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Revisiting FDI Led Economic Growth Hypothesis in India an Autoregressive Distributed Lag Approach

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Abstract

The aim of this study is to revisit the relationship between foreign direct investment (FDI) and economic growth. The motivation behind this study is that there is ambiguous evidence across countries on FDI and economic growth. However, there have been many studies conducted across countries but there is a scanty literature available on FDI and economic growth in India. The relation between FDI and economic growth is vague. Therefore, this study is an addition to all previous studies, try to posit the relationship between economic growth and FDI. Energy consumption has been taken as a control variable into consideration. The study has covered time-series data from 1990 to 2019. The ARDL bound test approach has been employed to confirm the cointegration among the variables. The bound test confirmed the existence of a long-run relationship between FDI and economic growth. The error-correction term negative sign indicates that there is a divergence between dependant and independent variables in the short-run. The empirical results state that FDI has a significant impact on economic growth

Keywords: FDI, economic growth, energy consumption, ARDL model.

INTRODUCTION

The preconceive notion of economic growth has been challenged by incorporating FDI and energy consumption into new-classical production functions. The role of technology has been increasing in all business activities. The history of economic growth has not been smooth in India. The nation, ever since its economic reforms in 1990, has exhibited remarkably economic growth performance. Thus, the nation, once recorded slow economic growth or known as "Hindu growth rate" has been emerged as role model for all developing countries. The re-establishment of institutions, after British almost 150 years regime has been impediment for sluggish economic growth in India. The many economic institutions established for economic development of India. The planning commission now as NITI ayog has been playing pivotal role in the economic development of the country. However, GDP growth rate has been slow for first 30 years, since then economic progress started. After economic reform, GDP growth was more than its target. Therefore, it became necessary to open the market for foreign investor. However, there were many factor for integration of Indian economy with world economy. The prime reason was high balance of payment deficit with followed by rising inflation since then it has been a matter of discussion that whether trade regime orientation will help to overcome from contemporary problem of high balance of payment deficit or not . However, India has witnessed high GDP growth rate after economic reforms. Since 1990s, India has been an ideal destination for foreign investor as it has witnessed continuously rising in FDI flow. Although, the global slowdown trigger by Covid-19 pandemic, FDI has increased significantly in India. FDI inflow has surpassed $500 billion milestone in September 2020, (UNCTAD, 2020). The unprecedented growth of FDI flow will be stepping-stone to overcome from negative GDP growth rate that is recorded in first quarter of 2020. Moreover, flow of FDI will stimulate growth of overall economy. Since India's new economic policy it is believed that integration of Indian economy with world economy will boost economic growth

For some time now, the global policy regime for trade and investment has not been benign as it was in the heyday of export-led growth and development. Since Covid-19 has badly affected trade between the countries. The need to attract FDI and promotes export

industries is as great as ever for developing countries especially countries especially India because India is one of the highest recipient of FDI. Flow of FDI have been under reduced in developed countries this year as a result of Covid-19 pandemic. The Covid-19 pandemic has been catastrophic to global economy and slowdown all economic activities. FDI is projected to decline by a more 5 to 10 percent in 2021 and to initiate a recovery in 2022. The expansion of FDI will start in 2022, with FDI reverting to the pre-pandemic underlying trend, is possible, but only at the upper bound of expectations (United Nations Conference on Trade and Development (UNCTAD), 2020)

Flow of FDI to developing countries has also been severely affected due to their vulnerability to supply chain disruptions. FDI is projected to fall by 30 to 45 per cent. In 2019, FDI flows to the region declined by 5 per cent, to $474 billion, despite gains in South- East Asia, China and India(UNCTAD, 2020). Flow of FDI to developing countries has been especially hard as export-oriented sector has been affected badly. Indeed, the crisis could be a catalyst for a structural transformation of international production for upcoming year. The structural transformation of production of economic activities however, a boon for environment and there is very famous saying every cloud has a silver lining and the hope of rising from this pandemic is always there FDI is considered to be debt free investment for an economy, it is also believe that the technology gap in developing countries can be bridge by FDI as it brings latest technology to the host country and there is technology spill-over across industries which in turn rise in total factor productivity of over-all economy and especially for labor employed in those industries.

