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AN APPRAISAL OF FDI WITH SPECIAL REFERENCE TO INDIA AND CHINA

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Foreign Direct Investment plays a significant role in the development of any economy because it does not bring capital with it but also brings new technology, employment and increase in growth. Also in Asia mainly China and India have significant role in the World economy. Both are in the list of top 10 destinations in the World. Since China and India are two of the fastest growing economies in the World which are likely to be future super power, that is why this paper is an attempt to analyze the impact of FDI on both the economies with the help of statistical tool Correlation and t-test. This research paper is categorized in four sections. First and second section highlights the FDI policies in India and China. Third section shows the research Methodology and Data Analysis. Fourth section refers the finding and suggestions.

1. Introduction

The integration of Asian giants with the world economy has dramatically changed the nature of global macro economic and financial interdependence, the major contributors in the global out put are India and china, since 2001 their combined contribution to global output growth has stayed around 30 percent. China's contribution is consistently higher than India by almost three times. On the financial front china had accumulated almost one trillion dollars in foreign exchange reserves of which 30 percent were invested in US treasury Bills. India's foreign exchange reserves were much lower at the end of 2005. India has not attracted anywhere near the amount of FDI that China has. In part, this disparity reflects the confidence international investors have in China's prospects and their skepticism about India's commitment to free-market reforms. China has also embarked on an aggressive program of converting departmental enterprises into corporations and privatizing government companies. Between June 1999 to December 2001, china has raised over US $ 23 billion, mainly through the Initial Public Offering (IPO) route. The major transactional include China mobile, China Unicom, China telecom. In November 2000, China mobile (Hong Kong) acquired 7 mobile networks in the main land, with a deal value of US $ 33 billion. As the deal was partly financed by capital raised through new shares issued to its parent company in the British Virgin Islands, there were FDI inflows of nearly US $ 23 billion into Hong Kong, China. Given the slow start of dis-investment in India, there have been little or no foreign inflows into dis-investment. The small amount of foreign in flows has primarily been in the form of GDRs or ADRs. This has begun to change the perception of potential FDI investors flows through this channel may be dependent on removal of sector specific barriers and public encouragement to FDI into privatization. Even though this is politically sensitive issue, from an economic view point it would be reasonable to conclude that the disinvestment process has not resulted in additional foreign saving being injected into the country.

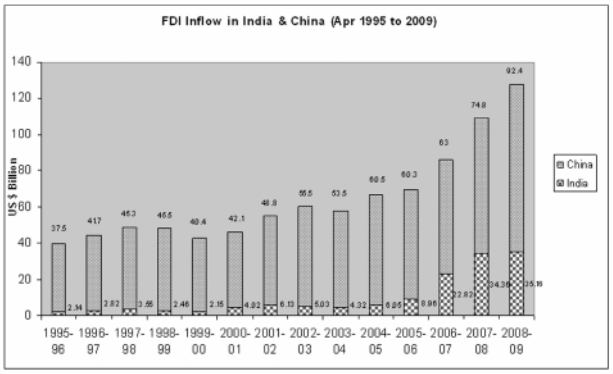

Fig.1: Source : SIA (FDI Data Cell), Department of Industrial Policy & Promotion, Ministry of Commerce & Industry

The above fig reveals the fact that there is a rapid increase in the flow of FDI in China while as Steady increase in FDI in India and the reasons for this is the polices of FDI in India & China, the following section has the policy initiatives of India & China.

