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Impact of FDI on GDP: A Comparative Study of India and China

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Abstract

FDI has been a catalyst for channelizing economic growth and development in a country. India and China are among the most attractive countries in the world to invest according to a recent UNTCAD survey. Domestic market size has been the most important factor responsible for investors preferring china. India is performing a better job than China in terms of utilization of resources on the larger scale. Though the FDI inflows of India are comparatively lower but the percentage growth in FDI inflows through these years have been dominating the percentage growth rate of FDI inflows of China. The figures we get from World Investment Report 2016 (UNTCAD) disclose that India's inward stock makes a higher percent of its respective GDP which implies the better and optimum contribution of FDI into GDP. FDI's greater contribution in the GDP and overall economy can attract more FDI inflows as compared to the lesser contribution in the GDP. We used Karl Pearson's coefficient of correlation for correlating the values of FDI and GDP for India and China. It suggested a greater contribution of FDI into the GDP of India as compared to that of China's.

Keywords: *FDI; GDP; India; China; Emerging markets; The World Bank; UNCTAD; World Investment Report.*

1.0 Introduction

FDI has been a catalyst for channelizing economic growth and development in a country. Since 1990, there has been a tremendous increase in the FDI worldwide which obviously makes FDI an important driver for an economy. Thus, it requires policies to be devised as such in order to attract capital inflows both by developing and develop ed nations (Dunning, J. 2002). This rapid continuous growth and ease in the flow of FDI in last two decades has resulted in boosting the economic growth of a Nation and industrialization globally.

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FDI makes the economic growth level of a country to grow faster with the help of employment generation in the host country, aiming saving gap and huge investment demand and sharing technical and management skills in the host countries (Frenkel, M. Funke, K., and Stadtmann, 2004).

Factors identified as inevitable for a country's growth are: Large amounts of capital investment, Technical know-how, highly skilled labour, transportation and communication infrastructure, Supportive and Stable political and social institutions, Lower rates of tax, and Favourable regulatory environment (World Investment Report UNCTAD, 1994). Dissimilarities in the growth rates of the countries are due to the differences in the level of factor endowments (Dondeti and Mohanty, 2007).

Political and legal environment plays a greater decision maker role in ascertaining inflow of foreign direct investment. Political risk involves issues which mainly are such as: stability of government, internal and external conflict, corruptions and ethnic tensions, accountability of government, democracy and law and order (Giri and Debnath, 2016).

A day might come when transnational firms will face difficulty in managing the investment on a very large scale in different economies simultaneously. And to chose between China, India and advanced economies, they may favour India and China. This is a theoretical idea. The influence on bargaining power of employers in advanced economies by investing in China and India may be affected. The decision of moving the investments to China and India seems fair when Firms can reap higher profits thereby and may use the wage extraction and other concessions to its human force at home. But there exists a lot many firms which are readily investing and finding it profitable there by investing with advanced economies. And if it isn't true then the investment behaviour of investors does not hold good currently. The reality is that advanced economies still attract more FDIs than China and India. (Rowthorn, R., 2006).

Undoubtedly the investment potential of India and China is huge. India and China are among the most attractive countries in the world to invest according to a recent UNTCAD survey and expert opinions and as they expand their domestic market and familiarity to foreign firms they could become even more attractive destinations to land FDIs. Investing in large and fast growing markets is obviously becoming the main reason for outside firms to invest in India and China in the decades coming by. It may be conceived that with the investments rising in, could lead to the situation- shortage of savings globally, causing world interest rates to rise and advanced economies may experience an investments choke. But it is yet to happen. There is a current account surplus in the combined economies of India and China, providing savings to the world. There are some factors according to which China is able to attract more FDIs than other countries and India should take notable lessons from the former. These factors are market size, low cost labour, infrastructure, and legal policies (Tseng and Zebregs, 2002).

2.0 Literature Review

India and China has been attracting investments from all over the world due to their ever increasing middle class consumer society. Western European world views both India and China as the bigger attractive market for them to invest. These two rapidly growing economies have open access to the global economy through FDI inflows (Rigi, M., 2011).

