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An Empirical Analysis of Nexus between FDI and Economic Growth in India

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Abstract

FDI inflows have been a trigger for accelerating the economic growth for a number of countries. India has emerged as one of the largest recipients of FDI inflows since the initiation of liberalization in country.FDI leads to enhancement of capital formation, technology transfer, skill development, productivity growth, competitiveness enhancement etc. in the economy. Many scholars have opined their view that FDI acts as an engine of economic growth, thus the FDI led growth hypothesis has been suggested.The pattern of the FDI inflows has been found to be diverse among the countries, and so has been its impact on the economic growth of respective countries. Numerous studies have been conducted to analyses the impact of foreign direct investment on the economic growth of countries. The results have been diverse, varying and conflicting. In this backdrop, this study is an attempt to examine the impact of the FDI on economic growth of India from 1992 till 2015 by using the simple regression analysis. This study tries to justify whether the huge inflow of capital in India since the liberalization over the years have transmitted towards the economic growth or not. It is found that with the increase in FDI inflows, GDP also increases, but the increase of GDP is slow.It is also concluded that FDI is an instrumental factor in enhancing the economic growth of India.

1. Introduction

Foreign direct investment refers to any kind of investment which is based in one country, originating from another company based in other country. It is also called as investment in brick and mortar, which has a long term motive as compared to short term profit motive. FDI is often preferred over Foreign Institutional Investments (FII) or foreign portfolio investment (FPI) as it considered as more beneficial and stable form of foreign investment for an economy (Thomas, 2016). These other two kinds of investments are highly volatile, and depend on the growth performance of the economy. According to the IMF and OECD definitions, FDI reflects the objective of a firm in obtaining a lasting interest by a resident entity in an economy other than that of the investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the enterprise and a significant degree of influence on the management of the enterprise in other economy. FDI plays a multidimensional and multipurpose role in the overall growth and development of any economy. It provides a new source for capital to any economy, can lead to technological up gradation of low technology economy, skill enhancement and resultant efficiency effects. Moreover it leads to transfer of technology from the high technology economy to the lower one.FDI is regarded to provide the win-win situation for both the host country and home country.Host countries, gain by having access to latest technologies, managerial skills and supplement their domestic saving and foreign exchange. On the other hand, home countries gain by taking advantage of vast markets in the underdeveloped countries. Furthermore, the home countries also take advantage of the cheap labour and raw materials to further boost their productivity.

