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Foreign Direct Investment and its Growth in BRICS Nations

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ABSTRACT

BRICS a prominent group of world's emerging countries,propounded by Jim O Neill of Goldman Sachs, proved itself as most favoured investment destination of World. China and India being leader in group,then followed by South Africa, Brazil and Russia.FDI's are the major source of financing developmental projects as well as for rapid economic growth of developing countries. FDI is a type of non-debt finance for long period which benefits host as well as home nations. The present study focuses on trends of FDI in BRICS as a combined group and as individual countries, with special consideration of India during a period of 2000-2015. The study also highlights the sectorial composition of FDI and major source countries. Pre and post formation period growth of FDI in BRICS is also studied. The study is based on secondary data collected from official sites of respective countries, UNCTAD, IMF, World Bank and RBI.

Introduction

A foreign direct investment is one of the major reasons for making India as fastest and promising economy. Itnot only helped in developing infrastructure but also enhanced the growth rates of Indian economy. China and South Africa's growth is also driven by robust FDI inflows. As per the World Investment Report (2011), all the emerging economies attracted more than half of global FDI inflows in the year 2010 (a phase when whole world was under severe economic recession). For attracting investments from World, these economies have suitable financial, political and legal environment with sound macroeconomicinfrastructure. This is the reason why these emerging economies attracted the interest of whole world. The high and stable growth during the recession as compared to the low growth of developed nations, it is considered that these emerging economies will exceed developed nations and will become world new economic powers.

IMF and OECD defines FDI in terms of "Direct investor" and "Direct investment enterprise" A ***direct investor*** may be an individual, an incorporated or unincorporated private or public enterprise, a government, a group of related individuals, or a group of related incorporated and/or unincorporated enterprises which have a direct investment enterprise, operating in a country other than the country of residence of the direct investor. A ***direct investment enterprise*** is an incorporated or unincorporated enterprise in which a foreign investor owns 10 per cent or more of the ordinary shares or voting power of an incorporated enterprise or the equivalent of an unincorporated enterprise. Direct investment enterprises may be *subsidiaries, associates or branches* that could establish in the foreign country

Importance of FDI

FDI is important for emerging countries as they normally suffers from lack of capital to finance their infrastructure projects which foreign investments cover up by getting a non-debt inflow of funds. It bridges the gap between saving and investment in an economy.Foreign investors gain by increasing their market base, exploiting untapped resources and lower cost of production. Basically it is an investment which generates income for their home country.With economic transformation of almost all BRICS and ease in policies for foreign investments, investor's interests are boosted with support of infrastructure and positive business spirits.

For the host nation, it improves competition of domestic entrepreneurs, gives higher opportunities for exports, increase the product base of consumers and generating employment opportunities with higher compensation to households. Exchange of technological, operational and management skills and promotion of innovation and R&D in turn improve the human capital and work culture. With all these factors and economies of large scale production, efficiency improves which leads low cost higher production. Huge inflow of funds leads to injections as investments in economy, which with multiplier effect increases the national income.

Due to these reasons, countries offer many incentives to the foreign investors like tariffConcessions, tax holidays, R&D support, infrastructure improvements, financialsubsidies, low tax rates, special economic zones, liberalised imports for development of infrastructure and machinery etc.

Review of Literature

A study on FDI in India for period of 2000-2015 by**Vyas, A.V.(2015)** reveals that Mauritius is dominant FDI contributor of India in mainly service sector because of DTAA (double taxation avoidance agreement). Considerable FDI is also cited in construction and development field. Paper compared the pre and post liberalisation phase of India with regard to needs , strengths and weakness of India for attracting FDI.

Rajeswari, G.R.&Akilandeswari,K.(2012) examines the benefits of FDI in home and host country with reference to India. India being a developing economy need funds, as domestic savings are not sufficient for development. After liberalisation (1991) and revision of FDI policy in 2005, India is attracting a lot of FDI's in almost all sectors. Paper analysed all sectors which attracted FDI from 1991-2014, that reveals service sector as a major sector getting maximum FDI's. Apart from service sector, after 2005 construction, housing and real estate have escalating flows of FDI's in India.

