

Trends and Future Predictions of Foreign Direct Investment Inflows – A Post Liberalization Study of India from 2000-2019

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Abstract

Along with the onset of globalization, developing countries have been increasing rapidly in FDI since the last twenty years. The movement of Foreign Direct Investment inflows are faster than the growth of foreign trade and world's Production. The present study confers about the performance of Foreign Direct Investment flood in country for the period from 2000 to 2018. The objective behind this research is to forecast the inflows of Foreign Direct Investment for the next twelve years. The expansion of Indian economy has been measured by growth analysis, trend analysis and ARIMA model. The study also summaries the theoretical background of Foreign Direct Investment and its importance towards growth in economy. It also discusses the recent trends about FDI in India and at global level.

Keywords—FDI, FDI Inflows, Trend, Growth, ARIMA, Forecast

I. INTRODUCTION

Foreign direct investment (FDI) can be considered as an investment made by entrepreneurs/enterprise in a country by an enterprise or entrepreneurs situated in another country. It can also be taken as the enhancement in the operations of an ongoing business in another country. In the present scenario, Foreign Direct Investment plays an important element in the progress of both developing nations as well as developed nations too. Foreign Direct Investment linked better economic intensification and progress in the host countries, as it leads a rise in global competition. FDI provides advantages such as employment opportunities, new and advanced technology, expansion of new markets, innovative products, and introduce new skills among the people, etc., that influence the earning capacity of a nation and its citizens.

As we know that our country India is a growing country and the major resource is Capital that is usually necessary for economic growth and

expansion. But there is hurdle for such a growing country like India that Capital is a limited, Which is required for numerous issues like physical condition, large amount of poverty, Unemployment, low rate of education, lack in research and development, obsolete technology and global rivalry.

A preponderance of studies shows that the FDI inflows in India from all over the world can help domestic firms in obtaining the finances at low cost, limit the problem of unemployment, and, improved capacity for more trade, transfer of advance and upgraded technology, association and spillovers (Source: OECD Report, 2002).

In 1991, the Government of India made a lot of changes in its economic policy in 1991, which facilitated FDI inflows in the country (Source: Madaan, 2018). As a result, globalization of Indian industries took place on a large scale. Barriers like trade between nations have been removed and integration of the nation's economies is done through financial flows. Trade-in technologies and services,

and corporate investment between nations led to the development of Indian basic industries such as retail, automobile, steel, pharmaceutical, petroleum, chemical, textile, cement, BPO, etc. As far as the Indian economy is concerned, the influence of globalization in all economic as well as social sectors is quite impressive and positive. It is the due to globalization that the common man has access to better technology in terms of mobile, road transport, cheap clothes, chemicals, medicines, electronic and electrical gadgets, etc (Source: Prasad, 2010). It will also improve the technological progress of Indian industries too. Many Indian companies became global companies by increasing their exports and imports and starting their units in other countries or acquiring foreign companies.

II. LITERATURE REVIEW

In the present section, an attempt has been made to analyze the trends and patterns of FDI in India by studying the work done by other researchers on the same topic.

Nagaraj, 2003 stated in his literature that liberalization of Asian countries opens the doors of more FDI for them. Asian countries are getting the maximum share of FDI in the world. It is the need of the hour. The major share of FDI inflows were invested in infrastructure and thereafter in manufacturing and consumable goods. To ensure larger inflows of Foreign Direct investment inflows, slight alteration would be required in FDI policies in the economies of the beneficiary nations.

Volde, 2006 also narrated in his literature that Foreign Direct investments trend in India started post liberalization. Here the importance pattern and significance of FDI has been highlighted. In the last few decades, the government of developing countries has made policies that are more favorable towards FDI. These developing countries have viewed FDI as contributory to their development. FDI in high value production has been changing the structure of production in some East Asian countries

and thereby increasing the effectiveness of their development activities.

Sidhu, &Dhingra (2009), revealed in their study that the advancement of FDI in India was from the eighteenth centenary. This was not a due to the effect of liberalization. They also examined the improvement of Foreign Direct Investment inflows in Asian countries included India. The study generated the forecast of FDI inflows for the period of 2009-20. In this study double exponential smoothing model has used. The results revealed that among all the countries, China have the maximum magnitude of growth in terms of FDI inflows whereas India is assumed to hop thereon quickly.

Khan, (2013), examined in his study that various factors influenced FDI inflows from 1980-2013. In this study the trend of next five years (2014-18) has been forecasted with ARIMA model and revealed that there is decline in FDI inflows trend in next five years. These are contradicted results from other studies.

In the study of (Jadhav, Wasatkar and Lad, 2013), it has been discussed that Service sector in India is the one of the divisions in which Foreign Direct investment has been steady for a few years. It is followed by the construction and manufacturing segment. The study disclosed that there is no such significant connection between FDI inflows and GDP and development rate of industry of origin. It showed that FDI inflows barely get impacted by GDP commitment and growth rate of industries.

