

Impact of Foreign Direct Investment (FDI) on The Growth of The Indian Economy

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Abstract: Foreign direct investment (FDI) is usually rather unanimously treated as important factor of economic growth. There is a lot of scientific literature elaborating various facets of relationship between FDI and economic growth, especially in transition countries. FDI flows into India have grown rapidly since the liberalisation of the policy regime in the early nineties. Nevertheless they remain small when measured as a proportion of GDP or total investment. In other words they play a very small role in the development of our economy. This contrasts with the very important role that FDI has played in the economic development of other fast growing Asian economies such as ASEAN and China. What one may call the "FDI-Export" model has powered the high growth rates of Singapore, Thailand, Malaysia, Indonesia and China during the past two or three decades. The reason for the very low rate of FDI in India compared to these countries is because of both external and internal reasons. On one hand, the prevalent literature body expresses the importance of FDI as a significant source for scaling up production, efficiency, growth and management knowhow while another set of researchers have criticized the inflow of FDIs in the Indian economy and have expressed their concerns over its adverse effects and have termed them as weapons of economic exploitation of the developing countries. Thus it is very essential to analyse the role of FDIs in the growth of the Indian economy. Impact of FDI on the economy can be classified into two types namely direct and indirect. Under the direct impact, it is seen that the FDI inflows create a significant impact of the levels of domestic income, employment, price level, productivity, efficiency and export growth. The indirect impact of FDI can be accounted from the spillover effects of FDI. The special merits of FDI and particularly the kinds of incentives offered to foreign firms in practice have begun to be questioned. Fueling this debate is that empirical evidence for FDI generating positive spillovers for host countries is ambiguous at both the micro and macro levels. Spillovers from FDI accounts for the impact of the entry of foreign players in the competitive domestic market resulting in increased productivity and improvements in quality and other business process.

The Indian economy has received a lot of FDI across various sectors for the last two decades. However the majority of the FDI inflows can be seen in the services sector which alone accounts for about one fifth of the total FDI inflows. The other sectors which received significant FDI inflows include construction, automobile, infrastructure, telecommunications, pharmaceuticals, chemicals and power. The study aims to consider the following objective; To analyse the impact of FDI inflows on the Services, Construction, Trading, Mining and Agricultural Sectors in India.

I. Introduction

The historical background of FDI in India can be traced back with the establishment of East India Company of Britain. British capital came to India during the colonial era of Britain in India. After Second World War, Japanese companies entered Indian market and enhanced their trade with India, yet United Kingdom (U.K.) remained the most dominant investor in India. Further, after Independence issues relating to foreign capital, operations of MNCs, gained attention of the policy makers. Keeping in mind the national interests the policy makers designed the FDI policy which aims to use FDI as a medium for acquiring advanced technology and to mobilize foreign exchange resources. With time and as per economic and political regimes there have been changes in the FDI policy too. The potential advantages of the FDI on the host economy are that it facilitates the use and exploitation of local raw materials and introduces modern techniques of management and marketing. Through FDI investments better quality goods and services become available to domestic customers. The industrial policy of 1965, allowed MNCs to venture through technical collaboration in India. Thereafter, the government adopted a liberal attitude by allowing more frequent equity investment. In the critical phase of Indian economy the government of India with the help of World Bank and IMF introduced the

macro-economic stabilization and structural adjustment program. As a result of these reforms, India opened its doors to FDI inflows and adopted a more liberal foreign policy in order to restore the confidence of foreign investors. Further, under the new foreign investment policy Government of India constituted FIPB (Foreign Investment Promotion Board) whose main function was to invite and facilitate foreign investment. Starting from a baseline of less than USD 1 billion in 1990, a recent UNCTAD survey has projected India as the second most important FDI destination (after China) for transnational corporations, during 2010-2012. As per the data, the sectors which attracted higher inflows were services, telecommunication, construction activities and computer software and hardware. Mauritius, Singapore, the US and the UK were among the leading sources of FDI to the country.