FDI growth in all four BRICnations during recession is stable whencompared to developed nations as analysed by **Paula, N.(2011)**. Due to this, it is expected that they will exceed the developed nations and become new world economic powers. With the data analysis it is seen that during recession period FDI and GDP growth of developed nations falls steeply whereas of emerging economies doesn't fall much**.**

FDI inflows in BRIC showed a phenomenal growth even during the recession period. A study made 2001-2011 on FDI inflows of BRIC, studied the percentage of World's FDI flow to BRICs, sectorial composition and India's position among other BRIC's. **Mathipurani, V. B.(2014)** concluded that China leads the group which is immune to global recession. China outperformed with right pattern of sectorial flows, especially in manufacturing. Brazil and Russia had a fair growth in different spheres wherein Brazil's main inflow is in primary sector. Indian FDI inflows are mainly in tertiary sector and some in manufacturing sector whereas in primary sector it is minimal. To improve FDI inflows, as per the paper

India shouldbalance its BOP trade, legal protection, business regulation for foreign investors etc... India has a better scope to become most favoured destination still it lacks in volume and rate of growth of FDI inflows.

Baskaran, A.&Muchie, M.(2008) examined the emerging sectors of BRICS for attracting international R&D (research and development) flows as FDI's in these economies. Paper also examines the external and internal factors which are responsible for attracting FDI's in R&D, which helps in enhancing national productive system and maintain competitiveness in globalised world. Especially in India and China, not only volume of FDI flow as R&D but complexity and higher value added is increased in recent past which is due to strong NIS (national innovation system). The paper argued that R&D international flows is directly related with country's NIS. The paper after examining all the instruments and conceptual aspects concluded that China has strongest NIS hence attracted highest inflow of R&D in FDI. And on contrast South Africa has weakest NIS and lowest FDI. For India, development of standalone R&D centres has helped in attracting FDI in this sector.

Indian growth in FDI during 2001-02 to 2013-14 is being analysedby **Sood,N.(2015**), which confirmed that the highest contribution is from service sector and dominant source is Mauritius (due to DTAA i.e. double tax avoidance agreement which accounts 36.25% of total FDI from world during this period). Government under its “Make in India” project has provided many incentives in different areas such as insurance, banking, finance, transport, communication, health , tourism, education , IT , management, engineering, etc.... which led the 46% approximate growth in FDI during the period of 2013-2014 in service sector. Due to the unique traits of Indian 3D's as discussed in paper, i.e. Democracy, Demography and Demand , it is able to attract the FDI from rest of the World which has a significant impact on GDP but insignificant on investments in FII.

An exploratory study based on secondary data, focussed on problems and issues that made India less attractive destination for FDI inflow as compared to other emerging economies. **Bedi, P. &Kharbanda, E.(2014)**studied the recent trends and also recommended many policy reformations for India. Also it is assessed that FDI inflows in India has changed the composition sector wise as well has country wise. Service sector has taken a lion's share in total FDI coming to India which is mainly because of superior IT technology and highly skilled low cost labour. Major share of FDI are coming from Mauritius, Singapore, Japan, Netherlands and UK. The major problems faced by India for attracting FDI inflows as listed in paper are – high competition from emerging economies specially China, weak infrastructures (mainly transport and power facilities), complex tax structure, rigid and restrictive labour laws, red tapism and corruption. As recommendations in paper adoption of GST as single taxation, liberalising FDI policies, restructuring labour laws, improvement in infrastructure mainly ports, roads etc ... is suggested.

Jadhav, P.(2012) explored various economic, political and institutional variables which determines FDI inflows in BRICS countries and their respective weightings. Unit root test and multiple regression model are applied and it is deduced that economic factors are more important than political and institutional. The various variables examined are – market size , trade openness, natural resources as economic determinants and macroeconomic stability (inflation rate), political stability/no violence, government effectiveness, regulatory quality, control of corruption, voice and accountability, rule of law as potential institutional and political determinants for FDI , for a period of 10 years (2000-2009).

Narender & Devi (2015) summarised the potential macro economic variables that determine FDI inflows in developing nations. Developing nations always strive for more foreign direct investments in order to finance their capital requirements as domestic savings are always deficient. Paper discussed market size (

measured by GDP), economic stability and growth, lesser labour cost , better infrastructure, openness in trade, high gross capital formation and currency value are positively related to FDI inflows in BRICS countries. Paper recommended that BRICS countries should enhance their bilateral trade like other trading blocks and pool their resources to compete with developed nations.

Prakash, A.P. & Kumar, S.G. (2017) used econometric models to overview various macroeconomic variables and their impact on FDI inflows in BRICS countries. It is a descriptive and analytical study based on secondary data that used FDI inflows in BRICS, market size (measured as market capitalisation), Gross Domestic product, gross capital formation, labour cost, trade openness, real effective exchange rate and inflation rate. It is observed that Gross Capital formation and trade openness have uni-directional casual impact on FDI of BRICS. Market size (based on listed companies), inflation, gross capital formation, trade openness and labour cost have positive co integration and prominent indicator of FDI of BRICS nations .The study suggest that market size of BRICS countries should be increased by listing more companies in international stock exchange market and labour cost should be rationalized in BRICS nations which are comparatively high.