FDI has also been a great of source of external finance for developing countries as it plays a great role for reducing the technological gap between developing countries and developed countries. FDI facilitate production capacity with more efficient technology and FDI not only add capital formation, but, perhaps the most importantly, it is also means of transferring production capacity, new skill, and innovative capacity and new managerial skill. The economic benefit of FDI depends upon country's educational level if educational level in one country is high then it will reap more benefit from FDI than the country, which has low level of education and poor health system, although the flow of FDI is high in later country as compare to previous one so one country want to get maximum benefit from FDI then it must heavily invest on education and health. In developing countries, china is the only country that has taken maximum benefit of FDI not because the flow of FDI is high, but, the educational level is high and it has invested in health system to improve health system. In nutshell, it is concluded that other developing countries should also adopt China model for their development and become at par with China.

The continuous rising in FDI flow into developing countries in last two decades has been mainly for two reason first, there is big market in all these countries so it has large potential to grow faster whereas the market in developed countries has already reached at optimum it needs more diversification for selling out product while there is no need for product diversification in developing counties. Second, in the developed countries has reached at steady-state so rate of profit will be low as compare to developing countries where there will be a high rate of profit. It will be a prudent decision for a foreign investor to invest in developing in direct investment as it shows the long-term interest of foreign investor. India has been a favorite place to invest in it. There is relaxation in institutional law or rule for attracting more FDI. The government has open the most of sector for foreign investment, however, there is restriction in some industries such as gambling. The many researcher has reviewed possible benefit of it on economy. The study on the economic benefit international trade have been explored by many researcher. The pioneer works is done by Singer (1950), Prebisch (1950), known as Singer-Prebisch hypothesis. They have analyzed the impact of international trade on both receiving country's and target country's terms of trade and they argued that the price of primary good decline which deteriorate term of trade in developing countries and on the other hand the price of manufactory good increases which improve terms of trade of developed countries through international trade. So as a consequence of international trade, developed countries will be better off while developing countries will be worse off.

It is believed that FDI brings a package of latest technology, increases the employment of the host country and have an impact on economic growth. FDI is the most powerful means to transfer the latest technology and contributing more to economic growth (Borensztein, Gregorio, & Lee, 1998). However, the maximum benefit of FDI can only be reap when there is high human capital available in the country so that know-how problem would not be obstacle for host country.

The impact of FDI can be extracted more if country heavily invested more on education and health (Anwar & Nguyen, 2010). The FDI is positively correlated with economic growth in Bangladesh, whereas FDI is negatively correlated with economic growth in India (Shehaj, 2012). There is substantial literature available on FDI and economic growth, however, there is no consensus on finding between economic growth and FDI, so it has been a bone of contention issue among many researcher that some say FDI positively contributes in economic growth of a country while other researcher argued that FDI brings dirtiest technology, so it reduces CO_2 emission and deteriorate environment of a country.

There have been many studied on economic growth and FDI with different finding across countries. This study is to revisit FDI-economic growth hypothesis. As it is believed that FDI promotes economic growth of host country and this is the reason all developing countries are trying to encourage FDI through their policy regime, therefor India is not exceptional there is continuous changes in foreign policy regime.. There are several study which examine the relationship between FDI and economic growth in both developed as well as developing countries. The study has been broadly divided in two category first, it has been claimed that FDI increases the GDP growth rate of host country if increases then it will be the best option for attracting more FDI on the other hand if FDI flow is not creating job or opportunity in host countries then there should be discouragement of FDI flow through changing regime.

Trend of FDI in Developing Countries

Post Covid-19 pandemic, FDI flow in Asian countries has been decline, though it remained high as compare to developed countries. Flow of FDI to developing Asia has recorded a rise of 4 percent to $512 billion in 2018, with positive growth in all developing countries (UNCTAD, 2020). In 2019, FDI flow to developing Asia decline by 5 percent, though the region remain preferred destination for FDI. The developing Asia has attracted more than 30 percent FDI in 2019. However, the heavily decline recorded in China, Hong Kong and other part of East Asia. It is clear in figure that there is heavy decline in China while Indonesia, Singapore, India remain stable in 2019. Total FDI flow to developing Asia was $473.9 billion which almost covered 30 percent of total FDI, among them China $141.2 billion, Singapore $92.1 billion, India $50.6 billion and Indonesia $23.4 billion have recorded FDI flow.

