

Impact of Foreign Direct Investment (FDI) on Economic Growth of Bangladesh: An Econometric Analysis

Md. Alamgir Hossain Bhuiya*
Shahed Ahmed**

Abstract

The paper investigates the impact of foreign direct investment (FDI) on the economic growth of Bangladesh for the period 1980–2019. An extended Cobb Douglas production function is used to analyse the variables. The study showed that GDP per capita and trade openness have a positive impact and exchange rate, inflation, and wage rate negatively impact FDI. The estimated values of the parameters showed that if GDP per capita and trade openness increase 1 per cent, then inward FDI will increase 1.87 per cent and 0.063 per cent, respectively. On the other hand, if the exchange rate, inflation, and wage rate increase 1 per cent, inward FDI will decrease 0.529 percent, 0.088 per cent, and 0.594 per cent, respectively.

JEL Classification C51· F21· F34· F43

Keywords Foreign Direct Investment · GDP · Economic Growth · Trade Openness · Inflation

Introduction

Over the past two decades, one of the most remarkable trends in the world economy has been its increasing global economic integration and growing internationalisation, reflected in the rising share of international trade and foreign

* Professor, Department of Economics, Islamic University, Kushtia. E-mail: bhuiyaalamgir@gmail.com

** Assistant Professor, Department of Economics, Islamic University, Kushtia. E-mail: shahedkgc@gmail.com

direct investment (FDI). The issue of FDI has been receiving phenomenal attention from many national governments. In recent years, policymakers and multilateral organisations have increasingly emphasised the importance of a good investment climate for promoting economic growth in developing countries. In this age of "location tournament" where governments compete for attracting FDI by offering various incentives and benefits among the nations, the significant challenge for host countries is to ensure an eye-catching and conducive environment for foreign investment. The climate for investment is determined by the interplay of a whole set of factors: economic, social, political and technological, which have a bearing on the operations of a business. Bangladesh has long been trying to attract FDI to support its internationalisation process. Since the 1980s, the government of Bangladesh introduced an open-door economic policy and implemented macro and microeconomic reform programs to attract foreign investment. Efforts to attract Foreign Direct Investment (FDI) in Bangladesh are anchored in an overall framework of policies that seeks to create a favourable environment for a market-friendly, private-sector-led development. Under the country's current Industrial Policies (adopted in 1999), the private sector has been recognised as the engine of growth. Except for a few reserve sectors, the entire economy has been opened, with no ceiling for private sector engagement. Bangladesh is also a signatory of the Multilateral Investment Guarantee Agency (MIGA), ensuring investors against political risk. The country has also signed the World Bank's Convention on the Settlement of Investment Disputes between States and Nationals of the Other States, providing the international arbitration of disputes between foreign investors. The arbitration facility of the International Center for the Settlement of Investment Dispute (ICSID) is also available in Bangladesh. FDI has three components: equity capital reinvested earnings and intra-company loans.

- Equity capital: Equity capital is the foreign direct investor's purchase of shares of an enterprise in a country other than its own.
- Reinvested earnings: Reinvested earnings comprise the direct investor's share (in proportion to direct equity participation) of earnings not distributed as dividends by affiliates or earnings not remitted to the direct investor. Such retained profits by affiliates are reinvested.
- Intra-company loans or intra-company debt: Intra-company loans or intra-company debt transactions refer to short- or long-term borrowing and lending of funds between direct investors (parent enterprises) and affiliate enterprises.