A study on "Causal Relationship between Foreign Direct Investment and Growth Evidence from BRICS Countries" by **Sridharan,P. ,Vijayakumar, N. &Chandra,K. S. (2009)** found that growth leads FDI bi-directionally for Brazil, Russia and South Africa but FDI leads growth uni-directionally for China and India. Under this study industrial production index is used to indicate growth, as FDI leads to development in productivity in host country. It is also mentioned that the characteristics and policy of host country determines the net FDI flows. The period under the study was till 2007 for all BRICS, starting from 1996 for Brazil, 1994 for Russia, 1992 India and 1999 for China and South Africa.

Agrawal, G.(2015)examined the co-integration and causality analysis at panel level on secondary data for a period of 1989-2012. The paper concluded that there exists a positive long run correlation between economic growth and foreign direct investments. It is further confirmed that there is long run bidirectional causality between FDI and economic growth, that means FDI is stimulated by economic growth and economic growth is enhanced by FDI.

Since BRICS nations are absorbing major share of FDI of World's total inflows it attracted the interest of many scholars for research. After examining various work done on FDI of BRICS nations, it is felt that study on comparison on FDI inflows in BRICS countries from pre formation BRICS period and post formation of BRICS period is essential. The present study will emphasis on sectorial composition and major investing partners of BRICS nations.

Objective

1. To study inward and outward flow of FDI (foreign direct investment) in BRICS countries.
2. To analyze the growth of FDI in pre and post formation period of BRICS.
3. To study the sectorial composition of FDI inflows in BRICS nations.
4. To identify the major investing partners in BRICS nations.

Research methodology

An attempt is made to study the outflow and inflow of FDI in BRICS nations (stock and flow variables). The sectorial composition of FDI inflows and the source nations of such inflows are also determined.The growth rate is also determined for FDI inflows of individual BRICS nations by calculating Compounded Average Growth Rate.

The time frame set for the study is 15 years i.e. from 2000 to 2015. The main emphasis is given to period since when BRICS came into official existence i.e. 2009. The data used is secondary in nature and major source used are UNCTAD and World Bank databases along with respective nations official data sites. In this study FDI inwards and outwards of BRICS nations are regressed with time for calculating CAGR (compounded average growth rate). Then the growth rate in foreign direct investment in pre and post formation period of BRICS is calculated. Hence, establishment of BRICS i.e.2009is taken as a break period. PRE formation period is taken from 2002 to 2008 and Post formation period as 2009 to 2014 is regressed with time for calculating CAGR (compounded average growth rate).

$\log Y_t = \alpha + \beta_1 T + \mu$

CAGR = (Antilog β_1-1) * 100

Here,

Log Y_t is dependent variable that is total FDI for BRICS nation

T represents time

α is intercept

β_1 is annual growth rate or year coefficient

μ error or residual term

Further in study Compounded Average Growth rate of FDI inflows of all BRICS nations individually is assessed. Wherein FDI inwards of Brazil, Russia, India, China and South Africa is regressed with time.

Flow of FDI in BRICS

All the five nations of BRICS have an estimated US$4 trillion as combined foreign reserves. Among these China is most favoured FDI destination followed by India on second rank as per the recent survey by UNCTAD. FDI inflows in BRICS countries are most prominent even during recession period, especially in China. China leads the group and it has maximum FDI inflow in manufacturing sector and moderate in primary sector. Brazil has prominent primary sector FDI's and considerable tertiary sector. FDI inflow in Russia is manufacturing based whereas in Indiait is mainly tertiarysector.India has a huge highly skilled low cost manpower which is a blessing for such MNE's. India has better opportunities but due to its legal framework and policies it lack in becoming the most favoured destination.

Table1- Sectorial composition of FDI inflows in BRICS (2015)

BRAZIL	RUSSIA	INDIA	CHINA	SOUTH AFRICA
Trade (9%)	Trade (29%)	Service sector (20%)	Manufacturin g (44%)	Financial & insurance, Real estate (41%)
Oil & gas (8%)	Manufacturing industry (24%)	Construction (8%)	Real Estate (21%)	Manufacturing (29%)
Telecommunicati on (8%)	financial activities and insurance (14%)	Tele-communication (7%)	Business services (7%)	Mining (16%)
Car industry (8%)	Mining and quarrying (13%)	IT and Software (7%)	Trade (6%)	Transport, storage & communication (10%)
Electricity (7%)	Real estate (5%)	Car industry (5%)	Transport and other services (2%)	Trade (4%)
Chemical industry (4%)	OTHERS (15%)	Drugs & pharmaceutical (4%)	OTHERS (20%)	
Food industry (4%)		Trade (4%)		
Tobacco (4%)		Chemical products (4%)		
Real estate (4%)		Energy (4%)		
OTHERS (44%)		Metallurgy (3%)		
		OTHERS (34%)		

