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Research Article

AN EMPIRICAL ANALYSIS OF INWARD FLOW OF FOREIGN DIRECT INVESTMENT INTO INDIA

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ABSTRACT

Foreign direct investment (FDI) is an important catalyst for economic development in emerging developing economies. By abandoning its long standing restrictive policy for foreign investors, India has welcomed FDI under the framework of economic liberalisation in 1991. The volume of FDI inflows into the country has grown up since 1991. This paper analyses the trend in the growth of FDI inflows into India covering a period of 18 years from 2000-01 to 2017-18. Further, this paper also examines the determinants of FDI inflows into India during the period of study by applying Multiple Regression Analysis. The findings of the study revealed that FDI inflows into India have grown up by 17.33 percent from 2000-01 to 2017-18. Further, India's share in global FDI inflows has gradually increased in recent years. The estimated results of the multiple regression analysis revealed that real GDP, rate of inflation, debt-GDP ratio and corporate tax rate are the major determinants of FDI inflows into India during the period of analysis. The Real GDP and rate of inflation have positive impact upon FDI inflows into the country whereas the impact of debt-GDP ratio and corporate tax rate is found to be negative.

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INTRODUCTION

Inflow of foreign direct investment (FDI) is an important catalyst for economic development in emerging developing economies. Almost every developed country has had the assistance of foreign finance to supplement its own meagre savings during the early stages of its development which has prompted India and other developing countries to reform their economic policies to attract FDI (Lokesha and Leelavathy, 2012). This non-debt creating external capital flow is a package of capital, skill and technology transfer which has spillover effects that spreads into the entire economy. Thus, it plays an important role in the long-term development of a country not only as a source of capital but also by enhancing competitiveness of the domestic economy through transfer of technology, strengthening infrastructure, raising productivity and generating new employment opportunities (Anitha, 2012). Empirical analyses have well recognised that inflow of FDI has a significant positive impact on the growth of Gross Domestic Product (GDP) of the host nation (Iqbal et. al., 2013; Khan and Mehboob, 2014; Urgaia, 2017). However, the effect of FDI on economic growth depends on the host country's economic conditions and it has a positive relationship with economic growth only in high and middle income countries which have the appropriate economic factors such as a well-educated work force, investment in infrastructure, and trade openness (Kotrajaras, 2010). FDI is a superb catalyst of growth and not an initiator, its efficacy in promoting development objectives is conditioned by the presence of co-operant factors in the host economies and it is most effective in countries which possess a threshold level of human capital (Balasubramanyam and Mahambare, 2003).

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In India the policy of FDI has gone under radical changes over the post-independence period. The long standing restrictive foreign investment policy was abandoned in 1991 under the structural adjustment process. The economic liberalisation policy has opened up the door for FDI into India under the Automatic Route and the Government Route. The New Industrial Policy, 1991 has allowed automatic approval for FDI upto 51 percent in 35 high priority areas and a dividend-balancing condition was imposed for all sectors. The automatic approval route for FDI was expanded from 35 to 111 industries in 1996 under four distinct categories Part A (up to 50 percent), Part B (up to 51percent), Part C (upto 74 percent) and Part D (up to 100 percent). The decade of 2000s has witnessed paradigm shift in the FDI regime when except for a negative list, all the remaining activities were placed under the automatic route, the dividend balancing condition was removed, the Non Bank Financial Company (NBFC) Sector was placed on the automatic route, the insurance and defense sectors were opened up to a cap of 26 percent, the cap for telecom services was increased from 49 percent to 74 percent and FDI up to 51 percent was allowed into single brand retail (DIPP, 2011). Since 2014-15, the Government of India has undertaken many reforms regarding its FDI policy. These

includes permission of 100 percent FDI under automatic route in certain activities of railway infrastructure and manufacture of medical devices; introduction of composite cap of foreign investment; amendments in the construction development sector; permission of FDI beyond 49 percent in the defense sector through government route (which was earlier up to 49 percent only under the automatic route); raising of sectoral cap on various activities of the broadcasting sector; permission of 100 percent FDI under automatic route in coffee, rubber, cardamom, palm oil tree and olive oil tree plantations along with tea plantation; 100 percent FDI under the automatic route in single brand retail and under the government approval route in food product retail trading; 100 percent FDI under the automatic route in asset reconstruction companies; permission of 74 percent FDI under automatic route in brownfield pharmaceuticals and FDI beyond 74 percent is allowed through government approval route and raising of FDI limit for private security agencies from 49 percent to 74 percent where FDI beyond 49 percent is permitted under government route (Ministry of Commerce & Industry, GOI, 2018).