The rest of the paper is organized as follows:
1. Review of literature 2. Methodology 3. Data collection 4. Results of the study 5. Conclusion and suggestions.

Review of literature

The existing literature helps us to re-examine the relationship between FDI and economic growth. Though, there is copious literature available on FDI and economic growth across countries. However in case of India, the literature on FDI and economic growth is scanty. Therefore it is imperative to recheck the impact of FDI on economic growth in India. The several studies have explored the relationship between economic growth and FDI which found that FDI is positively related with economic growth even some of countries it has been an important determinant of FDI. The flow of FDI to developing countries has manifold increased especially in India.

Anwar & Nguyen (2010) highlited the relationship between FDI and economic growth in Vietnam and they have identified important determinant of FDI such as human capital, education, learning by doing and macroeconomic stability. Shahbaz & Rahman (2010) empirically investgated the relationship among foreign capital inflow, domestic financial sector develoment and economic growth by applying bound test model . They reveal that foreign capital inflow have positive and significant impact on economic growth while there is also strong relationship between domestic financial sectoer develoment, public investment and economic growth.

Dees (1998) shows that FDI affect economic growth in China through technology defusion and it has long-term impact on Chin's economic growth. To get the most benefit from FDI one country need to have more human capital and education level should also be standard. When there is a more human capital available in host countries it will help in transmission of technology person to person. When FDI brings new technology in the host counties then there is a problem of how to use this modern techonology. To solve such problem foreign investment brings labour with new techonology. Mahembe & Odhiambo (2014), conducted study to bring out the relationship between FDI and economic growth by employing GMM method and they reveal that FDI affect the economic growth of the host country through two channels First, the techonology adoption in production process of host country through techonoloy spill-over. Second, there is knowledge tranfer through labou tranning, migrating labour one company to another company and through skill development programm. The knowledge tranfer take place through various channel such as one to one relationship and spending more time with new techology. The public investment in human capital is essential for adoption in new techonoly. Chakraborty & Basu (2002) by using cointegration and error-correction model over 23 years data then they suggest that GDP is not caused by FDI and casuality runs from GDP to FDI and they also conclude that there is long-run relationship exist between economic growth , FDI and unit labour cost.

Yalta (2013) suggest that there is significant relationship exit between FDI and economic growth at aggregate level in China by empoying bivariate and multivariate framework. The resutls of the study indicate that FDI does not neccesarily lead to higher economic growth. Kohpaiboon (2003) has explained that there is a unidirectional causality exit between FDI and ecoonomic growth and casuality runs from FDI to economic growth. The impact of FDI on economic growth tends to be higher under the export-promotion trade regimes compare to import substitutions regims.

Cuadros, Orts, & Alguacil (2012) by using vector autoregressive model has found that unidirectional casuality runs from FDI and economic growth in Maxico and Argentina while uniderctional casuality runs from GDP to FDI in Brazile. Findlay (1978) has highlighed the relation between economic development and technology transfer he argued that defusion of technology through multinational national corportion enhance the technology rate of host country which stimulate economic growth. Bhagwati (1978) also concluded that countries actively involved in promoting export growth may get lot of benefit from FDI. The export growth increases by advancing modern technology and this may reduce the cost of production.