(source-Central Bank of Brazil, *Central Bank of Russia, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Invest in China, South African Reserve Bank, Quarterly Bulletin March 2017*)

In table 1, Inflows of FDI in Brazil shows a stable composition of all sectors. It has an extensive raw material supported by large domestic market with a diversified economy. Brazil on a contrary has several sectors restricted for FDI and crippled international trade relations. Even labour laws are difficult with plenty of administrative barriers which hold back Brazil to lead in group. Russia being enriched with natural resources and underutilized investment potential has many sectors closed for FDI with unstable and unhealthy economic climate which makes it an unfavourable destination. India emerged as a second most favoured FDI destination because of stable and supportive political, economic and legal environment. It has vast natural resources with highly skilled hardworking cheap manpower which reduces developmental cost of business. Further, projects like 'make in India' are promoting FDI's in various sectors which were earlier partially open. India also serves as a huge consumer base market with high marginal propensity to consume. China being the most attractive and easiest country for investments has very low cost of production because of low labour costs. It largely promotes new opportunities and various incentives to investors. China lacks in transparency in administration and bureaucratic hurdles with huge cultural differences, still it holds the position of second most favoured destination after US in world. South Africa with abundant natural resources, developed infrastructure and strong market capacity allows FDI in public as well as private sectors. But high crime , labour laws and strikes and structural problems in economic policies related to import and export makes it difficult to uphold its position in World.

Major investing partners of BRICS nation

It is observed that due to various dissimilarities with factor endowments of all BRICS nation the investment made by foreign nations is different in different countries and also from different sources.

Table 2- FDI Inflows by Top Investing Countries to BRICS Nations

COUNTRIES TO ↓	FROM↓
BRAZIL	Netherland, US, Luxemburg, Spain, Germany, Japan, France, Norway, Italy & UK
RUSSIA	Cyprus, Luxembourg, Netherlands, Ireland, Bahamas, Bermuda Germany, British virgin Island, France & Switzerland
INDIA	Mauritius, Singapore, Japan, UK, USA, Netherlands, Germany, Cyprus, France & UAE
CHINA	Hongkong, Singapore, South Korea, USA, Macao, Taiwan, Japan, Germany, UK & Luxembourg
SOUTH AFRICA	UK, Netherlands, US, Germany, Luxembourg

It is the growth rates, political stability, opnenness of economy and liberalised and flexible economic environment in BRICS nations which is attracting FDI from rest of the world. Further all of them as an acronym are promising in world investment platform.

Table3- Flow of Foreign Direct Investment in BRICS (FLOW)

YEAR	Inward BRICS	Outward BRICS
2000	80620.44107	7134.28123
2001	84404.8329	5349.419339
2002	79956.91152	9764.411169
2003	76457.72478	15094.9458
2004	100635.4674	32493.19497
2005	116116.0386	35440.28881
2006	149617.996	96024.71677
2007	204915.705	97621.81099
2008	285537.4431	151108.4328
2009	191836.84	98103.67604
2010	261203.636	147859.4534
2011	297438.4688	146549.9582
2012	256120.2313	122398.3669
2013	266867.4278	185676.2535
2014	271089.9086	209005.5369
2015	256063.238	170040.0977

FDI - inward and outward
mode- flow (FDI is measured over a period of time i.e.1 year)
measure- US $ at current prices in millions
(source- UNCTAD)