Biswas (2015), Analysed the time series data of FDI inflows from 1992-2014 and he concluded that there was a smooth increase in the FDI inflows with the passage of time. He forecasted the FDI inflows for the next twenty years and it was expected from that analysis that there is smooth growth of FDI inflows is expected in the next twenty years.

Dhingra (2015), evaluated the foreign institutional investment inflows in India with the aid of the Box-Jenkins ARIMA models from Jan 04 to Sept 12. In

this study it is confirmed that many terms of Auto Regressive and Moving Averages that manipulate the present foreign institutional investment inflows and outflows.

Sood, (2015) revealed that in the last decade FDI inflows are very high in developing countries, contributing majorly in five developing economies (Brazil, Russia, India, China, South Africa). India has observed a mixed pattern growth in FDI. India has a superior marketplace at the global level. The government has also launched "Make in India". Since the launch of this campaign, India is far better on most of the counts. Strategic view of foreign investment is considered to be important for overall economic development of the country.

Dullien, 2016, explained in his study that the type of FDI will be mainly out of efficiency-building and more market-seeking, both in foreign competitions and service sectors in manufacturing. In addition, FDI that is market seeking becomes a load on the company's Long term returns, short term returns and medium term returns on the earnings. It may emphasize the growing largest economy China to rely on capital imports. So that it finance domestic absorption and make the economy more exposed to the currency crisis.

Jere et al (2017) predicted inflows of Foreign Direct Investment by using Box-Jenkins ARIMA model for the years from 1974 – 2014 in Africa. It has been found that there will be a regular enlargement of Net FDI inflows on yearly basis (approx 44 %) till 2024 in Zambia.

Nyoni (2018) also analyzed FDI net inflows for the period of 1980-2017 in Zimbabwe with the help of Box-Jenkins ARIMA technique. The study revealed that in the coming two decades, net inflows of FDI in Zimbabwe will chase a comparatively poor and unimposing growth trend.

Nyoni, Muchingami&Thabani, (2019) Foreign Direct Investment (FDI) Dynamics In India: What Do ARIMA Models Tell Us? He revealed that the

net inflows of Foreign Direct Investment in India are probably deteriorated during the coming ten years. The research also identified two major important policy recommendations, one is to eliminate political corruption and another one is to strengthen one window clearance system for foreign investors. It will help to endorse and kindle the much expected FDI net inflows in case of India.

Owusu-Nantwi and Erickson (2019) studied that foreign Direct Investment and economic growth both are sharing a positive and strong relationship in case of South America. They used Pedroni co-integration test and VECM on their data.

In few studies it has been observed that the government took initiatives to attract more and more FDI in developing economies through various strategies. They are focusing on various trade related policies to offer good environment to foreign investors for setting up FDI ventures. There is a competition between BRICS countries and the close competitors are India, China and Brazil. They have their specialized policies to allure more investors (Bloomberg, 2015; Mandal, 2016).

Research Gaps

The above review of the literature has proved to be beneficial in identifying research issues and research gaps, which are mainly the versions on which the aims of the present study are based. There are very few studies that have studied future predictions. But the results in these studies are contradicted in the case of India. The present study tries to predict true picture of FDI inflows trends and their future prediction in India by 2030 and make a conclusion about its development in the near future.

II. OBJECTIVES

- To discuss current framework of inflows of FDI in India.

- To investigate the trend and growth of inflows of FDI in the country.
- To forecast the inflows of FDI for the next twelve years.

III. RESEARCH METHODOLOGY

The main motive of this current study is to submit an expository scrutiny of Foreign Direct Investment inflows in case of India. It gives a report of the long-run trend with growth of Foreign Direct Investment inflows in the economy. The extant study is rooted on published data, for the duration from 2001-2018. The statistics for analysis has been taken from various secondary sources like RBI Bulletin, DIPP, UNCTAD Reports and World Bank data bank. Our data is time series data so as to obtain the motives of the research. For the future prediction of trend, Trend analysis is used. For the prediction of growth in FDI inflows, growth analysis is used. Thereafter ARIMA model has been used to predict the FDI inflows for the future years.

FDI IN INDIA AND ITS CURRENT TRENDS

According to UNCTAD reports 2019 foreign Direct Investment inflows in 2018 USD 42 billion which is more than the previous year 2017. India stood on rank 9th among the top 20 host countries as developing and transition economies in 2018. India also ranked 11th in the Global FDI Confidence index 2018, which makes India as 2nd highest, ranked emerging market for FDI. This year services sector is acquiring a larger share of FDI due to new policy formations. The favorable policy regime and strong business environment of the Indian government has ensured that the foreign capital flows into India. Indian government has carried several strategies in the past few years like easing FDI regulations in few fields namely Public Sector Undertakings (oil refineries), stock exchange, defense areas, power supply, telecommunications, etc. According to Erken India has now become a striking investment destination. Reforms on trade indices, low external and domestic debts, favorable