According to GYANPRATHA – ACCMAN (Journal of Management, Volume 5 Issue 1, 2013) FDI for 2009-10 at US\$ 25.88 billion was lower by five per cent from US\$ 27.33 billion in the previous fiscal. In 2013, the government relaxed FDI norms in several sectors, including telecom, defence, PSU oil refineries, power exchanges and stock exchanges, among others. During the past 15 years, the importance of FDI in the world economy has increased rapidly. The total stock of FDI increased from 8% of world GDP in 1990 to 26% in 2006. Although the bulk of FDI continues to take place between OECD countries, the increase in FDI has been particularly pronounced in developing countries, largely reflecting the integration of large emerging economies, the so-called BRICs (Brazil, Russia, India and China), into the world economy. The increase of FDI into developing countries has been spectacular. The share of non-OECD countries in the global stock of inward FDI has risen from 22% in 1990 to 32% in 2005. China is by far the most important non-OECD country as a recipient of FDI, accounting for about one third of FDI in non-OECD countries in 2005. However, FDI inflows also tend to be sizable in many other emerging countries. Indeed, since the mid-1990s, inward FDI has become the main source of external finance for developing countries and is more than twice as large as official development aid.

The main objective of the study is as follows: To analyse the impact of FDI inflows on the Services, Construction, Trading, Mining and Agricultural sectors in India.

II. Review Of Literature

Debatable views of spillovers in technology, knowledge, productivity and creation of competitive business scenario coupled with a growth in capital inflow triggered by FDIs has been well documented in the literature. Some critics however view that FDIs could bring about deterioration in the balance of payments in developing countries like India (Kaur, Yadav & Gautam, 2013)¹. The causality between FDI inflow and economic growth also spurs in considerable contradictory opinions in literature. In this section, we highlight in brief the contradictory viewpoints about this linkage and try to identify other parameter which determines FDI influx in developing countries. The relationship between the inflow of FDI and economic growth in developing countries like India is documented in literature with contrasting viewpoints. The beneficial effects of FDI on the economic growth mainly arising due the spillover effects has been empirically analysed by Borensztein, De Gregorio and Lee (1998)²; Zhang (2001)³; Sun and Parikh (2001)⁴; Liu et al. (1997)⁵; Tsai (1991)⁶; Hansen and Rand (2005)⁷; Yao (2006)⁸; and Chang (2007)⁹. Another group of researchers had tried to establish the

¹Kaur, M., Yadav, S. S., &Gautam, V. (2013). Financial system development and foreign direct investment: A panel data study for BRIC countries. *Global Business Review*, 14(4), 729-742.

²Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth? *Journal of international Economics*, 45(1), 115-135.

³Zhang, K. H., & Song, S. (2001). Promoting exports: the role of inward FDI in China. *China economic review*, 11(4), 385-396

⁴Sun, H., & Parikh, A. (2001).Exports, inward foreign direct investment (FDI) and regional economic growth in China. *Regional Studies*, 35(3), 187-196.

⁵Liu, X., Song, H., Wei, Y., &Romilly, P. (1997). Country characteristics and foreign direct investment in China: A panel data analysis. *Review of World Economics*, 133(2), 313-329.

⁶ Tsai, P. L. (1991). Determinants of foreign direct investment in Taiwan: an alternative approach with time series data. *World Development*, 19(2-3), 275-285.

⁷Hansen, H., & Rand, J. (2006).On the causal links between FDI and growth in developing countries. *The World Economy*, 29(1), 21-41.

⁸ Yao, S. (2006). On economic growth, FDI and exports in China. *Applied Economics*, 38(3), 339-351.

linkage between FDI and economic growth. Although there are very limited evidences in literature addressing the issue to that context, it has been an area of interest to the researchers recently. However, the studies have reported contrasting results about the nexus between FDI and Economic growth (**Choi and Baek, 2017**¹⁰; **Chakraborty and Basu, 2002**¹¹; **Agrawal and Khan, 2011**¹²; and **Dash and Parida, 2013**¹³; **Sahoo and Mathiyazhagan, 2003**¹⁴; **Pradhan, 2002**)¹⁵. According to **Pradhan (2002)**¹⁵ FDI does not have significant positive growth impacts and thus they have concluded that the contribution of FDI to economic growth was minimal. On the other hand, **Chakraborty and Nunnenkamp (2008)**¹⁶ find that the influx of FDI contributes to economic growth for the Indian economy. **Dash and Parida (2013)**¹³ reported about passing a beneficial effect of FDI on growth, after controlling for trade.

