**International Journal of Scientific Research and Management (IJSRM)**
**||Volume||5||Issue||06||Pages||5740-5750||2017||**
**Website: www.ijsrm.in ISSN (e): 2321-3418**
**Index Copernicus value (2015): 57.47 DOI: 10.18535/ijsrm/v5i6.51**

# FDI In India –An Effective Tool Of Continoues Growth: A Causality Analysis

***Dr.deepti, Dr. Deepa Rawat***

[*]Assistant Professor, Department of Humanities, F.E.T. Agra College Agra.
deepti.unnati@gmail.com .
[**] Associate Professor & Head, Department of Economics Agra College, Agra.

drdeeparawat@yahoo.com

**ABSTRACT**

India's economic policy reforms, adopted at the backdrop of historical economic crises of 1990-91 and some notable changes in global economic set up, have changed the whole structure of Indian economy since 1991. Among other things, the reforms have evolved in opening the economy, making it more competitive, getting the government out of the huge mode of regulation, empowering the states to take more responsibility for economic management and creating a kind of competition among the states for foreign investors.

The policy of Liberalization, Privatization and Globalization (LPG) aimed at making the Indian economy a fast growing and globally competitive economy. The term globalization refers to the integration of economies of the world through uninhibited trade and financial flows, and also through mutual exchange of technology and knowledge.

The economic reforms in India have been instrumental in breaking the Hindu rate of growth of 2.5-3.5 per cent and moving towards more secular and faster economic growth. Capital formation has been a major challenge of growth. There were limitations in domestic sector to raise the saving rate that leads to the increase in the capital formation. As a matter of practice saving investment gap was filled throw borrowings from abroad that result it into a higher fiscal deficit. New industrial policy, announced on 24$^{th}$July 1991 throw liberalisation of foreign investment allowing more than 50 per cent equity sharing by foreign individuals/companies/Institutions. It resulted into higher inflow of foreign capital either in the form of FDI or portfolio investment.Increase in FDI inflow has been one of the major achievements during the post reforms period, however its benefits have not been inter-state and intra-state variations evenly spread across the entire economy and there are large. The trend of FDI inflow as projected by the semi log linear model shows a steady increase in FDI inflow in the coming years. This inflow if used judiciously and is supported by infrastructural development can have the way for fast economic growth in the country.

Thus, it can be concluded that although attracting FDI can be an important factor for development, however, it is not an end in itself. The right strategy would be to create a favourable environment

throughout the country for equitable FDI inflow and simultaneously develop sound domestic macro-economic and structural policies.

Foreign Direct Investment plays an important role in the economic development of the developing economies of the world. Since India is one of the fastest growing economies of the world, FDI has played a significant role in it'sgrowth since1991-1992. India's economic policy reforms, adopted at the backdrop of historical economic crises of 1990-91 and some notable changes in global economic set up, have changed the whole structure of Indian economy during the last two and half decades. Among other things, the reforms have evolved in opening the economy, making it more competitive, getting the government out of the huge mode of regulation, empowering the states to take more responsibility for economic management and creating a kind of competition among the states for foreign investors. Since July 1991, the Government has consistently pursued the policy of attracting larger volumes of foreign investment to augment the resource availability in infrastructure and other critical areas of the economy. A number of policy measures have been taken to attract both direct and portfolio investment from foreign investors- individuals, corporate identities and FIIs. The liberalization measures embodied in the new economic policy were followed in later years by a series of measures further liberalizing the inward looking policy regime towards FDI. A new foreign investment policy was put in place which stipulated three tiers for approving proposals for FDI viz, (a). RBI's automatic approval system; (b). Secretariat for industrial approvals (SIAs) for proposals falling outside the powers delegated to RBI, and (c). Foreign investment promotion board (FIPB), specially created body to invite, negotiate and facilitate FDI.

In the backdrop of the first and second generation economic reforms, the present paper :**FDI in India- An Effective Tool for Continuous Growth: A Causality Analysis** , studies the continuous growth of FDI Inflow in India and its impact on the economy as a whole. The paper is divided in four sections, viz; Section I- Introduction, Section II- Pattern of FDI during Economic Reforms, Section III- Impact of FDI Inflow on Economic Growth, Section IV- Conclusion.