Trend of FDI

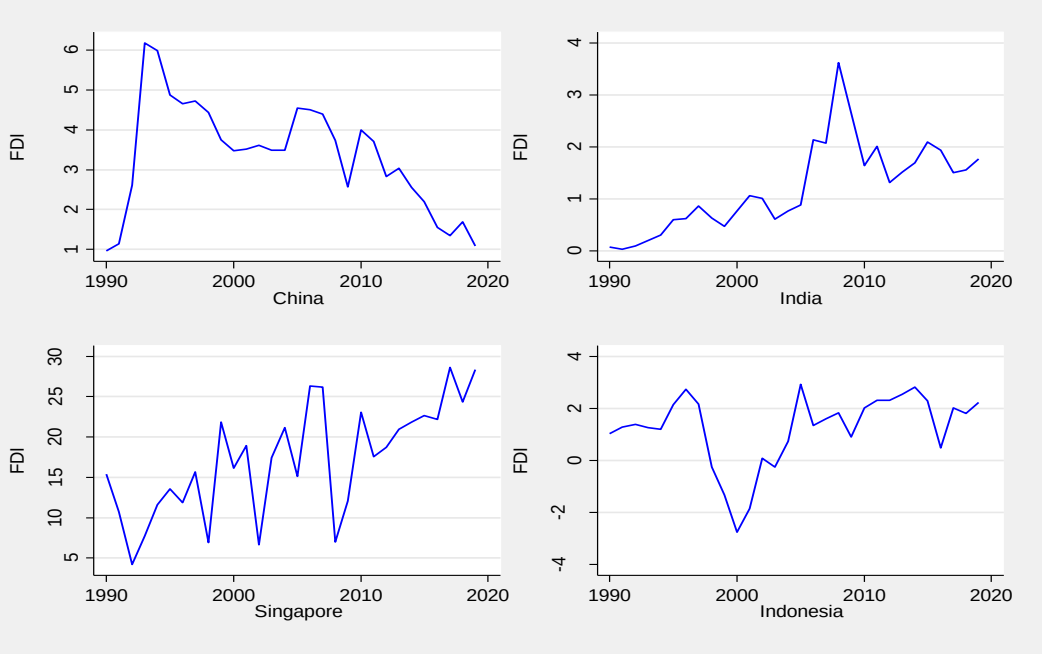


Fig-1: The trends of FDI flow in top four Asian countries
Source: World Data Bank

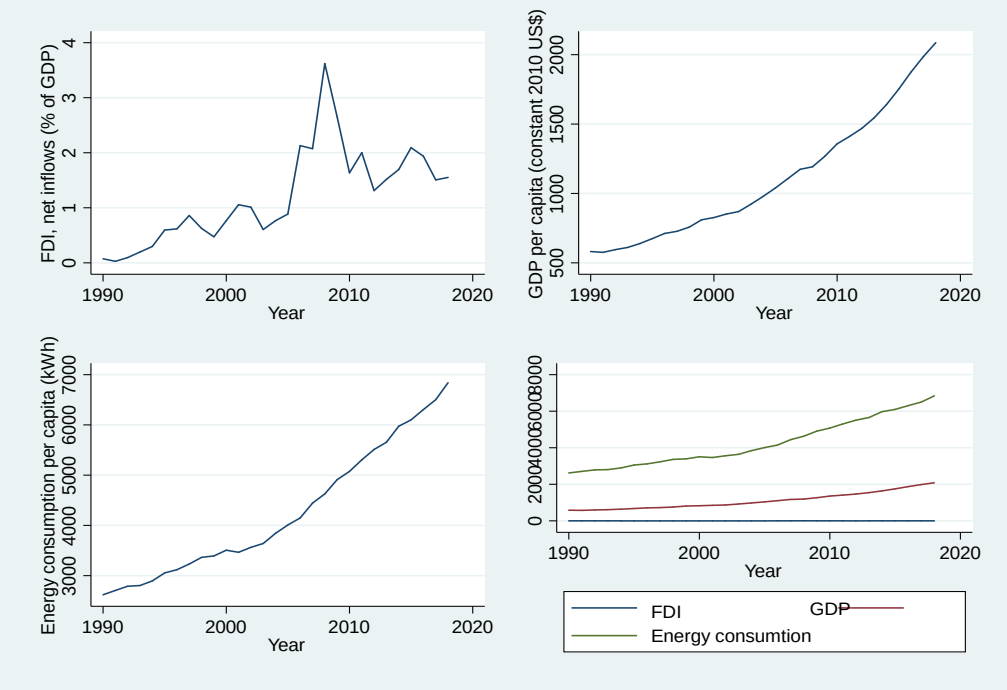


Fig-2: Shows the trends of FDI, GDP and energy consumption in India
Source: World Data Bank

The Data and Methodology

The data on Foreign Direct Investment (as% of GDP) has been collected from UNCTAD, energy consumption per capita (kWh) and GDP per capita has been taken from World Development Indicators. The GDP per capita has been used as proxy for economic growth. The population data has also been obtain from WDI to convert variable into per capita. The time series data of this study is 1990 to 2019. The main objective of study is to reexamine the impact of FDI on economic growth. The other important determinant of economic growth is energy consumption which is being neglected in neoclassical growth theory has also been accommodated in this study. The general form of economic growth model is as follows:

$Y_t = f(FDI_t, EC_t)$ ..... (1)