One of the most remarkable developments during the last two decades beginning from 1990 is the spectacular growth of FDI in the global economic landscape. This rapid growth of FDI inflows since 1990 around the globe has made FDI as a vital component in the economic development strategies and the policies are nowadays being formulated to enhance the higher flow of FDI in the economies. Furthermore, with the rapid expansion of big multinationals and the resultant foreign direct investment (FDI) in the global economy, the effect of FDI on the host economy has been of great interest for both policymakers and academicians around the world (Liu and Wang, 2003). Foreign direct investment (FDI) has been one of the strikingfeatures of the modern globalized world economy especially since the last three or four decades since the concept of liberalization has evolved and rapidly spread in the third world countries. FDI has become a significant factor in modern globalized world and has been receiving increasing attention in recent years, which has furtherincreased interest by both policy makers and academic researchers around the globe (Arisoy, 2012). Nowadays, the rapidly increasing interest in FDI as a determinant of economic growth is generally attributed to its employment enhancement capacity of any economy. FDI also enhances the productivity and enhances the competitiveness of economic sectors by bringing more sophistication into economy as a whole(Gunby et al, 2017). FDI inflows act as a promoterfor the industrial development by supplementing and complementing the economic growth. FDI expands the general welfare of the population in an economy by enhancing the employment opportunities, accelerating economic growth and also it helps in adopting new methods of production. FDI inflowsact as a tool of transferring skill, technology, and knowledge among countries especially from the highly developed economies to developing economies (Liu and Wang, 2003). Inward FDI is considered as the critical factor among many factors contributing towards the sustained economic growth (Tuan et al, 2009).Thus, FDI is an important channel for international knowledge transfer across the borders. FDI inflows in aneconomy are suggested to be animportant source of innovation and for enhancing the transfer of technology(Lin et al, 2009). Moreover, FDI opens up export markets and promotes domestic investment through the effect of spillover of technology which in turn inducesthe productivity to increase (Almfraji et al, 2014). In the economies where spillover effects from the presence of the foreign firms due to lack of favourable economic, political and social effects can't be captured; FDI may have a little or even negative effect on the economic growth (Toulaboe, et al 2011). Thus, it appears that due to economic, social and political inequalities across the economies, the growth effects of FDI may differ substantially across economies and is directed to those sectors only which enjoy high actual and potential comparative advantages (Pegkas, 2015). Furthermore, it is also found that the effect of FDI on attracting the TFP is considerably constrained by insufficient human and physical capital development in an economy (Bonga-Bonga and Phume, 2017). That is the reason to confirm that rapid economic growth of the East Asian, Latin American and other developed economies exhibited by the FDI inflows was due to their developed human and physical capital, trade openness, financial development, political and economic stability, proper law and order situation etc. and hence they were capable of properly exploiting the benefits of FDI inflows (Fadhil&Almsafir, 2015). It is also found from the literature that FDI has a progressive relationship with economic growth in the host countries and this positive and direct relationship is proved in both the developed and developing countries, but, countries receiving better FDI have the highest economic growth, hence FDI acts as an amplifier and multiplier of economic growth (Latif et al, 2017). Furthermore, it is suggested that developing countries may lose momentarily in the short run through the inflow of FDI, but in the long run, it is proposed that these developing countries gain very big.

Investment of any form is supposed to play as a key factor in the growth and development of any modern economy. Earlier, foreign direct investment (FDI) was considered by developing countries as an instrument used by developed economies to impose their domination onthe economies of poor and developing economies (Abdouli and Hammami, 2017). However, over the past two decades, developing countries like India and China have paid some serious attention and heed to the advice from developed countries and international organizations like the World Bank Organization and the International Monetary Fund in removing restrictions on foreign direct investment inflows and even adopting policies to attract FDI in these economies. These policies have been suggested in the belief that domestic firms and economies in particularbenefit massively from the inflow of FDI (Lu et al, 2017). This approach by India is in absolute contrast with the False Paradigm thesis which suggests that developed countries propose faulty and inefficient policies for the developing countries. Since the beginning of liberalization and globalization era in Indian economy from 1990's, India has swiftly pursued the economic policies that encourageand enhancethe inflow of FDI in the various sectors of the country. Tax agreements were formulated with certain economies to attract the rapid inflow of FDI. The amount of FDI in the country has increased dramatically since the liberalization started in the country. As per the report prepared by Department of Industrial Policy and Promotion (DIPP)[1], the highest inflow of FDI in the country come from Mauritius and Singapore which contribute 34 per cent and 16 per cent in 2017 respectively. Other major source of FDI inflows in Indiamainly comes from Japan (8 per cent), U.K (7 per cent), Netherlands (6 per cent), USA (6 per cent) and Germany (3 per cent). The high proportion of FDI in India from Mauritius and Singapore is due to tax treaty agreements with these countries[2]. However, the treaty was amended in 2016 with some modifications, but these amendments didn't affected FDI inflows in the country at any large volume. About 18 per cent of FDI in the country is appropriated by services sector followed by computer and software sector (7 per cent), construction (7 per cent), telecommunications (7 per cent), automobile (5 per cent), and drugs and pharmaceutical.