The results were however not contrasting only to the context of India. The available literature also documents for cross country studies and documents for this contrasting results. Johnson (2006) examined the impact of FDI on growth for a panel of 90 countries and found the result to be positive and significant. While **Mottaleb (2007)**¹⁷ assessed the impact of FDI on growth for 60 low and middle income countries and concluded that large GDP and GDP growth rate are instrumental in attracting FDI Some researchers view FDI as an instrument for promoting the economic growth of host countries'. **Balasubramanyam et al. (1996)**¹⁸ shows that FDI leads to growth in those countries which followed export promotion policies over import substitution policies.

Apart from these parameters of balance of payments, trade and growth, few other factors also contributed to the inflow of FDI. These factors include human capital, GDP per capita, government consumption, foreign exchange and trade distortions (**Siddiqui and Ahmed, 2017**¹⁹, **Borensztein et al., 1998**)²⁰. Other factors like stable macroeconomic policies, institutional quality, lowering inflation rate, tax rates, and government consumption are required to attract FDI and lead to growth (**Siddiqui and Ahmed, 2017**)¹⁹. **Dhakal et al. (2007)**²¹ indicate that in India causality is bidirectional and flows from growth to FDI and from FDI to growth. Trade openness and development of the financial sector are also desired for attracting higher FDI

⁹Chang, S. J., Chung, J., & Xu, D. (2007). FDI and technology spillovers in China. Center for Economic Institutions Working Paper Series

¹⁰Choi, Y. J., & Baek, J. (2017). Does FDI Really Matter to Economic Growth in India?. *Economies*, 5(2), 20.

¹¹Chakraborty, C., & Basu, P. (2002). Foreign direct investment and growth in India: A cointegration approach. *Applied economics*, 34(9), 1061-1073

¹²Agrawal, G., & Khan, M. A. (2011). Impact of FDI on GDP: A comparative study of China and India. *International Journal of Business and Management*, 6(10), 71.

¹³Dash, R. K., & Parida, P. C. (2013). FDI, services trade and economic growth in India: empirical evidence on causal links. *Empirical economics*, 45(1), 217-238.

¹⁴Sahoo, D., & Mathiyazhagan, M. K. (2003). Economic Growth In India: " Does Foreign Direct Investment Inflow Matter?". *The Singapore Economic Review*, 48(02), 151-171.

¹⁵ Pradhan, J. P. (2002). FDI spillovers and local productivity growth: evidence from Indian pharmaceutical industry.

¹⁶Chakraborty, C., & Nunnenkamp, P. (2008). Economic reforms, FDI, and economic growth in India: a sector level analysis. *World development*, 36(7), 1192-1212.

¹⁷Mottaleb, K.A. (2007), *Determinants of foreign direct investment and its impact on economic growth in developing countries*, MPRA Paper No. 9457

¹⁸Balasubramanyam, V.N., Salisu, M., Sapsford, D. (1996), Foreign direct investment and growth in EP and IS countries. *Economic Journal*, 106(434), 92-105.

¹⁹ Siddiqui, A. A., & Ahmed, S. (2017). Impact of Foreign Direct Investment on Sectoral Growth of Indian Economy. *International Journal of Economics and Financial Issues*, 7(3), 477-488.

²⁰Borensztein, E., De Gregorio, J., Lee, J.W. (1998), How does foreign direct investment affect economic growth? *Journal of International Economics*, 45(1), 115-135.