Section-1

FDI policy of India

FDI in India has played an important role in the development of the Indian economy. FDI in India has in a lot of ways enabled India to achieve a certain degree of financial stability, growth and development. A number of

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projects have been announced in area such as electricity generation, distribution & transmission, as well as the development of roads & highways, with opportunities for foreign investors. The Indian national government also provided permission to FDI to provide up to 100% of the financing required for the construction of bridges and tunnels, but with a limit on foreign equity of INR 1500 crores, approximately $ 352.5m.Currently FDI is allowed in financial services including the growing credit card business. These services include the non banking financial service sector. Foreign investors can buy up to 40% of the equity in private banks, although there is condition that stipulates that these banks must be multilateral financial organizations up to 45% of the shares of companies in the global mobile personal communication by satellite services (GMPCSS) sector can also be purchased. By 2004, India received $ 5.3 billion in FDI, big growth compared to previous years but less than 10% of the $ 60.6 billion that flowed in to China.

Table 1.2
Sectoral Structure & Pattern of FDI in India 2009

Amount Rupees in crores (US$ in million)

Ranks	Sector	2006-07 (April-March)	2007-08 (April-March)	2008-09 (April-March)	2009-10 (April-March)	Cumlative Inflows (April '00-Dec. 09)	% age to total Inflows (In terms of rupees)
1	SERVICES SECTOR	21, 047	26, 589	28, 411	17, 074	101,527	
	(financial & non-financial)	(4, 664)	(6, 615)	(6, 116)	(3, 547)	(22,796)	22%
2	COMPUTER SOFTWARE & HARDWARE	11, 786 (2, 614)	5, 623 (1, 410)	7, 329 (1, 677)	2, 857 (595)	42,353 (9,549)	9%
3	TELECOMMUNICATIONS	2, 155	5, 103	11,727	11, 442	39,809	
	(radio paging, cellular mobile, basic telephone services)	(478)	(1, 261)	(2, 558)	(2, 359)	(7,896)	8%
4	HOUSING & REAL ESTATE	2, 121	8,749	12, 621	11, 472	35, 255	
		(467)	(2, 179)	(2, 801)	(2, 383)	(7, 896)	8%
5	CONSTRUCTION ACTIVITES	4, 424	6,989	8,792	10, 543	32, 720	
	(including roads & highways)	(985)	(1, 743)	(2, 028)	(2, 218)	(7, 409)	7%
6	POWDER	713	(3, 875)	(4,382)	6, 088	20, 099	
		(157)	(967)	(985)	(1, 258)	(4, 448)	4%
7	AUTOMOBILE INDUSTRY	1, 254	2, 697	5, 212	4, 696	19, 763	
		(276)	(675)	(1, 152)	(976)	(4, 365)	4%
8	METALLURGICAL	7,866	4, 686	4, 157	1, 613	13, 118	
	INDUSTRIES	(173)	(1, 177)	(961)	(336)	(3, 060)	3%
9	PETROLEUM & NATURAL	401	5,729	1,931	1, 085	11, 262	
	GAS	(89)	(1, 427)	(412)	(219)	(2, 612)	2%
10	CHEMICALS	930	920	3, 427	1, 258	10, 825	
	(other than fertilizers)	(205)	(229)	(749)	(264)	(2, 398)	2%

Note : Comulative Sector-wise FDI inflows (from April 2000 to December 2009)- Annex-'B'.

It is clear form the above table that:

- In terms of sectoral distribution, FDI inflows for 2009-10 for the top five sectors were (1) services (22%); (2) computer hardware and software (9%); (3) telecommunication (8%); (4) housing & real estate (8%); and (5) construction activities (7%).
- The top three countries which contributed most during 2008-09 are Mauritius (44%), Singapore (9%) and U.S.A (8%).
- FDI exports & imports get growth 27.03 percent & 36.33 percent.
- The Gross Domestic Product of FDI increased sharply from 1.8 percent to 2 percent in 2008 to 2009.
- The Gross Fixed Investment of FDI increased fro 5.5 percent to 5.9 percent in 2008 to 2009.

