Volume 19 Issue 35
Originally issued as E6



Global Journal of HUMAN-SOCIAL SCIENCE: E
Economics
Volume 19 Issue 6 Version 1.0 Year 2019
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals
Online ISSN: 2249-460x & Print ISSN: 0975-587X

Impact of Foreign Direct Investment on Domestic Investment in Bangladesh

By Hamida Begum & Nurun Nahar Akhi
Asian University of Bangladesh

Abstract- This study examines the impact of foreign direct investment inflows on domestic investment in Bangladesh by using time series data for the period of 1978 to 2017. Gross Capital Formation (GCF) is used as dependent variable (which is proxy of domestic investment) and Foreign Direct Investment (FDI), broad money (M2), export (EX) are used as independent variables. ADF test is used for testing stationary of taken variables in the model. Hence, some variables are stationary at level and one is at first difference, Autoregressive Distributed Lag (ARDL) estimation technique is used to accomplish the analysis. The result shows that in the long run and short run there is a positive but insignificant relation between foreign direct investment and domestic investment and relationship between export and domestic investment also positive and significant.

Keywords: *GCF, FDI, ARDL.*

GJHSS-E Classification: *FOR Code: 140299*



Strictly as per the compliance and regulations of:



© 2019. Hamida Begum & Nurun Nahar Akhi. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http://creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Impact of Foreign Direct Investment on Domestic Investment in Bangladesh

Hamida Begum [α] & Nurun Nahar Akhi [σ]

Abstract- This study examines the impact of foreign direct investment inflows on domestic investment in Bangladesh by using time series data for the period of 1978 to 2017. Gross Capital Formation (GCF) is used as dependent variable (which is proxy of domestic investment) and Foreign Direct Investment (FDI), broad money (M2), export (EX) are used as independent variables. ADF test is used for testing stationary of taken variables in the model. Hence, some variables are stationary at level and one is at first difference, Autoregressive Distributed Lag (ARDL) estimation technique is used to accomplish the analysis. The result shows that in the long run and short run there is a positive but insignificant relation between foreign direct investment and domestic investment and relationship between export and domestic investment also positive and significant.

Keywords: *GCF, FDI, ARDL.*

I. Introduction

Bangladesh is a developing country with per capita income $1,610 in FY2017 (BER:2017). In 2015, Bangladesh graduated to the status of lower middle income country from a low income country. The average growth rate of Bangladesh during the last decade is more than 6 percent. Bangladesh has adopted the vision 2021 and the associated perspective plan 2010-2021 where Bangladesh aimed at middle income status by 2021 and targeted GDP growth rate is 8 percent by 2021. To achieve the goal of middle income status by average GDP growth rate will have to rise current 6 percent to 7.5-8.0 percent. To secure the projected GDP growth rate, the investment will need to expand around 34.4 percent by 2020. For expanding investment Foreign Direct Investment (FDI) can be one of the most important factors. It is considered as one of the vital ingredients for capital formation of a capital poor country like Bangladesh. It may allow a country to bring in technologies and knowledge that are not readily available to domestic investors, creates jobs and increases the efficiency of labor resources (De Gregorio, 2003, Guoxin Wu, 2010). It can emerge as a significant vehicle to build up physical capital, create employment opportunities, develop productive capacity, enhance skill of local labor through transfer technology and managerial know how, and helps integrate the domestic economy with the global economy. Therefore, in Bangladesh because of insufficient domestic capital formation FDI is often welcome as a means of financing for its ongoing development process. Given the importance of FDI in country's gross capital formation, this study seeks to examine the effects of FDI on gross capital formation (GCF) in Bangladesh. If there is one dollar increase in gross capital as a result of one dollar increase in FDI, this means that domestic investment remains unchanged and FDI's influence is neutral. If there is a dollar increase in FDI increases the total capital formation, "crowding in" occurs through the stimulation of domestic investment. On the contrary, if a dollar increase in FDI decreases the total capital formation, "crowding out" occurs (Agosin and Machado, 2005). FDI could crowd in domestic investment as it provides new investment opportunities to local firms through the provision of machinery and technology, which cannot be produced domestically (J.B. Ang, 2009).

II. Objective of the Study

(i) To evaluate the impact of foreign direct investment on domestic investment in Bangladesh.
(ii) To evaluate the impact of broad money on domestic investment in Bangladesh.
(iii) To evaluate the impact of export on domestic investment in Bangladesh.

III. Literature Review

Yahia, Y. E., et. al, (2018) empirically examined the impact of foreign direct investment inflow on domestic investment of Sudan over the period 1976 to 2016. They used autoregressive distributed – lag bound test and the result of their study showed that FDI crowd out Sudan's domestic investment. Ali, S.A. et. al. (2015), studied the dynamic linkages between foreign direct investment, public investment and private domestic investment in Pakistan for the time period 1977 to 2011. They used autoregressive distributed lags (ARDL) model and the outcome of the studies was FDI had positive significant effect on private domestic investment. Ameer, W. et. al (2017) examined the relationship between inward foreign direct investment, domestic investment, formal and informal institutions for China by using co-integration and Granger causality analysis (Including bivariate and multivariate Granger causality models over

Author α: Hamida Begum, Lecturer, Department of Economics, National University, Gazipur, Bangladesh.
e-mail: akhi.nurunnahar34@gmail.com
Author σ: Nurun Nahar Akhi, Lecturer, Department of Economics, Asian University of Bangladesh, Uttara Model Town, Dhaka.