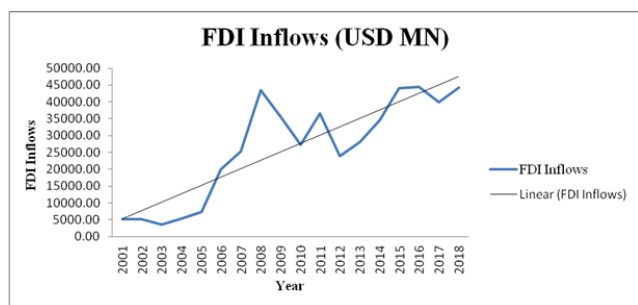
government policies, ease of doing business indices and a large market size make India an attractive proposal. However, there are risks that can be huge on India's portfolio flows and make India weak to external distress such as much dependence on oil and high deficit and reducing India's vulnerability for the next government will be a major challenge from policy perspective. In the budget 2018-19, the government has further relaxed the FDI norms in many sectors. Previously thirty percent local sourcing was required for single brand retail sectors but now, in budget 2019, local sourcing norms have been eased for the same sector to attract more FDI inflows. Further hundred percent FDI (foreign Direct Investment) is permitted for Insurance sectors. Foreign Direct Investment norms have been relaxed in aviation, media sectors. Foreign Portfolio Investment's statutory limit has also increased from 24% to sectoral limits. In PSUs, foreign shareholding limits have also been increased to the highest allowable sectoral limits (Source: Budget, 2019). The government also set up an automatic route for real estate brokering services under 100% FDI cap. India was the first region in Asia to adopt SEZs (Special Economic Zones) and quite cautious for developing SEZs by ending their incentives schemes for developers in the year 2016 and currently eliminating tax benefits for tenants by 2020.

DESCRIPTIVE INVESTIGATION – INFLOWS OF FOREIGN DIRECT INVESTMENT IN INDIA

There are many benefits in terms of economic growth to India by increasing the inputs of Foreign Direct Investment. Thus more Foreign Direct Investment results, better products and services will now be available to consumers at even suitable prices. Foreign Direct Investment flows procure benefits to consumers, as well as to firms, it supplies capital. Along with it, farmers and laborers are getting improved remuneration in consideration of their services. FDI also has a significant positive

impact on employment conditions by creating more employment opportunities. Due to FDI, some industries like logistics, technology have tremendous advantages. In the present study FDI inflows data has been collected for the period of 2000 to 2018 in USD MILLIONS. FDI inflows' behavior has been seen in Fig no 1.

Fig.1 - FDI inflows for the year 2001-18 in USD Millions



Source: FDI inflows from World Bank data centre

Table 1. FDI Inflows and Percentage Change in FDI inflow from previous year (2001-2018)

Years	FDI Inflows	Percentage Change in FDI inflow from Previous year
2001	5128.09	-
2002	5208.97	1.58
2003	3681.98	-29.31
2004	5429.25	47.45
2005	7269.41	33.89
2006	20029.12	175.53
2007	25227.74	25.96
2008	43406.28	72.06
2009	35581.37	-18.03
2010	27396.89	-23.00
2011	36498.65	33.22
2012	23995.69	-34.26
2013	28153.03	17.33
2014	34576.64	22.82
2015	44009.49	27.28
2016	44458.57	1.02
2017	39966.09	-10.10
2018	44370.00	11.02

(Source: World Bank Reports Author's Compilation.)

In the above table the data indicates that highest percentage change in FDI is 175.53% in the year of 2006 when government was more liberalize about

Foreign Direct Investment inflows in the year 2001 was USD 5128 Millions, which further continued to increase and became USD 44370 Millions in year 2018. After 2003 it continues to increase and in 2008 it became the highest and became USD 43406 Millions. It is a huge change that is raised 712% from previous year. It is the reflection of foreign investor's confidence in the growth of Indian economy. In 2009 there is an 18% fall in FDI inflows as compared to 2008. This is due to subprime recession in the economy. The recovery of this decline was very slow in the following years. After 2011 the growth in FDI inflows had started and it became USD 44370 million in the year 2018. The year wise FDI inflows have been shown in the table 1.

the policies of FDI. In 2006 government allowed 100% FDI through automatic route in housing, constructions, and infrastructure projects.(Source:

FDI Policy, 2006) Though FDI increased in the following years, but it became doubled in 2008 from 2006. This happened due to change in government policy framework. In this year, FDI approved by government in single brand retail sector is 51% via government route. In telecom sector FDI limit increased 74% from 49%. (Source: FDI policy, 2008) Due to global crisis, FDI inflows to India suffered a sharp decline in 2009 and 2010. But in monetary terms, in India Foreign Direct Investments have grown considerably. Foreign Direct Investment inflows have increased significantly since last few years, mainly due to various initiatives taken by the current government, such as 'Make in India'. This partly reflects the result of sound financial conditions of India and the resulting attraction as a long-term attraction of the Indian market. The policies taken to continue the flow of Foreign Direct Investment by the government have also played an optimistic impact. A stray trend is followed by Foreign Direct Investment inflows in the initial three quarters of 2009–10, although they improved in the fourth quarter. During the second quarter of 2010–11, FDI inflows showed improvement during the initial quarter of 2010-11 (Source: Press Release of RBI, 2010-11). The Economy of India is relatively less affected through the universal extremity. In