All variables have been transformed into natural-log to use equation one estimable. After taking log of variable equation-1 is as follows:

$\ln Y_t = \alpha_1 + \alpha_2 \ln FDI_t + \alpha_3 \ln EC_t + \mu_i$ ..... (2)

Where, t the subscript denote time (year) and μ_t stands for error-term. The parameter $\alpha_1, \alpha_2 \, and \, \alpha_3$ are the intercept and coefficient of the variable with respect to their variable lnY_t represent natural-log of GDP per capita for economic growth, $lnFDI_t$ indicate natural log of foreign direct investment as a percent of GDP while $lnEC_t$ indicate natural-log of energy consumption per capita.

The Econometric Model

The econometric model are being employed into two stage. First, the stationarity and cointegration property among variable has been checked before applying long-run and short-run association. Second Autoregressive distributed lag Model has been applied for long-run and short-run elasticities.

The Autoregressive Distributed lag Model

We have employed autoregressive distributed lag model bound test approach for cointegration among variable which is developed by Hashem Pesaran *et al*., (2001). The autoregressive distributed model is being selected because it has many advantage over other model first, it is applicable when some variables are stationary at level I(0) while other stationary at first difference I(1) or mix order of integration I(0),I(1) and make sure none is stationary at second difference I(2). Secondly, it gives both sort-run as well as long-run elasticities as compare to previous model which would not give short-run result. Thirdly, it can employ different lag length for different variables and it also address the problem of autocorrelation emerging in variables. Fourthly, it tackles the possibility of reverse causality-induced endogeneity issues in the model. However, there is limitation of ARDL model for which it has been surpass by other mythology. The ARDL model does not take structural-break into account.

The ARDL procedure incorporate the estimation of unrestricted error-correction model (UECM) which is as follows.

$\ln\Delta Y_t = \theta_1 + \theta_2 \ln Y_{t-1} + \theta_3 \ln FDI_{t-1} + \theta_4 \ln EC_{t-1} + \sum_{a=1}^{m} \alpha_{1a} \Delta \ln Y_{t-a} + \sum_{b=0}^{n} \alpha_{2b} \Delta \ln FDI_{t-b} + \sum_{c=o}^{p} \alpha_{3c} \Delta \ln EC_{t-c} + \mu_i$ ..... (3)

Where Δ denote the first difference operator. The short-run elasticities mathematical expression is as follows.

$$\ln\Delta Y_t = \boldsymbol{\beta_1} + \sum_{a=1}^{m} \alpha_{1a} \Delta \ln Y_{t-a} + \sum_{b=0}^{n} \alpha_{2b} \Delta \ln FDI_{t-b} + \sum_{c=o}^{p} \alpha_{3c} \Delta \ln EC_{t-c} + \varphi ECT_{T-1} + \omega_T$$

Where ECT_{T-1} denote for error-correction term for one period lag. The error-correction term in the model basically tells the rate of adjustment or speed of adjustment in the short-run.

The stability of ARDL model is evaluated by using various test. The Durbin-Watson and the Breusch-Godfrey Lagrange multiplier (χ2 LM) tests are being used for detecting serial correlation problem while the normality of variable is being checked by applying Jerque-Bera test (J-B Test). Finally, the stability of the model is evaluated by applying CUSUM and CUSUMSQ test.

RESULT AND DISCUSSION

Table-1: Descriptive statistics of all variables

	year	GDP	EC	FDI
Mean	2004.500	1139.626	4344.590	1.214762
Median	2004.500	1009.798	3926.212	1.033975
Maximum	2019.000	2151.726	6923.931	3.620522
Minimum	1990.000	575.5015	2619.875	0.027226
Std. Dev.	8.803408	485.5542	1362.580	0.849004
Skewness	8.40E-17	0.662775	0.498147	0.706213
Kurtosis	1.797330	2.249481	1.903853	3.325622
Jarque-Bera*	1.808018	2.900452	2.742676	2.626222
Probability	0.404943	0.234517	0.253767	0.268982

Table-1 describe the descriptive statistics of all variables where mean value of GDP and FDI is 1139.626 and 1.215 respectively whereas mean value of energy consumption is 4344.590. The Jarque-Bera test is applied to check the normality of the variables. It is clear from the table that all variables are normally distributed. Therefore, econometric models which is good for linear relationship for variables can be applied to establish the linear relationship among variables. Hence, we have employed the ARDL methodology for cointegration among variables