**Research Methodology:**

The present paper is based on the secondary data obtained from the Ministry of Commerce and Industry, Government of India, Reserve Bank of India, Economic Surveys of various years published by Ministry of Finance. Data have also been collected from UNCTAD, World Bank, United Nations. It is an Econometrics analysis based on Continues Growth Model (Semi log model). Unit Root test and Causality analysis have been used through bi-variate analysis. Other statistical tools have also been used as and where required.

**Section II**

**Introduction**

FDI has worked as an engine of growth in the past and more in modern era around the globe. The outward-oriented growth strategy adopted by the newly industrialized economies of Asia such as

Singapore, South Korea, Taiwan and Hong Kong have enabled them to overcome the constraints of least resource developing economies. In India too, FDI has acted as a catalyst for the growth of the economy. FDI contributes in the process of economic development in many ways –

- Procurement of capital goods is feasible with trade.
- It is a means to achieve price stability.
- It generates pressures & pulls for dynamic change.
- Fuller utilization of capacity, exploitation of economies of scale and diversifications is possible.

Foreign direct investment is investment of foreign assets into domestic structures, equipment, and organization. It does not include foreign investment through stock markets. Foreign direct investment is thought to be more useful in a country than investment in the equity of its companies because equity investment are potentially "hot money" which can leave at the first sign of trouble, whereas FDI is durable and generally useful whether things go well or bad. It is especially important for its potential to transfer knowledge and technology, create jobs, boost overall productivity, enhance competitiveness and entrepreneurship and ultimately eradicate poverty through economic growth and development. A central challenge therefore is to create the necessary domestic and international conditions to facilitate direct investment flows conducive to achieving national development priorities especially for developing and underdeveloped countries.

India still suffers from weaknesses and constraints in terms of policy and regulatory frame work, which restrict the inflows of FDI. Prior to economic reforms initiated in 1991, FDI in India was discouraged by (a) imposing severe limits on equity holdings by foreigners and (b) restricting FDI to the production of only a few reserved items. The Foreign Exchange Regulation Act (FERA), 1973 has now been replaced by the new legislation known as Foreign Exchange Management Act. (FEMA). FERA prescribed the detailed rules in this regard and the firms belonging to this group were known as FERA firms. All foreign investors were virtually driven out from Indian industries by FERA, compared to the earlier regulations FEMA is more liberal and less restrictive.

## Section II

## Pattern of FDI During Economic Reforms

### A .Pre Reform Era

The process of planned economic development in India started with the launching of First Five Year Plan on 1st April, 1951.Although, the foreign capital was regarded as an effective ingredient of growth, the policy regarding FDI was rather selective. During the First Five Year Plan a free flow of foreign capital was welcome because it was a necessity to ensure the supply of capital goods and technical knowhow (1st Five Year Plan, GOI). Policy toward foreign investment made a U- turn during Third and Fourth Five year plan in view of severe constraints on foreign exchange reserves.

By mid-1980s, the country started opening its economy by inviting foreign investments and liberalising its trade regime. Apart from giving direct incentives to the foreign investors, monetary and fiscal support was also provided to achieve given targets of foreign direct investment. One form of such support was the creation of a tax structure conducive to direct and portfolio investments. Progress toward foreign direct investment in India was rather sluggish during1948-49 to 1989-90.

**B .Post Reform Era**

India's economic performance in the post reforms period has many positive features. The average growth rate in the ten year period from 1992-93 to 2001-02 was around 6.0 per cent. In sharp contrast, growth in the 1990s was accompanied by remarkable external stability despite the East Asian crisis. (AhluwaliaMontek S.2002).