absolute figures, besides China, India is another growth engine in facilitating rapid change of the global economy. The year 2010-11 saw significant growth in FDI in India. It expressed concern in view of the growing concern of the current account deficit in India beyond the sustainable level of 3 percent of GDP during April-December 2010. FDI inflows fell in the year 2012; because in 2010 'Cigars, cheroots, cigarillos, and cigarettes were traced as government's decision to prohibit FDI in the manufacture of tobacco or tobacco substitutes' (Source: Press note 2(2010) Series by DIPP). FDI inflows into India were low initially, had increased substantially by 2009, and then came down slightly, because of the sub-prime crisis in the year of 2008. But in terms of money, FDI inflows have increased noticeably in India. Various Foreign Direct Investment reforms and favorable measures have been adopted by the Government of India from 2001-2018 to entice foreign investors to invest in India, and which has certainly helped in achieving FDI amount of USD 44370. The descriptive statistics results explain the nature of the data of FDI inflows for India in table 2. The value of mean has shown the average FDI inflows are there from the year 2001-2018 i.e USD 26354.85 million with a standard deviation of USD 15263.77 million.

DESCRIPTIVE STATISTICS ANALYSIS OF FDI INFLOWS FROM 2001-2018

Statistics	Values
Mean	26354.85
Median	27774.96
Maximum	44458.57
Minimum	3681.99
Standard Deviation	15263.77
Skewness	-0.338765
Kurtosis	1.657
Jarque-Bera	1.696
Probability Value	0.428

Source : Author's Compilation through E-Views 10

The minimum amount of FDI inflows was USD 3681 million in the year of 2003 and the maximum inflows of FDI inflows in the year 2016 which is

USD 44458 millions. The results are also shown that the average value of FDI inflows in last eighteen years is found to be 26354.85 USD millions with standard deviation 15263.77. The data is also

normally distributed as JarqueBera value is 1.696 and its probability value is 0.428 which is more than 5% level of significance.

GROWTH AND TREND ANALYSIS OF FOREIGN DIRECT INVESTMENT INFLOWS FOR THE PERIOD OF 2001-2018 IN INDIA

India's economy is the strongest and continuously growing economy in the world; and the same quality attracts foreign direct investment in this economy. Look upon the earlier data, it is hypothesized that inflows of Foreign Direct Investment in India should rise over time. The main goal of this study is to test the trend of FDI inflows for the most recent 18 years in India from 2001-2018. The chosen analysis has

been performed with assistance of the regression model called bivariate regression model which is given below:

$$FDI = \alpha + \beta * Time \dots\dots\dots eq.1$$

Here FDI inflows are taken as dependent variables and Time is taken as independent variable. The alpha coefficient and β coefficient are intercept and regression coefficient respectively. The value of intercept implies that the hypothetical value of Foreign Direct Investment inflows with no trend line, whereas the coefficient beta slope indicates the yearly inclination of Foreign Direct Investment inflows in an economy of India. This analysis gives following results in table no. 3.

Table 3 - Trend Analysis (FDI Inflows)

Dependent Variable	Independent variable	Regression Coefficients	T statistics (Probability)	F statistics (Probability)	R ²
FDI Inflows (USD Millions)	Intercept	-4972535.00	-7.02 (0.00)	49.84 (0.00)	0.76
	Time	2487.63	7.06 (0.00)		

The values of the table under different headings are analyzed in E-views 10. P value of t statistics shows significant results at 5% level of significance. It indicates that there is significant positive relation occurring between Time and FDI inflows. It could be concluded from the result that In India there is long run positive trend of FDI inflows. It also assumed that USD 2487.63 million FDI inflows occurred every year in India. P value of F statistics is also significant and showed model is good to fit. The value of R square is also significant and verified that 76% changes in Foreign Direct Investment inflows can be interpreted by means of given bi-variate model of regression in trend inspection. It also indicates a significant and positive upward trend of FDI inflows. The efforts made by government to attract more FDI inflows are very fruitful.

INDIA'S FOREIGN DIRECT INVESTMENT'S POLICY STRUCTURE: 2001 TO CURRENT SCENARIO

Policy structure regarding foreign direct investment is one of the crucial factors needs to be considered by the economy flows. The potential of a country to draw investment totally depends upon the structure of the policies made in the countries. So every government should make such policies that stimulate the foreign direct investments inflows. The present segment carries out the review of the policy structure of India from 2001 to 2018. Seeing the importance of the policy structure, India made periodic changes to increase the flow of investment. This change proved to be very effective for India. The Government of India took major steps in the form of policy reforms to encourage foreign investment. The process of investment for foreign capital investment over time also made it easier for

investors. The FDI has been evaluated on the basis of several measures clarified from time to time due to the objective of liberalization of policy and simplification of procedures. In this context, the policies and reforms implemented by the Government in the Foreign Direct Investment Policy Framework in India during the period of our study are being observed

