness, exchange rate and interest rate. According to the statistical analysis, the growth rate of per capita GDP, infrastructure, Export and Import have a positive sign and are statistically significant. The inflation rate, the exchange rate and the openness of the economy shows a positive sign but are statistically not significant. Interest shows a negative sign but is statistically not significant.

Key Words: FDI, GDP, Make in India, Degree of Openness, Infrastructural Growth, Inflation, Exchange Rate

Introduction

Foreign Direct Investment (FDI) plays a very important role in the development of the nation. It is very much vital in the case of underdeveloped and developing countries. A typical characteristic of the developing economies is the fact that these economies do not have the needed level of savings and income in order to meet the required level of investment needed to sustain the growth of the economy. In such cases, foreign direct investment plays an important role in bridging the gap between the available resources or funds and the required resources or funds. It plays an important role in the long-term development of a country not only as a source of capital but also for enhancing the competitiveness of the domestic economy through the transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities. In India, FDI is considered as a developmental tool, which helps in achieving self-reliance in various sectors and in the overall development of the economy. India

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The study is elaborated through different sections of which there is the study of the literature which looks into the theoretical background of the concept and the factors involved. There is a section with a brief about the data and methodology of the study. The following section is devoted to the analysis of the factors through statistical tools like graphs and tables. In the final section, we have tried to conclude this study by providing a few suggestions and a summary of our findings.

Literature Review

Foreign Direct Investment (FDI) is considered as an engine of economic growth. Before the Economic reforms, the flow of foreign direct investment in India was comparatively limited because of the type of industrial development strategy and the various foreign investment policies followed by the nation. Government policy towards foreign capital was very selective. Foreign investment was normally permitted only in high technology industries in priority areas and in export-oriented areas. So the inflow of FDI before 1990’s was very low. To fully utilize the country’s immense economic potential, the government launched Economic reforms in 1991. The new government policies are simple, transparent and promote domestic and foreign investment. India’s abundant and diversified natural resources, its sound economic policy, good market condition, and high skilled human resources to make it a proper destination for FDI. After long years of journey, FDI was also introduced in various sectors and states in India. The Investment of FDI in various states and sectors leads to the rapid growth of Indian economy. In this background, the paper analyses the sector wise and state wise inflows of FDI during the period 2000-2015. Foreign direct investment is treated as an important mechanism for channelizing transfer of capital and technology and thus perceived to be a potent factor in promoting economic growth in the host countries. Moreover, multinational corporations consider FDI as an important means to reorganize their production activities across borders in accordance with their corporate strategies and the competitive advantage of host countries.

Definition of FDI

A foreign direct investment (FDI) is an investment made by a company or entity based in one country, into a company or entity based in another country. The Foreign direct investment includes “mergers and acquisitions, building new facilities, reinvesting profits earned from overseas operations and Intra Company loans or the investment made either “inorganically” by buying a company in the target country or “organically” by expanding operations of an existing business in that country can be called FDI. As a part of the national accounts of a country, and in regard to the GDP equation $Y=C+I+G+(X-M)$ or [Consumption + gross Investment + Government spending + (exports - imports)], where I is domestic investment plus foreign investment, FDI is defined as the net inflows of investment (inflow minus outflow) to acquire a lasting management interest in an enterprise operating in an economy other than that of the investor. FDI is the sum of equity capital, other long-term capital, and short-term capital as shown the Balance of Payments (BOP). FDI usually involves participation in management, Joint Venture, Transfer of Technology and expertise. The stock of FDI is the net (i.e., inward

FDI minus outward FDI) cumulative FDI for any given period. Direct investment, excludes Financial Institutional Investment (FII) or investment through the purchase of shares which otherwise called as a Portfolio Foreign Investment, a passive investment in the securities of another country such as public stocks and bonds, by the element of “control”.

Agiomirgianakis et al. (2003) mentioned that FDI is mostly defined as capital flows resulting from the behavior of multinational companies (MNCs). Thus, the factors to affect the behavior of MNCs may also affect the magnitude and the direction of FDI. MNCs expand their activities to a foreign country for a number of reasons, including, among others, the exploitation of economies of scale/scope, the use of specific advantages, often owing to a life-cycle pattern of their products or just because their competitors have engaged in similar activities. On the other hand, governments are also engaged in a policy competition by changing key factors of their economic policies, such as domestic labor market conditions, corporate taxes, tariff barriers, subsidies, privatization and regulatory regime policies so as to improve FDI activity in their countries.

In the Asian Development Outlook (ADB, 2004), it is stated that in recent years, FDI has substantially accelerated as a result of many factors, such as rapid technological progress, the emergence of globally integrated production and marketing networks, existence of bilateral investment treaties, recommendations from multilateral development banks, and positive evidence from developing countries that have opened their doors to FDI.

Today, as mentioned by Bouoiyour (2003), many countries have been actively trying to attract foreign investment offering income tax holidays, import duty exemptions and subsidies to foreign firms, as well as measures like market preferences, infrastructures and sometimes even monopoly rights.

The Determinants of FDI: Theoretical Background

There are many theories which attempt to explain the determinants of FDI. These theories are significant steps towards the development of a systematic framework for the emergence of FDI. However, the capacity of each to serve as a self-contained general theory, which could explain all types of FDI (i.e., outward as well as inward FDI at the firm, industry, and country level), has been questioned in the works of various scholars. Agarwal (1980), Parry (1985), Itaki (1991) can be given as examples. Dunning is one of the most referenced ones by authors working on FDI.

Dunning (1993) describes three main types of FDI based on the motive behind the investment from the perspective of the investing firm.

Market-Seeking FDI: The market-seeking FDI also called horizontal FDI involves in the replication of production facilities in the host country and its aim is to serve local and regional markets. Because the reason for horizontal FDI is to better serve a local market by local production, market size and market growth of the host economy play important roles. Obstacles to accessing local markets, such as tariffs and transport costs, also encourage this type of FDI.

Resource -Seeking FDI: When firms invest abroad, they seek to obtain resources that are not available in their home countries, such as natural resources, raw materials, or low-cost labor the FDI is termed as a resource seeking one. Particularly in the manufacturing sector, when the multinationals directly invest in order to export, factor-cost considerations become important. In contrast to horizontal FDI, vertical or export-oriented FDI involves relocating parts of the

production chain to the host country. Availability of low-cost labor is a prime driver for export-oriented FDI. Naturally, FDI in the resource sector, such as oil and natural gas, is attracted to countries with plentiful natural endowments.

Efficiency-Seeking FDI: The type of FDI that takes place when the firm can gain from the common governance of geographically dispersed activities in the presence of economies of scale and scope.

The Determinants of FDI: Empirical Evidence

In 1998, the World Investment Report, UNCTAD (1998) has analyzed the determinants of FDI and host country determinants have been classified into the three groups. These are political factors, business facilitation, and economic factors. The absence of a generally accepted theoretical framework has led researchers to rely on empirical evidence for explaining the emergence of FDI.

The literature examines a large number of variables that have been set forth to explain FDI. Some of these variables are included in formal hypotheses or theories of FDI, whereas others are suggested because they make sense instinctively. Most of the variables used in empirical studies appear in the UNCTAD's (1998) classification of the determinants of inward FDI. Regardless of the underlying hypothesis or the classification of these variables, existing empirical studies have considered different combinations of these variables with mixed results, not only with respect to the importance or otherwise of these variables (statistical significance) but in terms of the direction of the effect. In the literature, there are many determinants often cited in the econometric studies.

Market Size

Artige and Nicolini (2005) state that market size as measured by GDP or GDP per capita seems to be the most robust FDI determinant in econometric studies. This is the main determinant for horizontal FDI. It is irrelevant for vertical FDI. Jordaan (2004) mentions that FDI will move to countries with large growing markets and greater purchasing power, where firms can potentially receive a higher return on their capital and by implication receive a higher profit from their investments.

Charkrabarti (2001) states that the market-size hypothesis supports an idea that a large market is required for efficient utilization of resources and exploitation of economies of scale: as the market-size grows to some critical value, FDI will start to increase thereafter with its further expansion. This hypothesis has been quite popular and a variable representing the size of the host country market has come out as an explanatory variable in nearly all empirical studies on the determinants of FDI.

In ODI (1997), it is stated that econometric studies comparing a cross-section of countries point to a well-established correlation between FDI and the size of the market, which is a proxy for the size of GDP, as well as some of its characteristics, such as average income levels and growth rates. Some studies found GDP growth rate to be a significant explanatory variable, whereas GDP was not, probably indicating that where the current size of national income is very small, increases may have less relevance to FDI decisions than growth performance, as an indicator of market potential.

Econometric results on market size are far from being unanimous. Edwards (1990) and Jaspersen et al. (2000) use the inverse of income per capita as a proxy for the return on capital

and conclude that real GDP per capita is inversely related to FDI/GDP, but Schneider and Frey (1985), Tsai (1994) and Asiedu (2002) find a positive relationship between the two variables. They argue that a higher GDP per capita implies better prospects for FDI in the host country. Pärletun (2008) finds that the variable GDP is positive and statistically significant at less than 1% level. She argues that the enlargement of market size tends to stimulate the attraction of FDI to the economy. Ang (2008) finds that real GDP has a significant positive impact on FDI inflows. He also finds that growth rate of GDP exerts a small positive impact on inward FDI.

Infrastructure

Infrastructure covers many dimensions ranging from roads, ports, power generation, railways and telecommunication systems to institutional development (e.g. accounting, legal services, etc.). According to the ODI (1997), poor infrastructure can be seen, however, as both an obstacle and an opportunity for foreign investment. For the majority of low-income countries, it is often cited as one of the major constraints. But foreign investors also point to the potential for attracting significant FDI if host governments permit more substantial foreign participation in the infrastructure sector. Jordaan (2004) claims that good quality and well-developed infrastructure increases the productivity potential of investments in a country and therefore stimulates FDI flows towards the country. According to Asiedu (2002) and Ancharaz (2003), the number of telephones per 1,000 inhabitants is a standard measurement in the literature for infrastructure development. However, according to Asiedu (2002), this measure falls short, because it only captures the availability and not the reliability of the infrastructure.

Growth

The role of growth in attracting FDI has also been the subject of controversy. Charkrabarti (2001) states that the growth hypothesis developed by Lim (1983) maintains that a rapidly growing economy provides relatively better opportunities for making profits than the ones growing slowly or not growing at all. Lunn (1980), Schneider and Frey (1985) and Culem (1988) find a significant positive effect of growth on FDI while Tsai (1994) obtains a strong support for the hypothesis over the period 1983 to 1986, but only a weak link from 1975 to 1978. On the other hand, Nigh (1985) reports a weak positive correlation for the less developed economies and a weak negative correlation for the developed countries. Ancharaz (2003) find a positive effect on lagged growth for the full sample and for the non-Sub-Saharan African countries, but an insignificant effect of the Sub-Saharan Africa sample. Gastanaga et al. (1998) and Schneider and Frey (1985) found significant positive effects of growth on FDI.

Openness

Charkrabarti (2001) states that there is mixed evidence concerning the significance of openness, which is measured mostly by the ratio of exports plus imports to GDP, in determining FDI, as well. The maintained hypothesis is: given that most investment projects are directed towards the tradable sector, a country's degree of openness to international trade should be a relevant factor in the decision. Jordan (2004) claims that the impact of openness on FDI depends on the type of investment. When investments are made with an intention to exploit a new market, trade restrictions (and therefore less openness) can have a positive impact on FDI. That is the foreign firms that seek to serve local markets may decide to set up subsidiaries in the host country if it is difficult to import their products into the country. In contrast, multinational firms engaged in export-oriented investments may prefer to invest in a more open economy since increased imperfections that accompany trade protection generally imply higher transaction costs associated with exporting. Wheeler and Mody (1992) observe a strong positive support for the hypothesis in the manufacturing sector, but a weak negative link in the electronics sector.

Kravis and Lipsey (1982), Culem (1988), Edwards (1990) find a strong positive effect of openness on FDI and Schmitz and Bieri (1972) obtain a weak positive link. Pärletun (2008) finds that trade openness is positive but statistically significant from zero. In ODI (1997), it is stated that while access to specific markets – judged by their size and growth – is important, domestic market factors are predictably much less relevant in export-oriented foreign firms. A range of surveys suggests a widespread perception that “open” economies encourage more foreign investment.

Exchange Rate Valuation

The exchange rate is the price of a nation’s currency in terms of another currency. An exchange rate, thus has two components, the domestic currency, and a foreign currency, and can be quoted either directly or indirectly. In a direct quotation, the price of a unit of foreign currency is expressed in terms of the domestic currency. In an indirect quotation, the price of a unit of domestic currency is expressed in terms of the foreign currency. An exchange rate that does not have the domestic currency as one of the two currency components is known as a cross currency or cross rate. It is also known as a currency quotation, the foreign exchange rate or forex rate.

Exchange rates can influence both the total amount of foreign direct investment that takes place and the allocation of this investment spending across a range of countries. The exchange rate is considered to be one of the important macroeconomic variables in determining the country’s economic stability.

Many studies have examined the impact of the exchange rate fluctuations on macroeconomic variables and stated that the depreciation of the home currency leads to higher exports and lesser imports. The behavior of the exchange rate in relation to the macroeconomic variables like GDP, Export, Import, Trade balances, Investment, Inflation and Sensex has shown a positive relationship with the exchange rate for the period of 1997-2003 in a study conducted by Dhaneesh Kumar (IUP, Vol. XVI, No. 4, 2015). Even though there is a significant relation observed among FDI and Exchange rate, the relation with the GDP and FII was not significant.