Annual inflow of foreign investment in India is presented in Table 1. It shows the comparative position of FDI and portfolio investment in India.In 1990-91 both these stood at US$ 97million and US$ 06 million respectively.While the FDI increased to US$ 129 million, the portfolio investment decreased to US$ 4 million during 1991-92. However, after 1992-93, Portfolio Investment saw a major increase and reached at US$ 3824 million in 1994-95 as compared to US$1314 million as FDI.In the year 1998-99 Portfolio Investment saw a sudden drop and turned negative. FDI also decreased in the year but remained positive.However, since 1999-2000, both portfolio investment and FDI have continuously been increasing. In 2001-02 both these stood at US$ 6130million and US$2021 million respectively.

**Table 1: Pattern of Foreign Investment Inflows in India: 1991-2015 (In US$ million)**

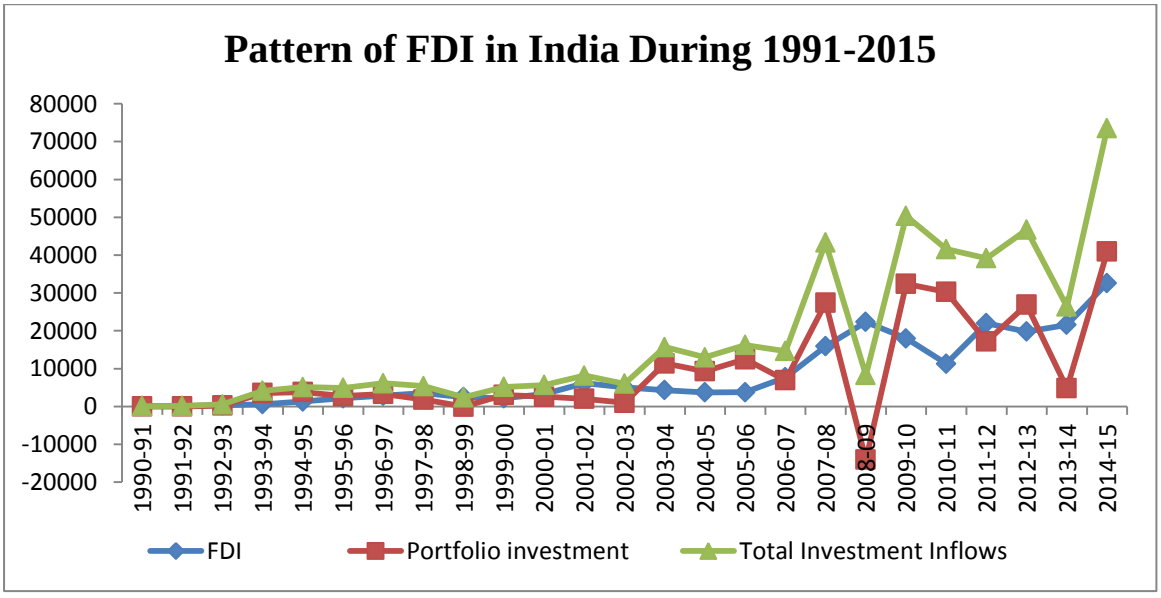
| YEAR | FDI | Portfolio investment | Total Investment Inflows |
|---|---|---|---|
| 1990-91 | 97 | 6 | 103 |
| 1991-92 | 129 | 4 | 133 |
| 1992-93 | 315 | 244 | 559 |
| 1993-94 | 586 | 3567 | 4153 |
| 1994-95 | 1314 | 3824 | 5138 |
| 1995-96 | 2144 | 2748 | 4892 |
| 1996-97 | 2821 | 3312 | 6133 |
| 1997-98 | 3557 | 1828 | 5385 |
| 1998-99 | 2462 | -61 | 2401 |
| 1999-00 | 2155 | 3026 | 5181 |
| 2000-01 | 3270 | 2590 | 5680 |
| 2001-02 | 6130 | 2021 | 8151 |
| 2002-03 | 5035 | 979 | 6014 |
| 2003-04 | 4322 | 11377 | 15699 |
| 2004-05 | 3712 | 9291 | 13003 |
| 2005-06 | 3769 | 12492 | 16261 |