© 2019 Global Journals

the time period 1990-2014. They also used auto-regressive distributed lags (ARDL) econometric methodology technique. The results of multivariate model showed that there is positive unidirectional causality running from FDI to DI in the long run. In the short run, both inward FDI and domestic investment do not allow Granger causality. Ullah, I. et. al (2014) studied dynamic interaction between domestic investment, foreign direct investment, and economic growth in Pakistan for the period 1976–2010. The empirical findings of their study revealed that the existence of long run relationship between domestic investments, foreign direct investment, and economic growth, further supported by Toda-Yamamoto causality, and bidirectional causality had been found between FDI and domestic investment implying that both domestic investment and FDI cause each other. Megbowon, E. T., et al (2016) studied the foreign direct investment inflow, capital formation and employment in South Africa: time series analysis over the period of 1980 – 2014. The estimates two multivariate models and two econometric analysis, co-integration and causality. They found that while there is a long-run relationship among variables in the employment models, it was not so in the gross capital formation model. No form of causality was found between FDI inflow and gross capital formation. Amighini, A. A. et al (2017), contributed to the long debated issue of whether inward foreign direct investment (FDI) can stimulate investment in developing countries by introducing a novel measure of FDI, based on industry-level data. Their results suggested that if multinational enterprises engage in manufacturing production the impact of FDI on total investment is positive– measured as the ratio of gross fixed capital formation to GDP but the same does not hold for other business activities. Ang. J. B. (2009), studied the effects of inward FDI on domestic investment by separating the latter into two different types, namely, private domestic investment (PDI) and public domestic investment (PUB). The study used multivariate Johansen co-integration technique between the period 1960 and 2003 for Malaysia and found evidence that PUB crowds in PDI and FDI is a complement rather than competition to PDI. Ugwuegbe, et al (2014), investigated that the impact of FDI on capital accumulation in Nigeria for the period of 1986-2012. The OLS estimation indicated that FDI, TCR, and INTR positively but insignificantly effect capital formation in the short-run whit GEXP exerting negative effect on GFCF. The result also indicated that in the long-run all the variables included in the model has a positive impact on GFCF with only FDI and TCR exerting a significant impact on capital accumulation in Nigeria for the period under review. Azlina, H. et. al. (2014), studied the impact of inward FDI on domestic investment between 1970 and 2011. The Johansen and Juselius co-integration technique employed in their study reveals that there is a long run relationship between domestic investment, FDI and economic growth. The error correction model suggests that there is a slow correction of disequilibrium of the investment model in the short run. The findings further suggest that FDI inflows in Malaysia "crowds out" domestic investment in the short run, in which an increase in one percentage point of inward FDI merely raises capital formation by 0.56 percentage point. Chakraborty, D. et al (2013) examined the nexus between the investment and economic growth in India. The finding was that there is a unidirectional causality from India's economic growth to FDI and from FDI to domestic investment. Wu, G. et al (2010) revealed that FDI has a crowding-in effect on regional economic development, i.e., each unit of FDI brings 2.4241 units of domestic investment. Agosin and Machado (2005) analyzed FDI to Asia and Africa. The result of their analysis showed that FDI increases domestic investment one – to – one in those region. IPEK, et al. (2015), studied the effects of FDI on domestic investment for Turkey, Brazil, Russia, South Africa and Mexico by using time series data. The results showed that FDI crowd out domestic investment for Turkey and South Africa, crowding in effects for Russia. And statistically insignificance coefficients for Brazil and Mexico. Prasanna, (2010) studied the impact of FDI inflows on the DI in India and found that the direct impact of FDI inflows on DI in India is positive but the indirect impact is 'neutral' on the DI in the long run. There was no evidence that the increase in DI due to FDI inflows is greater than the amount of the FDI inflows in India. Lipsey (2000) showed that neither inflows nor outflows of FDI are crucial to the level of capital formation in a given country. Ashraf and Herzer(2014) explored the different impact of green field investment M & A on domestic investment. Their results confirm that M & A do not have a significant impact on domestic investment. Goh, et al. (2012) studied the Outward FDI and Domestic Investment. They observed that there is a long run relationship between Malaysia's inward FDI, outward FDI, domestic savings and domestic investment. Using the ARDL approach, they found that outward FDI exerts a negative effect on domestic investment while inward FDI yields a positive effect on domestic investment. The positive relationship may be due to Malaysia's FDI-friendly policy to attract high participation of foreign capital. D. Sunny, et al (2011) analysed the Crowding In And Crowding Out Impact Of FDI on Domestic Investment: An Indo China. They used the Johansen co-integration test among gross fixed capital formation (used as the proxy of domestic investment), inward FDI and GDP demonstrates. The result showed that there was no long run relationship amongst the variables for China but there was co-integration in the case of India. Misun, J. and V. Tomsik (2002) analyze whether FDI crowded in or crowded out domestic investment in the Czech Republic, Hungary, and Poland in the 1990s by using a model of total