When a currency depreciates, meaning that its value declines relative to the value of another currency, this exchange rate movement has two potential implications for FDI.

First, it reduces that country’s wage and production costs relative to those of its foreign counterparts. All else equal, the country experiencing real currency depreciation has enhanced “locational advantage” or attractiveness as a location for receiving productive capacity investments. With this “relative wage” channel, the exchange rate depreciation improves the overall rate of return to foreigners contemplating an overseas investment project in this country. The exchange rate level effects on FDI through this channel rely on the relative production costs across countries.

Consider what occurs when exchange rates move. A depreciation of the destination market currency raises the relative wealth of source country agents and can raise multinational acquisitions of certain destination market assets. To the extent that source country agents hold more of their wealth in own currency-denominated form, a depreciation of the destination currency increases the relative wealth position of source country investors, lowering their relative cost of capital. This allows the investors to bid more aggressively for assets abroad. Empirical support for this channel is provided by Klein and Rosengren (1994), who show that the importance of this relative wealth channel exceeded the importance of the relative wage

channel in explaining FDI inflows to the United States during the period from 1979 through 1991. Blonigen (1997) makes a “firm-specific asset” argument to support a role for exchange rate movements in influencing FDI. Suppose that foreign and domestic firms have an equal opportunity to purchase firm-specific assets in the domestic market, but different opportunities to generate returns on these assets in foreign markets. In this case, currency movements may affect relative valuations of different assets. While domestic and foreign firms pay in the same currency, the firm-specific assets may generate returns in different currencies. The relative level of foreign firm acquisitions of these assets may be affected by exchange rate movements. In the simple stylized example, if a representative foreign firm and domestic firm bid for a foreign target firm with firm-specific assets, real exchange rate depreciations of the foreign currency can plausibly increase domestic acquisitions of these target firms. Again, this channel predicts that foreign currency depreciation will lead to enhanced FDI into the foreign economy.

In addition to these arguments supporting the effects of levels of exchange rates, volatility of exchange rates also matters for FDI activity. Theoretical arguments for volatility effects are broadly divided into “production flexibility” arguments and “risk aversion” arguments. To understand the production flexibility arguments, consider the implications of having a production structure whereby producers need to commit investment capital to domestic and foreign capacity before they know the exact production costs and exact amounts of goods to be ordered from them in the future. When exchange rates and demand conditions are realized, the producer commits to actual levels of employment and the location of production. As Aizenman (1992) demonstrates the extent to which exchange rate variations can impact foreign investment hinges on the sunk costs in capacity, competitive structure of the industry, and overall on the convexity of the profit function in prices. In the production flexibility arguments, the important presumption is that producers can adjust their use of a variable factor following the realization of a stochastic input into profits. Without this variable factor, i.e. under a productive structure with fixed instead of variable factors, the potentially desirable effects on profits of price variability are diminished. By the production flexibility arguments, more volatility is associated with more FDI ex-ante, and more potential for excess capacity and production shifting ex-post, after exchange rates are observed. An alternative approach linking exchange-rate variability and investment relies on risk aversion arguments. The logic is that investors require compensation for the risks that exchange rate movements introduce additional risk into the returns on investment. Higher exchange-rate variability lowers the certainty equivalent expected exchange-rate level, as in Cushman (1985). Since certainty equivalent levels are used in the expected profit functions of firms that make investment decisions today in order to realize profits in future periods. If exchange rates are highly volatile, the expected values of investment projects are reduced, and FDI has reduced accordingly. When considering the existence and form of the real effects of exchange rate variability, a clear distinction must be made between short-term exchange rate volatility and long-term misalignments of exchange rates. Hence, risk aversion arguments are more convincing than the production flexibility arguments posed in relation to the effects of short-term exchange rate variability. For variability assessed over longer time horizons, the production flexibility motive provides a more compelling rationale for linking foreign direct investment flows to the variability of exchange rates. Empirically, exchange rate volatility tends to increase the share of a country’s productive capacity that is located abroad. Real depreciations of the source country currency were associated with reduced investment shares to foreign markets.

Although theoretical arguments conclude that the share of total investment located abroad may rise as exchange rate volatility increases, this does not imply that exchange rate volatility depresses domestic investment activity. In order to conclude that domestic aggregate

investment declines, one must show that the increase in domestic outflows is not offset by a rise in foreign inflows. In the aggregate United States economy, exchange rate volatility has not had a large contracting effect on overall investment (Goldberg 1993). Overall, the current state of knowledge is that exchange rate volatility can contribute to the internationalization of production activity without depressing economic activity in the home market. The actual movements of exchange rates can also influence FDI through relative wage channels, relative wealth channels, and imperfect capital market arguments.

Interest Rates and Inflation Rates

Interest Rates are a very important tool for an economy. It determines country's growth, its inflation, the value of its currency, indirectly the level of employment and investment prospects in the country in the form of FII, FDI. To achieve more openness in the economy, India should be open to investments, thereby reducing prevailing interest rates taking into consideration the inflation.

Tax

The literature remains fairly indecisive regarding whether FDI may be sensitive to tax incentives. Some studies have shown that host country corporate taxes have a significant negative effect on FDI flows. Others have reported that taxes do not have a significant effect on FDI. Hartman (1994), Grubert and Mutti (1991), Hines and Rice (1994), Loree and Guisinger (1995), Cassou (1997) and Kemsley (1998) find that host country corporate income taxes have a significant negative effect on attracting FDI flows. However, Root and Ahmed (1979), Lim (1983), Wheeler and Mody (1992),

Jackson and Markowski (1995), Yulin and Reed (1995) and Porcano and Price (1996) conclude that taxes do not have a significant effect on FDI. Swenson (1994) reports a positive correlation. The direction of the effects of above-mentioned determinants on FDI may be different. A variable may affect FDI, both positively and negatively. For example, factors, such as labor costs, trade barriers, trade balance, the exchange rate and tax have been found to have both negative and positive effects on FDI. In the empirical studies, a various combination of these determinants as explanatory variables have been used.

Moosa (2005) states that due to the absence of a consensus on a theoretical framework to guide empirical work on FDI, there is no widely accepted set of explanatory variables that can be regarded as the "true" determinants of FDI.

Clustering Effects

Studies have identified clustering effects: foreign firms appear to gather together either due to linkages between projects or due to herding as a larger existing FDI stock is regarded as a signal of a benign business climate for foreign investors. FDI may also benefit from the presence of external scale economies, where new investors mimic past investment decisions by other investors in choosing where to invest. By clustering with other firms, new investors benefit from positive spillovers from existing investors in the host country. Evidence for these effects is widespread, with Wheeler and Mody (1992) in the case of U.S. firms, Barrell and Pain (1999) in the Western European context, and Campos and Kinoshita (2003) in the transition economies, all finding empirical evidence of agglomeration effects.

Labor Costs and Productivity

Charkrabarti (2001) claims that wage as an indicator of labor cost has been the most contentious of all the potential determinants of FDI. Theoretically, the importance of cheap labor in

attracting multinationals is agreed upon by the proponents of the dependency hypothesis as well as those of the modernization hypothesis, though with very different implications. There is, however, no unanimity even among the comparatively small number of studies that have explored the role of wage in affecting FDI: results range from higher host country wages discouraging inbound FDI to having no significant effect or even a positive association.

There is no unanimity in the studies regarding the role of wages in attracting FDI. Goldsbrough (1979), Saunders (1982), Flamm (1984), Schneider and Frey (1985), Culem (1988), and Shamsuddin (1994) demonstrate that higher wages discourage FDI. Tsai (1994) obtains strong support for the cheap-labor hypothesis over the period 1983 to 1986, but weak support from 1975 to 1978. In ODI (1997), it is stated that empirical research has also found relative labor costs to be statistically significant, particularly for foreign investment in labor-intensive industries and for export-oriented subsidiaries. However, when the cost of labor is relatively insignificant (when wage rates vary little from country to country), the skills of the labor force are expected to have an impact on decisions about FDI location.

Political Risk

The ranking of political risk among FDI determinants remains rather unclear. According to the ODI (1997), where the host country owns rich natural resources, no further incentive may be required, as it is seen in politically unstable countries, such as Nigeria and Angola, where high returns in the extractive industries seem to compensate for political instability. In general, as long as the foreign company is confident of being able to operate profitably without excessive risk to its capital and personnel, it will continue to invest. For example, large mining companies overcome some of the political risks by investing in their own infrastructure maintenance and their own security forces. Moreover, these companies are limited neither by small local markets nor by exchange-rate risks since they tend to sell almost exclusively on the international market at hard currency prices.

Specific proxy variables (e.g. number of strikes and riots, work days lost, etc.) have proved significant in some studies; but these quantitative estimates can capture only some aspects of the qualitative nature of political risk. The empirical relationship between political instability and FDI flows is unclear. For example, Jaspersen et al. (2000) and Hausmann and Fernandez-Arias (2000) find no relationship between FDI flows and political risk while Schneider and Frey (1985) find an inverse relationship between the two variables. Using data on U.S. FDI for two time periods, Loree and Guisinger (1995) found that political risk had a negative impact on FDI in 1982 but no effect in 1977. Edwards (1990) uses two indices, namely political instability and political violence, to measure political risk. Political instability (which measures the probability of a change of government) was found to be significant while political violence (i.e. the frequency of political assassinations, violent riots, and politically motivated strikes) was found to be insignificant.

Foreign Direct Investment in India

India has invited Foreign Investment since independence. Foreign capital investments through FDI and FPI received prime importance in the New Economic Policy 1991. In India, FDI is considered as a developmental tool, which helps in achieving self-reliance in various sectors and in the overall development of the economy. India after liberalizing and globalizing the economy to the outside world in 1991, there was a massive increase in the flow of foreign direct investment.

An Overall View of FDI (After Independence)

The main aim of the Industrial Policy 1948 was to lay the foundation of a Mixed Economy in which both private and public enterprises would join together to accelerate the growth of industrial development. In April 1956, one of the main objectives of the policy was to attract Foreign Capital and FDI. In December 1977, the Janata Government reduced the limits on FDI. In 1980, Congress Government liberalized the licensing policy for large and big business and a more capital-intensive path of development. Realizing the importance of FDI Congress government initiated the Economic Reforms to increase the Foreign Exchange resources for the development of Indian Economy. Economic Reforms has two phases.

Economic Reforms – The First Phase

Economic Reforms (1985-1990) was introduced by Prime Minister Mr. Rajiv Gandhi in 1985. He outlined the new trends in the economic policy of the Government. The idea suggested by him was: Improvement in productivity, absorption of modern technology and fuller utilization of capacity. The basic thrust of the New Economic Policy was a greater role for the private sector.

In order to provide the private sector more opportunities to grow, a number of changes in policy were introduced with regard to industrial licensing, export – import policy, technology up gradation, fiscal policy, foreign equity capital, removal of controls and restrictions, rationalizing and simplifying the system of fiscal and administrative regulation. All these changes were directed towards creating an uninhibited climate for the private sector so that private sector investment could get a big boost to modernize the economy and in rapid growth. Professor K. N. Raj rightly sums up the focus of new economic policy: “There has been however a general agreement that a very distinctive feature of these policy changes taken as a whole is the greater scope for unfettered expansion they offer to the private sector, particularly in the corporate segment of manufacturing industry and the opportunities opened up to multi – national enterprises”.

The New Economic Policy focused its attention on dismantling the control so as to remove unnecessary hurdles in securing licenses, in adjusting output to administered prices and in denying industrial licensing to MRTP companies. The Government initiated a number of measures in this regard to improve and attract direct investment.

Economic Reforms – The Second Phase

Economic reforms were introduced under the Rajiv Gandhi regime did not yield the desired result. The balance of trade deficit instead of narrowing down increased. Whereas the average deficit in trade balance during the Sixth Plan (1980-85) was Rs.5, 930 crores, it raised to Rs. 10,840 crores during the Seventh Plan (1985-90). There was also a decline in the receipts on the invisible account, from Rs.19,070 crores during the Sixth Plan to Rs. 15,890 crores during the Seventh Plan. Consequently, the country was faced with a serious balance of payments crisis. Thus, India was forced to approach the World Bank and the IMF to provide a huge loan of about \$ 7 billion to bail India out of the crisis. While agreeing to provide assistance to India, the World Bank – IMF insisted that the Government must put its economy back on rails.

The Congress Government, on June 21, 1991, adopted a number of stabilization measures that were designed to restore internal and external confidence. Monetary policy was tightened further through an increase in interest rates, the exchange rate of the rupee was adjusted by 22 percent and major simplification and liberalization of trade policy were announced. The

Government adopted, as the centerpiece of the economic strategy, a program to bring about a reduction in fiscal imbalance to be supported by reforms in economic policy that were essential to impart a new element of dynamism to the growth process in the economy.

Dr. Manmohan Singh, the Finance Minister submitted the Memorandum on Economic policies to IMF proposed: ‘The thrust will be to increase the efficiency and international competitiveness of industrial production, to utilize foreign investment and technology to a much greater degree than in the scope of the public sector, and to reform and modernize the financial sector so that it can more efficiently serve the needs of the economy’. The International Financial Institution insisted the Government to follow the LPG model to reduce the balance of payment deficit.

An LPG model of development was introduced in 1991 by the Finance Minister Dr. Manmohan Singh with a big bang was intended to charter a new strategy with an emphasis on Liberalization, Globalization, and Privatization (LPG). Several major changes at the domestic level were introduced.