DOI: 10.18535/ijsrm/v5i6.51

| YEAR | FDI | Portfolio investment | Total Investment Inflows |
|---|---|---|---|
| 2006-07 | 7693 | 6947 | 14640 |
| 2007-08 | 15891 | 27434 | 43325 |
| 2008-09 | 22343 | -14032 | 8311 |
| 2009-10 | 17965 | 32396 | 50361 |
| 2010-11 | 11305 | 30292 | 41597 |
| 2011-12 | 22006 | 17171 | 39177 |
| 2012-13 | 19819 | 26891 | 46710 |
| 2013-14 | 21564 | 4822 | 26385 |
| 2014-15 | 32628 | 40934 | 73562 |

Source – RBI, Bulletin, November 2015, Table No. 34, www.rbi.org.in

During 2007-08 both FDI and Portfolio investment stood at US$ 15891 million and US$ 27434 million respectively. Year 2008-09 witnessed historic economic recession in the world and in India too. BSE sensex decreased sharply and recorded below 10,000 from the highest level of 21,000. As a result portfolio investment witnessed outflow and it was (-) US$ 14032 million in 2008-09.Pace of growth of inflow of FDI and portfolio investment showed almost similar trends during 1999-00 to 2014-15.Higher trends were witnessed up to 2007-08. The sharp decline in portfolio investment during 2008-09 was the result of global meltdown.




Portfolio inflow was (-) US$ 14032 million, however, net FDI inflows was US$ 22343 million. Gross FDI inflows during the 2008-09 were US$ 8311 million. 2014-15 shows FDI inflow at US$32628 million and Portfolio Investment at US$40934 million. The pattern in FDI is being presented as continuous growth model (semi log model i.e. log-lin model)(Gujarati, 2008)in the following manner.

$$Total\ FDI\ Inflow_t = y_0(1+r)^t$$

$$log(Total\ FDI\ Inflow)_t = log\ y_0 + t\,log(1+r)$$

$$log(Total\ FDI\ Inflow)_t = \beta_1 + \beta_2 t$$

As per time series data on FDI inflow in India during 1990-91 to 2014-15 (Table 1), the value in the model can be put as

Dependent Variable: LOG(TOTAL INVESTMENT INFLOWS)

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 6.343246 | 0.346860 | 18.28760 | 0.0000 |
| T | 0.199828 | 0.023332 | 8.564399 | 0.0000 |

| | | | |
|---|---|---|---|
| R-squared | 0.761284 | Mean dependent var | 8.941006 |
| Adjusted R-squared | 0.750905 | S.D. dependent var | 1.685575 |
| S.E. of regression | 0.841260 | Akaike info criterion | 2.568787 |
| Sum squared resid | 16.27753 | Schwarz criterion | 2.666297 |
| Log likelihood | -30.10984 | Hannan-Quinn criter. | 2.595832 |
| F-statistic | 73.34892 | Durbin-Watson stat | 0.963721 |
| Prob(F-statistic) | 0.000000 | Growth rate | 58.42 |

Thus, the value of r (growth rate) is equal to 58.42 per cent. This means that the r (growth rate) measures the constant proportional or relative change in total FDI inflow for a given absolute change in time.All results show that this model is fitted.

## Section III

# IMPACT OF FDI ON ECONOMIC GROWTH

In earlier studies, the impact of FDI on growth was limited in the short-run since long-term growth was largely considered to be contingent upon technology progress(Grossman and Helpman,1991). On the other hand, according to the more recent indigenous growth theory, FDI is considered as a composite of capital, know-how and technology (Balsubramanyam*et al.*,1996). Under this approach, FDI can have a permanent positive impact on economic growth by generating increasing returns to scale through externalities and positive productivity spillovers (De Mello, 1997).

The positive impact of FDI is likely to be higher as value addition under FDI increases. Apart from increasing capital formation, FDI encourages use of new inputs and technology. Also, FDI or even purely technical collaborations are considered as a vehicle for change in management practices and organisational arrangements in the recipient developing countries (De Mello, L.R. and M. Thea Sinclair, 1995). Empirical investigations have found that the positive impact of FDI is generally higher for recipient countries with a higher level of development (Blomstom*et al.*1994). Such findings support the arguments that in the absence of a minimum threshold level of development, the positive impact of FDI on the economy is lost (Borenszteen*et al.*, 1995).