FDI can be classified into various types, which include: Greenfield investment, merger or acquisition, joint venture, horizontal FDI, vertical FDI, Private Debt Flows, Export-increasing FDI, Import-Substituting FDI and Government-initiated FDI. They are discussed in the following sections:

- Greenfield Investment: A company that wishes to own a foreign subsidiary outright may start from a green-field investment by building new facilities or expanding existing facilities (Ball & McCulloch, 1999).
- Merger or Acquisition: A merger or acquisition occurs when a foreign firm purchases the existing assets of a local firm (Ball & McCulloch, 1999).
- Joint Venture (JV): A joint venture can be established in several ways. A joint venture can be established when an international company joins a local company to form a corporate entity.
- Horizontal FDI: Horizontal FDI refers to the situation where a company invests in the same type of industry abroad that they are involved in at home (Foreign Direct Investment, 2009).
- Vertical FDI: Vertical FDI has two forms: (1) Backward vertical FDI involves investing in an industry that provides inputs for the investing firm's domestic production; and (2) Forward vertical FDI involves investing in an industry that sells the output of the investing firm's domestic production.

Rational of the Study

The necessity of FDI is undeniable for the economic development and employment generation of Bangladesh. Therefore, Bangladesh needs to constantly check the steps concerning minimising investment costs that have been and will be taken by her competitors and update herself accordingly to remain competitive. However, this continuous up-gradation should be confined in reducing cost components for trade & investment and the foresightedness in the field of ongoing developments in the country/region that will decide whether Bangladesh is potential or less potential in the eyes of prospective investors. The FDI can undoubtedly play an essential role in the economic development of Bangladesh in terms of capital formation, output growth, technological progress, exports and employment. However, the relatively small share of FDI in GDP indicates that the potentials are far from being realised in the Bangladesh experience thus far.

Nevertheless, concerns remain about the possible negative effects of FDI, including the question of market power, technological dependence, capital flight and profit outflow. The limited evidence gathered above tends to support some of

these apprehensions. On a positive note, service sector growth appears well correlated with FDI flow to this sector. Further, this has a linkage effect on the rest of the economy.

Objectives of the Study

The main objective of the study is to assess the state of FDI flows in Bangladesh. The specific objectives are:

- to measure the trends of FDI inflows in Bangladesh
- to compare the FDI on some selected countries in Asia
- to identify the sources of FDI in Bangladesh.
- to show the sector-wise distribution of FDI inflows in Bangladesh
- to examine the major determinant of FDI
- to justify the relationship between FDI and economic growth

Significance of the Study

Throughout the report, we presented the historical background of FDI flow and insight into the possible changes in the coming years. We have gathered information and data relevant to this analysis from several sources. The collected data are highlighted in the tabular analysis and trend analysis. This analysis helps us to know about the movement of FDI flow over the year. We also tried to find out the possible causes and factors that shaped the trend line of the flow. In a particular year, the flow is upward moving at another time; this is downward moving. So what is the reason behind that is the objective of the study as a whole. The report's analysis is supported by some theoretical arguments that enhance the overall findings and guide towards a reasonable recommendation.

Review of Some Literature

From much of the literature on FDI, we take the traditional neoclassical growth model as our starting point, followed by recent theories and empirical contributions. Solow (1956) argued that productivity growth results from increases in the amount of capital that each worker is set to operate. However, as capital per worker increases, the marginal productivity of capital decreases. Recently, a few researchers have also studied the impact of specific policy variables on FDI in the host countries. These policy variables include openness of trade, tariff, taxes and exchange rate. In this context, Feldstein and Razin (2000) and Sodka (forthcoming) note that the gains to host countries can take several other forms:

- FDI allows the transfer of capital and technology, which is impossible through financial investment in goods and services.
- FDI also promotes competition in the domestic input market
- Profits generated by FDI contribute to the corporate revenue in the host country
- The operation of new ventures by FDI leads to employee learning in the host country that learns how to manage and operate the businesses. It contributes to the human capital development of the host country.
- Profits generated by FDI contribute to tax revenues in the host country.

UNCTAD, in its recent World Investment Report, asserts that FDI has the potential to generate employment, raise productivity, transfer foreign skills and technology, enhance exports and contribute to the long-term economic development of the world's developing countries. According to a recent UNCTAD report: on World Investment:

- Foreign affiliates of some 64,000 transnational corporations (TNCs) generate 53 million jobs.
- FDI is the largest source of external finance for developing countries.
- Developing countries' inward stock of FDI in 2000 amounted to about one-third of their GDP, compared to just 10 per cent in 1980.
- One-third of global trade is intra-firm trade.