- Areas reserved for the public sector were opened to private sector.
- Permitting the private sector to set up industrial units without taking a license.
- Abolishing the limits of assets in respect of MRTP companies, the government freed the business houses to undertake investment without any ceiling.
- To facilitate direct foreign investment, the government decided to grant approval for FDI up to 51 percent in high priority areas.
- To improve the performance of public sector enterprises and greater autonomy was given to public sector unit managements.

The LPG model of development emphasizes a bigger role for the private sector. It envisages a much larger quantum of Foreign Direct Investment to supplement our growth process. During August 1991 and August 1998 the government approved the total foreign investment of Rs.1, 73,510 crores, about 137 times the Rs. 1,270 crores of foreign investment in the last decade (1981-1990). According to the World Investment Report (WIR), the target rate of FDI inflows in the Eleventh plan will be around 16 billion.

Trends in FDI Inflows to India

With the tripling of the FDI flows to EMEs during the pre-crisis period of the 2000s, India also received large FDI inflows in line with its robust domestic economic performance. The attractiveness of India as a preferred investment destination could be ascertained from the large increase in FDI inflows to India, which rose from around US\$ 6 billion in 2001-02 to almost US\$ 38 billion in 2008-09. The significant increase in FDI inflows to India reflected the impact of liberalization of the economy since the early 1990s as well as gradual opening-up of the capital account. As part of the capital account liberalization, FDI was gradually allowed in almost all sectors, except a few on grounds of strategic importance, subject to compliance with sector-specific rules and regulations. The large and stable FDI flows also increasingly financed the current account deficit over the period. During the recent global crisis, when there was a significant deceleration in global FDI flows during 2009-10, the decline in FDI flows to India was relatively moderate reflecting robust equity flows on the back of a strong rebound in domestic growth ahead of global recovery and steadily reinvested earnings (with a share of almost 25 per cent) reflecting better profitability of foreign companies in India. However, when there had been some recovery in global FDI flows, especially driven by flows to Asian EMEs, during 2010-11, gross FDI equity inflows to India witnessed significant moderation. Gross equity FDI flows to India moderated to US\$ 20.3 billion during 2010-11 from US\$ 27.1 billion

in the preceding year.

From a sectoral perspective, FDI in India mainly flowed into the services sector (with an average share of 41 percent in the past five years) followed by manufacturing (around 23 percent) and mainly routed through Mauritius (with an average share of 43 % in the past five years) followed by Singapore (around 11 %). However, the share of services declined over the years from almost 57 percent in 2006-07 to about 30 percent in 2010-11, while the shares of manufacturing, and ‘others’ largely comprising ‘electricity and other power generation’ increased over the same period. Sectoral information on the recent trends in FDI flows to India show that the moderation in gross equity FDI flows during 2010-11 has been mainly driven by sectors such as ‘construction, real estate and mining’ and services such as ‘business and financial services’. Manufacturing, which has been the largest recipient of FDI in India, has also witnessed some moderation.

FDI Policy Framework in India

There has been a sea change in India’s approach to foreign investment since the early 1990s when it began structural economic reforms encompassing almost all the sectors of the economy.

Pre-Liberalization Period

Historically, India had followed an extremely cautious and selective approach while formulating FDI policy in view of the dominance of ‘import-substitution strategy’ of industrialization. With the objective of becoming ‘self-reliant’, there was a dual nature of policy intention – FDI through foreign collaboration was welcomed in the areas of high technology and high priorities to build national capability and discouraged in low technology areas to protect and nurture domestic industries. The regulatory framework was consolidated through the enactment of the Foreign Exchange Regulation Act (FERA), 1973 wherein foreign equity holding in a joint venture was allowed only up to 40 percent. Subsequently, various exemptions were extended to foreign companies engaged in export-oriented businesses and high technology and high priority areas including allowing equity holdings of over 40 per cent. Moreover, drawing from the successes of other country experiences in Asia, the Government has not only established special economic zones (SEZs) but also designed liberal policy and provided incentives for promoting FDI in these zones with a view to promoting exports. As India continued to be highly protective, these measures did not add substantially to export competitiveness. Recognizing these limitations, partial liberalization in the trade and investment policy was introduced in the 1980s with the objective of enhancing export competitiveness, modernization, and marketing of exports through Transnational Corporations (TNCs). The announcements of Industrial Policy (1980 and 1982) and Technology Policy (1983) provided for a liberal attitude towards foreign investments in terms of changes in policy directions. The policy was characterized by de-licensing of some of the industrial rules and promotion of Indian manufacturing exports as well as emphasizing on the modernization of industries through liberalized imports of capital goods and technology. This was supported by trade liberalization measures in the form of tariff reduction and shifting of a large number of items from import licensing to Open General Licensing (OGL).

Post-Liberalization Period

A major shift occurred when India embarked upon economic liberalization and reform program in 1991 aiming to raise its growth potential and integrating with the world economy. Industrial policy reforms gradually removed restrictions on investment projects and business expansion on the one hand and allowed increased access to foreign technology and funding in the other.

A series of measures that were directed towards liberalizing foreign investment included:

- (i) Introduction of dual route of approval of FDI – RBI's automatic route and Government's approval (SIA/FIPB) route,
- (ii) Automatic permission for technology agreements in high priority industries and removal of restriction of FDI in low technology areas as well as liberalization of technology imports,
- (iii) Permission to Non-resident Indians (NRIs) and Overseas Corporate Bodies (OCBs) to invest up to 100 percent in high priority sectors, (iv) hike in the foreign equity participation limits to 51 percent of existing companies and liberalization of the use of foreign 'brand name' and (v) signing the Convention of Multilateral Investment Guarantee Agency (MIGA) for protection of foreign investments. These efforts were boosted by the enactment of the Foreign Exchange Management Act (FEMA), 1999 [that replaced the Foreign Exchange Regulation Act (FERA), 1973] which was less stringent. This, along with the sequential financial sector reforms paved way for greater capital account liberalization in India.

Investment proposals falling under the automatic route and matters related to FEMA are dealt with by RBI, while the Government handles investment through approval route and issues that relate to FDI policy through its three institutions, viz., the Foreign Investment Promotion Board (FIPB), the Secretariat for Industrial Assistance (SIA) and the Foreign Investment Implementation Authority (FIIA).

FDI under the automatic route does not require any prior approval either by the Government or the Reserve Bank. The investors are only required to notify the concerned regional office of the RBI within 30 days of receipt of inward remittances and file the required documents with that office within 30 days of issuance of shares to foreign investors. Under the approval route, the proposals are considered in a time-bound and transparent manner by the FIPB. Approvals of composite proposals involving foreign investment/ foreign technical collaboration are also granted on the recommendations of the FIPB.

FDI Monitoring and Reviewing Agencies

The inflow and outflow of FDI into India is monitored by the Ministry of Commerce and Industry, Reserve Bank of India (RBI), Foreign Investment Promotion Board (FIPB) and Department of Industrial Policy and Promotion (DIPP).

Review of Literature on FDI flow and its impact in India

A good number of studies have investigated on FDI issues. However, the following deserve a special mentioning, since they have gone deeper into the crux of the FDI issues in India.

Ragavendra Jha (2003) analyses the recent trends in FDI flows in India. He finds that FDI flows to India have not been commensurate with her economic potential and performance. The GOI revised its computation of FDI figures in line with the best international practices, which has led to a substantial improvement in FDI figures. The quality of FDI as manifest in technological spillovers, export performance, etc. are more important than its quantity.

Rashmi Banga's (2003) found that FDI has not played a significant role in exports of the Indian manufacturing sector in the post-reform period and concludes that FDI in India has led to export diversification.

N.S. Siddharthan and K.Lal (2004) argues in favor of using an unbalanced panel that takes into account the entry and exit of the firms. Firms with better endowments in terms of productivity and technology benefited from liberalization and MNC presence. Firms with large productivity gaps became the victims.

Nidhiya Menon and Paroma Sanyal (2004) investigate how labor conflict, credit constraints and indicators of a state's economic health influence location decisions of the foreign firms. Results indicate that labor unrest is highly endogenous across the states of India, and has a strong negative impact on foreign investment.

Kulwinder Singh (2005) reveals that while FDI shows a gradual increase and has become a staple of success in India, the progress is hollow. He finds that in the comparative studies the notion of infrastructure has gone a definitional change. FDI in sectors is held up primarily by telecommunications and power and is not evenly distributed.

Mohan Guruswamy, Kamal Sharma (2005) discusses the retail industry in India in their study on FDI in the retail sector. They focus on the "labor displacing" effect on employment due to FDI in the retail sector. The primary task of the Government in India is still to provide livelihood and not create so-called efficiencies of scale by creating redundancies.

Vinoj Abraham and Pradhan (2005) examine the patterns and motivations behind the overseas mergers and acquisitions by Indian enterprises. It is found that the main motivation of Indian firm's overseas acquisitions has been to access international markets and overcome constraints from limited home market growth.

Peng Hu (2006) analyses various determinants that influence FDI inflows to India. India has some competitive advantage in attracting FDI inflows, like a large pool of high-quality labor force. This study argues that India is an ideal investment destination for foreign investors.

Francoise Hay (2006) finds that the FDI from the Indian firms were principally addressed to the developing countries and Russia, however, the share of the industrialized countries was on the rise and the manufacturing and non-financial sectors accounted for the bulk of it.

Chandana Chakraborty and Peter Nunnenkamp (2006) found that the growth effects of FDI vary widely across sectors and only transitory effects of FDI on output in the services sector which attracted the bulk of FDI in the post-reform period.

Objectives and Methods

The purpose of the study is to know the trend of the flow of FDI to India in the past 15 years and to analyze the determinants of FDI that direct the flow and its impact on the economic growth. Based on these objectives the following research questions are drawn.

1. What is the quantum of the FDI into the Indian economy in the past 10 years and how it affected the Indian Economy and its Growth?
2. What factors are associated with the flow of FDI?
3. How the campaign of 'Make in India' affected the FDI?

The method of study was the analysis of the secondary data that gives the data related to the

FDI and growth of the economy. The data used is the secondary data available in the official sites of RBI, and other official sites under the government of India (gov.in). Some data are the directly taken from them whereas the others, compiled from different websites, ensuring the similarity of calculation and approach to the data. Even though the data from 1947 is referred and used for some purpose or other the data from 2000 to 2015 is specifically used for the study. The data warehouse of the RBI is used along with its publications as well. IMF Working Paper (WP/10/187) is referred to quantify some qualitative data like Openness of the economy and to make some quantitative figures relevant to the study of infrastructure development in the country.

Analysis

FDI

As the third-largest economy in the world in PPP terms, India has attracted foreign direct investment. During the year 2011, FDI inflow into India stood at \$36.5 billion, 51.1% higher than the 2010 figure of \$24.15 billion. India has strengths in telecommunication, information technology and other significant areas such as auto components, chemicals, apparels, pharmaceuticals, and jewelry. Despite a surge in foreign investments, rigid FDI policies were a significant hindrance. Over time, India has adopted a number of FDI reforms. India has a large pool of skilled managerial and technical expertise. The size of the middle-class population stands at 300 million and represents a growing consumer market.

India's liberalized its FDI policy in 2005, allowing up to a 100% FDI stake in ventures. Industrial policy reforms have substantially reduced industrial licensing requirements, removed restrictions on expansion and facilitated easy access to foreign technology and foreign direct investment FDI. The upward moving growth curve of the real-estate sector owes some credit to a booming economy and liberalized FDI regime. In March 2005, the government amended the rules to allow 100% FDI in the construction sector, including built-up infrastructure and construction development projects comprising a housing, commercial premises, hospitals, educational institutions, recreational facilities, and city- and regional-level infrastructure. Over 2012-14, India extended these reforms to defense, telecom, oil, retail, aviation and a number of other sectors.

During 2000–15, the country attracted \$258,141million (INR1293836 Crores) as FDI. The inordinately high investment from Mauritius is due to routing of international funds through the country gave significant tax advantages; double taxation is avoided due to a tax treaty between India and Mauritius, and Mauritius is a capital gains tax haven, effectively creating a zero-taxation FDI channel.

Since 2000, Indian companies have expanded overseas, investing FDI and creating jobs outside India. Over the 2006-2010 period, FDI by Indian companies outside India amounted to 1.34 per cent of its GDP. Indian companies have deployed FDI and started operations in the United States while others have expanded in Europe and Africa. The Indian company Tata is United Kingdom's largest manufacturer and private sector employer.

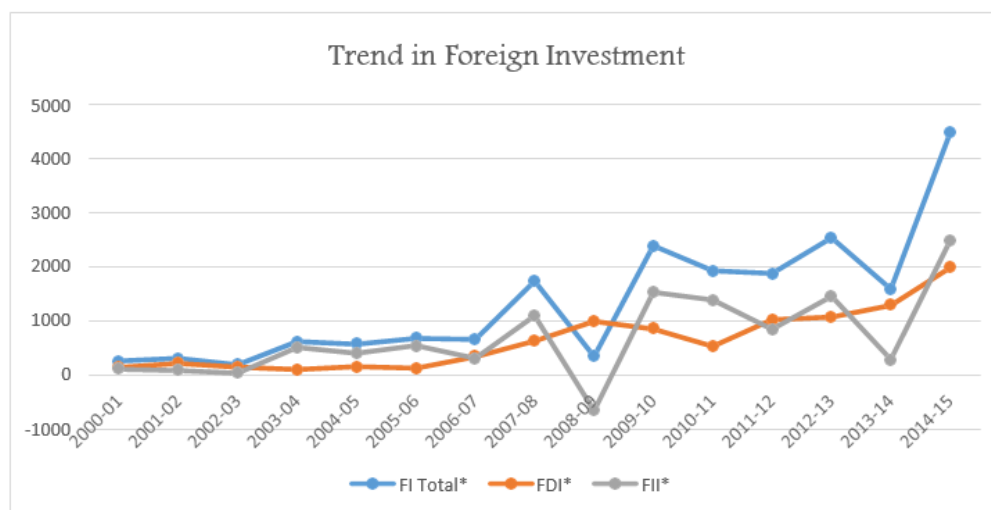
Trend in the Flow of Foreign Investment

The foreign investment (FI) to India shows an upward trend in the years from 2000 to 2015, though there are some occasions in which there is a considerable decrease as well. But the FDI flow shows an upward trend in it. The fluctuations in the FI are mainly due to the outflow of

the portfolio Investments. The following table and graph show the trend and figures of the Net FI, Net FDI and Net Portfolio Investment (FII).