Section II

FDI in China

The Chinese government plays much attention to industrial guidance on FDI. In June 1995, China first promulgated the provisional regulations upon guidance for foreign investment orientations and the guiding directory. This guiding directory was revised first in December 1997, and then again in April 2002 because of China's accession to the WTO. The guiding directory is important because it divides FDI involved projects into four categories: projects that were encouraged, allowed, restricted and prohibited. These categories are then subdivided even further. For instance 262 types of encouraged projects, 75 types of restricted projects and 34 types of prohibited projects exist. China currently encourages FDI for the purposes of transforming traditional agriculture, developing modern agriculture, and promoting the industrialization of agriculture, producing transportation infrastructure, energy sources and raw materials and other basic industries, tapping into cutting-edge, technology oriented industries such as electronic information, bioengineering, new materials and aviation and aerospace as well as establishing local Research and Development centers encouraging foreign businesses to utilize advanced and applicable techniques to transform traditional industries such as machinery, textiles and consumption goods manufacturing industries as well as to upgrade their equipment and facilities; using raw and renewable resources comprehensively, initiating environmental protection projects and modernizing public utilities; encouraging export oriented FDI projects; and building up the industries in China's western region.

China's FDI policies are complications. When designing such a set of policies, multiple objectives must be met, including strengthing the country's industrial base and increasing the domestic value added, promoting linkages, generating and increasing the level of exports, balancing trade, promoting regional development and transferring technology.

2. Sectoral Structure and Pattern of China's FDI

As China's FDI has mainly flowed into three forms of foreign-invested enterprises, we hereby analyze the characteristics of the factor intensity of these enterprises in order to reflect the characteristics of the overall FDI sectoral inflow structure.

(1) Consider the overall industrial structure of China's FDI inflow.

Table 2
The Industrial Structure of China's FDI

Industry	No. of Projects	Percentage	Realized FDI (billion USD)	Percentage
Total	632348	100	1732.339	100
Agriculture, Forestry, Animal	17520	2.77	32605	1.85
Manufacturing Industry	442249	69.94	1078.868	62.25
Transportation, Warehousing	7930	1.25	42.159	2.43
Post & Telecommunication				
Wholesale & Retail	43248	6.84	63.27	3.66
Trade, Food services				
Real Estate	48670	7.7	285.311	16.47
Resident & other Service	11419	1.81	21.918	1.27
Rent & Business affairs	27504	4.35	68.633	3.96
Education, Culture & Art	2914	0.46	8.998	0.52
Scientic Research	7834	1.24	13.362	0.77
Technical Service & Others	11492	1.81	83.348	4.81

Source: www.mofcom.com

1. The above table indicates that the manufacturing industry remains as the primary sector of FDI inflow.
2. Consider the industrial structure inside the manufacturing industry. The factor intensity has remained unchanged. The foreign invested enterprises in labor intensive industries outweighed those in capital intensive industries.
3. After 1995, the industries structure of China's FDI inflow saw a big change, characterized by an increasing FDI inflow into mechanical and electrical industries. However, it did not change the fact that labor-intensive industries are still the primary terminum of FDI inflow.

SECTION-III

Research Methodology

Objectives of Study

- To analysis the relationship between FDI inflow in developing country like India & China
- To evaluate the impact of FDI on capital formation in India and China

Research Hypothesis

Hypothesis is the assumption that is made while conducting the study. There are two hypothesis:

- $H0_1$ = FDI inflow in India & China has no Correlation
- $H0_2$ = FDI has no impact on capital formation in India

Data

Data for this study comprises of two sets: one for FDI Inflow in India and other for FDI Inflow in China and this data is secondary one that is collected from the website of SIA (FDI Data Cell), Department of Industrial Policy & Promotion, Ministry of Commerce & Industry. Study period chosen for the paper is 1995-96 to 2008-09.