India and China are the fastest emerging major economies today as per the figures depicted by The World Bank. In recent years, rapid economic growth has been experienced by both India and China which has attracted major FDIs. Although China is a better performer [Source: The World Bank]

India has been recognized as a rapidly developing economy globally. Indian economy is attracting faith and investments from investors all over the world due to its flexible economy. Economic growth of India has been rapid since 1991 and one of the major reasons for this rapid economic growth is the huge foreign capital inflow. This inflow of capital in India has been contributed by various growth factors that had vehicle India to rapid economic growth.

In 1975, India and China were at par in terms of GDP. But China developed more rapidly than India over the years and surpassed the latter in terms of GDP per capita by 1984. China overtook Japan for the 2nd largest economy in the world in the current scenario. GDP and GDP per capita of China are almost thrice of India's (Agrawal and A. Khan, 2011).

Using comparative models to examine the linkage between economic growth and FDI in India, suggest that GDP is not granger caused by FDI, the causality runs from GDP to FDI more (Chakraborty and Basu, 2002).

India and China both followed a different growth plan, India emphasized on greater role for modern services, manufacturing with a smaller role and a much lower investment rate (Dasgupta and Singh, 2005).

According to Credit Lyonnais Securities Asia Survey of 2000 [Among 25 emerging market economies surveyed, India was ranked sixth in terms of corporate governance while China secured 19th rank in the same.] Indian produced companies are excelling in a way that they now are competing with the best companies from Europe and the United States. These Indian companies are in Knowledge based industries-

Infosys and Wipro, Pharmaceutical and Biotechnology powerhouses- Ranbaxy and Dr. Reddy's Labs. There were 13 Indian companies last year in the annual rankings of best small companies around the world, and included just four from China. (huang and khuraana, 2003).

Domestic market size has been the most important factor responsible for investors preferring china with the average annual percentage growth rate of 10 percent for the last decade, making China one of the fastest expanding markets in the world. That is why Multinational Corporations from the various advanced economies like USA, Europe, Japan, and South Korea prefers china for investment opportunities. India is closely following china in terms of market size it offers which consists of 350 million people in the middle-income group, considered to be the lucrative factor attracting overseas investors. India exports quality human resources to the world as it is the second largest pool of scientific and technical man force. The wage rate prevails in India is one of the lowest in the world which may result in favour of India in becoming more attractive destination to invest (Keshava, S., 2008).

3.0 China does better in terms of Inward FDI than India

- Both the GDP and per capita GDP of China are higher, which in turn makes it more attractive to the foreign investors seeking FDI's.
- With higher literacy rates and higher education rates china's labour is perceived to be efficient and skilled by the investors seeking efficiency.
- Natural resource endowments of China are larger if compared to that of India's. In addition, China possesses more competitive physical infrastructure. But, technology is the sector where India may have an advantage especially information technology.
- China has absolute advantage with its large domestic market providing a mass production system. This results in the economies of scale and thus reduces the overall production cost which makes China the better choice for multinationals to invest for wholly export-oriented units. On the other hand India offers an equally attractive environment. But the system of producing in bulk is yet to be evolved by India (Wei, 2015).

To support private enterprises India has capitalized heavily on infrastructure. India has better operating capital markets along with greater efficiency and transparency than China's. Indian legal system and regulatory framework may have some substantial flaws but is more advanced than China's (Huang et al., 2003).

India is doing better than China when considering Entrepreneurship and start-ups. A recent survey by Far Eastern Economic Review (FEER) that included leading Asian companies, India did better than every other country in Asia registering a higher average score than every other country in the region, which includes China too (the survey poll consisted of more than 2,500 executives and professionals from all over the countries in Asia; for overall leadership performance respondents were asked to rate companies on a scale of one to seven). There were only two firms from China that scored high enough to get into India's list of top 10 firms. All these Indian companies were private initiatives whereas for China most of the companies were SOEs having huge state involvement (huang et al., 2003)

FEER's survey of top Asian companies had leading Indian firms, some of which are true start-ups- specifically Infosys (topped the survey), and some old-line company's offshoots. Sundaram Motors, if we consider is a leader of automotive components manufacturing and a primary supplier for General Motors, is offshoot for the old-line company- "T.V. Sundaram group", a south Indian business group existing from a century.