The Unit-root Analysis

It is necessary to check the stationary property of the variable before applying appropriate econometric model for long-run and short-run analysis. Therefore, to ensure the stationarity of the variable we have applied all standard unit-root test such as Augmented Dickey-Fuller test, DF-GLS Unit-root results and Phillips-Perron test statistic. Therefore, to counter the limitation of these techniques, this study uses the recently developed unit root analyses proposed by Narayan and Popp. The Narayan-Popp (NP) method accounts for up to two SB in the data and generates unbiased test statistics to evaluate the order of integration among the variables included in the respective models. The NP technique predicts the stationarity properties using two model specifications. In one of the models, the two SB are assumed to be in the level while in the other model the two SB are assumed to be in the level and slope of a trending.

For robustness check, the Clemente-Monantes-Reyes (CMR) unit root test which also accounts for two SB in the data, is also applied. The test statistics under both the NP and CMR approaches are estimated under the null hypothesis on non-stationarity against the alternative hypothesis of stationarity; thus, the statistical significance of the test statistic confirms the stationarity of the corresponding variable.

Table-2

Level	Variables	ADF	DF-GLS	PP
Intercept only	FDI	1.91	-1.52	-1.86
	GDP	7.31	0.58	12.23
	Energy	3.42	-0.23	3.48
Intercept and trend	FDI	-2.49	-2.61	-2.49
	GDP	0.052	-1.04	0.29
	Energy	-1.053	-1.43	-1.041
1st difference Intercept only	ΔFDI	-6.02*	-6.13*	-6.23*
	ΔGDP	-2.34**	-1.79***	-2.34**
	ΔEnergy	-1.05	-1.44***	-4.08*
1st difference Intercept & trend	ΔFDI	-5.96*	-6.15*	-6.52*
	ΔGDP	-3.75**	3.93**	-3.36***
	ΔEnergy	-6.038*	-2.62	-6.07

Note *, ** and *** denote level of significance such as 1%, 5% and 10% levels respectively. The Akaike Information Criterion and Schwarz Information Criterion are applied for lag length selection.

The Unit root table confirm the ARDL model suitability. The none of the variable is stationary at second difference. The ADF, DF-GLS and PP unit-test have been applied. All the test shows that all variable are stationary at first difference.

Table-3: Optimum lag selection criterion

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-382.4283	NA	1.51e+09	29.64833	29.79350	29.69013
1	-274.7270	182.2639*	766566.1*	22.05592	22.63658*	22.22313*
2	-265.7553	13.11246	794356.5	22.05810	23.07425	22.35071
3	-256.6212	11.24193	855337.9	22.04778*	23.49943	22.46581
4	-251.1909	5.430279	1335190.	22.32238	24.20952	22.86581

The optimum lag selection table reveal the lag selection criterion. There are three criterion of lag selection such as Akaike Information Criterion (AIC), Schwarz information criterion (SC) and Hannan-Quin Criterion (HQ). The AIC criterion suggest up to three lag whereas SC and HQ suggest one lag selection.

Table-4 represent the Bound test results. We applied Bound test to confirm either conintegration exist or not there is criterion for cointegration among variables if F-statistics calculated value comes more than Upper Bound value then there is cointegration among variable on the other hand if F-statistics value is less than Lower Bound value then there is cointegration among variables.

The Bound test table confirm the cointegration between FDI and economic growth in the above table F-statistics value is greater than upper bound value at 10% level of significance.

Table-4: Bound test

Test Statistics	**Value**	**K**
F-statistics	4.185837	2
Critical Value Bound		
Significance	I0 Bound	I1 Bound
10%	3.17	4.14
5%	3.79	4.85
2.5%	4.41	5.52
1%	5.15	6.36

Table-5: Short-run Results

Variables	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
DGDP(PC(-1))	0.509333	0.165447	3.078532	0.0062
D(FDI)	0.020173670	7.393799	2.728458	0.0133
D(FDI(-1))	3.326016	5.412052	0.614557	0.5461
D(FDI(-2))	16.406528	4.648188	3.529661	0.0022
DEC(PC)	0.094273	0.018622	5.062593	0.0001
CointEq(-1)	-0.224738	0.053745	-4.181570	0.0005

Table-5 represents short run results of ARDL model. The coefficient of FDI is significant at 1% level of significance which implies that when the flow of FDI increases by 1% then GDP growth rate improve by 1.33%. The results of short table shows that there is divergence between FDI and GDP growth rate for a short period of time. The negative sign of cointeration table confirm that FDI is not necessarily related with GDP growth rate.