Year	FI Total*	FDI*	FII*	FI/GDP (%)
2000-01	267.44	149.24	118.20	1.50
2001-02	319.20	226.30	92.90	1.70
2002-03	200.98	155.94	45.04	1.20
2003-04	628.42	109.44	518.98	2.60
2004-05	580.57	167.45	413.12	2.10
2005-06	687.82	134.25	553.57	2.60
2006-07	667.91	349.10	318.81	3.10
2007-08	1743.95	637.76	1106.19	5.00
2008-09	350.61	1001.06	-650.45	2.30
2009-10	2399.51	859.83	1539.66	4.80
2010-11	1934.82	541.01	1393.81	3.50
2011-12	1887.38	1031.67	855.71	2.70
2012-13	2546.53	1081.86	1464.67	3.00
2013-14	1596.50	1299.69	296.80	1.90
2014-15	4495.73	1996.00	2499.45	3.70

* ₹ Billion
 Source: <http://dbie.rbi.org.in/DBIE/dbie.rbi?site=publications>
<https://www.rbi.org.in/Scripts/publications.aspx>



FDI and FII

FII's were allowed to invest in capital market securities since September 1992. However, these have invested from January 1993 only. During the period of 23 years, there has been an increase in the amount of Portfolio Investment to a level of 2500 billion Rupees. 2008-09 saw the highest FII outflow in any financial year since inception. This could be attributed to the global financial meltdown and the home bias of FII's in the crisis. The gross purchases of debt and equity by FII's declined by 35.2 per cent in 2008-09 from in 2007-08. The combined gross sales by FII's also declined by 25.1 percent during the same period.

Problems Related to FII over its Advantage

The term Foreign Institutional Investor is defined by SEBI as below: "Means an institution

established or incorporated outside India, which proposes to make an investment in India in securities. Provided that a domestic asset management company or domestic portfolio manager who manages funds raised or collected or brought from outside India for investment in India on behalf of a sub-account, shall be deemed to be a Foreign Institutional Investor.” Foreign Investment refers to investments made by residents of a country in financial assets and production process of another country. The term is used most commonly in India to refer to outside companies investing in the financial markets of India. International institutional investors must register with Securities & Exchange Board of India (SEBI) to participate in the market.

FII's contribute to the foreign exchange inflow as the funds from multilateral finance institutions and helps to lower the cost of capital. It supplements domestic savings and investments and leads to higher asset prices in the Indian market. More than those they lead to a considerable amount of reforms in capital market and financial sector and in corporate governance. Portfolio investments brought in by FII's have been the most dynamic source of capital to emerging markets in the 1990s.

At the same time, there is unease over the volatility in foreign institutional investment flows and its impact on the stock market and the Indian economy. “Hot money” refers to funds that are controlled by investors who actively seek short-term returns. These investors scan the market for short-term, high-interest rate investment opportunities. “Hot money” can have economic and financial repercussions on countries and banks. When money is injected into a country, the exchange rate for the country gaining the money strengthens, while the exchange rate for the country losing the money weakens. If money is withdrawn at a short notice, the banking institution will experience a shortage of funds.

Huge amounts of FII fund inflow into the country creates a lot of demand for the rupee, and the RBI pumps the amount of Rupee in the market as a result of the demand created. This situation leads to excess liquidity thereby leading to inflation where too much money chases too few goods.

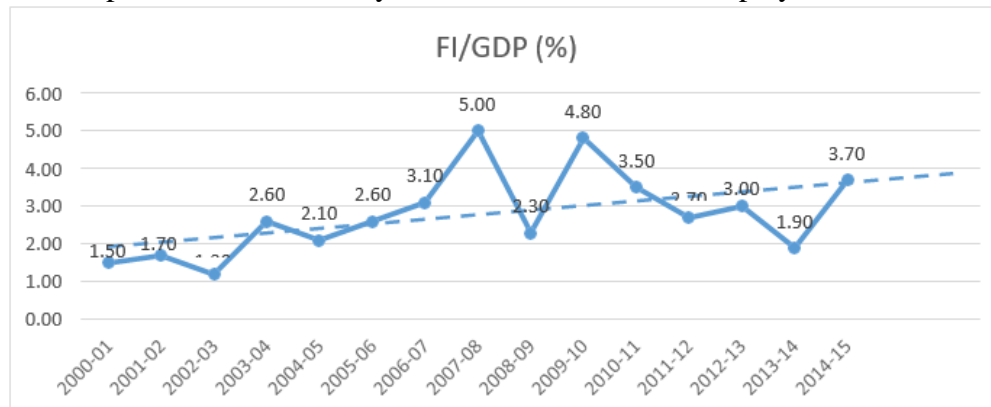
Even when the regulatory bodies place stringent methods in tracking the Indian buyers and sellers in the Stock market the foreign FII's are not tracked properly, which may even allow the national opponents to engage in short selling in the Indian market and later create the chaos to make the profit.

India is considered as one of the best investment destination for foreign institutional investors. In spite of political differences and lack of infrastructure facility, etc. the Indian market has vast potential, which allures and encourages foreign investors. But, on January 21, 2008, BSE Sensex saw the largest ever fall in the index value, BSE slack by 2000 points intra-day due to the global economic meltdown (Subprime lending crises in the US). This made everyone very cautious if the FII positions had hit the Indian capital market hard. Foreign portfolio inflows through FII's, in India, are important from the policy perspective, especially when the country has emerged as one of the most attractive investment destinations in Asia.

FI/GDP

The foreign Investments in percentage terms of the GDP are shown in the graph below. It shows that the total Foreign Investment including both FDI and FII is showing an overall upward trend, though there is seen a considerable fluctuation. An average increase of 1.5%

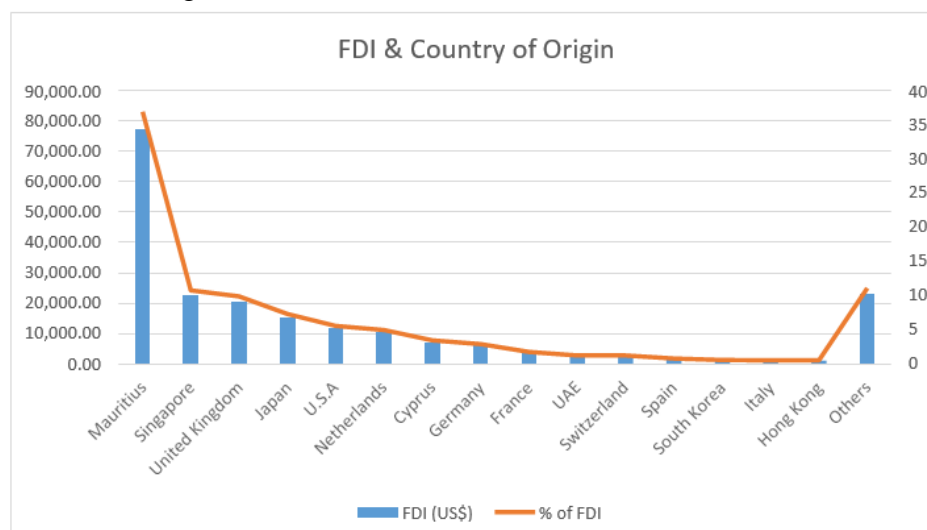
to 3.6% is seen here. But the figure in itself can't be taken as good or bad, but the amount of the FDI is more important than the Financial Investments in the stock market or derivative market. The problem of hot money and the related, come into play here as well.



Inflow of FDI from Different Countries

Foreign direct investments into India are regulated and taxed. According to the tax treaty between India and Mauritius, capital gains can only be taxed in Mauritius, the same treaty exists in 16 other countries. But with only 3% of capital gains tax, the quality of its service and regulatory framework, its pool of professionals, geographical proximity, cultural affinities and long historical ties with India, Mauritius is the most attractive conduit for investments into India. This is often called the Mauritius route.

However, this spot held by Mauritius for over 10 years has been replaced by Singapore on fears that the new government will revise the tax treaties with various countries, especially in the light of the recent news about the Mauritius Vodafone's purchase of Essar limited and with the controversial General Anti Avoidance Rules provision, which seeks to check tax avoidance by investors routing their funds through tax havens. The General Anti-Avoidance Rules provision will come into effect in India from April 1, 2016. Singapore has replaced Mauritius as the top source of foreign direct investment into India, accounting for about 25 percent of FDI inflows in 2013-14. During the last financial year, India attracted \$5.98 billion in FDI from Singapore, whereas it was \$4.85 billion from Mauritius, according to the data of the Department of Industrial Policy and Promotion (DIPP). According to experts, the Double Taxation Avoidance Agreement (DTAA) with Singapore incorporates Limit- of-Benefit (LoB) clause which has provided comfort to foreign investors based there.



FDI inflows from Mauritius have started drying up on fears of the impact of General Anti-Avoidance Rules (GAAR) and possible re-negotiation of the tax avoidance treaty, he added. The inflows from Mauritius in the last fiscal are lowest since 2006-07. On the other hand, FDI inflow of \$5.98 billion in 2013-14 is the highest ever received from Singapore since 2006-07. The controversial General Anti Avoidance Rules provision, which seeks to check tax avoidance by investors routing their funds through tax havens, will come into effect from April 1, 2016, in India.

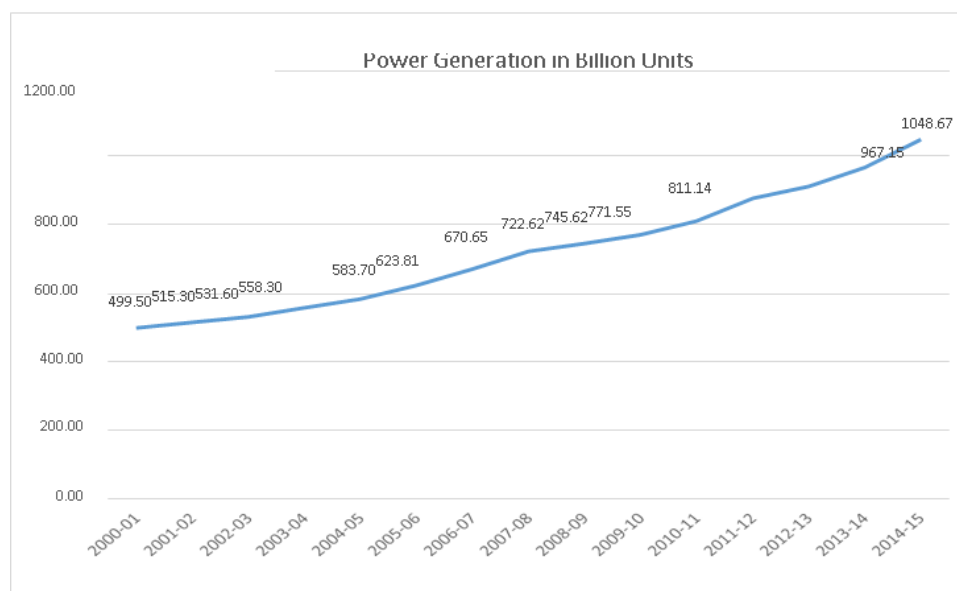
FDI and Infrastructure

To analyze the relation between the FDI and the infrastructure development of the Country elements like the Power Generation in India, Road network and Telephone connections are taken into account. The reason for their selection was the easy availability of the data and the genuineness of the data leading to a considerable dependability on them. The following chart gives a consolidated data of the infrastructural growth in India through these years.

Year	Power (Billion Units)	Road Network (Km)	Telephones
2000-01	499.50	889879	30630000
2001-02	515.30	891158	52576400
2002-03	531.60	918003	75071400
2003-04	558.30	925838	95154400
2004-05	583.70	996195	118943000
2005-06	623.81	1018349	184625900
2006-07	670.65	1053828	253234000
2007-08	722.62	1084517	334840000
2008-09	745.62	1191926	400050000
2009-10	771.55	1208526	787090000
2010-11	811.14	1240158	838245000
2011-12	876.88	1247804	874652100
2012-13	912.05	1274252	924942000
2013-14	967.15	1337426	968252000
2014-15	1048.67	1391352	1022610000

Power

The power production levels in a country can very well indicate the potential for growth in that country. The power generation in the country during the period shows a growth over the years.