The volume of FDI inflows into India increased gradually since 1991 to till 1997. The East Asian Crisis of 1997 had a detrimental effect on inflow of FDI into India due to which these inflows declined during 1998-2000. In the three decades of liberalisation of Indian economy, although FDI inflows into the country have experienced many ups and downs, India has become one of the popular destinations for direct investment in developing Asia in recent years. According to World Investment Report, 2019, India is one of the top 20 host nations for FDI inflows in the year 2017-18. India is the largest recipient of FDI in the South Asian region. The “Make in India” campaign launched in the year 2014 with a view to turn India into a global manufacturing hub has gained a lot of attraction from foreign investors in recent years.

In this context, this study intends to analyse the trend in the growth of FDI inflows into India covering the period between 2000-01 and 2017-18 when the country has gone under radical policy changes as part of its globalisation process. Along with this, an attempt has been made to identify the factors influencing the flow of FDI into India during the period of study.

Theoretical Framework

The available literature has provided a wide range of factors that influences the flow of FDI into a country. Lokesha and Leelavathy (2012) have discussed the pull and push factors that determine the flow of FDI into India. According to their study the pull factors are those specific micro and macro characteristics of the host country which attract investments from the source country and push factors are the characteristics of the home country which push FDI out to their destination. The determinants of FDI flows as enlisted in their study are presented in the Table 1.

Empirical findings have revealed that market size, human capital and macroeconomic stability had significant impact on FDI inflows into developing countries since 1990 while availability of natural resources and labour force were crucial determinants of FDI in the pre-1990 period (Phung, 2016). Asiedu (2001) has found that openness to trade; return on investment and infrastructure development had positive impact on FDI inflows to developing countries but differential impact on FDI to Sub-Saharan Africa during 1988-97. Studies conducted in Indian context have found GDP, inflation rate, infrastructure, trade openness and BOP deficit as significant determinants of FDI inflows (Anitha, 2012; Sahni, 2012). Following the framework of Lokesha and Leelavathy (2012) and on the basis of empirical evidences, this study has considered market size, macroeconomic stability, external stability and policy framework of the government as possible factors working behind FDI inflows to the country.

MATERIALS AND METHOD

The present study covers a time period of 18 years from 2000-01 to 2017-18. The required data for the purpose of this study has been sought from published reports of Department of Industrial Policy and Promotion (DIPP), Ministry of Statistics and Programme Implementation (MOSPI) and Handbook of Statistics on Indian Economy, RBI. In this study, trend of FDI inflows between 2000-01and 2017-18 has been analysed with the help of Annual Growth Rate (AGR) and Compound Annual Growth Rate (CAGR). The Multiple Regression Analysis has been used to examine the factors that attract FDI into India. While performing regression analysis several variables that can influence FDI were initially considered however, due to high multicollinearity foreign exchange reserve and trade openness index were dropped from the analysis. Thus, the variables considered for the analysis are-Gross Domestic Product in real terms, rate of inflation measured in terms of Consumer Price Index (CPI), Debt-GDP Ratio, Real Effective Exchange Rate and Corporate Tax Rate. GDP has been considered as a proxy variable for market size; rate of inflation and debt-GDP ratio are the indicators of macroeconomic stability, real effective exchange rate is considered as the indicator for external stability and corporate

Table 1 Pull and push factors determining FDI flows

Pull factors influencing FDI inflows	Policy framework of FDI in India	Liberalized industrial policy, liberal trade policy, foreign exchange policy, exchange rate regime, intellectual property regime, tax policy of government.
	Market size and GDP	Size, income levels, urbanization, stability and growth prospects, access to regional markets, distribution and demand patterns.
	Economic Determinants	Foreign exchange reserve, infrastructure, cost of capital or interest rate, cost of labour.
	Economic stability	Debt- GDP ratio, industrial disputes, inflation rate, deficit in the balance of payments.
	Political factors	Political stability and freedom from external aggression, security of life and property, reasonable opportunities for earning profits, prompt payment of faired and transferable compensation in case of nationalization of a foreign owned enterprises, facilities for immigration and employment of foreign personnel, freedom from double taxation, a general spirit of friendliness towards foreign investors.
Push factors determining FDI outflows		Exports, imports, FDI inflows