Kabir (2007) analysis about foreign direct investment and sustainable growth: a case study on Bangladesh. Here he explains several benefits of Foreign Direct Investment (FDI) on a macroeconomic level, particularly for a Third World Nation such as Bangladesh, where foreign investment inflows can expand economic production and growth. FDI provides capital from sources abroad which the country is unable to supply domestically. The inflows facilitate the growth of several economic sectors, including industry, manufacturing, infrastructure, and energy. The expansion leads to a rise in the availability of jobs and a fall in the unemployment rate.

Consequently, GDP and per capita income increase which, in a developing country, fosters poverty alleviation. In addition, FDI strengthens ties with developed countries that may yield cost advantages in advanced technology transfers and resulting positive externalities. Increased financial associations also lead to more robust capitalistic markets and ideals of corporate governance and social responsibility. This study aims to conduct a historical and statistical analysis of the relationship between foreign investment inflows and sustainable economic growth.

Mortoza and Das (2007) empirically showed that liberalisation of trade impacted FDI in Bangladesh. As per the Investment Handbook (2007) of the Bangladesh Board of Investment (BOI), it is now simpler to do business in Bangladesh than in many developing economies. Report of 'Doing Business' jointly published by the World Bank and IFC ranked Bangladesh in the 68th position to start a business among 175 economies. World Bank (2005) advocated that Bangladesh can attain physical capital, technology transfer, and sharpen domestic investors' competitiveness through the proper utilisation and allocation of resources. In 1990 the economy of Bangladesh had made remarkable advancement in Gross Domestic Product (GDP) growth, which was around 5%. The 4th survey of FDI inflow by BOI in Bangladesh stated that the cost of investment in Bangladesh has become cheaper than in previous years. However, Mondal (2003) found that FDI inflow to Bangladesh is constrained by six factors: (i) Political instability; (ii) Sluggish steps towards privatisation; (iii) High business cost; (iv) Tax hazards; (v) Threats related to finance; and (vi) Incompetent or futile capital market.

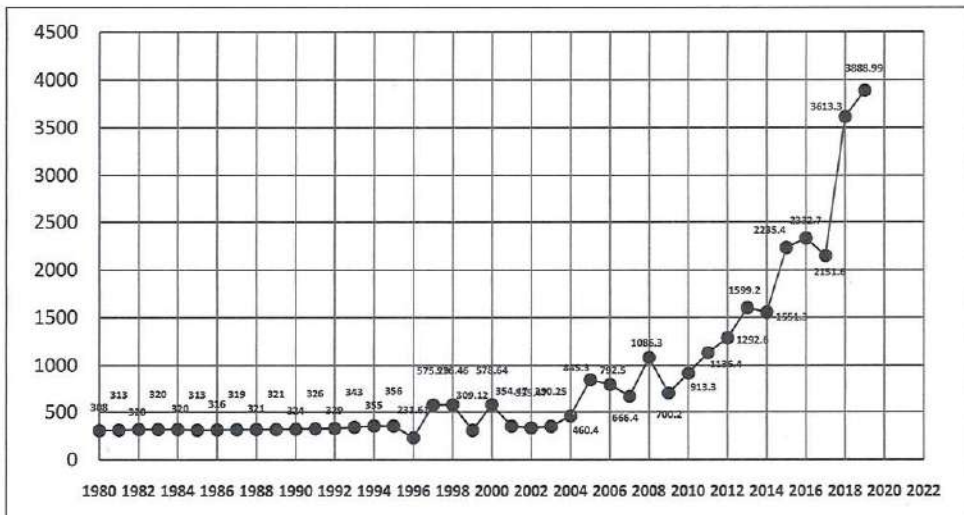
SWOT analysis of Bangladesh economy by Salman (2009) suggested that Bangladesh has substantial investment opportunities, but it has to develop and exploit them properly. The study highlighted that as Bangladesh has access to major export markets such as the EU, Canada, Japan, New Zealand, and Australia, it is essential to diversify products if the country intends to benefit from trade concessions. However, according to WEF's Global Competitiveness Report (2008-2009), Bangladesh ranks 111 out of 134 countries in terms of the business environment and "the business climate in Bangladesh is poor and less competitive in the global context, and the environment is deteriorated in 2007" (2008-09, p.49). It also pointed out that the ranking deteriorated compared to the previous year when it ranked 107 out of 131 countries.