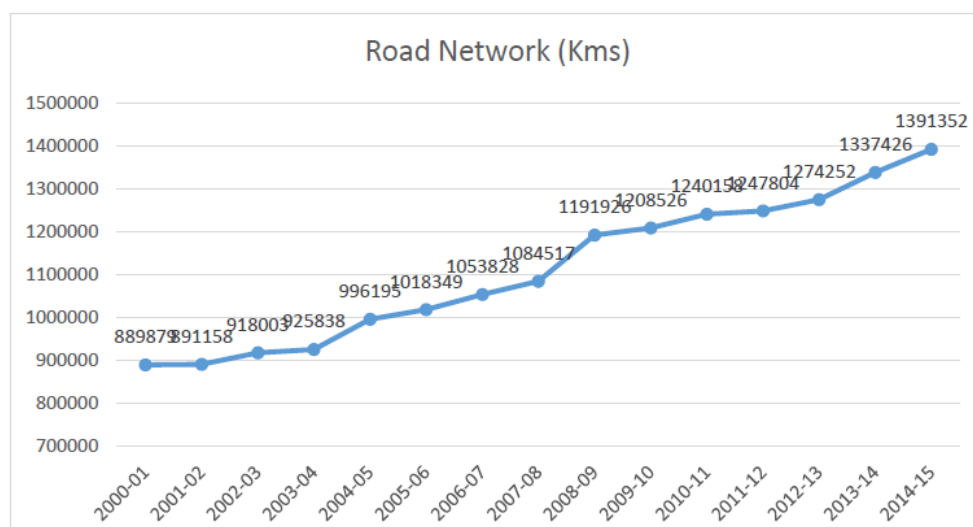
As of November 2015, India had an installed power generation capacity of 281.423 GW, of which thermal power contributed 69.8%, hydroelectricity 15.2%, other sources of renewable energy 13.0%, and nuclear power 2.1%. India meets most of its domestic electricity demand through its 106 billion tons of coal reserves. India is also rich in certain alternative sources of energy with significant future potential such as solar, wind and biofuels (Jatropha, sugarcane).

India's dwindling uranium reserves stagnated the growth of nuclear energy in the country for many years. Recent discoveries of natural uranium in Tummalapalle belt, which promises to be one of the top 20 of the world's reserves, and an estimated reserve of 846,477 metric tons (933,081 short tons) of thorium— about 25% of the world's reserves – are expected to fuel the country's ambitious nuclear energy program in the long-run. The Indo-US nuclear deal has also paved the way for India to import uranium from other countries.

The State of Goa (2004.77 kWh) & Puducherry (1864.5 kWh) account for maximum per capita consumption of electricity. While states of Bihar (117.48 kWh), Manipur (207.15 kWh) & Assam (209.20 kWh) show the lowest per capita consumption. The National Average per capita electricity consumption is 778.63. 15 states in India show lower annual per capita power consumption in comparison to the national average. The Union Territories – Dadra & Nagar Haveli, Daman & Diu has ten times more consumption of electricity than that of the National average. One of the reasons being that these are ports & Industrial places with very less residential consumption of Electricity. So the figure in those 2 UT's is unusually high. It is interesting to note that on a national level, India's energy consumption is already one of the lowest in the world. China has a per capita consumption of 4,000kWh, with developed nations averaging around 15,000kWh per capita.

Road Network

The road network growth is a clear indication how the country is giving importance to the growth of the nation through the development of connectivity. The road network in the country is increasing at an average growth rate of 3-4% every year. For the data only the National Highways, State Highways and the PWD or equivalent Department owned roads were taken into consideration. Other roads are not considered.



India's infrastructure and transport sector contribute about 5% of its GDP. India has the world's second largest road network in quantitative terms, covering more than 4.3 million kilometers. Qualitatively, India's roads are a mix of modern highways and narrow, unpaved roads. India

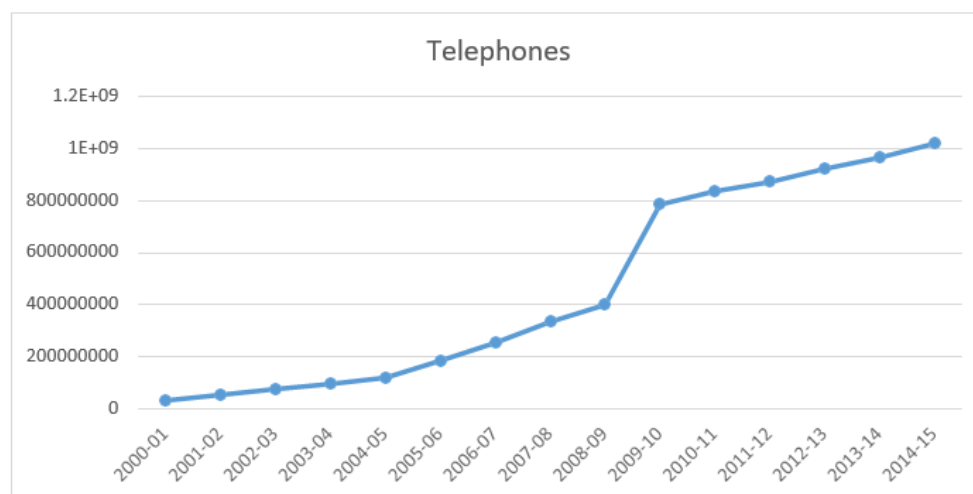
also has the lowest kilometer lane road density per 100,000 people among G-27 countries, leading to traffic congestion. It is upgrading its infrastructure. As of April 2015, India had completed and placed in use over 24,000 kilometers of recently built 4 or 6-lane highways connecting many of its major manufacturing centers, commercial and cultural centers. India's road infrastructure carries 60% of freight and 87% of passenger traffic. India has a road network of over 4869735 kilometers (3026560 mi) in 2015. Adjusted for its large population, India has less than 3.8 kilometers of roads per 1000 people, including all its paved and unpaved roads. India in its past did not allocate enough resources to build or maintain its road network. This has changed since 1995, with major efforts currently underway to modernize the country's road infrastructure.

The rate of new highway construction across India accelerated after 1999 but has slowed in recent years. Policy delays and regulatory blocks reduced the rate of highway construction awards to just 500 kilometers of new road projects in 2013. Major projects are being implemented under the National Highways Development Project, a government initiative. Private builders and highway operators are also implementing major projects. The Yamuna Express Way- India's longest Six lane expressway (165 km), Ganga Express Way, the Golden Quadrilateral, the recently inaugurated 14 lane expressway between Delhi and Meerut (150 kilometers) are examples of big projects in the Road Networks. The need for infrastructural growth in terms of the road network and realization of them will increase the FDI in India and it is seen positively proportional to each other.

According to 2009 estimates by Goldman Sachs, India will need to invest US\$1.7 trillion on infrastructure projects before 2020 to meet its economic needs, a part of which would be on upgrading the Indian road network. The Government of India is attempting to promote foreign investment in road projects. Foreign participation in Indian road network construction has attracted 45 international contractors and 40 design/engineering consultants, with Malaysia, South Korea, United Kingdom and the United States being the largest players.

Telecommunications / Telephones

The number of telephone connections being used is a good indicator of the response of the population to the infrastructure development in a society. Here the traditional landlines and the mobile handsets are taken together, or else giving importance for one over the other may become biased.



While the wireless subscriber base grew at a faster pace since 2003, the wireline segment has been declining gradually. The Indian telecom industry showed significant growth in 2008-09. About 113.36 million telephones, at the rate of more than 14 million subscribers every month, were added during the 11 months of 2008-2009. Total teledensity increased from 12.7 per cent in March 2006 to 35.65 percent in February 2009. While rural teledensity reached 13.81 per cent in January 2009, the urban teledensity shot up to 83.66 percent. Improved affordability of wireless phone has made universal access objective more feasible. The Government has taken several steps directed at a reduction in entry barriers, the creation of a level-playing field between incumbents and new entrants and forward-looking regulation. Consequently, the share of private sector in total telephone connections increased to more than 79 percent in February 2009 against a meager 5 percent in 1999. The Indian telecom network is the third largest in the world while it is credited with the second largest wireless network in the world. The total number of telephone connections in the country crossed the record one billion mark in 2015, bolstered by growth in a number of mobile users. The total number of telephone connections stood at 1,002.25 million, of which 975.78 million connections were wireless or mobile according to the TRAI. The number of connections per 100 persons stood at 79.67 but the subscriber data is not entirely comparable to the population of the country as many people have multiple connections. India is currently the second- largest telecommunication market and has the third highest number of internet users in the world. India's telephone subscriber base expanded at a CAGR of 19.22.

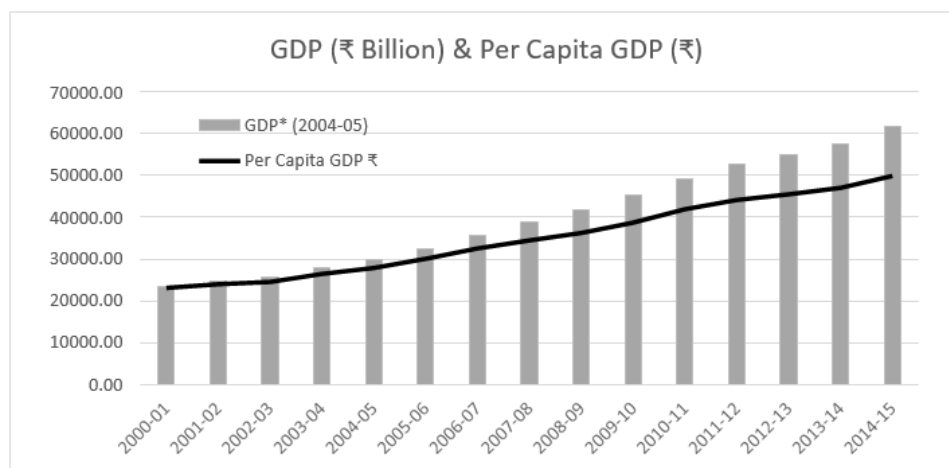
Foreign direct investment (FDI), an important source to meet the resources for rapid network expansion, is presently permitted in various telecom services from 74 percent to cent per cent. The total FDI inflows since January 2000 to March 2015 is ₹84092 crores. The period between 2004 and 2008 saw many renowned telecom companies setting up their manufacturing base in India. With the Government initiatives, leading world majors in telecom equipment, like Samsung, Motorola, Sony Ericsson, Nokia, Flextronics and LG Electronics have established mobile phone manufacturing units meeting more than 50 percent of the domestic demand, besides exports. Nokia-Siemens Network, Ericsson, and Tejas Networks have set up their manufacturing units for wireless equipment including BTS and complete transmission equipment within the country. With a view to promoting and developing exports of telecom equipment and services, the Government has already set up Telecom Equipment and Services Export Promotion Council. (<http://indiabudget.nic.in/es2008-09/chapt2009/chap911.pdf>)

GDP & Per Capita GDP

Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a year. It is the broadest quantitative measure of a nation's total economic activity. Each good and service produced and brought to market has a price and serves as a measure of value for calculating the total output. Two different approaches are used to calculate GDP. In theory, the amount spent for goods and services should be equal to the income paid to produce the goods and services, and other costs associated with those goods and services. Calculating GDP by adding up expenditures is called the expenditure approach, and computing GDP by examining income for resources (sometimes referred to as gross domestic income, or GDI, is known as the resource cost/income approach. According to Expenditure Approach $GDP = C + I + G + (X - M)$ where C is the personal consumption expenditures to avail durable goods, non-durable goods, and services, I is the gross private Investment as fixed investment and changes in business inventories, G denotes government spending on items that are 'consumed' in the current period, such as office supplies and gasoline, capital goods, such as highways, missiles, and dams. X-M is the Net Exports or the difference of imports (M) from exports (X). Imports are goods and services produced outside

the country and consumed within, and exports are goods and services produced domestically and sold to foreigners. Whereas GDP by resource cost/income approach = wages + self-employment income + Rent + Interest + profits + indirect business taxes + depreciation + net income of foreigners. Total GDP figures should be the same with either method of calculation. But in real life, things don't always work out this way. Official figures usually have a category called 'statistical discrepancy', which is needed to balance out the two approaches.

Although GDP is total output, due to inflation, GDP increases and does not actually reflect the true growth in an economy. That is why the inflation rate must be subtracted from the GDP to get the real growth percentage, called the real GDP or GDP at Constant Prices. Nominal values of GDP (or other income measures) from different time periods can differ due to changes in quantities of goods and services and/or changes in general price levels. As a result, taking price levels (or inflation) into account is necessary when determining if we are really better or worse off when making comparisons between different time periods. Values for real GDP are adjusted for differences in price levels while figures for nominal GDP are not. The GDP deflator is an economic metric that converts output measured at current prices in constant-dollar GDP. Real GDP for a given year, in relation to a 'base' year, is computed by multiplying the nominal GDP for a given year by the ratio of the GDP price deflator in the base year to the GDP price deflator for the given year.



Here we have taken 2004-05 as the base year to keep the consistency of the values for calculations even though at present 2011-12 is taken as the base year. The GDP of the past 15 years shows a CAGR of 6.64 % every year with an all-time high of 10.26% in 2010.

Per Capita GDP

Per capita GDP is a measure of the total output of a country that takes the gross domestic product (GDP) and divides it by the number of people in the country. The per capita GDP is especially useful when comparing one country to another because it shows the relative performance of the countries. A rise in per capita GDP signals growth in the economy and tends to translate into an increase in productivity. Per capita GDP is sometimes used as an indicator of standard of living as well, with higher per capita GDP being interpreted as having a higher standard of living. The question "What is better a one Kg piece of cake, being shared by 2 people, or 2 kg piece being shared among 10 people?" is a clear explanation of the relevance of per capita GDP over the GDP. Suppose a country produces a value 'x' and has a population of 1000 people, then the value added per person is $x/1000$. However, if the population increases to 10,000 but the overall value addition becomes '2x', then the value

added per person is 5 times lower. Even if a country's GDP is high (India is among the top 10 countries by nominal GDP), if that value has to be shared among a larger population, the GDP per capita (i.e. the GDP/population) becomes quite low. India's high GDP is still not sufficient for the value to trickle down to its citizens. That's why GDP/capita is so significant.