Table-6: Lon-run Coefficient

Variables	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
FDI	0.0090979544	19.486463	4.668859	0.0002
Energy Consump(PC)	0.419482	0.028778	14.576711	0.0000
C	-512.198176	66.274530	-7.728432	0.0000

The ARDL model shows the long-run association among variable as we have taken FDI and energy consumption as independent variable. The results of the table shows that both variable are significant in nature. Therefore, FDI and energy consumptions are significant determinant of GDP growth rate. The FDI inflow should be considered as important determinant of GDP growth rate. There are many benefit of FDI as it brings cutting edge technology into the host country increases the overall productivity of the sectors where it comes the most. The long-run results shows the conintegration between FDI and GDP growth rate which implies that FDI and GDP growth rate deviate in short-run but they have relationship in long-run.

When FDI comes into the host country as it may have immediate impact on employment as it increases the productivity of the firm. When the productivity of the firm increases they may fire

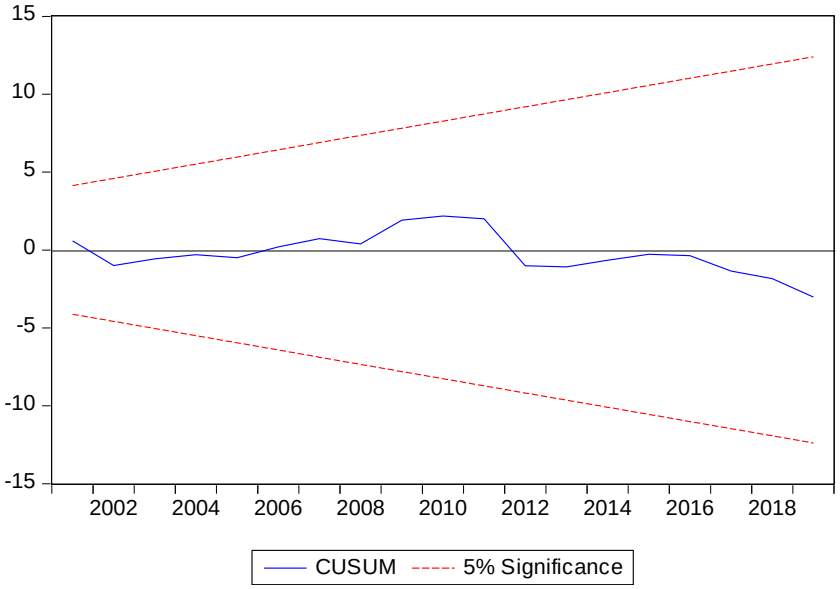
Those employees whose marginal productivity is very low. The FDI also affected many domestic infant industry which are working in similar line they shut-down their production plant because they cannot compete with big firms. This may reduce the GDP growth rate. In nutshell it can be concluded that FDI inflow is not necessarily related with GDP growth rate but it have long-lasting impact on GDP growth rate.

The stability of the model has been checked by applying Coolum and Cusum Square test. The graph of the both test suggest model is the best fit for the research problem.