India has lifted most of the restrictions on FDI inflows from 1 April 2001 onwards. In such a context, small industrialists faced consequential challenges from international manufacturers, while international producers had open access to the domestic market. Thus international companies have an advantage over domestic small manufacturers. Considerable modification made during 2001–2002 include allowing royalties of up to 20 percent on exports and 1 percent on sales within the country under the automatic route on the usage of a foreign affiliate's trademark and brand name without technology transfer. On exports Royalty payments of up to 8 percent and 5 percent on domestic sales by wholly-owned subsidiaries are authorized through an automatic route with no confinements at

the time of payment of royalty to the parent company [Source: Press Note No.19 and Press note 2 from the series 1998 and 2003 respectively]. In case of private banking sector 49% and less FDI is permitted [Source: Press Note No.4 (2001 Series), Ministry of commerce & industry]. Up to 100% foreign equity in holding companies is allowed by Non-banking finance companies (NBFCs) (Source: RBI Notifications, 2001). The full extent of FDI is sanctioned for the progress of incorporated township with prior approval of the government The Planning Commission had setup a Steering Committee in August 2001 to suggest measures to increase FDI inflows into India. The Steering Committee presented its report on FDI, which was currently under consideration by the government. Thereafter every year many reforms have been made to allure more FDI in different sectors. From 2000 to 2018 the conditions and FDI caps in different sectors has increased and in many sector like Atomic Energy, lottery, Gambling and betting Chit fund business, TDRs, etc are prohibited. The present status of sector wise FDI inflows after policy reforms is shown into the following table 4.and Table no 5.

Table 4: FDI Policy: Sector wise Activities under Automatic Route (Year till 2018)

Serial Number	Sectors/Activity	FDI Cap
1	Agricultural Activities	Up to Full extent
2	Activities related Plantation Sector	Up to Full extent
3	Mining and Metal Exploration ores related Activities	Up to Full extent
4	Mining (Coal & Lignite only)	Up to Full extent
5	Manufacturing Sector	Up to Full extent
6	Broadcasting Services included Conveyance Services (cable Networks, DTH, Teleports, Mobile TV, HITS etc)	Up to Full extent
7	Broadcasting Content related Services	Up to Full extent
8	Airlines Sector (Airports) via Greenfield	Up to Full extent
9	Airlines Sector (Airports) via Brownfield	Up to Full extent

10	Non Schedule Air Transport Services and activities	Up to Full extent
11	Air Transport Services and activities included Helicopter Services/ Seaplane Services	Up to Full extent
12	Other services and activities under Civil Aviation Sector - Ground Handling Services	Up to Full extent
13	Civil Aviation Sector (Other services and activities under Maintenance and Repair organizations; flying training institutes; and technical training institutions)	Up to Full extent
14	Construction & Development Sector	Up to Full extent
15	Industrial Parks -new and existing Sectors	Up to Full extent
16	Trading – Wholesale Services	Up to Full extent
17	Trading –E-commerce activities	Up to Full extent
18	Trading – SBRT Services	Up to Full extent
19	Duty Free Shops at various places	Up to Full extent
20	Infrastructure of Railway *	Up to Full extent
21	Asset Reconstruction Sectors	Up to Full extent
22	Credit Information services	Up to Full extent
23	White Label ATM Operations Services	Up to Full extent
24	Other Financial Services & Activities	Up to Full extent
25	Pharmaceuticals Sector – Greenfield	Up to Full extent
26	Natural Gas and Petroleum – Oil Exploration activities and natural gas fields	Up to Full extent
27	Refining of Petroleum Sectors by Public Sector Undertakings	49 Percent
28	Infrastructure Company and Services in the Securities Market	49 Percent
29	Sector related to Insurance Companies	49 Percent
30	Pension Sector	49 Percent
31	Power Exchanges Sector	49 Percent

Committee on Security (CCS) as security point of view.

*The consideration of proposals which are involved beyond 49% FDI in sensitive areas are to be carried by the Ministry of Railways before the Cabinet

The above table 4 shows the list of sectors in which foreign direct investment inflows is allowed through automatic route. There are almost 26 sectors where

government has permitted 100% FDI cap and in a few sectors the FDI cap is limited to 49% only.