Luxembourg \$116664 has the highest Per Capita GDP and the United States, which has the highest GDP with a value of \$54,629 per capita GDP is at the tenth position in per capita ranking. The GDP per Capita in India is equivalent to 7 times less compared to the world's average (\$1,581.5 vs. \$10,880). The GDP/Capita of the past 15 years of India shows a CAGR of 5.24% every year.

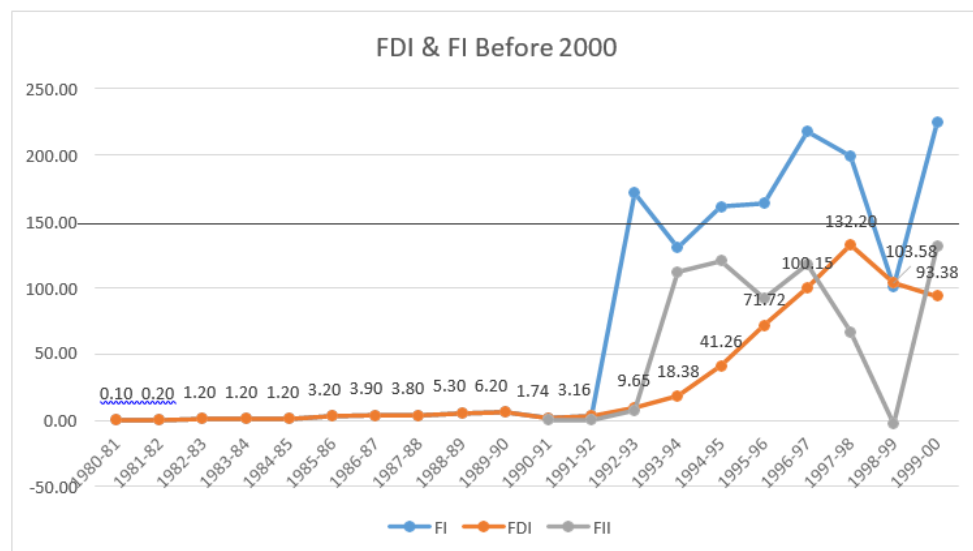
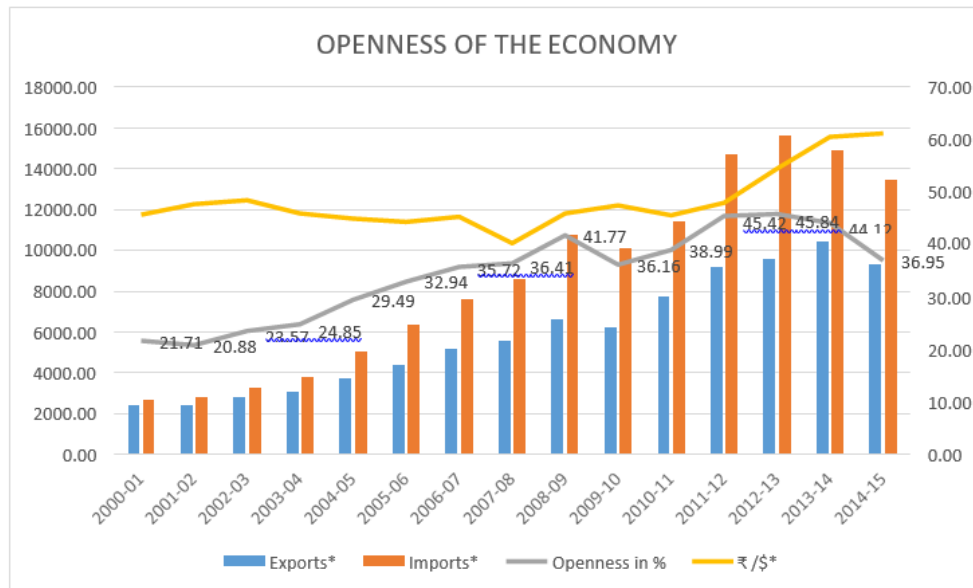
Openness of the Economy

The government policy is one of the important factors and it determines the flow of FDI into the country. The degree of openness of the economy is considered as a proxy variable to determine the effectiveness of government policy relating to foreign investment in India. The degree of openness of an economy is defined as the ratio of total trade to the real GDP of that economy. Openness being a qualitative data that has a considerable impact on the FDI requires the need of translating it into a quantitative one. The openness of the economy is calculated using the model given by the IMF, which states **Openness = (Exports + Imports) /GDP x 100**.

The interpretation of the Openness Index is that higher the index, larger the influence of trade on domestic activities, and the stronger that country's economy. It is true that trade openness is a multidimensional concept that cannot be summarized in the above-mentioned model as the sum of imports and exports over GDP, still then this model is used because of its simplicity and wide acceptance. Trade openness is a measure of economic policies that either restrict or invite trade between countries. For example, if a country sets a policy of high trade tariffs, thus restricting the desirability of international trade, this restrictive policy will inhibit other countries from sending exports and accepting imports from that country. According to the dominating economic theory, this restrictiveness, this lack of trade openness, will have an economic effect of slowing economic development/growth. Conversely, according to economic theory, trade openness will have an economic effect of increasing economic development and growth.

Since the data available for the GDP were, according to the base year 2004-05 and the Foreign trade was in the nominal amounts the Exports and imports were also converted to the 2004-05 figures and the openness was calculated using the above model. The following graph and table will explain that there is a constant increase in the openness in the economy. It is noticeable that the export and import figures increasing may be because of the exchange rate fluctuations that may be resulting in the higher openness. Here the depreciation of rupee against the dollar is almost 30% (the average exchange rate in 2000 was ₹45.70/\$ and that in 2015 was ₹61.15/\$).

The graph below depicts the openness being increasing over time. But it is not in a more acceptable manner if the export to import is deducted to the base level of exchange rates. But the historical data shows that the openness of the economy has a positive impact on the FDI inflows and the Portfolio investments. It can be seen from the following graph and table.



The above graph and table below show that FDI inflow into India before 1991 was minimal with the Compounded Annual Growth Rate showing only 25.46 percent. During this period, foreign investments into India were restricted and allowed moderately in a few sectors. This is mainly because of the kind of policies which the government of India has adopted over the years, which includes, ‘inward looking strategy’; and dependence of external borrowings. In turn, the borrowings resulted in foreign debts which were preferred to the foreign investments to bridge the gap between domestic savings and domestic investments required. In 1991, when the government of India started the economic reform program, FDI had suddenly become important for India which was looked upon as a key component of the economic reform package. The New Industrial Policy of 1991 gave utmost priority in attracting FDI inflows. In this process, the government started opening up of domestic sectors to the private and foreign participation, which was earlier reserved only for the public sector. This was followed by slow but with a significant relaxation of regulatory and entry restrictions on FDI inflows. Later substantial increase in the volume of FDI inflows into India was observed during the Post-Liberalization period.

YEAR	FI	FDI	FII
1980-81	0.10	0.10	
1981-82	0.20	0.20	
1982-83	1.20	1.20	
1983-84	1.20	1.20	
1984-85	1.20	1.20	
1985-86	3.20	3.20	
1986-87	3.90	3.90	
1987-88	3.80	3.80	
1988-89	5.30	5.30	
1989-90	6.20	6.20	
1990-91	1.85	1.740	0.11
1991-92	3.26	3.16	0.10
1992-93	171.30	9.65	7.48
1993-94	130.26	18.38	111.88
1994-95	161.33	41.26	120.07
1995-96	163.64	71.72	91.92
1996-97	217.73	100.15	117.58
1997-98	199.16	132.20	66.96
1998-99	101.01	103.58	-2.57
1999-00	224.50	93.38	131.12

Source: <https://www.rbi.org.in/Scripts/PublicationsView.aspx?id=2685>
<http://indianresearchjournals.com/pdf/IJMFSMR/2012/August/8.pdf>

During the initial phase of the post-liberalization period, i.e., from 1991 to 1998, there was a continuous increase in the FDI inflows. The total amount of the FDI inflows during the period 1991-92 to 1997-98 had amounted to ₹1048.53 Billion. The increase was largely due to the expanded list of industries or sectors which were opened up for foreign equity participation. This was followed by relaxation of various rules, regulations and introduction of various policies by the government to promote the FDI inflows. FDI inflows declined to the level of ₹101.01 Billion in the year 1998-89. The reasons for the declining trend of FDI inflows were due to various sets of factors. The most important factor was the several restrictions imposed on India by the USA on account of the nuclear test carried out by India at Pokhran. The second factor was the slowdown of the Indian economy due to the mild recession in the US and global economy. Then there were unfavorable external economic factors such as the financial crisis of South-East Asia and the political instability and the poor domestic industrial environment.

Exchange Rate

An exchange rate (foreign-exchange rate, forex rate) between two currencies is the rate at which one currency will be exchanged for another. It is also regarded as the value of one country's currency in terms of another currency.

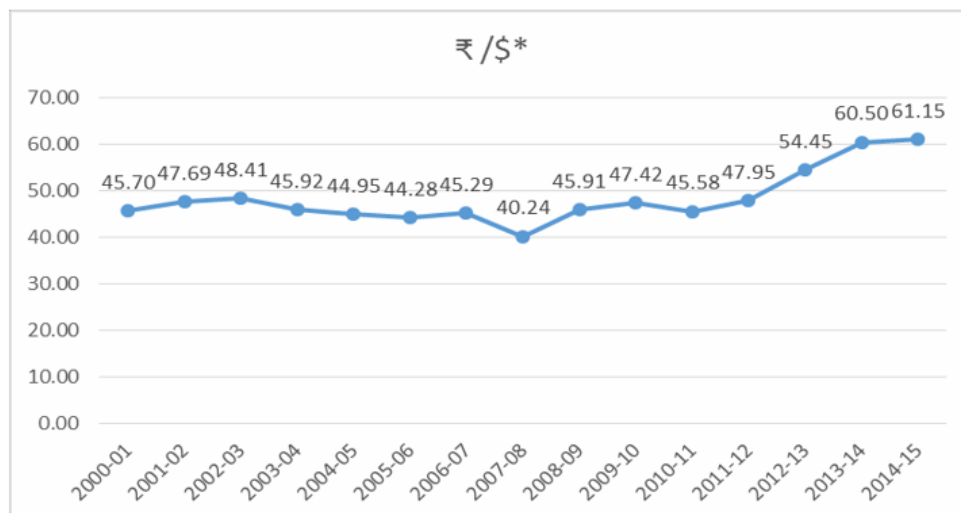
Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers where currency trading is continuous, i.e. trading from 20:15 GMT on Sunday until 22:00 GMT Friday. The spot exchange rate refers to the current exchange rate. The forward exchange rate refers to an exchange rate that is quoted and traded today but for delivery and payment on a specific future date. In the retail currency exchange market, a different buying rate and selling rate will be quoted by currency dealers. Most trades

are to or from the local currency. The buying rate is the rate at which money dealers will buy foreign currency, and the selling rate is the rate at which they will sell the currency. The quoted rates will incorporate an allowance for a dealer's margin (or profit) in trading known as the spread.

A market-based exchange rate will change whenever the values of either of the two component currencies change. A currency will tend to become more valuable whenever demand for it is greater than the available supply. It will become less valuable whenever demand is less than available supply. Increased demand for a currency can be due to either an increased transaction demand for money or an increased speculative demand for money. The transaction demand is highly correlated to a country's level of business activity, gross domestic product (GDP), and employment levels. The more people that are unemployed, the less the public as a whole will spend on goods and services. Central banks typically have little difficulty adjusting the available money supply to accommodate changes in the demand for money due to business transactions.

The exchange rate of the Indian Rupee to Dollar is examined from 03.04.2000 to 31.03.2015. The Indian currency depreciated from INR43.62/USD to INR 62.59/USD and it is about 43.49% depreciation over the fifteen years. Against the Euro Rupee depreciated almost 86.59%. It shows that during this period Euro appreciated against the Dollar.

When the Exchange rate of the currency goes down it has various implications with respect to the FDI. When Exchange rates go down the venue of Investment becomes more attractive. Here when the Rupee depreciates the foreign Investors will find it a good venue to invest because the home currency required to invest in the country will be less and the expenses here in terms of the home country also will be less. The Export oriented units will consider the situation as a more favorable one also as the product or service produced thus will be more cost effective and competitive.



When a currency depreciates, this exchange rate movement has two potential implications for FDI. First, it reduces that country's wage and production costs relative to those of its foreign counterparts. All else equal, the country experiencing real currency depreciation has enhanced 'locational advantage' or attractiveness as a location for receiving productive capacity investments. With this "relative wage" channel, the exchange rate depreciation improves the overall rate of return to foreigners contemplating an overseas investment project in this country.

The exchange rate level effects on FDI through this channel rely, on a number of basic considerations. First, the exchange rate movement needs to be associated with a change in the relative production costs across countries, and thus should not be accompanied by an offsetting increase in the wages and production costs in the destination market for investment capital. Second, the importance of the “relative wage” channel may be diminished if the exchange rate movements are anticipated. Anticipated exchange rate moves may be reflected in a higher cost of financing the investment project since interest rate parity conditions equalize risk-adjusted expected rates of returns across countries. By this argument, stronger FDI implications due to exchange rate movements arise when these are unanticipated and not otherwise reflected in the expected costs of project finance for the FDI. Some experts on FDI implications of exchange rate changes dismiss the empirical relevance of the interest parity type of caveat. Instead, it is argued that there are imperfect capital market considerations, leading the rate of return on investment projects to depend on the structure of capital markets across countries. As the Indian economy has advantages due to the relative wage channel and strategic location, the rupee depreciating will have more advantage for the FDI. However, a currency depreciation will make imports expensive for the local subsidiaries. This may not be so with respect to the home country of the MNE. In the present scenario, the devaluation of currency will be a sort of help to the prospective FDI’s.