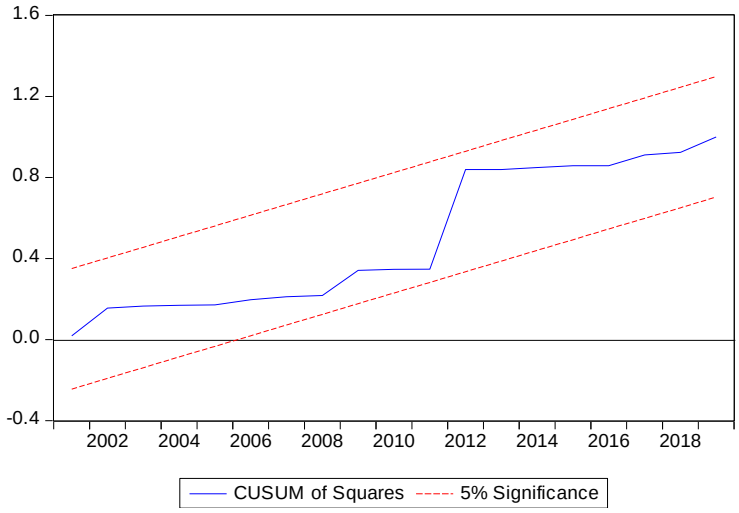
Implication of the Study

Because of the rising FDI flow in India it is suggested that FDI will work as significant factor for attaining high economic growth. The results of the study will guide policy maker in formulation of FDI policy. The FDI is considered as debt free investment therefore India will not depend upon foreign countries as it will make in domestically. It will also help to revisit FDI related policy to enhance the FDI flow in home country. In nutshell, it is suggested that the government require some immediate step to foster that FDI flow in India.

Cusum test for Stability of the model



Cusum Square test for Stability of the model



CONCLUSION

The Indian GDP growth story has been troublesome in nature throughout history. After independence, India was heavily dependent on agriculture where productivity is very. More than 60% population were engaged in agriculture and manufacturing was not that much strong so that it can absorb surplus labor force of agriculture sector. After setting up of Planning Commission, a lot of efforts were being made by newly government.

The five year plans were started for promoting manufacturing and agriculture sector. Since then GDP growth rate increases but it was very low. After economic reforms, GDP growth was surprising increasing due to many reason as India opened its economy. FDI has been one of the important component of high GDP growth rate in India. The per capita energy consumption has also increased which contributes high GDP growth rate. The FDI inflow and energy consumption are significant determinant of GDP growth rate. In the above study ARDL econometric model has been applied for bringing-out the relationship between FDI inflow and energy consumption. So it has been found that there is cointegration between FDI inflow and GDP growth rate while energy consumption plays very important role for increasing GDP growth rate. Therefore, there should be more efforts by the Government for bringing more and more debt-free capital in country.

REFERENCE

- Anwar, S., & Nguyen, L. P. (2010). *Foreign direct investment and economic growth in Vietnam*. (September 2013), 37–41. https://doi.org/10.1080/10438590802511031

- Borensztein, E., Gregorio, J. De, & Lee, J. (1998). *How does foreign direct investment affect economic*. *45*, 115–135.
- Chakraborty, C., & Basu, P. (2002). Foreign direct investment and growth in India: A cointegration approach. *Applied Economics*, *34*(9), 1061–1073. https://doi.org/10.1080/00036840110074079
- Dees, S. (1998). Foreign direct investment in China: Determinants and effects. *Economic Change and Restructuring*, *31*(2–3), 175–194.
- Findlay, R. (1978). *Simple Dynamic Model*. *92*(1), 1–16.
- Hashem Pesaran, M., Boswijk, P., Granger, C., Holly, A., So Im, K., McCabe, B., … Smith, R. (n.d.). An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis ¤ We are grateful to. In *The Norwegian Academy of Science and Letters*.
- Kohpaiboon, A. (2003). Foreign trade regimes and the FDI-growth nexus: A case study of Thailand. *Journal of Development Studies*, *40*(2), 55–69. https://doi.org/10.1080/00220380412331293767
- Mahembe, E., & Odhiambo, N. M. (2014). Foreign direct investment and economic growth: A theoretical framework. *Journal of Governance and Regulation*, *3*(2), 63–70. https://doi.org/10.22495/jgr_v3_i2_p6
- Shahbaz, M., & Rahman, M. M. (2010). Foreign Capital Inflows-Growth Nexus and Role of Domestic Financial Sector: An ARDL Co-integration Approach for Pakistan. *Journal of Economic Research*, *15*(January 2010), 207–231. Retrieved from https://www.researchgate.net/publication/228670799
- Shehaj, E. (2012). FDI and Economic Growth in Macedonia: An Empirical Investigation. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2144797
- UNCTAD. (2020). *World Investment 2020*.
- United Nations Conference on Trade and Development (UNCTAD). (2019). *World Investment Report 2019*.
- Yalta, A. Y. (2013). Revisiting the FDI-led growth Hypothesis: The case of China. *Economic Modelling*, *31*(1), 335–343. https://doi.org/10.1016/j.econmod.2012.11.030