Table 5: FDI Policy: Sectors under Government Route with Conditions (Year 2018)

S. No.	Sector/Activity	Cap	Government Approval
1	Air Transport Service (Scheduled, and Regional)	Up to Full extent	More than 49 Percent
2	Private Sector Banking	74 Percent	More than 49 Percent
3	Public Sector Banking	20 Percent	Upto 20 Percent
4	Broadcasting Content Service Sector a) Radio (FM) b) Up linking of 'Current Affairs and News' TV Channels	49 Percent	Upto 49 Percent
5	Defence	Up to Full extent	Beyond 49 Percent
6	Food Product Retail Trading	Up to Full extent	Up to Full extent
7	Investment by Foreign Airlines	Up to Full extent	Upto 49 Percent
8	Mining and separations of minerals titanium bearing minerals and ores	Up to Full extent	Up to Full extent
9	Pharmaceutical – Brownfield	Up to Full extent	Beyond 74 Percent
10	Print Media - Publication of Indian editions of foreign magazines (news and current affairs)	26 Percent	Upto 26 Percent
11	Print Media - Publishing of Daily newspaper and periodicals	26 Percent	Upto 26 Percent
12	Private Security Agencies	74 Percent	Beyond 49 Percent
13	Publication of foreign newspapers(facsimile edition)	Up to Full extent	Up to Full extent
14	Publishing/printing of magazines/periodicals/specialty journals/ (scientific and technical)	Up to Full extent	Up to Full extent
15	Satellites- establishment and operation	Up to Full extent	Up to Full extent
16	Telecom Services	Up to Full extent	Beyond 49 Percent

17	Trading – MBRT	51 Percent	Upto 51 Percent
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(Source: DIPP FDI Policy 2018)

Table 5 hereby shows the activities or sectors where government route is followed for FDI inflows with conditions. There are few sectors in which FDI is prohibited.

INDIA’S FOREIGN DIRECT INVESTMENT FUTURE PREDICTIONS

After examining the former trend of the inflows of Foreign Direct Investment in Indian economy, with the aid of both trend & growth analysis, the anticipated values of inflows of Foreign Direct Investment are calculated. The outcome of forecasted values of FDI inflow till the year of 2028 is shown below in the table 6.

Table 6. Future Predictions of FDI inflows in India

Year	Trend Projections	Growth Projections
2019	49987	50239
2020	52464	51867
2021	54623	53548
2022	56134	55283
2023	57212	57075
2024	57775	58925
2025	59151	60834
2026	60774	62806
2027	64468	64841
2028	67619	66943

By using Trend analysis and Growth analysis the output indicated that if trends of foreign direct investment inflows prolong as in the earlier period, then the expected value of FDI inflows in 2028 would be approximate 67619 USD million. Along with this, the annual growth is also predicted and it would be approximate 66943 USD millions. As the predictive trend is positive and growing these two methods leads to the assumption that FDI inflows will continuously grow towards a positive trend, if the conditions are similar to those from 1991 to 2018.

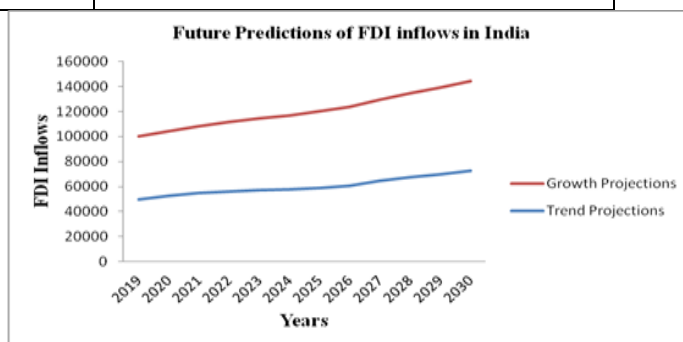


Fig 1. Trend and Growth Predictions of inflows of FDI

The graphical representation of trend analysis and growth analysis has been shown in the fig 1. It shows that there will be positive and upward growth of FDI inflows if the past trend is resumed in future years.

FORECASTING OF FDI INFLOWS BY USING ARIMA MODEL

In this portion, an attempt has been made to approximate the FDI inflows for the subsequent few years by means of the ARIMA forecasting model in India. It is one of the most prevalent methods for forecasting and estimating approximate values of the time series variables. The past behavior of the data is very important in the ARIMA model because it depends on past experience of the data with presumption that it will stick to the current pattern in the future time period as well. ARIMA model has three prominent components; first is autoregressive, second is integrated and lastly the moving average.

The first component autoregressive component conquers data from the previous behavior of the series and employs the collected information to predicting variables in near future periods. Whereas integrated component examines stationarity and non stationarity of series. Zero-order of the integrated component represents the stationary series, however, the order one of the integrated component portrays that at first difference given series is steady whereas initially it was non-stationary. The last and third section is moving average that point towards the consequences of a data on the further progress of moving average series. As in this study the annual series data has taken and the third component became inoperable. Prior to implementing the Auto Regressive Integrated Moving Average model, it is requisite to check if the series have unit root or not. Therefore the integrated data of ARIMA Model Forecasting needs to be examined by using correlogram. The findings of correlogram are given below:

Table 7. Results of Correlogram at level

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
		1	0.765	0.765	12.404	0.000
		2	0.567	-0.045	19.645	0.000
		3	0.325	-0.228	22.179	0.000
		4	0.078	-0.210	22.334	0.000
		5	-0.049	0.095	22.401	0.000
		6	-0.084	0.141	22.610	0.001
		7	-0.026	0.138	22.633	0.002
		8	-0.013	-0.190	22.639	0.004
		9	-0.028	-0.191	22.670	0.007
		10	-0.136	-0.257	23.500	0.009
		11	-0.251	-0.020	26.751	0.005
		12	-0.345	0.054	33.876	0.001