Comparatively in China, bureaucrats there control the allocation of capital and normally restrict the access to the money companies there need to grow essentially which in turn makes unable for them to be listed on stock markets. The use of financial markets so as to keep SOEs afloat is seen in case of Beijing. Policies and strategies like these results in huge abnormalities restraining Chinese markets from the maturity and depth it otherwise could succeed at. The total Capitalization of China is claimed to be in excess of $400 billion, but taking untradeable shares that are owned by the government or by State owned enterprises out of consideration leaves the valuation to just approx $150 billion. The problems that can be sensed out there are incompetent corporate governance and the presence of an independent judiciary that China lacks.

With the efficient and optimum deployment of Capital by India is helping it in speedily catch up China and this speed is even paced by the china's inefficient policies which allocate all of the money and control to the SOEs. The years ahead coming by in near future inherited with the inefficient allocation of resources by China may be seen as the pullback on the economy of the former. China registered double digit growth rate during 1990's and Beijing made magnificent investment in the state sector. Most of those investments were not made commercially available limiting the banking sector with a large number of loans which at the point non-performed, these non-performing loans accounted to the 50% of assets owned by the banks. The Capitalization costs of these loans need to be covered at some point in future. It might happen through either write- downs (i.e. costs to be bearded by the depositors) or by recapitalizing the banks by the government of China. This implies that the money there in China have to be moved from other allocation which might have better productive uses. Future growth of China could be limited by doing so.

Indian Banks if not the models of perfect financial policies, but haven't committed mistakes like China in the same context. According to the Ernst & Young- a management consulting firm had a survey recently which shows that the number for non-performing assets (NPAs) of Indian banks was around 15 percent as of 2001.Therefore it can be said that Indian economy is based on much stronger foundations inherited with sound regulatory and management policies.

India is performing a better job than China in terms of utilization of resources on the larger scale. The development approach of India and China is different. Although above evidences indicates the ground-up approach of India may be better and wiser than China's.

The foreign money flow into India through its Diaspora has accounted to just less than 10 percent till now. But now the direct investments are tend to increase from Indians residing outside the country (NRIs) when welcome mat lay out. Though Indian Diaspora is of no match to the Diaspora of China in terms of hard capital, but Non-Resident Indians can contribute more intellectual capital comparatively which could result in better value. Both the Indian and Chinese Diaspora are different as Indian Diaspora distinguishes itself by been in the knowledge- based industries. Now, it has started working for India as Indian Diaspora- many NRI Engineers and Scientists and many other expatriate businesses began to fund the direct investments into India with the changing attitude favouring situations prevailing in India. Chinese Diaspora has helped China in becoming the leader for been the world's factory, whereas India can become the technology lab for the world when helped from its Diaspora. India and China have adopted different developing strategies. Outperforming China overall is not what we see in the current scenario , but are some key areas thereby India is doing better .The success India may pull it from can help not only to be at par with China, perhaps can even overtake it (Huang et al., 2003).

4.0 Research Methodology

An analysis of Table 1 reveals the following:

- Through all these years China's FDI inflows are huge as compared to that of India's which implies India do not succeed as much as China did in terms of attracting FDIs.
- Though the FDI inflows of India are comparatively lower but the percentage growth in FDI inflows through these years have been dominating the percentage growth rate

of FDI inflows of China. This implies that India's FDI inflows are closely following China and in nearby years may become at par or may overtake that of China's.