Source: Lokesha and Leelavathy (2012)

tax rate is considered as the indicator for tax policy of government. The natural logarithmic transformation of the variables has been done except for the variables expressed in rates. The regression model for this analysis can be expressed as:

$$lnFDI = \beta_0 + \beta_1 lnRealGDP + \beta_2 INFL + \beta_3 DGR + \beta_4 CTR + \beta_5 REER + u_t$$

Where,

FDI= Foreign Direct Investment, Real GDP= Gross Domestic Product in real terms, INFL=Rate of inflation (CPI), DGR=Debt- GDP Ratio, CTR= Corporate Tax Rate and REER=Real Effective Exchange Rate.

FINDINGS AND DISCUSSION

Trend in inflow of FDI

Trend in the volume of FDI inflows to India, annual growth rate (AGR), share of India in global FDI inflows and share of India in flows of FDI into Asia has been presented in the Table 1. It can be seen from the table that inflow of FDI into India was US$ 4029 million in 2000-01 which rose to US$6130 million in the next period. The volume of inflows declined consecutively for the next two financial years. In 2004-05, they again increased to US$ 6051 million and gradually increased to US$ 41873 million in 2008-09. Then, again in 2009-10 and in 2010-11 FDI inflows into India has declined mainly due to global financial crisis and economic slowdown experienced by the countries in late 2000s. The volume of inflows has been showing an increasing trend since 2013-14 and the amount has reached up to US$ 60974 million in 2017-18. The annual growth rate (AGR) of FDI inflows into India has been showing many ups and downs during the period of analysis. The AGR was the highest in 2006-07 during the study period and negative rate of growth has been registered in 2002-03, 2003-04, 2009-10, 2010-11 and 2012-13 respectively. The trend in annual growth of FDI inflows to India has been presented graphically in Figure 1.

Table 2 Inflow of FDI to India (2000-01 to 2017-18)

YEAR	Inflow of FDI (US$MILLION)	Annual Growth Rate*	Share of India in global FDI inflows *(in percent)	Share of India in FDI inflows to Asia *(in percent)
2000-01	4029	-	0.49	4.4
2001-02	6130	0.52	0.97	6.1
2002-03	5035	-0.18	0.89	3.4
2003-04	4322	-0.14	0.59	2.5
2004-05	6051	0.4	0.62	2.9
2005-06	8961	0.48	0.61	3.1
2006-07	22826	1.55	1.09	6.5
2007-08	34843	0.53	1.97	9.2
2008-09	41873	0.20	3.76	13.3
2009-10	37745	-0.10	2.84	9.8
2010-11	34847	-0.08	2.23	8.2
2011-12	46556	0.34	2.96	11.6
2012-13	34298	-0.26	2.41	8.3
2013-14	36046	0.05	2.69	7.8
2014-15	45148	0.25	2.22	8.8
2015-16	55559	0.23	2.90	11.7
2016-17	60220	0.08	4.02	12.2
2017-18	60974	0.01	4.70	11.9
CAGR=0.1733				

Note: * Author's calculation

Source: FDI Factsheets, Various Issues, DIPP, Ministry of Commerce and Industry, Government of India