Trends of FDI Inflows in Bangladesh

Bangladesh registered a record level of foreign direct investment (FDI) inflow in 2018, topping the list in South Asia. In 2018, Bangladesh reached the highest ever level in the country's history at \$3.61 billion, according to World Investment Report 2019 by United Nations Conference on Trade and Development (UNCTAD). The report said FDI in Bangladesh went up by 67.94% in 2018 compared to \$2.15 billion in 2017. The report was unveiled at a media briefing organised by Bangladesh Investment Development Authority (BIDA), published worldwide on June 12, 2019. While China became the leading investor in the country with \$1.03 billion, the United States, traditionally the top investor,

dropped to fourth with only \$0.17 billion in FDI for 2018 in Bangladesh, as per the report. Despite initial delays, Bangladesh was on the right track to attract FDI. Meanwhile, the report says that the world's investment flow continued to decline for the third consecutive year in 2018, falling by 13 per cent to \$1.3 trillion from a revised figure of \$1.5 trillion in 2017. However, FDI in Bangladesh increased by 67.94% in 2018 compared to \$2.15 billion in 2017.

Figure 1: FDI inflows in Bangladesh (Millions of Dollars)



Source: UNCTAD- World Investment Report 2019

According to the UNCTAD report, Bangladesh saw an increase in FDI inflow because of significant investments in power generation and labour-intensive industries like readymade garments. Investor confidence in Bangladesh has improved. According to the UNCTAD report, equity investment increased by 108.6% to \$1.12 billion, which was \$0.54 billion, while reinvestment increased by 2.32% to \$1.30 billion. On top of that, intra-company loans also increased for the same period by 254%, from \$333.24 million to \$1.18 billion. The power sector alone attracted investments worth \$1.01 billion, where China contributed \$0.83 billion, followed by \$0.73 billion in the food sector and \$0.43 billion in the textile sector. For attracting the FDI, the government was establishing special economic zones (SEZs) across the country. Different mega projects were ongoing for developing infrastructure, and after implementation of the mega projects, the inflow of FDI would increase further. Bangladesh was moving forward by achieving remarkable success in all major indicators.

Comparative Study of FDI on Some Selected Countries in Asia

Global foreign direct investment (FDI) flows declined for the third consecutive year in 2018, dropping 13% from 2017 levels to \$1.3 trillion. The most significant declines were in developed economies and economies in transition. Inward flows to developing economies, however, grew by 2% in 2018. The Asia-Pacific region received the largest share of global FDI inflows among developing economies, attracting 45% in 2018. Developing countries in the region attracted 40% of global FDI inflows, which converts into 88% of total Asia-Pacific region inflows. Global outflows declined by 29% to \$1 trillion in 2018. [See Table: 1].

Foreign direct investment (FDI) inflows to developing countries in Asia rose by 3.9% to US\$512 billion in 2018, according to UNCTAD's World Investment Report 2019. Foreign direct investment (FDI) inflows to China increased by 3.72 percent last year and reached at \$139 billion in 2018. That would mark a slowdown from growth rates of 7.9 percent in 2017 and 4.1 percent in 2016. India received foreign direct investments worth \$42 billion in 2018, helped by robust inflows in manufacturing, communication and financial services. China, Indonesia, Thailand, Viet Nam, Bangladesh and Indian FDI volume increased; on the other hand, Malaysia and Pakistani FDI volume decreased. The table showed that Viet Nam received five folds higher FDI than Bangladesh in the year 2018.