Methodology

For testing the first hypothesis, t test is used. And for the calculation of t value correlation is also calculated. Following formula for computing t-value is used in this study:

$$t = \frac{r}{\sqrt{1-r^2}} * \sqrt{n-2}$$

Where

r stands for Correlation between FDI inflow in India and China.

n stands for number of years

Computed t-value will follow approximately t- distribution with v = n – 2 degree of freedom

Following Formula for calculating Correlation Is used in study

$$r = \frac{N\Sigma dxdy - (\Sigma dx)(\Sigma dy)}{\sqrt{\left[N\Sigma dx^2 - (\Sigma dx)^2\right]\left[N\Sigma dy^2 - (\Sigma dy)^2\right]}}$$

dx stands for deviation of FDI inflow in India

dy stands for deviation of FDI inflow in China

For testing the second hypothesis data is collected from the web site of www.mofcom.com and www.dipp.nic.in. and for testing this hypothesis no calculation is made. On the basis of collected data the decision regarding acceptance and rejection of hypothesis is taken.

Data Analysis

Table below shows FDI Inflow in India and China in US $ billion from 1995-96 to 2008-09 and also the calculation on correlation and t value.

Table 3
FDI Inflow in India & China has no Correlation (US $billion)

Year	FDI Inflow in India (X)	$(X - \bar{X})dx$	dx^2	FDI Inflow in China (Y)	$(Y - \bar{Y})dy$	dy^2	dxdy
1995-96	2.14	-3.99	15.9201	37.5	-18	324	71.82
1996-97	2.82	-3.31	10.9561	41.7	-13.8	190.44	45.678
1997-98	3.55	-2.58	6.6564	45.3	-10.2	104.04	26.316
1998-99	2.46	-3.67	13.4689	45.5	-10	100	36.7
1999-00	2.15	-3.98	15.8404	40.4	-15.1	228.01	60.098
2000-01	4.02	-2.11	4.4521	42.1	-13.4	179.56	28.274
2001-02	6.13	0	0	48.8	-6.7	44.89	0
2002-03	5.03	-1.1	1.21	55.5	0	0	0
2003-04	4.32	-1.81	3.2761	53.5	-2	4	3.62
2004-05	6.05	-0.08	0.0064	60.5	5	25	-0.4
2005-06	8.96	2.83	8.0089	60.3	4.8	23.04	13.584
2006-07	22.82	16.69	278.5561	63	7.5	56.25	125.175
2007-08	34.36	28.23	796.9329	74.8	19.3	372.49	544.839
2008-09	35.16	29.03	842.7409	92.4	36.9	1361.61	1071.207
	ΣX =139.97	Σdx=54.15	Σdx^2=1998.025	ΣY=761.3	Σdy=–15.7	Σdy^2=3013.33	Σdxdy=2026.911

Source : SIA (FDI Data Cell), Department of Industrial Policy & Promotion, Ministry of Commerce & Industry.

$$r = \frac{N\Sigma dxdy - (\Sigma dx)(\Sigma dy)}{\sqrt{\left[N\Sigma dx^2 - (\Sigma dx)^2\right]\left[N\Sigma dy^2 - (\Sigma dy)^2\right]}}$$

$$r = .848$$

We set the Hypothesis that there is no Correlation in the population, Applying t-test

$$t = \frac{r}{\sqrt{1-r^2}} * \sqrt{n-2}$$

$$t = .552$$

$$df = 14\text{-}2 = 12$$

Level of significance = 5%

Critical region = 0.05/2 = 0.025

Table value = 2.17 Calculated value = .552

Table value is More than calculated value so the first Null Hypothesis is accepted i.e there is no correlation in FDI Inflow in India and China.