3. Literature Review

Economic growth is regarded as the primary or a basic objective of the economic policy of any country to remove poverty, enhance productivity and employment. Though there are multiple ways to enhance the economic development of country, but increasing the GDP or economic growth

[1] dipp.nic.in
[2] economictimes.indiatimes.com

is regarded as a basic prerequisite for countries to attain the rapid economic development. This has been justified especially from the growth experience of the Europe, ASEAN and other developed countries of world. Thus, the importance of enhancing rapid economic growth has led to formulation of numerous economic growth models and theories to explain variouspossible drivers and determinants of economic growth. Classical, Neo-classical as well as Endogenous growth theories in existing literature of economics have proposed the theoretical bases which have served as a benchmark for future studies related to economic growth and its nexus with various growth drivers. The neoclassical growth model of Solow proposes that economic growth can be enhanced through the technological progress, capital accumulation and population growth (Solow, 1956). Thus the implications from neo-classical model suggests that FDI or any other form of capital investment which increases the capital stock and hence growth phenomenonof an economy. Neoclassical growth theory also implies that return on capital stock should be higher in poor countries than in rich countries (Toulaboe et al, 2011). However, due to assumption of diminishing returns to capital, economic growth slows down in the long run after the economy has reached the steady state growth rate (Gundlach, 2007). Since, it is general fact that the capital is scarce in poor countries, so any increase in these capital scarce countries will lead to rapid growth in the initial stage of economic growth. Thus, FDI or any other form of investment incurred can be suggested to have "*short run*" growth effect only, as countries move towards the new stationary state. Opposing to neo-classical growth models, the model of endogenous growth as proposed by Lucas &Romer, (1990), in general suggests that investment in the form of FDI is more productive than domestic investments as FDI encourages the absorption and inflow of new and advanced technologies in the production function of the host country thereby enhancing the growth at a rapid pace (Kida, 2014). Again, endogenous growth models suggest that only some high innovative and high technology countries are able to develop new technologies and knowhow, whereas, other countries generally developing ones which lag behind have to borrow these technologies from the leading economies and these new technologies enter the economies only through the inflow of FDI. The endogenous growth theory also considers FDI as an important source of human capital augmentation, technology borrowing and spillovers of ideas across countries and geographical boundaries (Grossman and Helpman, 2015). The FDI inflows may certainly help in inventing and improving the existing products and for producing the goods at the lowest possible cost. Thus it is reasonable to assume from the theoretical perspective that there is positive relationship between FDI inflows and economic growth.

Today, India is recognized as the very bright spot with huge potential for the rapid economic growth in the world economy. Thus, the world economies with the excess finances always look for economies with high growth opportunities and prospectus. Numerous studies have been conducted to analyze the impact of FDI inflows in any economy. Studies have been conducted for India as well as world economies. The conclusion that has emerged from the studies is that there is no clear cut and well established relationship between FDI inflows and economic growth of any economy. The existing studies point that the relationship between FDI and economic growth has led to the two factions of classes, those pointing that FDI enhances economic growth and those who suggest that FDI does not play a significant role in enhancing economic growth.

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FDI led Growth hypothesis: This hypothesis suggests that FDI positively affects economic growth. It regards FDI as a determinant of economic growth and growth driver in any economy.The studies which suggest that FDI enhances economic growth include Agrawal and Khan, (2011), Thomas, (2016),Tasneem and Aziz, (2011), Fabiyansah, (2017) and Sengupta and Puri, 2018.