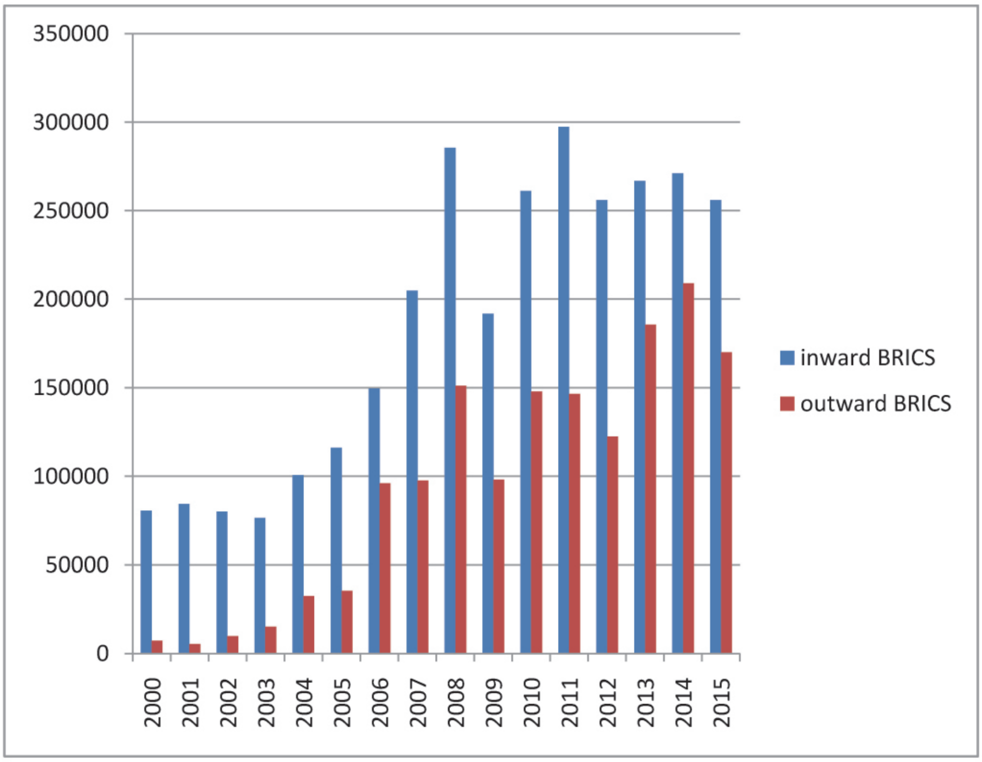

Table-4 Analysis ofFDI (flow) of BRICS nations

Coefficient	Inward	Outward
Intercept	4.84	3.86
β_1	0.04	0.11
p value	0.000001	0.000001
R^2	0.83	0.84
Adjusted R^2	0.82	0.83
Significance F	0.00	0.00
CAGR	**10.74**	**27.39**

Inward flow of FDI in BRICS from rest of World is consistently (since 2000 to 2015) more than outflow as per table 3. It is highest in 2008 and 2010 which is worldwide recession affected period. Even after the recession period the outflow from these countries were increasing. When the FDI of wholeperiod (2000-2015) regressed with time it is deduced that both inward and outward flow of FDI showed growth. BRICS inward showed a growth of 10.74% which is lesser than the average growth of outward that is 27.40% (table 4). This shows that BRICS throughout the assessed period remained the favoured destination of inflow as well as source of FDI to rest of the World.

Table 5-Flow of Foreign Direct Investment in BRICS (STOCK)

YEAR	Inward BRICS	Outward BRICS
2000	405126.275	127986.7889
2001	425668.0325	140278.5715
2002	443922.0873	172597.6323
2003	540217.6881	202991.7954
2004	641783.8716	258573.7417
2005	768538.8101	313055.422
2006	947282.4147	482369.7505
2007	1345519.211	705428.1502
2008	1060361.038	624649.4745
2009	1517613.912	818702.9092
2010	2077524.213	983052.2195
2011	2135619.89	1106895.939
2012	2335104.101	1298879.312
2013	2451775.834	1498510.604
2014	2376294.955	1639265.964
2015	2372516.451	1745437.561

FDI- inward and outward
Mode- stock- total accumulated FDI measured at a point of time at US$ current prices in million

(source- UNCTAD)