India's increasing openness to FDI has contributed significantly to its growth performance. This includes raising the foreign ownership to 100 per cent in most of the sectors, ending state monopoly in insurance and telecommunications, opening up of banking and manufacturing to competition and

disinvestment of state ownership in public sector undertakings. Though the foreign companies investing in India have performed better than the domestic companies, FDI to India has been attracted mainly by the lure of the large market. In 2008-09 the FDI inflow and consequently the growth of the economy witnessed a downfall due to the global recession however the Indian economy witnessed a swift recovery in 2009-10. The global economic slowdown had affected the Indian economy and GDP growth moderated to 6.8% in 2008-09 compared to an average of 9.5% in the preceding three years. The impact of global slowdown was more intense on industry, particularly the manufacturing sector. The fiscal and monetary policy interventions, however, provided the stimulus to the economy, leading to a recovery in the GDP growth to 8.0% in 2009-10 and 8.9% in the first half of 2010-11(Economic Survey, 2010-11).

In general terms, FDI inflow has a positive impact on the growth of GDP in India. Table 2 reveals that FDI inflow increased during 1991 to 2013-14 despite some serious fluctuations. GDP has increased by about three times during the same period. An econometric model is being put forward to quantitatively prove the relationship between GDP growth and FDI inflow.

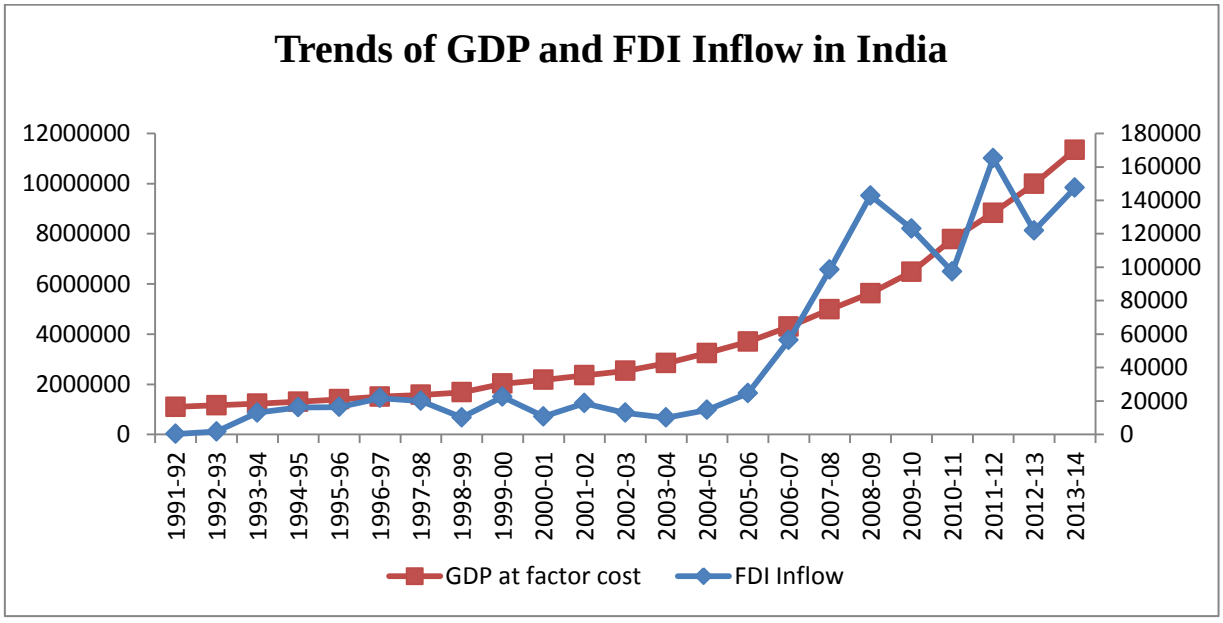
**Table 2: Trends of Growth Rate of GDP and FDI Inflow**