Further, the trend of India's share in global FDI inflows has also been presented in the Table 1. India's share in global inflows of FDI is observed to be quite low during the initial years of the last decade. Mild recession in the USA, unfavourable tax policies, poor infrastructure and industrial climate were some factors causing low volume of inward flow. It can be seen from the table that share of India in global FDI inflows was merely 0.49 percent in 2000-01, which had grown up to 0.97 percent in 2001-02 and then started to declined gradually to 0.61 percent in 2005-06. From 2006-07 onwards India's share gradually increased up to 3.76 percent in 2008-09, which was the highest level in the last decade. There had been fluctuations in the share of India in global FDI inflows in the period between 2009-10 and 2014-15. It has increased to 2.90 percent in 2015-16 and then jumped up to 4.02 percent in 2016-17. The year 2017-18 recorded the highest level of India's share in global FDI inflows over the last 18 years with 4.70 percent. The recent spectacular increase in its share can be attributed to the ambitious "Make in India" programme launched in 2014. Although, global FDI flows have contracted for the third consecutive year in 2018, flow of FDI into Asian countries has grown by 3.9 percent in 2018 (World Investment Report, 2019). India's share in FDI inflows to Asian region had been fluctuating over the period of last 18 years. This share was the lowest in 2003-04 when only 2.5 percent of FDI inflows to Asian region came to India. In recent years, India's share in FDI inflows to the region has been gradually increasing except for the year 2017-18.

Thus, the overall trend of FDI inflows to the country is found to be increasing over the last 18 years. The compound annual growth rate (CAGR) of FDI inflows over the 18 years is found to be 0.1733, indicating the growth of FDI inflows by 17.33 percent over this time period.

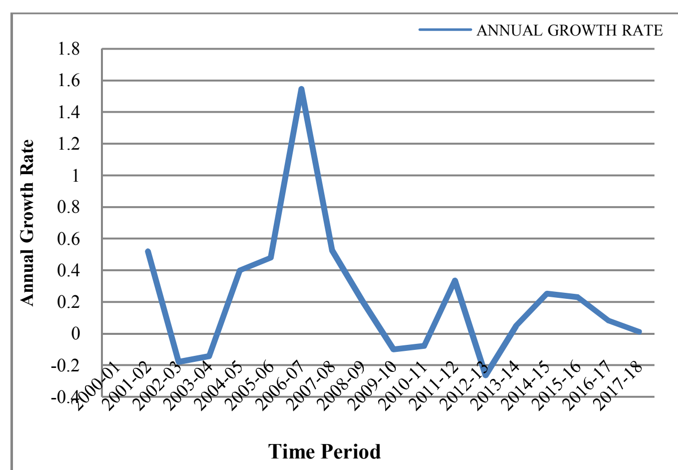

Fig 1 Annual Growth Rate of FDI inflows into India

Determinants of FDI inflows into India: Estimated Results of the Multiple Regression Model

The descriptive statistics of the variables are presented in Table 3. The estimated results of the multiple regression analysis are presented in Table 4. The value of R-square is 0.959 and adjusted R-square is 0.942, which indicates that the model is fitted well for explaining the variation in inflow of FDI into India. The value of Durbin-Watson (D-W) statistic, which is found to be 1.265, falls within the prescribed limits (0-4) and hence it can be concluded that serial correlation is not a problem in this analysis. The F-statistic is significant at 1 percent level and hence, the null hypothesis can be rejected

and it can be confirmed that the model is well capable of predicting the inflow of FDI into India. The estimated results of the regression analysis reveal that real GDP, INFL, DGR and CTR are the significant factors influencing inflow of FDI during the period between 2000-01 and 2017-18. The effect of real GDP is found to be the strongest among all the variables in attracting FDI into India. Another factor which has positive impact upon FDI inflows is inflation, measured in terms of consumer price index (CPI). The estimated elasticity coefficient between Debt-GDP Ratio (DGR) and inflow of FDI is found to be negative. The increasing inflow of FDI with gradual decline in Debt-GDP Ratio of India within the study period confirmed this relation between the two variables. Another factor which has negative impact on inflow of FDI is corporate tax rate (CTR). Thus, the multiple regression analysis establishes that market size, macroeconomic stability and tax policy of the government are the factors governing the flow of FDI into India during 2000-2018. The multiple regression equation can be fitted as

$$FDI = 12.738 + 0.552\ (Real\ GDP) + 0.178\ (INFL) - 0.267\ (DGR) - 0.243\ (CTR) - 0.038\ (REER)$$

Table 3 Descriptive Statistics

Variables	Obs.	Mean	Std. Dev.
FDI	18	30303.5	20183.3854
Real GDP	18	7631616.86	3512010.15
INFL	18	6.5583333	3.21428109
DGR	18	50.7067	4.68047
CTR	18	34.983333	1.80050646
REER	18	105.44111	5.97462959