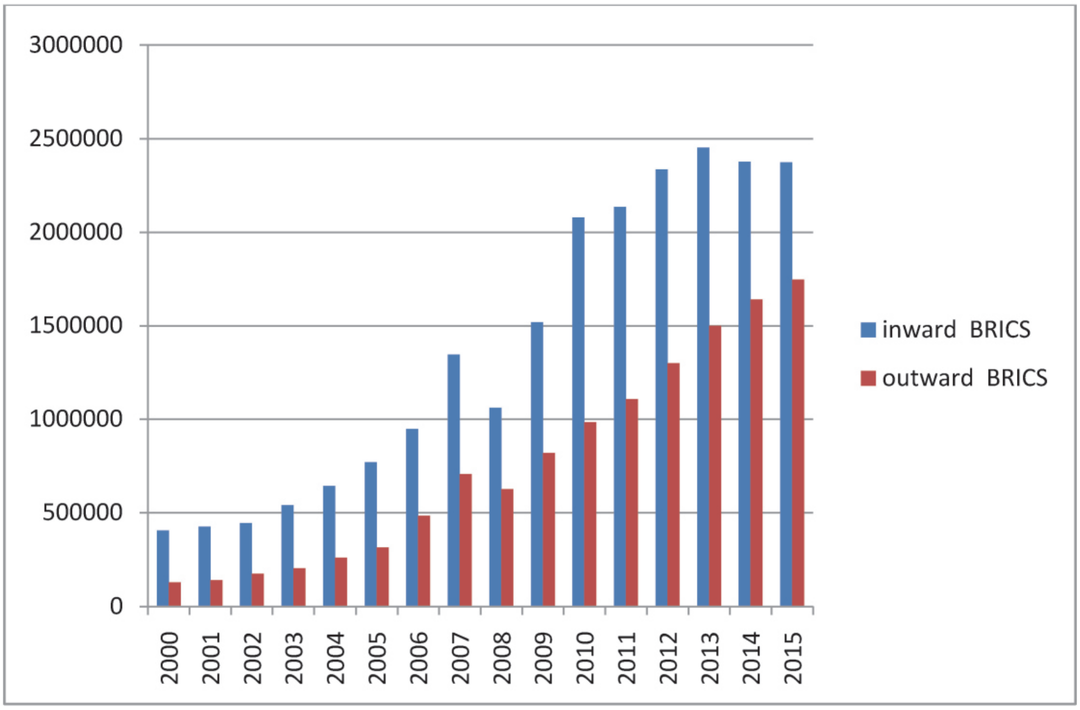

Table 6-Analysis of FDI (stock) of BRICS nations

Coefficient	Inward	Outward
Intercept	5.53	5.03
β_1	0.06	0.08
p value	0.00	0.00
R^2	0.95	0.97
Adjusted R^2	0.95	0.97
Significance F	0.00	0.00
CAGR	**15.06**	**20.89**

FDI stock of BRICS nation (table5&6) depicted growth during the period under study with some shocks at 2008 downturn times. In the above analysis FDI (stock) of BRICS is regressed with time 2000-2015 which showed a growth of 15% Inward FDI stocks and about 21% growth of outward FDI stock. Inward stock is always higher than outward but the difference as seen in graph is increasing which shows that FDI inwards is increasing at an increasing rate as compared to outward stock of FDI. Even at the meltdown period (2008-2009), a slight downfall is seen which is regained in 2010 with a record high inward FDI's.

Since BRICS came into existence in 2009, it is taken as break period and 7 years from 2002- 2008 (period before formation of BRICS) and 2009-2015 (period after BRICS) is regressed with time taking FDI inflows and outflows as dependent variable. The pre and post growth of BRICS outward and inward is explained in table 7.

Table 7-Growth of FDI (flow) in Pre and Post formation of BRICS nations , combined

	Inward		Outward	
	Pre	Post	Pre	Post
Coefficient				
Intercept	4.70	5.35	3.48	5.01
β_1	0.06	0.01	0.20	0.04
p value	0.00021	0.29	0.00009	0.039945
R^2	0.83	0.22	0.96	0.60
Adjusted R^2	0.80	0.07	0.95	0.52
Significance F	0.00	0.29	0.00	0.00
CAGR	**16.94**	**3.02**	**59.29**	**9.65**

(source – UNCTAD)

Table 7 depicts econometric results wherein regression is applied on pre and post formation period of BRICS. Inwards and outwards FDI (flow) is regressed with time (an equal period of 7 years). The result shows that FDI inwards in Pre formation period (2002-2008) have higher growth rate of 16.94% than post formation period (2009-2015) i.e. 3.02%, this is clear impact of world economic downturn. Similarly, FDI (flows) outward of BRICS nations in pre formation period showed a growth of 59.3% which is much higher than 9.65% in post formation period.

FDI in India

There has been a remarkable change in FDI policies in India pre and post liberalisation period. After the independence a restrictive policy under FERA act was enacted which allows selective sectors for investment as FDI and that too with a minimal limit. Due to the inward looking policies foreign reserves got vacuumed.Finally in 1999,FERAwas replaced by FEMA act, wherein a more flexible, automatic and less stringent policies were enacted which are helpful in encouraging foreign trade and investments in India.India is the second best destination of FDI in world.Now a days, FDI's are made even in R&D sectors to enhance the competitiveness of the developing economy like India. These reforms will rationalise and simplify the procedure of FDI inflow to save the time and energy of investors and giving them a positive environment for their development.

"India is changing fast into one of the most open economies in the world today. Foreign direct investment inflows are at an all-time high, rising by 40 per cent," said. In 2016-17, foreign fund inflows aggregated USD 60.08 billion, or about Rs 3,86,885 crore. "India has moved up on the World Bank index of Ease of Doing Business. Similarly, we have moved up 32 spots in the last two years on the Global Competitiveness Index," the prime minister added (***BRICS summit 2017***).