© 2019 Global Journals

investment that introduced, from the point of view of the recipient country, foreign direct investment as an exogenous variable. They find that there was evidence of a crowding out effect in Poland (1990-2000) and a crowding in effect in Hungary (1990-2000) and the Czech Republic (1993-2000). Apergis, N., et al. (2006) analyzes the dynamic linkages between FDI and domestic investment and their study is the first that tries to explain this relationship by panel cointegration techniques. They use annual data for 30 countries from America, Asia, Europe and Africa for the years 1992-2002, and detect a two-way causality between FDI and domestic investment as a result of the bivariate causality tests and cointegration between FDI and domestic investment for all the chosen country groups as a result of the multivariate cointegration tests. The bivariate model reveals evidence in favor of a positive long-run relationship, whereas long-run relationship is evident for Asian and African countries and not evident for American and European countries in the multivariate model. This shows that crowding out effect becomes dominant when American and European countries are considered. Omri and Kahouli (2014) found a statistically significant and positive effect of FDI on the domestic capital. Furthermore, the study concluded that there is a uni-directional causal relationship from foreign direct investment to domestic capital for the Middle East and North Africa regions.

The above literature shows that there is a negative and positive effect of FDI on domestic investment.

IV. Data

In this study we used annual time series data from 1978 to 2017. Data of GCF, FDI, M2 and EX collected from the world development indicators published by World Bank.

V. Model Specefication

The respective model of the study on the impact of FDI on Gross Capital Formation (used as the proxy of domestic investment) in Bangladesh can be written as below:

$$GCF_t = \beta_0 + \beta_1 FDI_t + \beta_2 M2_t + + \beta_3 EX_t + \varepsilon_t \ldots\ldots\ldots\ldots\ldots (1)$$

Here, ε_t is error term which means there could be some other factors that can affect GCF and $\beta_0$is a scalar parameter, β_1,β_2, and $\beta_3$are the slope coefficient parameters. All variables are transformed into log-linear form (LN). As a result the estimated results from these models represent elasticities. According to Shahbaz et al. (2013), modeling the log-log model specification will provide efficient results by mitigating the sharpness in time series data compared with the simple linear-linear specification.

$$LNGCF_t = \beta_0 + \beta_1 LNFDI_t + \beta_2 LNM2_t + \beta_3 LNEX_t + \varepsilon_t \ldots. (2)$$

Here,

LNGCF= log of Gross capital formation that measured in percentage of GDP.

LNFDI= log of Foreign Direct Investment which is measured in percentage of GDP.

LNM2= log of Broad Money.

LNEX = log of Export in percentage of GDP.

β_0 = the constant term

β_1 = Coefficient of variable LNFDI

β_2 = coefficient of variable LNM2

β_3 = coefficient of variable LNEX

t = the time trend.

ε = the random error term

Methodology

We employ Autoregressive Distributed Lag (ARDL) bound test to estimate the short run and long run dynamic relationship among the selected variables for the study. This test initially introduced by Pesaran and Shin (1999). One advantages of this test is that it is not necessary to be all variables I(1). It is applicable if some variables are I(0) and some are I(1). The another advantages of this approach is in the small sample size (30 to 80 observations) ARDL provides robust result. To employ this test firstly we test the stationarity of the considered variables by using Augment Dicked Fuller test (ADF) by Dickey and Fuller (1979, 1981) to see the order of integration. The ARDL is based on the assumption that the order of integrations of the variables are I(0)or I(1) (Ouattara, 2004). If any variables are integrated of I (2), the results can be spurious and the ADRL bound test is not suitable (Pesaran & Shin, 1998).

The equation for ARDL test is as below:

$$\Delta LNGCF_t = \alpha_0 + \sum \sigma_i \Delta(LNGFCF)_{t-i} + \sum \mu_i \Delta(LNFDI)_{t-i} + \sum \varphi_i \Delta(LNM2)_{t-i} + \sum \gamma_i \Delta(LNEX)_{t-i} + \beta_1 LNGFCF_{t-1} + \beta_2 LNFDI_{t-1} + \beta_3 LNM2_{t-1} + \beta_4 LNEX_{t-1} + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (3)$$

Where Δ shows the first differences of the variables. The term $\sum$'s represents the error correction dynamic and β's shows the long run relationship, α_0 is the drift component and ε_t is the white noise residuals. We analyzed the ARDL directly by using e-views 10.The null hypothesis of there is no co-integration among the variables against the alternative hypothesis of the existence of co-integration among the variables are given below:

$H0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$

and $H1: \beta_1 \neq 0, \beta_2 \neq 0, \beta_3 \neq 0, \beta_4 \neq 0$

The F-statistics value is compared with the tabulated values of Narayan (2004) for the small sample size (30 to 80 observations). If the F-statistics value is greater than the upper critical value, reject null hypothesis that means there exists a co-integration

© 2019 Global Journals

relationship or long run relationship among the variables. If the F-statistics value is less than the lower critical value, the null hypothesis cannot be rejected which means there is no co-integration among the variables. If, however, the F-statistics value lies within the upper and lower bound, the results are inconclusive. We employ the Akaike Information Criteria (AIC) to determine the optimal lag length for the study.