| Year | FDI Inflow | | GDP at factor cost | |
|---|---|---|---|---|
| | Rs. crore | % change | Rs. crore | % change |
| 1991-92 | 326 | - | 1099072 | - |
| 1992-93 | 1713 | 425.46 | 1158025 | 5.3639 |
| 1993-94 | 13026 | 660.42 | 1223816 | 5.6813 |
| 1994-95 | 16133 | 23.8523 | 1302076 | 6.3948 |
| 1995-96 | 16364 | 1.43185 | 1396974 | 7.2882 |
| 1996-97 | 21773 | 33.0543 | 1508378 | 7.9747 |
| 1997-98 | 20014 | -8.0788 | 1573263 | 4.3016 |
| 1998-99 | 10101 | -49.53 | 1678410 | 6.6834 |
| 1999-00 | 22450 | 122.2552 | 2023130 | 12.185576 |
| 2000-01 | 10733 | -52.1915 | 2177413 | 7.6259558 |
| 2001-02 | 18654 | 73.80043 | 2355845 | 8.1946787 |
| 2002-03 | 12871 | -31.0014 | 2536327 | 7.6610303 |
| 2003-04 | 10064 | -21.8087 | 2841503 | 12.032203 |
| 2004-05 | 14653 | 45.59817 | 3242209 | 14.101903 |
| 2005-06 | 24584 | 67.77452 | 3693369 | 13.915204 |
| 2006-07 | 56390 | 129.3768 | 4294706 | 16.281531 |
| 2007-08 | 98642 | 74.92818 | 4987090 | 16.121802 |
| 2008-09 | 142829 | 44.79532 | 5630063 | 12.892749 |

DOI: 10.18535/ijsrm/v5i6.51

| Year | FDI Inflow | | GDP at factor cost | |
|---|---|---|---|---|
| | Rs. crore | % change | Rs. crore | % change |
| 2009-10 | 123120 | -13.799 | 6477827 | 15.057807 |
| 2010-11 | 97320 | -20.9552 | 7784115 | 20.165528 |
| 2011-12 | 165146 | 69.69379 | 8832012 | 13.461993 |
| 2012-13 | 121907 | -26.1823 | 9988540 | 13.094729 |
| 2013-14 | 147518 | 21.00864 | 11345056 | 13.580724 |

Source: (i) RBI, (ii) SIA, Newsletter & Economic Survey 2014-15




$$log\,GDP = \beta_1 + \beta_2\, log(\,FDI\ Inflow)$$

Dependent Variable: *lOG(GDP)*

| Variable | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| C | 10.72888 | 0.623572 | 17.20552 | 0.0000 |
| *lOG(FDI Inflow)* | 0.413313 | 0.061213 | 6.752039 | 0.0000 |

| | | | |
|---|---|---|---|
| R-squared | 0.684637 | Mean dependent var | 14.89562 |
| Adjusted R-squared | 0.669620 | S.D. dependent var | 0.747168 |
| S.E. of regression | 0.429462 | Akaike info criterion | 1.230376 |
| Sum squared resid | 3.873195 | Schwarz criterion | 1.329114 |
| Log likelihood | -12.14932 | Hannan-Quinn criter. | 1.255208 |
| F-statistic | 45.59003 | Durbin-Watson stat | 0.432822 |
| Prob(F-statistic) | 0.000001 | | |

The log linear OLS model shows that GDP will certainly grow with the growth in FDI inflow. Since the value of $R^2$ and $\bar{R}^2$ are almost the same, the model is fitted.

**Null unit root test for GDP**

Null Hypothesis: D(LOG(GDP)) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=4)

| | | t-Statistic | Prob.* |
|---|---|---|---|
| Augmented Dickey-Fuller test statistic | | -2.755018 | 0.0819 |
| Test critical values: | 1% level | -3.788030 | |
| | 5% level | -3.012363 | |
| | 10% level | -2.646119 | |

*MacKinnon (1996) one-sided p-values.