Inflation Rate and FDI

Economic growth and price stability have remained one of the most important objectives of the policymakers in India. Most economists are of the view that high inflation interferes with the efficient working of the economy once it crosses the certain minimum threshold and hence there is an urgent need to control inflation in India. Inflation in India has been increasing for the past few years, mainly due to oil and commodity prices as well as food price shocks.

Historically, from 1969 until 2015, the inflation rate in India averaged 7.7%, reaching an all-time high of 34.7% in September 1974 and a record low of -11.3% in May 1976. From 2000-15, it is noticeable that India had gone through tough times in matters of Inflation and except the financial year 2002-03, we had high inflation were the same was only 3.8%. Though the economists perceive an inflation between 2-3% as the healthy one, India has never been at that level in this millennium. At times, it had gone up to 11.70 % in 2009-10. The drastic measures were taken at that point to control the inflation and almost 3% reduction had happened in one year. Now the inflation is showing a downward trend and the government and financial bodies expect it to reach a moderate level in the coming years.

The annualized inflation rate in India is 3.78% as of August 2015, as per the Indian Ministry of Statistics and Program Implementation. This represents a modest reduction from the previous annual figure of 9.6% for June 2011. Inflation rates in India are usually quoted as changes in the Wholesale Price Index, for all commodities.

Many developing countries use changes in the Consumer Price Index (CPI) as their central measure of inflation. India used WPI (Wholesale Price Index) as the measure of inflation but now CPI (combined) is declared as the new standard for measuring inflation (April 2014). CPI numbers are typically measured monthly, and with a significant lag, making them unsuitable for policy use. The WPI measures the price of a representative basket of wholesale goods. In India, this basket is composed of three groups: Primary Articles (20.1% of total weight), Fuel and Power (14.9%) and Manufactured Products (65%). Food Articles from the Primary Articles Group account for 14.3% of the total weight. The most important components of the Manufactured Products group are Chemicals and Chemical products (12%); Basic Metals,

Alloys and Metal Products (10.8%); Machinery and Machine Tools (8.9%); Textiles (7.3%) and Transport, Equipment and Parts (5.2%). The inflation rate in India was recorded at 6.1% (WPI) in August 2013.

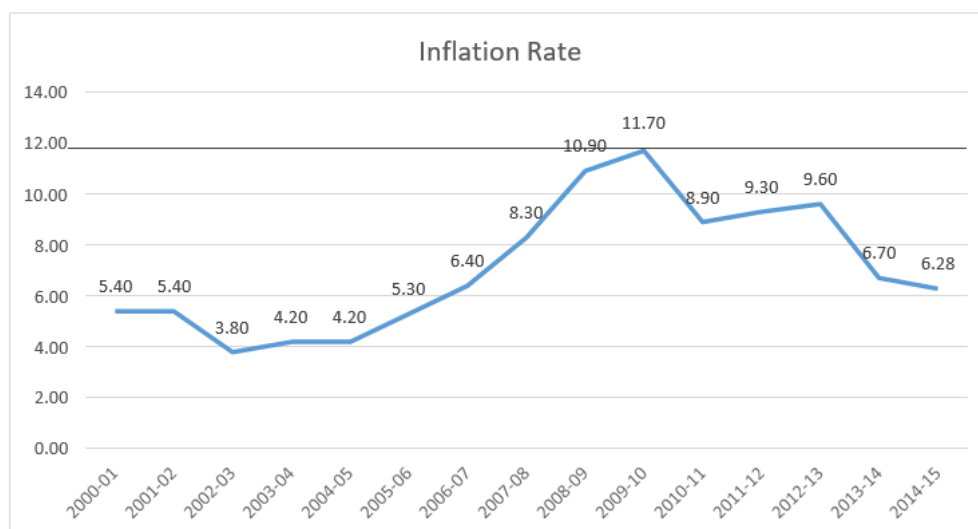
There are several factors which help to determine the inflationary impact in the country and further help in making a comparative analysis of the policies for the same. The major determinants of the inflation are Demand Factors, Supply Factors, and Domestic Factors.

Demand Factors play a vital role in a situation when the aggregate demand in the economy has exceeded the aggregate supply. It could further be described as a situation where too much money chases just a few goods.

Whereas the supply side inflation is a key ingredient for the rising inflation in India. The agricultural scarcity or the damage in transit creates a scarcity causing high inflationary pressures. Similarly, the high cost of labor eventually increases the production cost and leads to a high price for the commodity. The cost of production of energy often increases the value of the final output produced. These supply-driven factors basically have a fiscal tool for regulation and moderation.

Developing economies like India have generally a lesser developed financial market, which creates a weak bonding between the interest rates and the aggregate demand. This accounts for the real money gap that could be determined as the potential determinant for the price rise and inflation in India. There is a gap in India for both the output and the real money gap. The supply of money grows rapidly while the supply of goods takes due time which causes increased inflation.

Current inflation India (CPI India) – the inflation is based upon the Indian consumer price index. The index is a measure of the average price which consumers spend on a market-based ‘basket’ of goods and services. Inflation based upon the consumer price index (CPI) is the main inflation indicator in most countries.



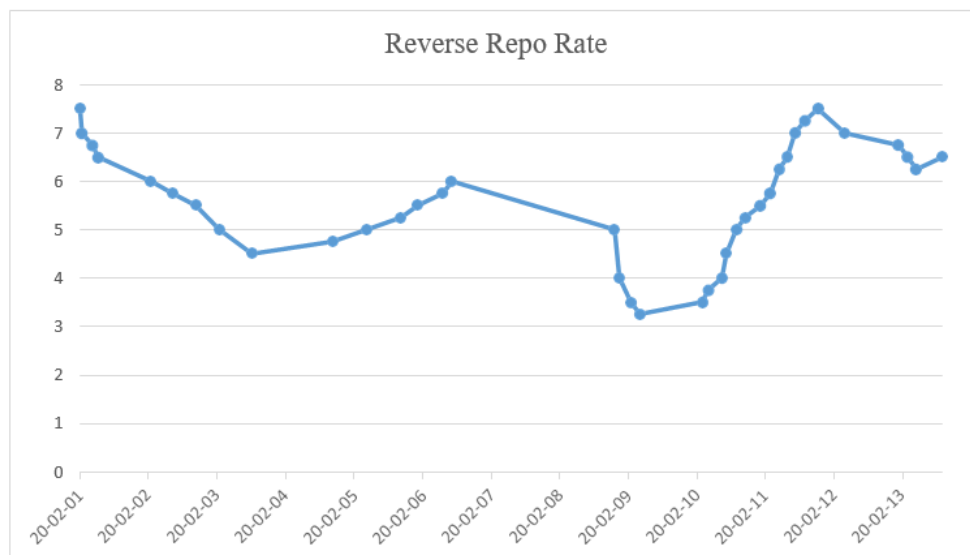
A reduction in inflation of even a single percentage point leads to an increase in per capita income of 0.5 percent to 2 percent. As the authors point out, their analysis leaves little room for interpretation. Inflation is not neutral, and in no case does it favor rapid economic growth.

Interest Rate and FDI

Bank Rate is the rate at which RBI allows finance to commercial banks. Bank Rate is a tool; which RBI uses for short-term purposes. Any upward revision in Bank Rate by the central bank is an indication that banks should also increase deposit rates as well as Base Rate / Benchmark Prime Lending Rate. Thus, any revision in the Bank rate indicates that it is likely that interest rates on deposits are likely to either go up or go down, and it can also indicate an increase or decrease in the payment of loans based on floating rates.

Repo (Repurchase) rate is the rate at which the RBI lends short-term money to the banks against securities. When the repo rate increases borrowing from RBI becomes more expensive. Therefore, we can say that in case, RBI wants to make it more expensive for the banks to borrow money, it increases the repo rate; similarly, if it wants to make it cheaper for banks to borrow money, it reduces the repo rate.

Reverse Repo rate is the rate at which banks park their short-term excess liquidity with the RBI. The banks use this tool when they feel that they are stuck with excess funds and are not able to invest anywhere for reasonable returns. An increase in the reverse repo rate means that the RBI is ready to borrow money from the banks at a higher rate of interest. As a result, banks would prefer to keep more and more surplus funds with RBI. Usually, the Reverse Repo rate is always 100 base points (or 1%) less than the Repo Rate. But there were occasions where the difference was kept more than 100 base points and this was done to address some extraordinary situations in the market. For example, in the period between 8 November 2008 and 02 July 2010, the difference was 150 base points. The difference of bank rate over the Repo rate is also normally 100 base points, though there are occasions where it is kept different.



RBI uses this Repo Rate, Reverse Repo Rate mechanism to control inflation. The mechanism follows like this. When there is a mismatch between demand and supply (demand is more than supply) the prices of the goods go up. Now to control prices, the RBI will increase lending rates. This will result in higher interest payments for people who take loans for consumption. This will reduce consumption resulting in a decrease in prices. The reduced consumption means that here will be fewer people to buy the goods at high prices. Hence, in order to maintain profitability, the sellers will have to reduce prices.

Based on these rates that the RBI dictates the lending rates, followed by the banks also gets affected. But this does not happen all of a sudden as the RBI changes these rates, because of various reasons like profitability calculations, fear about the Non-Performing Assets, change in the projected cash flows, etc.

When the interest rates go up, theoretically, the new investments go down as the business houses find the cost of loans to be high and they realize that the demand from the customers for the durable goods is going to be low (costs being high). Thus, theoretically, we can conclude that the high-interest rates, whatever name it has, affects FDI negatively.

Year	Lending Rate	Average Lending Rate	Average Bank Rate
2000-01	11.00-12.00	11.50	6.50
2001-02	11.00-12.00	11.50	6.25
2002-03	10.75-11.50	11.13	6.00
2003-04	10.25-11.00	10.63	6.00
2004-05	10.25-11.00	10.63	6.00
2005-06	10.25-12.75	11.50	6.00
2006-07	12.25-14.75	13.50	6.00
2007-08	12.25-15.75	14.00	6.00
2008-09	11.50-16.75	14.13	6.00
2009-10	11.00-15.75	13.38	6.00
2010-11	8.25-9.50	8.88	6.00
2011-12	10.00-10.75	10.38	9.50
2012-13	9.70-10.25	10.00	8.75
2013-14	10.00-10.25	10.13	9.25
2014-15	10.00-10.25	10.13	8.32

The statistical analysis of the relation of FDI with Average lending rate shows a negative sign proving the theory that the increase in the interest rates decreases the investments, but this is statistically insignificant.

Statistical Analysis of Correlation

The statistical analysis of the factors shows that there is a strong correlation between the following factors and the FDI. Table – Analysis of Correlation below present our findings.

The infrastructural growth being explained by the factors like Power generation, Road network development, Telephone line increase shows a strong positive correlation, of which the Power generation has the strongest Correlation Coefficient (R) and the coefficient of determination (R^2) which are 0.935 and 0.874 respectively.

GDP and GDP per Capita give the same R and R^2 as they are in relation to FDI is the same. This too explains a strong positive correlation with R to be 0.902 and R^2 to be 0.814. It can be explained that as the FDI goes up the GDP also will go up.

Export and Import which is predictive of the openness of the economy shows a strong correlation, but the Openness being calculated as the ratio of the sum of them to GDP does not. When the Exports has R and R^2 as 0.865 and 0.749 respectively, the imports has R and R^2 as 0.847 and 0.718 respectively. Whereas the Openness shows R and R^2 as 0.706 and 0.498 respectively.

Independent Variable	R	R²	Adjusted R²
Power	0.935	0.874	0.865
Road Network	0.914	0.835	0.822
Telephones	0.865	0.748	0.729
GDP	0.902	0.814	0.800
GDP per Capita	0.902	0.814	0.800
Openness	0.706	0.498	0.459
Exchange Rate	0.759	0.577	0.544
Inflation	0.507	0.258	0.200
Exports	0.865	0.749	0.729
Imports	0.847	0.718	0.696
Lending Rate	-0.141	-.020	-.055
* The dependent variable here is FDI. The correlation is done in SPSS at 5% level of significance.			

Table – Analysis of Correlation

The interest rates are shown in terms of Repo Rate, Reverse Repo Rate and Average Lending Rate in the Market also shows a weak correlation with FDI. For the purpose of statistical analysis relation of FDI with Average lending rate was taken. It shows a negative sign proving the theory that the increase in the interest rates decreases the investments, but this too is statistically insignificant.

The correlation was seen between FDI and the factors like Inflation rate, Interest Rate, and Exchange rate is weak and thus can be concluded that the FDI does not strongly get affected by them though the literature speaks that a stable or non-volatile exchange and inflation rates attract FDI.