The ARDL restricted ECM models is defined as:

$$LNGCF_t = \beta_0 + \sum \sigma_i \Delta(LNGFCF)_{t-i} + \sum \mu_i \Delta(LNFDI)_{t-i} + \sum \varphi_i \Delta(LNM2)_{t-i} + \sum \gamma_i \Delta(LNEX)_{t-i} + \psi ECM_{t-1} + \varepsilon t \quad \ldots\ldots\ldots\ldots\ldots\ldots (4)$$

Where ψ shows the speed of adjustment. At last conduct the stability and diagnostic test to ensure the goodness of fit of the chosen model.

VI. Empirical Findings

a) Unit Root Test

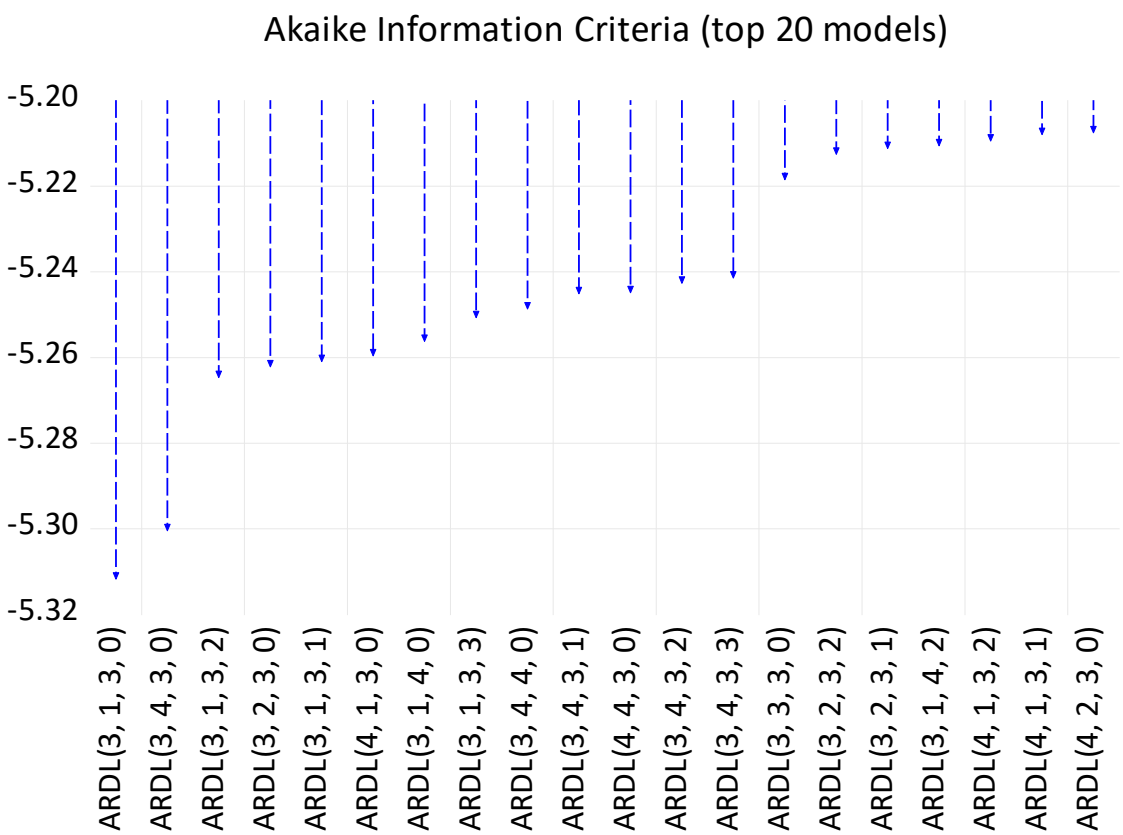
In order to check the stationary of the variables researchers used Augmented – Dickey Fuller (ADF) test. The result of the ADF test is given in table 1.

Table 1: Result Summery of ADF test

Variables			ADF Test	p-value	Decision	Conclusion
LNGCF	Level	Intercept and Trend	-5.421816	0.0004	No Unit Root	Stationary
LNFDI	Level	Intercept and Trend	-4.219390	0.0098	No Unit Root	Stationary
LNM2	Level	Intercept and Trend	-6.334252	0.0000	No Unit Root	Stationary
LNEX	Level	Intercept and Trend	-2.530876	0.3125	Unit Root	Non- stationary
	1st diff.	Intercept and Trend	-8.316245	0.0000	No Unit Root	stationary

Table 1 shows the test of stationary result. From the table we see that LNGCF, LNFDI and LNM2 are stationary at level and variable LNEX is non stationary at level but stationary at 1st difference. Since some variables are integrated I(0) and one variable is I(1), we proceed to estimate ARDL long run and short run estimates.

b) Optimal Lag



According to the akaike information criteria the optimal lag of ARDL model is 3,1,3,0.