The sectors that attracted maximum FDI (Net Inflows) for the fiscal year 2017-18 include Power (US\$ 588.77 million), Textiles & Wearing (US\$ 459.45 million), Banking (US\$ 321.01 million), Telecommunication (US\$ 157.00 million) and Food (US\$ 136.72 million) which were 22.82%, 17.81%, 12.44%, 6.08% and 5.30% respectively towards the contribution of total FDI inflows (net).

FDI inflows (net) into Power Sector reached US\$ 506.15 million during January-June 2018, which was increased by US\$ 423.53 million or 512.62% compared to July-December 2017 (US\$ 82.62 million). FDI inflows (net) into the Textile & Wearing Sector arrived at US\$ 221.34 million during January-June 2018, which was decreased by US\$ 16.77 million or 7.04% compared to July-

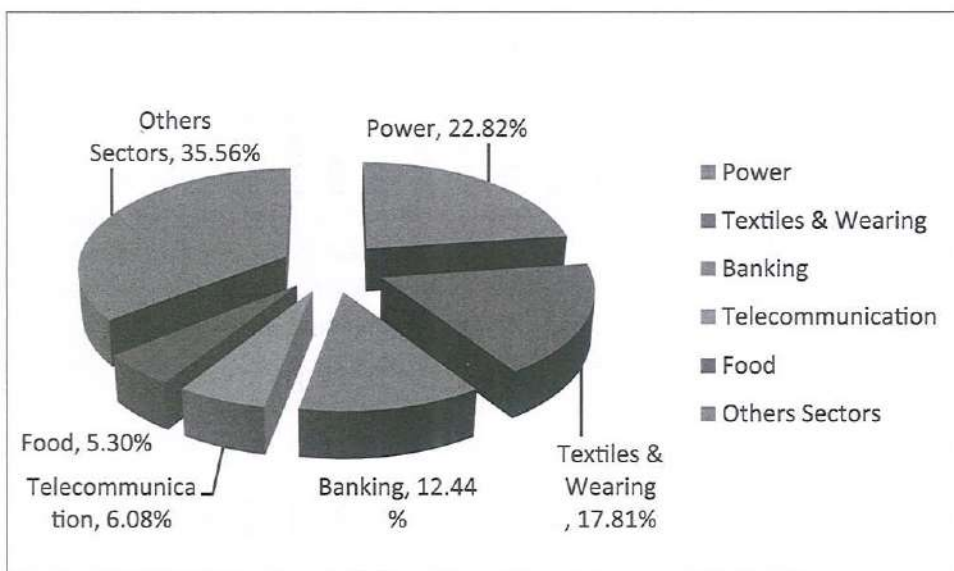
December 2017 (US\$ 238.11 million). FDI inflows (net) into Banking Sector achieved US\$ 144.53 million during January-June 2018, which was decreased by US\$ 31.95 million or 18.10% compared to July-December 2017 (US\$ 176.48 million). FDI inflows (net) into the Telecommunication sector arrived at US\$ 59.61 million during January-June 2018, which was decreased by US\$ 37.78 million or 38.79% compared to July-December 2017 (US\$ 97.39 million). FDI inflows (net) into the Food sector achieved US\$ 82.01 million during January-June 2018, which was increased by US\$ 27.30 million or 49.90% compared to July-December 2017 (US\$ 54.71 million). While in July-December, 2017 FDI