Table 1: Foreign Direct Investment (FDI) Overview, Selected Years

(Millions of Dollars and Per Cent)

	Countries	2012	2013	2014	2015
FDI Inflows	India China	24 196 121080	28 199 123911	34 582 128500	44 208 135610
% growth in FDI inflows	India China	16.5 2.3	22.63 3.7	27 5.5	
FDI inflows as a % of Gross fixed capital formation	India China		4.8 2.9	5.5 2.8	7.0 3.0
FDI stock (inward)	India China	224985 832882	226549 956793	252817 1085293	282273 1220903
FDI stock (inward) as a % of GDP	India China		12.2 10.1	12.4 10.4	13.5 11.1

Source: *WIR 2016(UNCTAD)*

- FDI stock Inward: The inward FDI stock is the value of foreign investor's equity in and net loans to enterprises resident in the reporting economy.
- FDI stock Outward: The outward FDI stock is the value of the resident investor's equity in and net loans to enterprises in the reporting economies.
- FDI stocks are measured in US $ and as a share of GDP.
- The figures we get from World Investment Report 2016 (UNTCAD) disclose that India's inward stock makes a higher percent of its respective GDP which implies the better and optimum contribution of FDI into GDP.
- The difference between the figures of FDI stock inward of India and China in US million dollars is not that huge and in coming years this difference will come down. It is to be seen how much time it will take for India to not only match but overtaking China in terms of FDI stock inward.

We tried to find a relationship between FDI and GDP by correlating the values of FDI and GDP (Table 3). We have tried to build a correlation between the two by using Karl Pearson's Correlation Coefficient. Karl Pearson Correlation Coefficient is used to study the impact on economic growth contributed by FDI inflows in India and China.

- On correlating the values of FDI inflows India in US $ with the values of GDP India in US $ from 2010 - 2017, we get correlation value as 0.711908666

- On correlating the values of FDI inflows China in US $ with the values of GDP China in US $ from 2010 - 2017, we get correlation value as -0.548647962
- On correlating the values of FDI and GDP in year 2010 and 2011, we get correlation value at 1 for India and China as well.

On correlating the values of FDI and GDP during years 2010 to 2015, we get correlation value as .1 for China and .73 for India.

Table 2: FDI Inflows and GDP of India and China for the Following Years

Year	FDI inflows INDIA (US $)	FDI inflows CHINA (US $)	GDP INDIA(US $)	GDP CHINA(US $)
2010	27396885034	243703434558.18	1656617073124.71	6100620488867.55
2011	36498654598	280072219149.94	1823049927772.05	7572553836875.34
2012	23995685014	241213868161.42	1827637859136.23	8560547314679.28
2013	28153031270	290928431467.00	1856722121394.42	9607224481532.65
2014	34576643694	268097181064.34	2039127446299.30	10482372109961.90
2015	44009492130	242489331627.40	2102390808997.09	11064666282625.50
2016	44458571546	174749584584.05	2274229710530.03	11190992550229.50
2017	39978394935	168223583736.79	2597491162897.67	12237700479375.00

Source: *The World Bank*

Table 3: Correlation between FDI and GDP of India and China

Year	Correlation between FDI and GDP India	Correlation between FDI and GDP China
2010 & 2011	1	1
2010, 2011 & 2012	0.23172651	0.055810234
2010, 2011, 2012 & 2013	0.149833989	0.549807354
2010, 2011, 2012, 2013 & 2014	0.464583879	0.467928334
2010, 2011, 2012, 2013, 2014 & 2015	0.731203323	0.109672158
2010, 2011, 2012, 2013, 2014, 2015 & 2016	0.824655312	-0.337303449
2010, 2011, 2012, 2013, 2014, 2015, 2016 & 2017	0.711908666	-0.548647962

Source: *The World Bank*

5.0 Findings and Recommendation

The percentage growth in GDP of India and China have been compared in Table 4.

- The % growth rate of FDI in case of India is higher than that of China’s throughout the years taken in account in table above.