Figure 1

© 2019 Global Journals

c) *Bound Test*

Table 2: Bound test result

Test statistic	Value	Significant	Lower bound[I(0)]	Upper bound[I(1)]
F-statistic	9.825255	10%	2.37	3.2
K	3	5%	2.79	3.67
		2.5%	3.15	4.08
		1%	3.65	4.66

Source: calculated by author

Table 2 shows the result of Bound F-test. The calculated F value for LNGCF is 9.825255 which is higher than all the lower and upper bound limits at 1%, 2.25%, 5% and 10%. So we can reject the null hypothesis "no relationship" that there exists a long run relationship between LNGCF and all other dependent variables used in this study.

d) *Long –Run Estimates of Ardl Approach*

Table 3: Long run coefficient of ARDL model

Dependent Variable: LNGCF				
Variables	Coefficient	Std. error	t-statistic	p- value
C	0.505071	0.137777	3.665858	0.0011
LNGCF(-1)	-0.246482	0.063854	-3.860054	0.0007
LNFDI(-1)	-0.003566	0.001894	-1.883466	0.0709
LNEX(-1)	0.137226	0.027468	4.995949	0.0000
LNM2	-0.015114	0.007741	-1.952440	0.0617
D(LNGCF(-1))	0.445185	0.060986	7.299750	0.0000
D(LNGCF(-2))	-0.315336	0.062796	-5.021605	0.0000
D(LNFDI)	0.001877	0.001513	1.240316	0.2259
D(LNEX)	0.045288	0.023603	1.918777	0.0661
D(LNEX(-1))	-0.073490	0.031252	-2.351541	0.0266
D(LNEX(-2))	-0.161359	0.026985	-5.979603	0.0000

Source: author's calculation

Table 3 shows the long run coefficient of ARDL model. From the table we can see that the variable LNM2 bears the significant (at 10 percent) negative impact on LNGCF. That is if 1 percent increase in broad money gross capital formation will be decrease in 0.015 percent. The result also indicates that the impact of lagged LNFDI is negative and significant at 10 percent and that of LNEX is positive significant at 1 percent level of significance on LNGCF.

e) *Short Run Analysis of Ardl*

Table 4: Short run representation of ARDL analysis

Variables	Coefficient	Std. Error	t-statistic	p-value
D(LNGCF-1)	0.445185	0.054714	8.136530	0.0000
D(LNGCF-2)	-0.315336	0.047061	-6.700626	0.0000
D(LNFDI)	0.001877	0.001224	1.533833	0.1372
D(LNEX)	0.045288	0.020881	2.168913	0.0394
D(LNEX(-1))	-0.073490	0.028032	-2.621693	0.0144
D(LNEX(-2))	-0.161369	0.023343	-6.912674	0.0000
ECM(t-1)	-0.246482	0.032738	-7.528889	0.0000
R-squared	0.865698	Durbin – Watson stat 2.123644		
Adjusted R-squared	0.838838			

Table 4 shows that in the short run impact of D (LNFDI) on GCF is positive but insignificant. If current year FDI increases 1% then GCF (domestic investment) increases 0.002 percent. Also, impact of exports on domestic investment is positive and significant at 5 percent level. If exports increase 1 percent, domestic investment will increase 0.05 percent.

Estimated results also indicate that the sign of lagged error correction representations (ECMt-1) is negative and statistically significant. The ECMt-1 shows the speed of adjustment toward equilibrium. Approximately, 24% disequilibria from the previous year's shock converge on the long run equilibrium in the current year. From the result it can be seen that the R^2

© 2019 Global Journals

value is 0.865698, which reflects that 86.56 percent differences of the dependent variable explained by the independent variables. The adjusted R^2 is 0.838838 or 83.88 percent. The Durbin–Watson (D–W) value is 2.123644, which confirms that there is no autocorrelation among the variables. The statistics' (R^2, Adj. R^2, D –W,) results show that our model is robust and well fitted.

f) Stability Test

To check the stability of the model researchers used cusum and cusum square test. The result of the tests is given following figure 2 and figure 3:

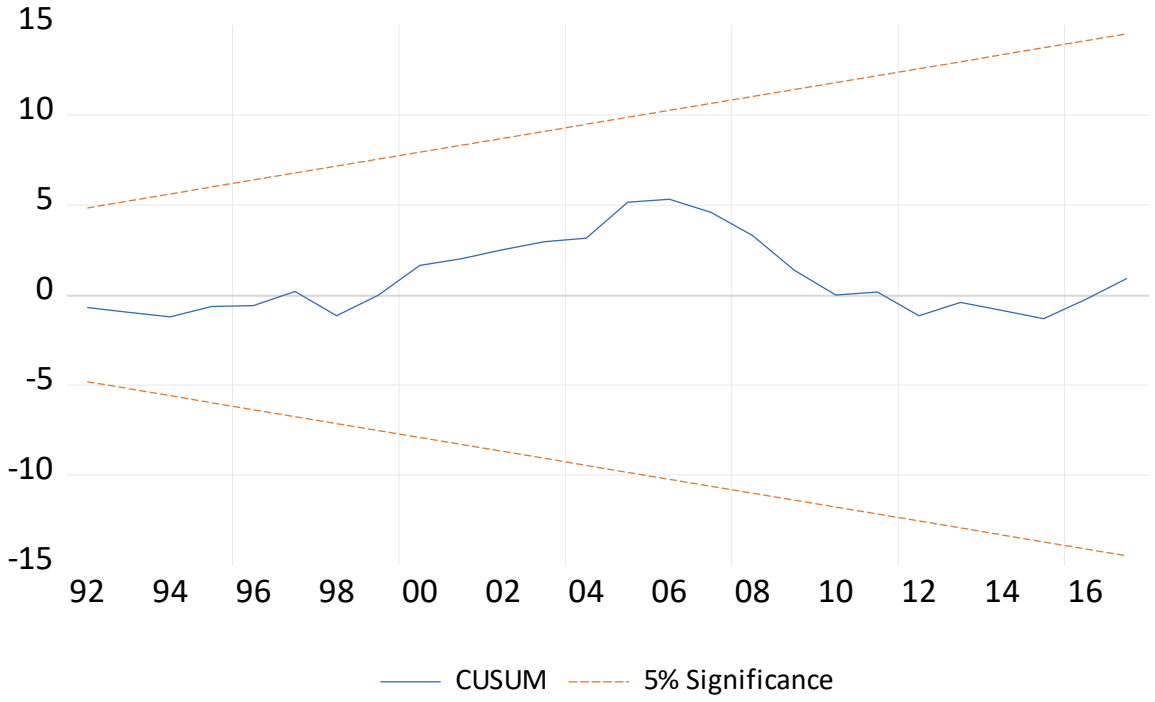


Figure 2: Cusum test.

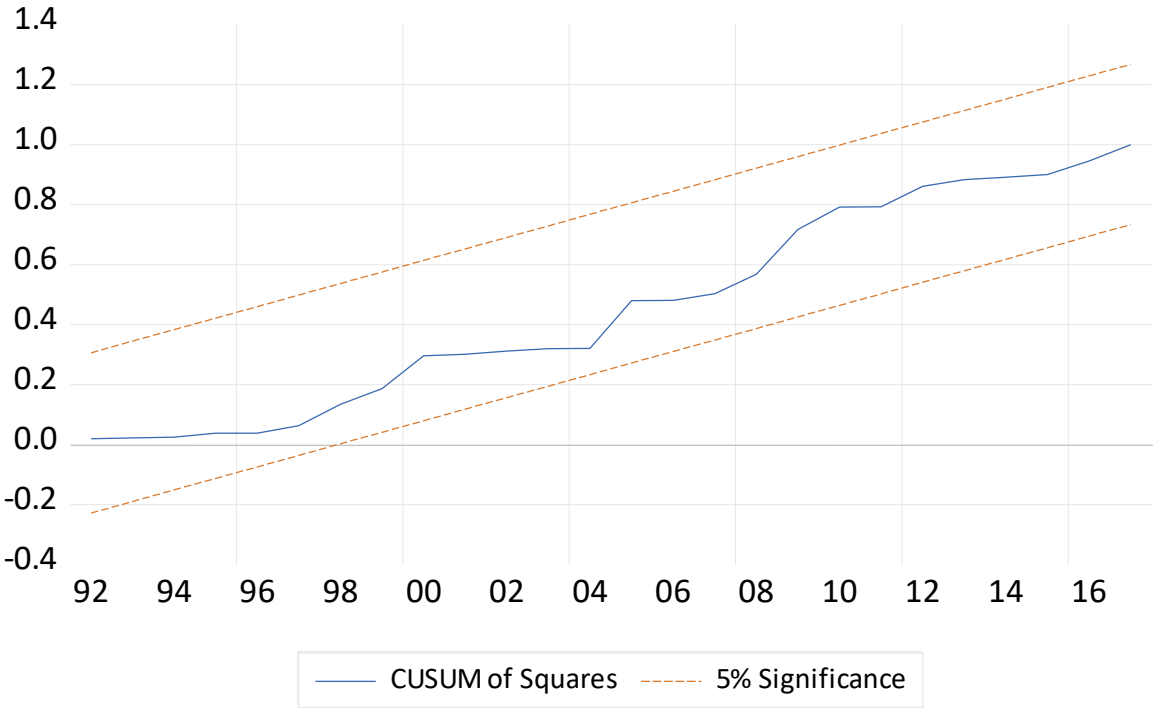


Figure 3: Cusum square test.

© 2019 Global Journals

We can see the above figures 2 and 3 that the CUSUM line and the CUSUM of Squares line lies between the critical bounds of 5 percent significant, which indicate that all coefficients in the estimated model are stable.

g) Diagnostic Test

i *Normality test*

To examine the normality of the model we used Jarque – Bera test. The result of this test is shown below:

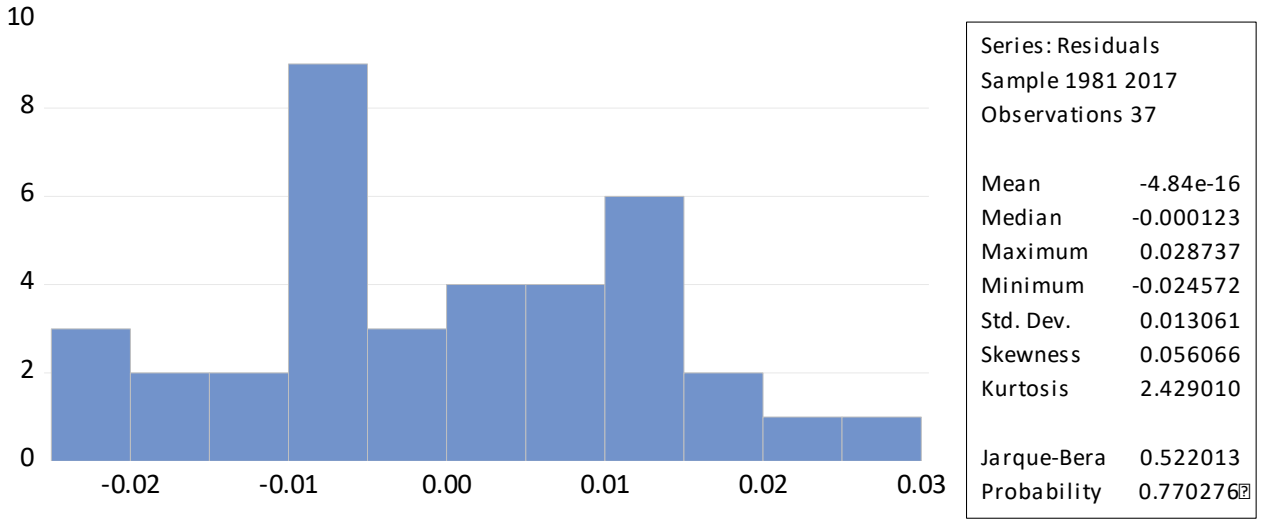


Figure 4: Jarque – Bera Test.

The result of Jarque Bera test shows that the value of the test is 0.522013 and p-value is 0.770276 which is greater than 0.05. that means we cannnot reject the null hypothesis that sates: the model is normally distributed. Hence the estimated model is normally distributed.

ii *Test for Serial Correlation*

The existence of serial correlation is tested by Breusch- Godfrey Serial Correlation LM Test.

Table 5: Result of Breusch- Godfrey Serial Correlation LM Test.

F-statistic	0.149707	Prob. F(2,24)	0.8618
Obs*R-squared	0.155910	Prob. Chi- Square(2)	0.7962

Table 5 shows the result of Breusch – Godfrey serial correlation LM test. The result indicates that the p-value is greater than 0.05, that is no serial correlation.

iii *Test of Homoscedasticity*

Table 6: Rsult of heteroskedasticity test.

F-statistic 0.224567	Prob. F(10,26) 0.9913
Obs* R-squared 2.941678	Prob. Chi –square(10) 0.9828
Scaled explained SS 1.037872	Prob. Chi-square(10) 0.9998

Table 6 shows that the result of heteroskedasticity test. From the result we can see that the p-value of the Breusch-Pagan-Godfrey test exceeds 0.05, hence we cannot reject the null hypothesis. Thus there is no heteroskedasticity problem.

VII. Conclusion

This study reveals the impact of FDI inflows on domestic investment of Bangladesh. To summarize, the outcome of the analysis has confirmed that FDI could 'crowd in' domestic investment and in the long run broad money has a negative and significant impact on domestic investment. On the other hand, exports positively influence domestic investment in Bangladesh both in short run and in long run. Bangladesh is now a lower middle income country and for achieving higher middle income status it needs to increase its domestic investment. In this research it has been proved that foreign direct investment positively affects domestic investment. Based on the above empirical findings we can suggest that Bangladesh should take foreign direct investment favorable policies which will help to ameliorate domestic investment. Both investments will increase productivity as well as create new employment opportunities to achieve targeted GDP growth rate to attain sustainable development goals of Bangladesh.