Make in India Campaign and FDI Flow

Make in India is an initiative launched by the Government of India to encourage multi-national, as well as national companies to manufacture their products in India. It was launched by the Prime Minister with an objective that India would emerge as the top destination globally for foreign direct investment, surpassing other countries. The major objective behind the initiative is to focus on job creation and skill enhancement in 25 sectors of the economy. The initiative also aims at high-quality standards and minimizing the impact on the environment. The initiative hopes to attract capital and technology investment in India. ‘Zero Defect Zero Effect’ is a slogan coined by the Prime Minister of India, Narendra Modi which signifies production mechanisms wherein products have no defects and the process through which product is made has zero adverse environmental and ecological effects. The slogan also aims to prevent products developed from India from being rejected by the global market. The program is designed to facilitate inward investments and build the country's manufacturing infrastructure. It includes plans to make doing business in India easier, more efficient and transparent. Manufacturing currently accounts for only 15% of India's gross domestic product (GDP) and the Government wants to raise that to 25% by 2022. With the ‘Make in India’ campaign, the Government aims to eliminate unnecessary regulations, shorten bureaucratic processes, upgrade infrastructure and open up new sectors to foreign direct investment (FDI).

History

Prime Minister Shri Narendra Modi launched the Make in India program on 25 September

2014 and on 29 December 2014, a workshop was organized by the Department of Industrial Policy and Promotion.

Under the initiative, brochures on the 25 sectors and a web portal were released. Before the initiative was launched, foreign equity caps in various sectors had been relaxed. The application for licenses was made available online and the validity of licenses was increased to three years. Various other norms and procedures were also relaxed.

A 'Make in India Week' event was held in Mumbai on 13 February 2016 and at the close of the event, DIPP Secretary Amitabh Kant stated that it had received over ₹15.2 lakh crore (US\$220 billion) worth of investment commitments and investment inquiries worth ₹1.5 lakh crore (US\$22 billion), showing a positive impact of the campaign, so far.

Plans

With the demand for electronic hardware expected to rise rapidly to US\$400 billion by 2020, India has the potential to become an electronic manufacturing hub. The government is targeting to achieve net zero imports of electronics by 2020 by creating a level playing field and providing an enabling environment. It makes the Indian economy better.

Make in India focuses on the following 25 sectors of the economy

The 25 sectors are listed in the following table.

Automobiles	Automobile Components	Aviation	Biotechnology	Chemicals
Construction	Defense manufacturing	Electrical Machinery	Electronic systems	Food Processing
Leather	Media and Entertainment	Mining	Oil and Gas	Pharmaceuticals
Ports and Shipping	Railways	Renewable Energy	Roads and Highways	Space
Textiles and Garments	Thermal Power	Tourism and Hospitality	Wellness	IT and Business process management

100% FDI is permitted in all the above sectors, except for space (74%), defense (49%) and news media (26%). In August 2014, the Cabinet of India allowed 49% foreign direct investment (FDI) in the defense sector and 100% in railway infrastructure. The defense sector previously allowed 26% FDI and FDI were not allowed in railways. This was in hope of bringing down the military imports of India. 24.8% of smartphones shipped in the country in the April–June quarter of 2015 were made in India, up from 19.9% the previous quarter. Between September 2014 and November 2015, the government received ₹1.20 lakh crore (US\$18 billion) worth of proposals from companies interested in manufacturing electronics in India.

Major Responses as Investments in the Economy

On January 2015, the Spice Group said it would start a mobile phone manufacturing unit in Uttar Pradesh with an investment of ₹5 billion (US\$74 million). A memorandum of understanding was signed between the Spice Group and the Government of Uttar Pradesh.

Hyun Chil Hong, the President & CEO of Samsung South Asia, met with Kalraj Mishra, Union Minister for Micro, Small, and Medium Enterprises (MSME), to discuss a joint initiative under which 10 "MSME-Samsung Technical Schools" will be established in India. In February,

Samsung said that will manufacture the Samsung Z1 in its plant in Noida.

In February, Hitachi said it was committed to the initiative. It said that it would increase its employees in India from 10,000 to 13,000 and it would try to increase its revenues from India from ₹100 billion in 2013 to ₹210 billion. It said that an auto-component plant will be set up in Chennai in 2016.

In February, Marine Products Export Development Authority said that it was interested in supplying shrimp eggs to shrimp farmers in India under the initiative.

Xiaomi began initial talks with the Andhra Pradesh government to begin manufacturing smartphones at a Foxconn-run facility in Sri City. On 11 August 2015, the company announced that the first manufacturing unit was operational and introduced the Xiaomi Redmi 2 Prime, a smartphone that was assembled at the facility.

In June, France-based LH Aviation signed a MoU with OIS Advanced Technologies to set up a manufacturing plant in India to manufacture drones.

In August, Hindustan Aeronautics Limited (HAL) began talks with Russia's Irkut Corp to transfer technology of 332 components of the Sukhoi Su-30MKI fighter aircraft under the Make in India program. These components, also called line replacement units (LRUs) refer to both critical and non-critical components and fall into four major heads such as Radio and Radar; Electrical & Electronics System; Mechanical System and Instrument System.

Foxconn announced that it would invest US\$5 billion over five years to set up R&D and a hi-tech semiconductor manufacturing facility and General Motors had announced that it would invest US\$1 billion to begin manufacturing automobiles to be set up in Maharashtra.

Lenovo announced that it had begun manufacturing Motorola smartphones at a plant in Sriperumbudur near Chennai, run by Singapore-based contract manufacturer Flextronics International Ltd. The plant has separate manufacturing lines for Lenovo and Motorola, as well as quality assurance, and product testing.

In October, Boeing chairman James McNerney said that the company could assemble fighter planes and either the Apache or Chinook defense helicopter in India. The company is also willing to manufacture the F/A-18 Super Hornet in India if the Indian Air Force (IAF) were to purchase it.

In November, Taiwan's Wistron Corp, which makes devices for companies such as Blackberry, HTC, and Motorola, announced that it would begin manufacturing the devices at a new factory in Noida, Uttar Pradesh. A company spokesperson stated that the government's 'Make in India' campaign, coupled with the country's growing consumption, makes an excellent case for the Indian manufacturing sector to emerge as a global manufacturing hub across sectors.

In November, the Ministry of Railways signed formal agreements with Alstom and GE Transport worth ₹400 billion (US\$5.9 billion) to set-up locomotive manufacturing factories in Madhepura and Marhaura in Bihar.

In December, Qualcomm announced that it was starting a 'Design in India' program to help mentor up to 10 Indian hardware companies with the potential to come up with innovative

solutions and help them reach scale.

Micromax announced that it would start three new manufacturing units in Rajasthan, Telangana, and Andhra Pradesh at a cost of ₹3 billion (US\$44 million). The plants will begin functioning in 2016, and will each employ 3,000-3,500 people.

Following Japanese Prime Minister Shinzo Abe's visit to India in December 2015, it was announced that Japan would set up a US\$12 billion fund for Make in India related projects called the 'Japan-India Make-in-India Special Finance Facility'. In late December, phone manufacturer Vivo Mobile India began manufacturing smartphones at a plant in Greater Noida. The plant employs 2,200 people.

A defense deal was signed during Prime Minister Narendra Modi's visit to Russia in December 2015 which will see the Kamov Ka-226 multi-role helicopter being built in India. This is widely seen as the first defense deal to be actually signed under the Make in India campaign.

The Ministry of Defense is auctioning a ₹600 billion (US\$8.8 billion) contract to design and build a Fighting Infantry Combat Vehicle (FICV) in India. The contract will be awarded in 2016.

In February 2016, Lockheed Martin stated that it is ready to manufacture F-16 in India and support the Make in India initiative.

Make in India Week

A 'Make in India Week' event was held at the MMRDA Grounds at the Bandra-Kurla Complex in Mumbai from 13 February 2016. The week long multi-sectoral industrial meet was attended by 2500 international and 8000 domestic, foreign government delegations from 68 countries and business teams from 72 countries. 17 Indian states held expos. At the close of the event, DIPP Secretary Amitabh Kant stated that it had received over ₹15.2 lakh crore (US\$220 billion) worth of investment commitments and investment inquiries worth ₹1.5 lakh crore (US\$22 billion). Maharashtra led all other states receiving ₹8 lakh crore (US\$120 billion) of investments.

Impact of the Campaign on FDI

As per the statement was given by the DIPP Secretary Amitabh Kant at the close of the Make in India week, India had received over ₹15.2 lakh crore investment commitments. Taking a conservative approach to the investment promises being made, and considering that the 30% of the promised investments come to India, it is still 2500 % (25 times more) of the previous year's FDI. The change in FDI between the years 2013-14 and 2014- 15 almost an addition of 50% to the previous year. The investments being declared at the event as the promised one is not for one year but for coming years. So it is not easy to objectively compare the figures and show the quantitative growth percentages. If the aforesaid amount is dispersed in next 10 years, then the flow of FDI to the country is showing a real growth with respect to the trend it was following. Thus, it can be well said that the campaign has a positive impact in the inflow of the FDI.

Suggestions and Conclusions

From the study conducted, the following suggestions can be made.

Develop Infrastructure

The infrastructure development has a strong positive correlation with the FDI flow into the country. The power generation and the Road connectivity have the most weight. This can be taken as a venue for FDI also. So some extra incentives are required to those investors who help in the growth of the infrastructure that can further invite more FDI's. The infrastructural development is not without any challenges. There are issues of land acquisition, environmental clearances, etc. which need to be addressed to support it. Thus, it requires some formulations of law and amendments to some existing laws. India has a plethora of labor laws as well. There is a perception that these laws favor employees, and some foreign investors have argued that a number of the laws discourage investment in labor-intensive manufacturing.

Indian policymakers need to create a better environment for infrastructure development with an appropriate institutional framework such as a dispute-resolution mechanism, independent regulatory authority, and special investment law. India will also need to revisit outdated laws, controls, regulatory systems, and government monopolies affecting investment. As part of this, both states and the national government need to agree on a Uniform Labor Code after an independent review and proper consultation with stakeholders.

Develop debt market

The Indian economy is deprived of a segmented debt market, which serves the purpose of the financial support to the infrastructural development. It thus requires that there must be some mechanism to establish, implement and monitor it.

India has a well-developed equity market but does not have a well-developed debt market. Steps should be taken to improve the depth and liquidity of the debt market as many companies may prefer leveraged investment rather than investing their own cash.

Relook at Sectoral Caps

Though the Government has hiked the sectoral cap for FDI over the years, it is time to revisit issues pertaining to limits in such sectors as insurance, real estate, and retail trade, apart from the small-scale sector. The raising of the sectoral cap is done in a progressive a manner and this helps the inflow of the FDI. This is clearly seen in the response given by the world economies and the corporate sector to the Make in India campaign. Timely revisions in the future in more sectors will have more opportunities of FDI and thus to the growth of the economy.

Allow more investment into the country under automatic route

Reforms like bringing more sectors under the automatic route, increasing the FDI cap and simplifying the procedural delays has to be initiated. There is a need to improve SEZs in terms of their size, road and port connectivity, assured power supply and decentralized decision-making.

Education sector should be opened to FDI

India has a huge pool of working population. However, due to poor quality primary education and higher education, there is still an acute shortage of talent. FDI in Education Sector is lesser than one percent. By giving the status of primary and higher education in the country, FDI in

this sector must be encouraged.

Strengthen research and development in the country

India should consciously work towards attracting greater FDI into R&D as a means of strengthening the country's technological progress and competitiveness. Foreign firms need to better understand the Indian market and have their own R&D in India to design products to cater to the price sensitivity of the Indian consumer market.

Single Window Clearances

Foreign investors still find it difficult to navigate India's bureaucratic controls and procedures to get the necessary clearances and approvals. Red tape is the major reason for the slow realization of FDI relative to approvals. Useful steps would be to encourage every state to have a single nodal agency for approval and clearances and to improve coordination between central government institutions (such as the FIPB, FIIA, and SIA) and these state-level nodal agencies to reduce duplication and the number of clearances. Some of the major causes of delay are state-level issues such as land acquisition, changes in land use, power connection, and approval of building plans. Therefore, coordination on these issues between the central government and the states before the approval of investment projects is required to avoid unnecessary delays. Thus improving coordination between the states and the central government for project clearance is imperative. For this, the different ministry departments need to work together, to sort out differences for quick project clearance.

Make Special Economic Zones (SEZ) attractive

Although the national government is aiming to encourage economic experimentation, SEZs in India have not been successful. This is due to their size and the lack of motivation of local stakeholders. 60% of the 550 approved SEZs in India are information technology SEZs, which only need a minimum of ten hectares of land to operate. The other 40% of SEZs are in manufacturing, which is also very small in size, mainly due to land acquisition difficulties, and therefore have not succeeded despite their potential. Further, the lack of interest from local stakeholders leads either to poor cooperation or protests. To make SEZs more attractive, proper planning and design should include local-level solutions for land acquisition and infrastructure connectivity to SEZs, along with sector-specific policies to attract FDI.

General Conclusion

FDI plays a very important role in the development of the nation. It is very much vital in the case of underdeveloped and developing countries. A typical characteristic of the developing economies is the fact that these economies do not have the needed level of savings and income in order to meet the required level of investment needed to sustain the growth of the economy. In such cases, foreign direct investment plays an important role in bridging the gap between the available resources or funds and the required resources or funds. It plays an important role in the long-term development of a country not only as a source of capital but also for enhancing the competitiveness of the domestic economy through the transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities. In India, FDI is considered as a developmental tool, which helps in achieving self-reliance in various sectors and in the overall development of the economy. India after liberalizing and globalizing the economy to the outside world in 1991, there was a massive increase in the flow of foreign direct investment. The FDI inflow into the country during the Post-Liberalization period, especially during the period of fifteen years from 2000-01 to 2014-15 is examined in this study together with the various factors which influence the flow of FDI with special reference to the recent campaign called 'Make in India'.

According to the statistical analysis, the growth rate of per capita GDP, infrastructure, Export and Import have a positive sign and are statistically significant. The inflation rate, Exchange rate and Openness of the economy shows a positive sign but are statistically not significant.

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