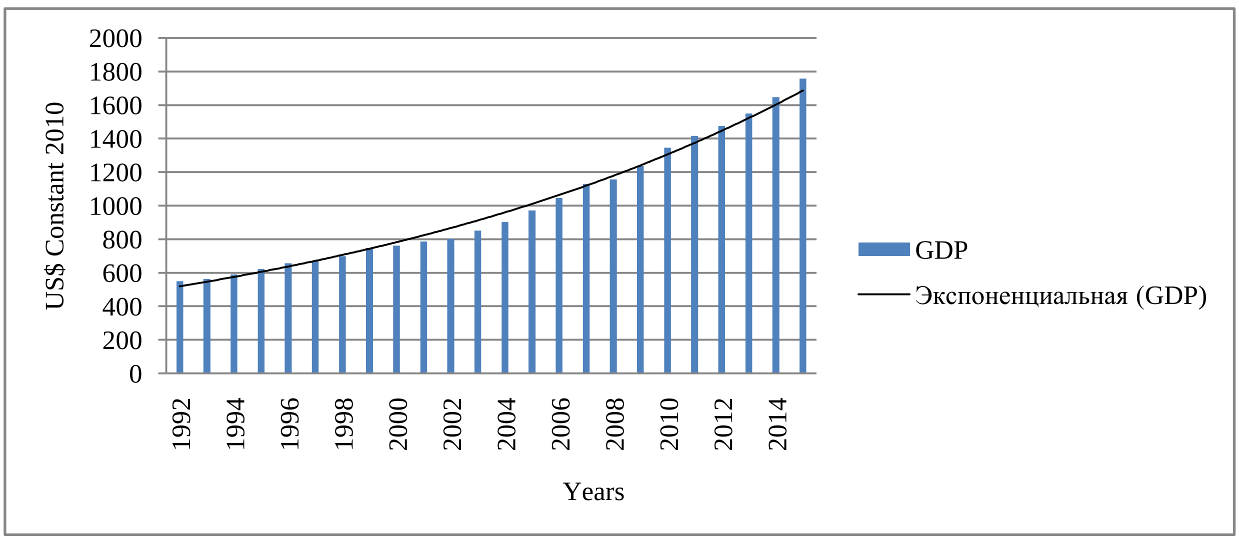
Neutrality of FDI hypothesis: This thesis suggests that FDI has no role in economic growth enhancement. The studies that suggest that FDI either plays a passive role or even retards economic growth include Athukorala, (2003), Akinlo, (2004), Sahoo, (2006), Attari et al, (2011) andAga, (2014).

Thus, it is found after the brief review of literature that there has been the diversity in identifying the exact impact of FDI on the economic growth of any country. Furthermore, it is also found that impact of FDI varies from country to country. Thus, it becomes imperative to identify the precise relationship between FDI inflow and economic growth of a country like India, which attracts and promotes the huge inflow of FDI in its economy.

4. Results and Discussions

The entire study is secondary in nature. The yearly data is collected from the World Bank (World Development Indicators, WDI) website from the period of 1992 till 2015 for India. The data has been collected for GDP per capita and FDI inflows in India. In the present model, GDP is the dependent variable and FDI inflows act as the independent variables.

Figure 1: Trends in GDP per capita of India



Source: Authors own demonstrations

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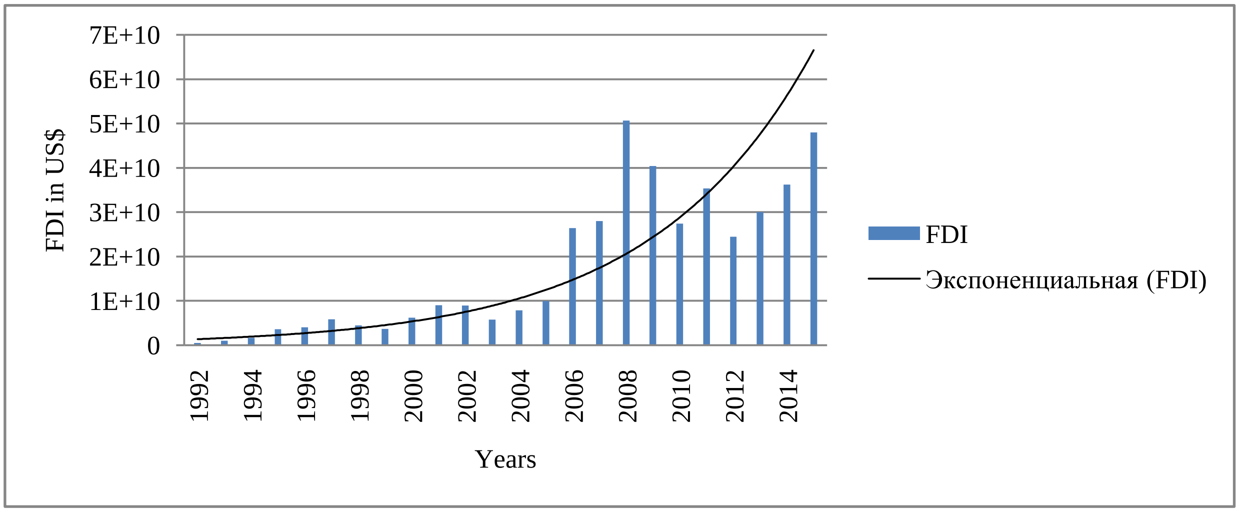
Figure 2: Trends in FDI inflows in India