© 2019 Global Journals

References Références Referencias

1. Agosin, M. and Mayer, R. (2005). Foreign Direct Investment in Developing Countries: Does It Crowd in Domestic Investment? Oxford Development Studies, Vol. 33, No. 2, pp. 149-162.
2. Agosin, M. and Mayer, R. (2000). Foreign Direct Investment in Developing Countries: Does It Crowd in Domestic Investment? UNCTAD Discussion paper 146, United Nations conference on trade and development.
3. Ali, S. A., Raza, H., and Iqbal, A. (2015). Dynamic Linkages between Foreign Direct Investment, Public Investment and Private Domestic Investment: Evidence from Pakistan. Pakistan Business Review Jan 2015.
4. Amighini, A. A., McMillan, M. S. and Sanfilippo, M. (2017), "FDI and Capital Formation in Developing Economies: New Evidence from Industry-level Data", NBER Working Paper No. 23049.
5. Ameer, W., Xu, H. (2017) "Relationship between inward foreign direct investment, domestic investment, formal and informal institutions: evidence from China", Review of Innovation and Competitiveness", Volume 3, Issue 2.
6. Ang, J (2009) "Do Public Investment and FDI Crowd In or Crowd out Private Domestic Investment in Malaysia?" Applied Economics, 41: 913-919
7. Apergis, N., Katrakilidis, C., and Tabakis, N., (2006), "Dynamic linkages between FDI inflows and domestic investment: A panel cointegration approach", Atlantic Economic Journal, 34 (4): 385-394.
8. Ashraf, A.and Herzer, D. (2014) the effect of greenfield investment and M & A on domestic investment in developing countries, Applied Economics Letters, 21(24): 997-1000.
9. Azlina, H. and Suhanis, J. (2014), "FDI and Domestic Investment in Malaysia", DOI: 10.7763/IPEDR.V76. 4.
10. Bangladesh Economic Review 2017, Ministry of Finance.
11. Chakraborty, D., and Mukherjee, J. (2013), "Is There Any Relationship between Foreign Direct Investment, Domestic Investment and Economic Growth in India? A time series analysis", Review of Market Integration, Vol. 4, No. 3, pp. 309-337.
12. Chen, W. and Qin, Z. (2006). Identification of two way reflexivity dynamics in an integrated investment decision – support framework. Asian Journal of Information Technology, 5, pp. 732-741.
13. Dickey, D. A. and Fuller, W. A. (1979). Distribution of the estimators for autoregressive time series with a unit root, Journal of the American Statistical Association, 74, 427-31.
14. Dickey, D. A. and Fuller, W. A. (1981). "Likelihood ratio statistic for autoregressive time series with unit root", Econometrica, 49, 1057-72.
15. Gregorio, J. (2003), "The Role of Foreign Direct Investment and Natural Resources in Economic Development", Working Paper No 196. Central Bank of Chile, Santiago.
16. Goh, S. K. and Wong, K. N. (2012) "Outward FDI and Domestic Investment". Centre for Policy Research and International Studies. Dol: 10.7763/ IPEDR, 55(27): 1-4.
17. Gujarati, D. N. & Porter, D. C. (2009). Basic Econometrics, Boston, McGraw-Hill. http://data bank.worldbank.org/data/reports.aspx?source=Wor ld-Development-Indicators
18. IPEK et al (2015), "The contribjution of FDI Flows to Domestic Investment: An Econometric Analysis of Developing Countries".
19. Lipsey, R. E. (2000). Interpreting Developed Countries' Foreign Direct Investment. NBER, Working Paper No. 7810. National Bureau of Economic Research, Inc.
20. Megbowon, E. T. et al (2016), "Foreign Direct Investment Inflow, Capital Formation And Employment In South Africa: A Time Series Analysis", International journal of Economics and Finance Studies, Vol 8, No 2, ISSN: 1309-8055 (Online)
21. Misun, J. and Tomsik, V. (2002), "Does Foreign Direct Investment Crowd in or Crowd out Domestic Investment?", Eastern European Economics, 40 (2): 38–56.
22. Narayan, P.K. (2004). Reformulating critical values for the bounds F-statistics approach to cointegration: an Application to the tourism demand model for Fiji. Discussion Papers, Department of Economics, Monash University, Australia.
23. Omri, Anis, and K. Bassem (2014), "The Nexus among Foreign Investment, Domestic Capital and Economic Growth: Empirical Evidence from the MENA Region", Research in Economics, Vol. 68, No 3, pp. 257-263.
24. Ouattara, B. (2004). "Modelling the long run determinants of private investment in Senegal", Centre for Research in Economic Development and International Trade, University of Nottingham.
25. Pesaran, M. H, and Shin, Y. (1999). "An autoregressive distributed lag modelling approach to cointegration analysis," Cambridge University Press, Ch.11.
26. Pesaran, M. H., & Shin, Y. (1998). An autoregressive distributed-lag modelling approach to cointegration analysis (S. E. Strom Ed.). Cambridge, MA: Cambridge University Press.
27. Prasanna, N. (2010), "Direct and Indirect Impact of Foreign Direct Investment (FDI) on Domestic

© 2019 Global Journals

Investment (DI) in India", Journal of Economics, Volume 1, Issue 2, page 77-83
28. Shahbaz, Muhammad, Sakiru Adebola Solarin, H. Mahmood, and M. Arouri, (2013). Does financial development reduce CO2 emissions in Malaysian economy? A time series analysis. Economic Modelling (35): 145–52.
29. Sunny, D. and Sawant, A. (2011). Crowding In And Crowding Out Impact Of FDI on Domestic Investment: An Indo China Analysis. Page 1-11.
30. Ugwuegbe, Sebastine, U., Judith, M. N., Edith, O. (2014). The Impact of Foreign Direct Investment on Capital Formation in Nigeria: A Co-Integration Approach. International Journal of Economics, Finance and Management Sciences. Vol. 2, No. 2, pp. 188-196. doi: 10.11648/j.ijefm.20140202.21.
31. Ullah, Irfan, Shah, M. and Khan, F. U.(2014), "Domestic Investment, Foreign Direct Investment, and Economic Growth Nexus: A Case of Pakistan", Economics Research International, pp.1-5.
32. Wu, G. et al. (2010). "The Crowding-in and Crowding-out Effects of FDI on Domestic Investment in the Yangtze Delta Region". Transation Corporation Review, volume 2, Issue 4.
33. Yahia, Y. E., Haiyun, L., Khan, M. A., Shah, S. S. H., and Islam, M. A. (2018), "The impact of foreign direct investment inflow on domestic investment: Evidence from Sudan", International Journal of Economics and Finance Issues, 8(6), 1-10.

© 2019 Global Journals