FDI Has No Impact on Capital Formation in India

Table 3.1
CHINA AND INDIA – SELECTED FDI INDICATORS

Country	2004	2005	2006	2007	2008
FDI INFLOWS (MILLION US $)					
China	40772	46846	52743	53505	60630
India	4029	6131	5518	4269	5335
GROWTH OF FDI INFLOWS (%)					
China	1.1	14.9	12.5	1.4	13.3
India	16.1	52.2	-10.1	-22.6	25
FDI FLOWS AS % OF GROSS CAPITAL FORMATION					
China	10.3	10.5	10.4	8.6	8.2
India	3	3.2	3.45	3.56	3.8

Source: www.mofcom.com and www.dipp.nic.in

The above table shows that FDI in China rose by 50% in the span of 5 years where as India's FDI increased up to 33 % in that same duration. Moreover India is far behind in terms of percentage growth in FDI and FDI as the % of Gross Fixed Formation. The difference is prevailing from past many years. According to this data our second Null Hypothesis is rejected which means FDI has impact on capital formation of India and China.

SECTION IV

Findings & Suggestions

China is far ahead of India in FDI inflows. In India, FDI inflow is around 3.5% of Gross Fixed Formation whereas in China, it is nearby 8%. India's FDI is around 1% of total GDP. India's share in Exports is 1% in the world, Capital Formation & Exports are growing continuously due to increasing FDI inflow.

FDI Inflow in India and China has no Correlation

India is having advantage over China in English proficiency, technical expertise in attractive more BPOs. This shows potential of India and the competitive advantage to gather more FDI. It is almost clear that in respect of FDI inflows, India has no match with China. But it is certain that FDI has become inevitable or necessary for Indian economy to accelerate the pace of growth and development so that process of transformation into a developed or modern economy could be realized. Thus, the only option left for India is to attract huge FDI inflow amounting to $ 150 billion during the coming ten years. Such massive FDI is required to meet the immediate need of building the infrastructure as well as sustain the Indian economy above the level of 8% growth rate.

It has suggested that easing of the sectoral caps for FDI, particularly in the field of telecom and insurance. The ceiling on FDI in the telecom sector should be increased to 74 percent while that on insurance should also be revised upwards from the present 26 percent. Also, there is a strong case for opening up the aviation sector to foreign airlines, which is currently restricted. Similarly, the retail sector, which has immense employment potential, should also be thrown open to FDI.

With the Planning Commission group making recommendations on FDI, attention has shifted to the civil aviation sector, the basic issue being whether foreign investors should be allowed to hold more than 50 percent of the equity in Air-India and Indian Airlines, and if foreign airlines can hold a part of this stake.

The steering Committee on FDI headed by Mr. N.K.Singh has recommended increasing the FDI in the petroleum sector, including refining, marketing and exploration along with banking and financial services to 100 percent.

China has once again emerged as the darling of investors among developing economies worldwide. For analysts drawing comparisons with China's stupendous FDI performance, India's might seem a poor record. Unless the UPA Government convinces its allies of the need for foreign investment, India's dream of locking on to a high growth trajectory will remain just that. This is the lesson for India from the latest World Investment Report.

CONCLUSION

India should continue to take steps to ensure an enabling business environment to improve India's

attractiveness as an investment destination and a global manufacturing hub. The investment climate in India has undoubtedly become friendlier and investing in India is a much more attractive proposition today than in yesteryears.. China has experienced a sustained growth in FDI inflow since its economic reforms. .

India should learn lessons from China and create congenial business climate in the country to catch up with China. If India can create structural changes at a faster pace it might attract more FDI and grow rapidly. China for obvious reasons not being in the common wealth. But what is it that is doing and India is not, which enables them to attract ten times the amount of FDI ($ 45 billion vs. $ 4.5 billion). Many writers have argued that china shall be next economic super power and replace the US by year 2020. Many counter argued that the business community are getting it wrong and that China could go the Japan way. A macro economic comparison between the two countries does point to the fact that China is head and shoulders above India but a micro level study reveals that although China is slightly ahead in GDP growth rate. India's population growth is double than that of the former there by proving that on a zero-zero level its actual GDP growth is higher. Both the countries have strong reserves and provide country specific advantages, but as on date the trade imbalance still exists, possibly because India is underperforming and China over performing although with the head start that it had that do not seem to be the case.

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