Table 8. Results of Correlogram at first difference

Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob	
		1	-0.151	-0.151	0.4578	0.499
		2	-0.043	-0.067	0.4977	0.780
		3	-0.040	-0.059	0.5349	0.911
		4	-0.356	-0.387	3.6834	0.451
		5	-0.024	-0.192	3.6986	0.594
		6	-0.209	-0.396	4.9847	0.546
		7	0.317	0.115	8.2269	0.313
		8	0.086	-0.074	8.4946	0.387
		9	-0.022	-0.107	8.5133	0.483
		10	0.015	-0.271	8.5230	0.578
		11	-0.089	-0.051	8.9461	0.627
		12	-0.010	-0.099	8.9532	0.707

The tables 7 and table 8 shows the results of correlogram. The p values in correlogram are less than 5% level of significance indicate that the data series is non stationary at level but the values in table 8 are more than 5% level of significance at first difference shows stationarity of the data at first difference. After satisfying the condition of stationarity the forecasting model ARIMA is employed with the assumption that the autoregressive component (P) is equal to another zero moving average component. The results are given below in table no. 9.

Table. 9 ARIMA Forecasting Model (0,1,0)

Model	Number	Model Fit statistics	Ljung-Box Q(18)	Number
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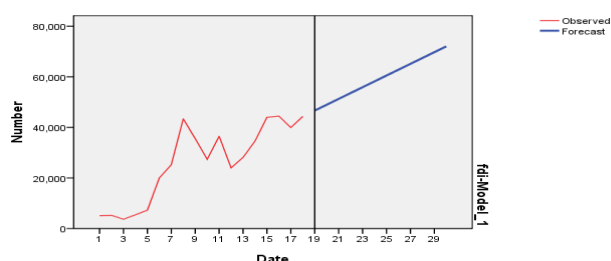
	of Predictors	Stationary R ²	R ²	MaxAPE	MaxAE	Normalized BIC	Statistics	DF	Sig.	of Outliers
fdi-Model_1	0.00	0.00	0.72	104.17	15870.00	18.11	.	0.00	.	0.00

Table 10. Forecasting of FDI inflows through ARIMA till 2030

Year	Estimated FDI inflows
2019	46678.35
2020	48986.7
2021	51295.04
2022	53603.39
2023	55911.74
2024	58220.09
2025	60528.43
2026	62836.78
2027	65145.13
2028	67453.48
2029	69761.82
2030	72070.17

Predicted values of FDI inflows by using in India till 2030 is shown below in fig. 2

Fig.2 Forecasting of FDI inflows through ARIMA till 2030



ARIMA predictions suggest that in India the Foreign Direct Investment inflows indicate manifold increase over the next twelve years. The inflows of FDI will rise to the USD 72070.17 million in 2030, from the USD 46678.35 million in 2019 and as we go in the near future, we can see FDI arriving at a faster rate with the launch of the Make in India campaign by Mr. Modi. , Thus these predictions are supporting our result.

CURRENT POLICY REFORMS IN INDIA

In the last decades, the government of developing countries made more favorable and major changes towards FDI. The result was, the policies of developing countries could exert the influence of foreign direct investment on development. Emerging countries see FDI like contribution to the advancement of their technologies with innovation and capital. Government has relaxes many FDI related policies. Some of the recently introduced key reforms to India’s FDI policy are in retail sector i.e. No government approval is required in Single Brand Retail trading.. Foreign companies of airlines are permitted FDI under government approval route, provided effective control and substantial ownership is to be implicit to the Indian nation. The shares of Power Exchanges are procuring via the primary market by Foreign Institutional Investments. FDI is consented up to full extent through automatic route in Real estate broking services.100% FDI is allowed in core investment companies and investing

companies through automatic route, provided, any financial regulatory has controlled the activities of these companies. Consideration of issuance of shares against Non-cash is allowed under the automatic route. Another reform is DIPP becomes the new adequate authority for scrutinizing FDI proposals. This is done under the automatic route for countries Pakistan and Bangladesh. (Source: Tejwani, 2019)

Except the above changes, the government of India has also taken some initiatives to attract maximum Foreign Direct Investment inflows in India. These are Indian Government is operating towards to attaining its target of 100 USD billion worth of Foreign Direct Investment inflows (IBEF). A framework of the National E-Commerce Policy has issued by the Indian government that urges Direct Investment in the market place's e-commerce's model. In addition, the e-commerce sector is grown to make sure a level playing ground for all parties by FDI policy. Indian Govt reevaluates the FDI rules and revised them associated with e-commerce sector. According to the norms, FDI is allowed 100 percent in market-based E-commerce model. Therewith, the trading activity through any dealer's at marketplace of e-commerce and its companies is delimited. The delimited amount is 25 percent of the aggregate sales (DIPP). 100% FDI in insurance intermediaries has been intended through the government to confer a boost to this sector and acquire more funds. National Digital communication policy, 2018 has been released. It foresees an increase in FDI inflows in telecommunication sector by 2022 (IBEF).