India is blessed with cheap abundant and skilled English speaking labour force, unexplored market, plentiful natural resources, democratic framework of policies, special economic zones for FDI, government support and less procedural formalities. Still it lacks in infrastructure, political stability, rigid labour laws, corruption, inefficient tax structure, etc…which hinders the absorption of investments from World.This is due to country's "Make in India" campaign wherein service based sectors like insurance, finance, banking, telecommunication, IT, transport, education, health, tourism, engineering, management etc... have been provided many incentives so that FDI can be attracted.

Table 8- Country-wise FDI Inwards inBRICS

(US Dollars at current prices and current exchange rates in millions)

YEAR	Brazil	China	India	Russian Federation	South Africa
2000	32779.2397	40714.81	3587.989747	2714.23	887.3416208
2001	22457.35337	46877.59	5477.637624	2748.286	6783.921349
2002	16590.20419	52742.86	5629.671078	3461.132	1569.155749
2003	10143.52467	53504.7	4321.076437	7958.12	733.6660167
2004	18145.88346	60630	5777.8072	15444.371	798.0259115
2005	15066.29173	72406	7621.768707	15508.062	6646.926642
2006	18822.20795	72715	20327.76392	37594.764	311.4501111
2007	34584.90103	83521	25349.89177	55873.68	6538.06193
2008	45058.1563	108312	47102.41727	74782.907	9209.172495
2009	25948.5798	95000	35633.93949	36583.098	7502.062271
2010	48506.48922	114734	27417.07666	43167.769	3635.596253
2011	66660.14	123985	36190.45603	55083.633	4242.86578
2012	65271.85165	121080	24195.76692	50587.555	4558.847353
2013	63995.866	123911	28199.44604	69218.899	8300.10378
2014	62494.754	128500	34416.75953	20957.656	5712.311222

(source- UNCTAD, annual FDI data)

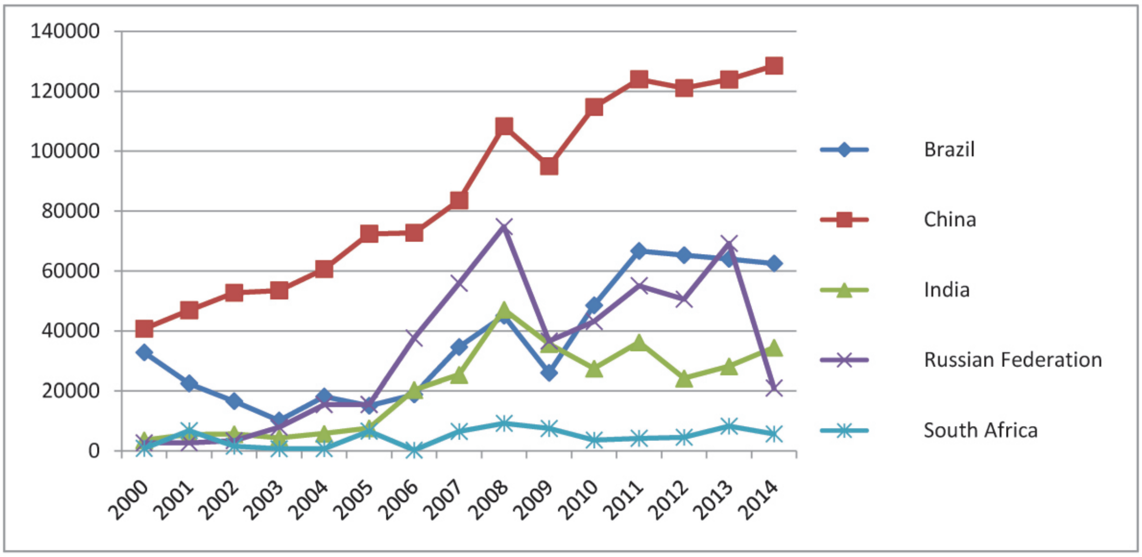

Table 9-Analysis of FDI inflows of BRICS nations (country wise)

Coefficient	BRAZIL	RUSSIA	INDIA	CHINA	South Africa
Intercept	4.11	3.5	3.5	4.60	3.05
β_1	0.05	0.09	0.08	0.04	0.05
p value	0.00	0.00	0.00	0.00	0.05
R^2	0.61	0.66	0.76	0.95	0.26
Adjusted R^2	0.57	0.64	0.74	0.95	0.20
Significance F	0.00	0.00	0.00	0.00	0.05
CAGR	**11.35**	**24.03**	**19.57**	**9.05**	**13.22**