Table 4 Estimated results of Multiple Regression Model

Predictors	Dependent Variable: FDI			
	b	SE	β	t-statistic
Real GDP	1.231	0.330	0.552***	3.732
INFL	0.056	0.024	0.178**	2.346
DGR	-0.058	0.025	-0.267**	-2.309
CTR	-0.136	0.051	-0.243**	-2.658
REER	-0.006	0.019	-0.038	-0.326
Constant =12.738***				
R^2 = 0.959				
Adjusted R^2 =0.942				
F-Value = 56.563***				
D-W Statistic = 1.265				

CONCLUSIONS

This study was an attempt to analyse the trend of FDI inflows into India during the period between 2000-01 and 2017-18 and the major determinants of FDI inflows into India during this period. The inflow of FDI into India, as the results show, has grown by 17.33% over the last 18 years. The volume of FDI inflows, although experienced many ups and downs from time to time within this period, has increased from US$ 4029 million in 2000-01 to US$ 60974 million in 2017-18. Although the annual growth rate of inflows has been declining, India's share in global FDI inflows has been increasing in recent years. With continued relaxation on investment restrictions and liberalisation of wide range of sectors impressive growth of FDI inflow can be expected in the coming years.

The estimated results of multiple regression analysis revealed that real GDP, inflation, debt-GDP ratio and corporate tax rate were the significant determinants of FDI inflows into India during the period of study. While real GDP and inflation have positive impact on inflows of FDI, the effect of corporate tax rate and debt-GDP ratio is found to be negative. Thus, the market size of the country, macroeconomic stability and tax policy of the government are the factors determining the flow of FDI into the country.

References

Lokesha, B.K. and Leelavathy, D.S. 2012. Determinants of Foreign Direct Investment: A Macro Perspective. *The Indian Journal of Industrial Relations* 47(3): 459-469.

Anitha, R. Foreign Direct Investment and Economic Growth in India. *International Journal of Marketing, Financial Services & Management Research*,1(8): 108-124.

Iqbal, N., Ahmad, N., Haider, Z. and Anwar, S . 2013. Impact of foreign direct investment (FDI) on GDP: A Case study from Pakistan. *International Letters of Social and Humanistic Sciences*,16: 73-80

doi:10.18052/www.scipress.com/ILSHS.16.73

Khan, S. and Mehboob, F. Impact of FDI on GDP: An Analysis of Global Economy on Production Function. Available Online at http://mpra.ub.uni-muenchen.de/55352/MPRA Paper No. 55352.

Urgaia W.R. 2017. The Impact of Foreign Direct Investmenton GDP Growth in East Africa. *China-USA. Business Review*, 16 (11): 521-540.

doi: 10.17265/1537-1514/2017.11.002

Kotrajaras, P. 2010. Foreign Direct Investment and Economic Growth: A Comparative Study among East Asian Countries. Applied Economics Journal, 17 (2): 12-26.

Balasubramanyam, V. N. and Mahambare,V. 2013.Foreign Direct Investment in India. LUMS Working Paper 2003/001. Lancaster LA1 4YX, UK, Lancaster University Management School.

Phung, H. B.2016. Determinants of FDI into Developing Countries. Mark A. Israel '91 Endowed Summer Research Fund in Economics. 4. http://digitalcommons.iwu.edu/israel_economics/4.

Asiedu E. 2001.On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different? Available at SSRN: http://ssrn.com/abstract=280062 or http://dx.doi.org/10.2139/ssrn.280062

Sahni, R.2012. Trends and determinants of foreign direct investment in India: An empirical investigation. *International Journal of Marketing and Technology*, 2(8): 144-161.

FDI Factsheets, Various Issues, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India.

Rajya Sabha unstarred question no.497 on 07.02.2018 for Changes in FDI caps in various sectors. Ministry of Commerce and Industry, Government of India.

Handbook of Statistics on Indian Economy, Reserve Bank of India.

DIPP 2011. FDI policy-rationale and relevance of caps. Discussion paper, Department of Industrial Policy and Promotion, Ministry of Commerce and Industry, Government of India.

www.mospi.nic.in

https://data.gov.in/