Source: Authors own demonstrations

The trend analysis of the data in figure 1 shows that there is continuous increase in the GDP per capita of India since the beginning of liberalization in 1992. The existing literature also reveals that the growth rate of Indian economy since liberalization has been hovering around 8 per cent per annum. Indian economy has continuously shown an increase in the GDP per capita even though other developed countries of World as well as rapidly growing Asian economies witnessed slowdown.Neither financial crisis of East Asian economies nor the global slowdown resulted in any fall in the economic activities of India. This is the reason that there has been linear and upward trend in the GDP per capita of Indian economy. Similarly, the trend analysis of the FDI inflows in India has also been depicted in figure 2. Figure 2 shows that there has been rapid increase in the FDI inflows in the Indian economy especially after 2000. The rapid growth of FDI inflows can be attributed to ASEAN slowdown which channelized the FDI inflows from these rapidly growing economies to India. Due to Asian financial crisis, India was seen as a safe haven for the FDI inflows as compared to any other Asian developing economy. The global slowdown of 2008 also showed that Indian economy was insulated which again led to huge inflow of FDI in India during these years. This is also shown in figure 2, as there is a huge spike in the FDI inflows in the country. It is expected that in the future, there will be continuously high inflow of FDI because of demographic dividend, slowdown of China and other Asian economies.

The empirical results for the present study have been obtained by using the simple regression analysis to estimate the impact of the FDI inflows on the economic growth of India. The results of the regression analysis have been presented in the table 1 as under.

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Table 1: Regression Analysis of GDP and FDI

Regression Statistics				
Multiple R	0.874653829			
R Square	0.765019321			
Adjusted R Square	0.754338381			
	Coefficients	*Standard Error*	*t Stat*	*P-value*
Intercept	644.0905245	56.15702	11.46946	0.0000
FDI	0.02020	2.39E-09	8.463139	0.0000

Source: Authors own estimates

Thus, the regression line derived from the regression analysis is as under. These estimates have been derived from simple regression analysis for the study period 1992-2015.

GDP = 644.0905245 (C) + 0.02020 (FDI)

In the above equations, GDP is the dependent variable and FDI is the independent variable. However, C represents the constant or the intercept in the above equations. In other words, with one per cent increase in FDI, GDP increases by 0.02020 per cent. Thus, the regression analysis proves that in the long run, FDI has certainly a positive role to play on the economic growth of India. Though it can be observed that the coefficient is relatively low, it can be attributed to the fact that FDI inflows in India is low as compared to the China or any other ASEAN economies. These ASEAN economies have relatively attracted huge inflows as compared to India and other developing economies.

5. Conclusion and Policy Analysis

This study examines empirically the nexus between economic growth and FDI. However, the present study tries to contribute to the relatively limited existing empirical literature on the relationship between economic growth and FDI.The empirical results from the study indicate that FDI has a positive impact on the economic growth of India, though the effect is relatively small. Thus the results prove the FDI led growth for India. Thus the study is also in consistency with the endogenous growth theory which also suggests that FDI act as a driving force for economic growth in the long run for any developing economy like India. In this regard, it becomes necessary for the policy makers that the policies should be formulated so as allow the high FDI inflows in the country. The FDI should be highly encouraged in those sectors particularly where technological and other positive spillovers are found to be higher than others. Since India is relatively poor in infrastructure like power, roads, transportation etc.So, the policy makers should also lay their focus on the infrastructure growth which is a prime attracting component in FDI inflow. The improvement in the macroeconomic stability and the ease of doing business in countrymay also be pursued, which is still relatively low than other rapidly sdevelopingcountries of world though it has improved very recently.

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