Table 10-Growth of FDI in Pre and Post formation of BRICS nations, country wise

	BRAZIL		RUSSIA		INDIA		CHINA		South Africa	
	pre	*Post*	*pre*	*post*	*Pre*	*post*	*pre*	*Post*	*pre*	*post*
Intercept	4.20	4.49	3.09	4.69	3.31	4.50	4.5	4.49	3.01	3.68
β_1	0.02	0.06	0.22	-0.02	0.13	-0.00	0.05	0.02	0.05	0.01
p value	0.02	0.08	0.0001	**0.72**	0.0017	**0.77**	0.0003	0.04	0.24	**0.71**
R^2	0.69	0.57	0.97	0.04	0.82	0.02	0.94	0.70	0.08	0.03
Adjusted R^2	0.63	0.47	0.96	-0.21	0.80	-0.22	0.93	0.62	-0.04	-0.20
Significance F	0.02	0.08	0.000067	0.72	0.0017	0.77	0.0003	0.04	0.43	0.71
CAGR	**5.5**	**16.03**	**64.91**	**-4.07**	**35.05**	**-1.40**	**12.23**	**5.03**	**12.23**	**3.45**

Brazilian economy faced a severe decline during 2000-2003, after that a stable movements specifically increasing trend is experienced till 2008 as seen in graph and table 8. Again during 2008 recession, usual decline is seen then 2009-2011, a steep increase with stable level of FDIis experienced which is depicted by growth rate of 11.35% (table 9). When pre formation BRICS period is analysed (table 10), it showed a compounded average growth of 5.5% in pre formation period as compared to 16.03% in post formation BRICS period.

Russian inflow showed a drastic rise in pre recession period or Pre formation of BRICS period (2002-2008) i.e. 64.91% (table 10) and after that it was continuously falling could be seen in above graph as well as analysis on post formation BRICS period (table 10) i.e. negative annual average growth of 4.07%. But in initial years from 2000 Russian FDI was steadily increasing due to which the cumulative growth rate is highest at 24.3% (table 9). Post formation period decreasing growth rate is mainly due to economic instability in Russia and devaluation of Russian currency.

India's FDI inflows are relatively stable and are increasing throughout, with spectacle shifts in recessionary phase clearly visible in graph and as per table 8. For the concerned period 2000-2015 it showed a growth of 19.57% (table 9). But there is remarkable difference in compounded average growth rates when compared in Pre and post BRICS formation period. In Pre BRICS formation period the growth rates were 35.05% which made it a prominent part of BRICS but after recession due to world's unstable economic scenario which happen to be Post formation BRICS period, showed a negative growth of 1.4% annually on an average.

FDI inflows are most prominent factor for the growth and development of emerging economies as it funds the development process and also generates income in host country. **China**'s robust economic growth is mainly due to FDI inflows (table 8&9). Since 2000 till 2014 china is main destination for investment from rest of the world and outperforming from other BRICS. Just a phase of 2008-2010 which is world's economic downturn showed a unstable and jerky period for it, rest growth rate throughout the period is stable (9.05%) as seen in analysis table 9 where FDI is regressed with time. Same impact is seen in table 10 wherein Pre- BRICS formation period (2002-2008) is analysed depicts growth of 12.23 % and Post BRICS formation period (2009-2014) merely 5.03%.

Due to steady developments of infrastructures in **South Africa** besides of huge opportunities, the rate of FDI inflows as compared to other BRICS is quiet subtle and growth is 13.22% (table 9). In pre BRICS formation period (2002-2008) FDI inflows in South Africa showed a average growth of 12.23% which is quiet highas compared to 3.45% in post formation BRICS period (2009-2014), table 10. This slow rate of growth is partial because of recessionary phase of world and rest because of internal restructurings of economic infrastructures. Post formation FDI inflow growth rate is mainly because of investments made by China and other BRICS nations, as they have common platform which improved the economic relations. The growth rates of all the BRICS nations individually are very high throughout the period. India specially showed a high growth rate along with Russia.

Conclusion

FDI forms the biggest portion of non-debt funding from outside for any nation which can be utilised for the quick development without any liability. Higher FDI has a significant positive impact on GDP and growth of an economy. BRICS drew attention of world because even at the time of recession when whole world specially developed countries were facing trouble in attracting funds, they showed a positive balance of inward and outward FDI's. The annual growth rate of FDI in pre formation period (2002-2008) of BRICS is quiet high than post formation period (2009-15), which is mainly as a negative impact of world's recessionary phase. Of the group China is most prominent economy; having fastest GDP growth attracted a significant part of FDI and that too mostly in manufacturing sector. Brazil throughout the period of study has a positive increase in FDI mainly in primary and tertiary sector. After that India showed a tremendous inflow of FDI mainly in tertiary sector. India is referred as one of the best destination for FDI from rest of the world after China.

The study shows that the BRICS is attracting a very sound inflow of FDI from various sources in different sectors. All the BRICS countries have registered a growth of approximate 10% or more, which provides them ample amount of opportunity for growth and employment generation.

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