Table 1: Comparative Study of FDI on Some Selected Countries in Asia

Year	China Millions of Dollars	Indonesia	Malaysia	Thailand	Viet Nam	Bangladesh	India	Pakistan
2005	72406	8336.3	4065.3	7975.1	1954	845.3	7621.8	2201
2006	72715	4914.2	6060.3	8181.6	2400	792.5	20327.8	4273
2007	83521	6928.5	8594.7	9194.8	6981	666.4	25349.9	5590
2008	108312	9318.5	7171.8	8054.4	9579	1086.3	47102.4	5438
2009	95000	4877.9	1453	5361.8	7600	700.2	35633.9	2338
2010	114734	13770.6	9060	14555	8000	913.3	27417.1	2022
2011	123985	19241.3	12197.6	1370.4	7519	1136.4	36190.5	1162
2012	121080	19137.9	9238.8	9135.2	8368	1292.6	24195.8	859
2013	123911	18816.7	12115.5	15493	8900	1599.2	28199.4	1333
2014	128500	21810.5	10877.3	4809.1	9200	1551.3	34582.1	1868
2015	135610	16641.5	10082.3	5623.8	11800	2235.4	44064.1	1621
2016	133710	3921.2	11335.9	1815.3	12600	2332.7	44480.6	2488
2017	134062.7	20579.2	9398.8	6477.6	14100	2151.6	39903.8	3232
2018	139043.5	21979.8	8091	10492.6	15500	3613.3	42285.7	2352

Source: UNCTAD- World Investment Report 2019

Figure 2: Sector-wise distribution of FDI in Bangladesh



Source: Bangladesh Economic Review 2019

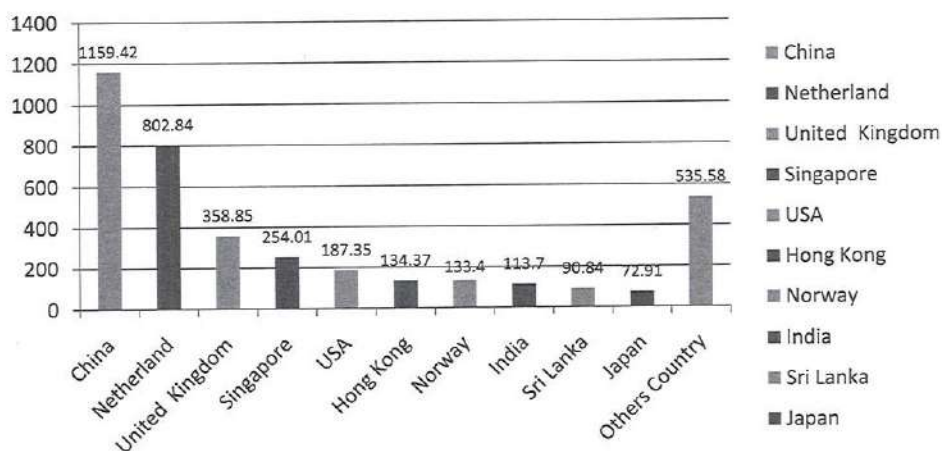
inflows (net) was increased by US\$ 2.15 million or 4.09% compared to January-June 2017 and increased by US\$ 8.69 million or 19.80% during the period January-June, 2017 compared to July-December, 2016.

Sources of FDI in Bangladesh

FDI inflows (net) from major countries for the fiscal year 2018-19 arranged in descending order of magnitude were: China People's Republic (P.R) (US\$ 1159.42 million), Netherlands (US\$ 802.84 million), United Kingdom (US\$ 358.85 million), Singapore (US\$ 254.01 million), United States of America (US\$ 187.35 million), Hong Kong: SAR of China (US\$ 134.37 million), Norway (US\$ 133.40 million), India (US\$ 113.70 million), Sri Lanka (US\$ 90.84 million) and Japan (US\$ 72.91 million).

The above figure shows that the contribution of total FDI inflows (net) was 29.81%, 20.64%, 9.23%, 6.53%, 4.82%, 3.46%, 3.43%, 2.92%, 2.34% and 1.87% respectively from China, the Netherlands, United Kingdom, Singapore, United States of America, Hong Kong, Norway, India, Sri Lanka and Japan.