**Null unit root test for FDI**

Null Hypothesis: D(LOG(FDI)) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=4)

| | | t-Statistic | Prob.* |
|---|---|---|---|
| Augmented Dickey-Fuller test statistic | | -4.081059 | 0.0053 |
| Test critical values: | 1% level | -3.788030 | |
| | 5% level | -3.012363 | |
| | 10% level | -2.646119 | |

*MacKinnon (1996) one-sided p-values.

**Outcome of Unit Root**

| ADF Test | | P Value | Decision |
|---|---|---|---|
| Log(GDP) | 2.755081 | 0.0819 | Significant |
| Log(FDI) | 4.081059 | 0.0053 | Significant |

**Result of Stationary test**

Both Log(GDP) and Log(FDI) are not stationary in their level from but the desired level of stationarity was achieved after first level difference with significant ADF test values of 2.755081 and 4.081059 in absolute value respectively. We reject the null hypothesis of presence of unit root in both cases.The above results confirm theoretical expectations.

**Granger Causality Test**

Pairwise Granger Causality Tests
Lags: 2

| Null Hypothesis: | Obs | F-Statistic | Prob. |
|---|---|---|---|
| Log(GDP) does not Granger Cause Log( FDI) | 21 | 4.17677 | 0.0347 |
| Log(FDI) does not Granger Cause Log( GDP) | | 1.22637 | 0.3195 |

**Results of causality test**

| Direction of Causality | F | Decision |
|---|---|---|
| **Log(FDI)↛Log(GDP)** | **4.17677** | **Reject** |
| **Log(GDP)↛Log(FDI)** | **1.22637** | **Accept** |

The result suggests that the direction of causality is bi-direction in nature, since the estimated F values are significant at 5% level of significance. The critical values are 4.17677 and 1.22637 respectively. The granger causality test under the null hypothesis $H_o$:Log(GDP) does not Cause Log(FDI), is statistically significant, which implies that there is causality between Log(FDI) and Log(GDP). More FDI inflow into the Indian economy leads to increase in GDP.

## Section IV

## Conclusion

If India has to achieve its desired goals as laid down in the Twelfth Five Year Plan and thereafterthe ambitious plans of "Make in India", "Digital India" and the dream of India becoming a global economic giant in the world,then our economy has to be strong and vibrant and the results of development have to be equitably distributed.This implies that we have to work towards inclusive growth and sustainable development. The results of first and second generation economic reforms would be realised only if suitable changes in institutional apparatus and organisations are implemented both at the Central and State levels for attracting FDI inflows, besides infrastructure development and sincere effort for a corruption free and efficient economy .

The economic reforms in India have been instrumental in breaking the Hindu rate of growth of 3.5 per cent and moving towards faster economic growth. Increase in FDI inflow has been one of the major achievements in the post reforms period, however its benefits have not been evenly spread across the entire economy and there are largeinterstate and intra state variations. The pattern of FDI inflow as projected by the semi log linear model shows a steady increase in FDI inflow in the coming years. This inflow if used judiciously and supported by infrastructural development could pave the way for fast economic growth in the country.

Thus, it can be concluded that although attracting FDI can be an important factor for development, however, it is not an end in itself. The right strategy would be to create a favourable environment throughout the country for equitable FDI inflow and simultaneously develop sound domestic macro-economic and structural policies.

## References


- Ahluwalia, Montek S. (2002), "Economic Reforms in India since 1991: Has Gradualism Worked?" American Economic Association journal, Vol16.

- De Mello, L.R. and M. Thea Sinclair (1995), "Foreign Direct Investment, Joint ventures and Endogenous Growth", Department of Economics, University of Kent, UK.
- Economic Survey,Ministry of Finance, Government of India, (2010-11),pp-7-8.
- Economic Survey ,Ministry of Finance, Government of India, (2014-15).
- Government of India (1954) : First Five year plan (1951-52 & 1955-56), Planning Commission, New Delhi, pp- 437-38.
- Gujarati N. Damodar, (2008), "Basic Econometrics", 4th Edition, McGraw Hill, pp 178
- RBI Bulletin 2015.
- www.dipp.nic.in