²¹Dhakal, A., Rahman, S., Upadhyaya, K. (2007), Foreign direct investment and economic growth in Asia. *Indian Journal of Economics and Business*, 6, 15-26.

in India. **Mathiyazhagan (2005)**²² examines the relationship between FDI, output, export and labour productivity for the Indian economy during the time period from 1990-1991 to 2000-2001 based on the model given by **Sahoo et al. (2002)**²³ and **Sahoo and Mathiyazhagan (2003)**²⁴. It is found that FDI has led to a rise in output, labour productivity and export in a few sectors which is not highly significant. It has also been suggested in the study to open up export oriented sectors in order to achieve higher growth of the economy through these sectors. Education level of the labour force also plays significant role in determining the FDI influx to a country (**Siddiqui and Ahmed, 2017**)¹⁹. Based on this literature review, it is prudent to say that the causality of the FDI and economic growth needs to be established. Further, it is also necessary to identify the other parameters via empirical methods which have an impact on the FDI influx in India.

III. Body Of Paper

The study is based on secondary data. The secondary data have been collected from the website of Department of Industrial Policy & Promotion, Ministry of Commerce and Industry, Government of India; Reserve Bank of India (RBI); World Bank and online data source CMIE. The time period for the study is 2007 to 2017. The study incorporates five sectors named Services, Construction, Trading, Mining and Agricultural.

Fixed Effects (FE) model and Random Effects (RE) model are the two well-known methods for estimating a panel data. The former facilitates in exploring the relationship between predictor and outcome variables within the individual entities. The basic assumption in FE is that some characteristics within the individual can bring in a bias or impact the outcome variables. The FE model helps in controlling this effect which is based on the assumption of the correlation between entity's error term and predictor variables. FE model facilitate in reducing the effect of those time-invariant characteristics from the predictor variables and enable us to study the net effect of the prediction. We would choose the choice of the model based on Hausman Test. Panel Regression Model and STATA software are used for the study.

IV. Results

Firstly, we have run Random Effect Panel Regression Model and the outcomes are given below.

| Sector GDP | Coefficient | Standard Error (SE) | z statistic | P Value |
|-------------------|-------------|---------------------|-------------|---------|
| Sector FDI | 0.013 | 0.003 | 4.92 | 0.000 |
| Constant | 5814.578 | 2415.754 | 2.41 | 0.016 |
| R Square | 0.324 | | | |
| Chi Square | 24.250 | | | |
| Prob. >Chi Square | 0.000 | | | |

Table 1: Results of Random Effect Panel Regression Model

After Random Effect Model, we have run the Fixed Effect Panel Regression Model and the results are given below.

| Sector GDP | Coefficient | Standard Error (SE) | t statistic | P Value |
|-------------|-------------|---------------------|-------------|---------|
| Sector FDI | 0.013 | 0.003 | 4.85 | 0.000 |
| Constant | 5814.806 | 358.370 | 16.23 | 0.000 |
| R Square | 0.324 | | | |
| F Statistic | 23.48 | | | |
| Prob. > F | 0.000 | | | |

Table 2: Results of Fixed Effect Panel Regression Model

To select the effective model for this case, we have done Hausman Test between the Random Effect and Fixed Effect and the result of the same is given below.

Test: Ho: difference in coefficients not systematic

$$Cchi\ Square = (b-B)'[(V_b - V_B)^{-1}](b-B) = 0.00$$

$$Prob > chi2 = 0.9964$$

²²Mathiyazhagan, M.K. (2005), *Impact of FDI on Indian Economy: A Sectoral Level Analysis*, ISAS Working Paper No. 6, Singapore.

²³Sahoo, D., Mathiyazhagan, K.M., Parida, P. (2002), Is foreign direct investment an engine of growth? Evidence from the Chinese economy. *Savings and Development*, 4, 419-439.

²⁴Sahoo, D., Mathiyazhagan, M.K. (2003), Economic growth in India: Does foreign direct investment inflow matter? *Singapore Economic Review*, 48(2), 151-171

The result of the Hausman Test suggests that we should reject the Fixed Effect Model and select the Random Effect Model at 5 % level of significance.

The results of Random Effect Model indicates that the impact of sectoral FDI is positive, which means that if the inflow of FDI increases than the growth of that sector is also positive.

V. Conclusions

The study concludes a positive impact of FDI inflow on the GDP. This would be beneficial for policy makers to design strategies to target GDP based on the inflow of FDI. This study needs to be further developed taking into account other control variables which impacts GDP. This model describes the overall impact of FDI on GDP, however the sectorwise impact needs to be further analysed before drawing any conclusion.

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