Figure 3: Sources of FDI in Bangladesh (Millions of USD)



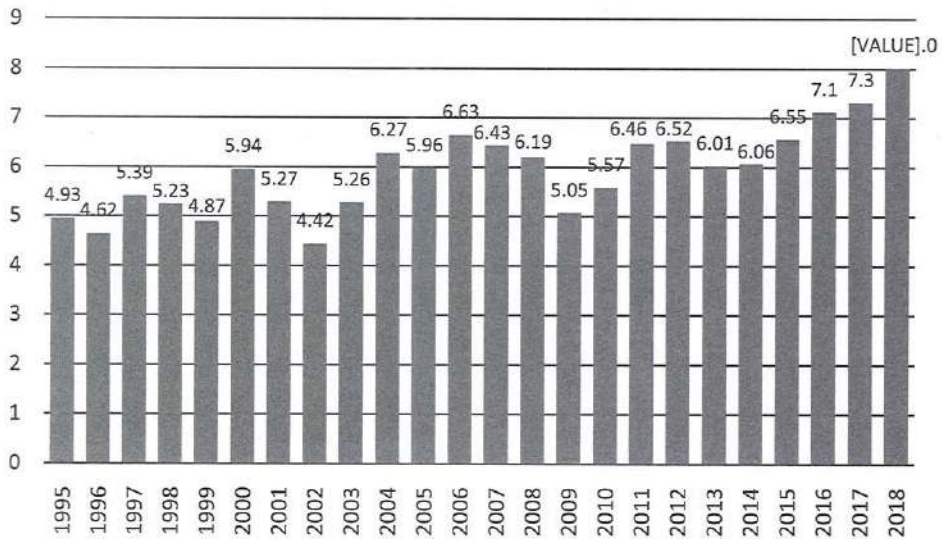
Source: Bangladesh Economic Review 2019

Economic growth situation in Bangladesh

The Gross Domestic Product (GDP) in Bangladesh expanded 7.90 per cent in the 2018 fiscal year from the previous year. The industry grew 12.1 per cent (10.2 per cent in 2017), with manufacturing surging 13.4 per cent (11 per cent in 2017). Services growth slowed to 6.3 per cent (6.7 per cent in 2017), while agriculture was up 4.2 per cent (3 per cent in 2017). The GDP Annual Growth Rate in Bangladesh averaged 5.84 percent from 1994 until 2018, reaching an all-time high of 7.90 per cent in 2018 and a record low of 4.08 per cent in 1994. In Bangladesh, services are the biggest sector of the economy and account for 52 per cent of total GDP. The most important segments within services are wholesale retail and trade; transport, storage and communication and real estate renting and business activities (7 per cent). Industry accounts for almost 34 per cent of GDP, with manufacturing and construction being the most important. The remaining 14 per cent is contributed by agriculture and forestry, and fishing.

In 2018, Bangladesh's real gross domestic product grew by around 7.93 per cent compared to the previous year. The GDP Growth Rate in Bangladesh averaged 5.92 percent from 1995 until 2018, reaching an all-time high of 7.93 per cent in 2018 and a record low of 4.42 per cent in 2002.