- For India % growth rate in FDI has been increasing from 2011 to 2014 which can also be seen in case of China, but lower than that of India's.
- In year 2015 and 2016, both the countries experienced back down in case of % growth in FDI.
- In the years 2013, 2014 and 2015 India experienced an increase in % growth of GDP whereas for China these years resulted into decreasing % growth rate of GDP, which helps us in analyzing that during these years India might have deployed better allocation of resources with better management resulting in favourable outcomes.
- In year 2014 % growth in GDP of India performed better than that of China. For India it is equal to 7.41% and 7.298% for China.
- In the year 2015 % growth rate in GDP of India again performed better than China's with India recording % growth at 8.154% and leaving behind China with % growth rate of 6.9%.

Table 4: % Growth in GDP and FDI, 2010-2017

	INDIA		CHINA	
	FDI % growth	GDP % growth	FDI % growth	GDP % growth
2010		10.26		10.636
2011	-33	6.638	-2.3	9.536
2012	16.5	5.456	2.3	7.856
2013	22.63	6.386	3.7	7.758
2014	27	7.41	5.5	7.298
2015	1	8.154	-27.9	6.9
2016	-10	7.113	-3.7	6.7
2017		6.624		6.9

Source: *The World Bank*

Table 5: FDI Inflows as a % of GDP of India and China

Year	FDI inflows (% of GDP) India	FDI inflows (% of GDP) China
2010	1.653785022	3.994731929
2011	2.002065552	3.698517372
2012	1.312934337	2.817738858
2013	1.516275965	3.028225603
2014	1.695658786	2.557600305
2015	2.093306912	2.191564801
2016	1.954884827	1.56151998
2017	1.539115725	1.374633936

Source: *The World Bank*

Although the difference between the FDI and GDP of India and China in terms of million dollars is huge, but the growth rate at which India is pacing the FDI and GDP for recent years, it can be said that in coming years the difference between the figures of India and China concerning FDI and GDP will come down to be negligible or India might overtake China in terms of both FDI and GDP.

India's FDI inflows are comparatively smaller than that of China's, however FDI inflows of India contributes more in GDP in percentage terms than China. There are several factors on which India can exploit so as to attract more FDI inflows and its greater contribution to the GDP of country. FDI's greater contribution in the GDP and overall economy can attract more FDI inflows as compared to the lesser contribution in the GDP. The data from last some years can be interpreted as Indian market could be an attractive destination for foreign investors to invest in terms of FDI, more attractive than China. One of the key factors can be legal and political policies been formulated and implemented by India (Giri and Debnath, 2016).

6.0 Conclusion

In this paper we examined the impact of FDI over the GDP of India and China. China becomes the preference for majority of foreign investors and their investments over India as China is bigger in market size than India, offers easy export market accessibility, government incentives, infrastructure better developed, economies of scale, and lesser costs. While on the other hand India has talented management system, rule of governance, transparency in work, and regulatory environment (Agrawal et al., 2011).

The methodology we used for studying the impact of FDI on GDP gave us values we can comprehend various different standings for both India and China.

During year 2010 and 2011, correlation value came out to be +1 for both India and China showing the positive strong association between FDI and GDP. Although the values for India and China are different in terms of FDI inflows and GDP generated but both FDI and GDP is showing the positive strong correlation for both India and China.

But the stats for next following years has shown different correlation between FDI and GDP of India and China reflecting a different trend in FDI inflows received and contribution of FDI in overall GDP. The correlation values for next following years helps us to understand that India's FDI inflows is better contributing to the GDP or overall economy when compared to the FDI inflows received by China and its contribution in the GDP of the same.

Although the FDI amounts received by India and China depicts huge differences, obviously with China attracting huge FDI inflows but when talking about the percentage contribution of FDI in the GDP of a country India is doing better over the recent years.

The percentage contribution of FDI inflows in the GDP of India has outperformed China as per the statistics of FDI inflows contribution in the GDP for years 2016 and 2017. For 2016 contribution of FDI in the GDP of India is 1.954 % and 1.539 % for year 2017.On the other side China's FDI contribution to the GDP is 1.56 % for the year 2016 and 1.374 % for 2017. [Source: The World Bank].

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