Not only this, As per the current survey of market attractiveness held by the Association of Emerging Markets Private Equity (EMPEA) and According to the IBEF reports, India would be the most tempting market place for global partners (GPs) to invest in for the next 12 months. As per UBS reports, yearly inflows of FDI in the economy are projected to increase USD 75 billion in the coming five years. The Government aims to achieve FDI flow of US \$

100 billion over the next two years (Source: Business Standard Article). According to World Bank, it is expected that private investments will overtake private consumption in the fiscal year 2018-19; therefore GDP's growth is confirmed in FY 2018-19.

SCOPE & LIMITATIONS OF THE RESEARCH

The basic intent of the ongoing study is to know about the trends in future and prediction of FDI inflows in the coming few years. It is just discussed about the performance of Foreign Direct Investment Inflows in India for the period of 2000-2018. The aim of the research is to predict the inflows of Foreign Direct Investment for the next future years with the development of the country. The study identifies that in India there would be positive trend of the inflows of foreign direct Investment in the coming future period of time. This research also discusses the current policies and framework of FDI.

The Current study is delimited to FDI inflows to India. On the other hand, outward FDI of India is not considered in this of this study. At the same time as generating the forecasts, the negative inflows wherever found were taken as zero. Furthermore, current research doesn't take the data of 2019-20 as it is not available.

CONCLUSION & DISCUSSION

While comparing our study with other studies, we found that the results of our present study are comparable with most of the existing studies. Biswas (2015) verified the total inflows of Foreign Direct Investment with the help of statistical technique name as the Box-Jenkins method for the duration of twenty three years from 1992 to 2014 and educed that there would be an increasing trajectory of FDI inflows for next twenty years. Whereas Sidhu and Dhingra generated forecasts of FDI inflows on the basis of past behavior and with the help of double exponential Smoothing for the period of 2000-19. The projections about India

suggested FDI inflows in India appeared positive trend till 2019-20. This supported our results too. Similar results are also obtained by Bajaj in 2018 about FDI inflows. There are some contradicting studies too like Nyoni&Muchingami, 2019; FDI inflows will degenerate for the next decade

FDI is a crucial factor of economic development and non-debt, being an origin of funds required for the long term and to make stable the country economically. It is one of the main precedences of the present government of India. During the last two years, it has seen numerous amendments and new initiatives declared by the government in many areas. A common feature in most reforms is the government's focus on ease of doing business, with the help of this reform India has improved its position in the reports of World Bank named 'Ease of Doing Business'. Now as per the rating of Moody's, Indian economy has been given an eminent sovereign. Many of the investors have by now seen India as the most striking place for investment. Because the ease made by Indian government in the norms of FDI will additionally inflate the inflows of FDI in India.

India's economy has reformed a number of policies to liberalize the norms of Foreign Direct Investment in railways, construction etc. activities that will likely bring in even more investment. The government is relaxing the norms for FDI in many other sectors to empower foreign investment. In one of his interviews, Mr. ArunJaitely is announced, 'India has certainly viable shoulders to afford the support for the global economy ' (source: BBC News). As per Harvard University's investigation, India would be the largest and swiftly growing economy in the next ten years among the world. According to the World Investment Report (UNCTAD, 2018), India is ranked 11th among the top 20 favorable destinations for FDI inflows and soon it will regain the position among top five favorable destinations for Investment. With the initiative of 'Make in India' in the year 2014, the

pace of economic improvement has also improved. Its effect will also be seen in the coming years. Along with this, to strengthen industrial sectors FDI policies are being liberalized and policy efforts are being made. Rapid expansion of manufacturing sectors is expected to increase employment opportunities. Finance Minister NirmalaSitharaman announced a 15 percent tax rate for new manufacturing units starting production before 2023 in the country. With a surcharge, this tax rate will be around 17 percent. It has one of the lowest tax rates for manufacturing units globally. The move is ultimately a major step by India to take advantage of the US-China trade war. India is ready to attract new manufacturing units around the world. According to Union Commerce Minister PiyushGoyal, transformations in policy of FDI will result in making Indian economy a more eye-catching FDI target, which will benefit investment, employment and growth in one or many ways.

Our results suggest that FDI inflows will increase manifold in the coming years. In FDI report 2019 it has been stated that capital investment in India increased by 120% to \$ 54.3bn. The concept of Make in India has been smartly planned by our Prime Minister so that our country became a global industrial and manufacturing hub, especially in areas such as oil refineries and natural fuel, coal & products and sources of renewable energy. Globally this is an attracted step taken by India. Therefore we can say with confidence that India's rank in favorable FDI policies and high FDI inflows from other countries will grow further in the coming years. At the moment, India is one step ahead of China in FDI inflows, and it can be anticipated that India will replace China at the number one position in the coming times.

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