Figure 4: Economic growth situation in Bangladesh



Source: Bangladesh Economic Review 2019

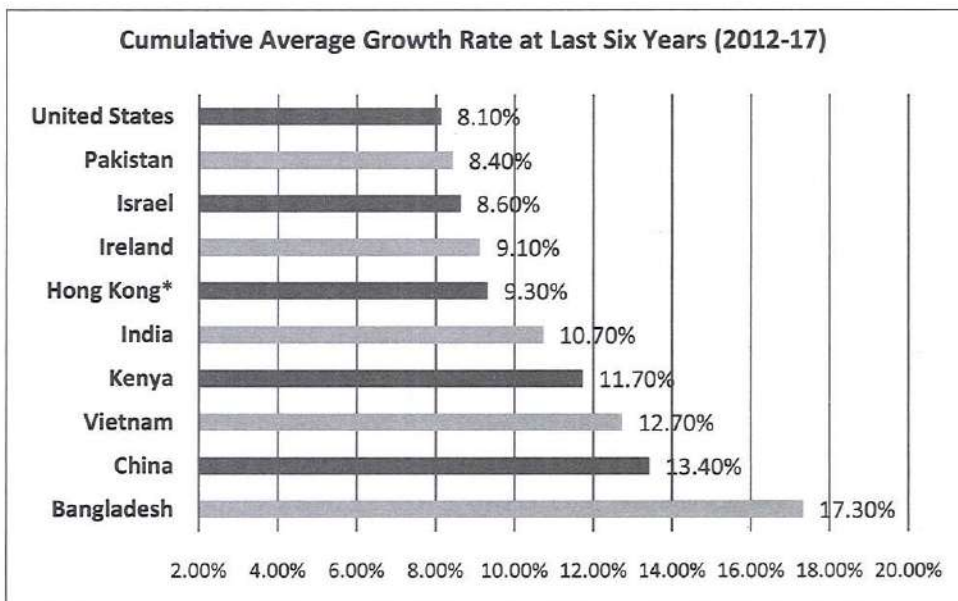
Comparative Study of Growth on Some Selected Countries in the World

Economic growth is an increase in the production of goods and services compared to one period to another. It can be measured in nominal or real terms. Traditionally, economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP), although alternative metrics are sometimes used. In Bangladesh, economic growth is measured in terms of gross domestic product (GDP). Recently Bangladesh has achieved a high growth rate, during that period, its annual GDP growth rate is 7.0 per cent and expected to be 7.2 per cent by the end of the quarter. It is projected that GDP annual Growth rate is around 8.00 per cent in 2020, according to Trading Economics global macro models and analysts' expectations. According to World Ultra Wealth Report 2018 by Wealth-X top 10 fastest-growing UHNW countries are-

The World Ultra Wealth Report 2018 by WEALTH-X, published on September 5, 2019, said the ultra-high income net worth (UHINW) population in Bangladesh posted a 17.3% growth over the last six years (2012-17). This report shows that rich people in Bangladesh rising faster than anywhere in the globe.

Bangladesh has been ranked the fastest-growing country with an increasing number of rich populations in the world, according to World Ultra Wealth- X. The number of ultra-high net worth (UHNW) individuals in Bangladesh rose by 17.3

Figure 5: Sources of FDI in Bangladesh (Millions of USD)



Source: World Ultra Wealth Report 2018 by WEALTH- X

per cent during the period where the United States rose by 8.1%. Apart from Bangladesh, four other countries posted double-digit growth in terms of their rich population. They are China (13.4%), Vietnam (12.7%), Kenya (11.7%) and India (10.7%). Five other countries in the top 10 list are Hong Kong (9.3%), Ireland (9.1%), Israel (8.6%), Pakistan (8.4%) and the United States (8.1%). In terms of growth, Bangladesh is ahead of China, Vietnam, Kenya, India, Hong Kong, Ireland, Israel, Pakistan and the US.

Methodology

The study is entirely based on secondary data collected from different secondary sources like World Investment Report (WIR), Yearly Publications of the UNCTAD, UN Publications, Yearly Publication of the Asian Development Bank (ADB), Annual Reports of Bangladesh Bank and Bangladesh Economic Review, published documents from Board of Investment (BOI) of Bangladesh. Data have also been collected through intensive library work from the related research studies, publications, government documents, media documents and the internet. The study covers the period of 1980-2019. The analysis is mainly based on yearly variations and changes in the growth of FDI inflows. Data have been presented in tabular form to facilitate numerical examinations and graphical representations.

Dependent Variable: Foreign direct investment (FDI), net inflows in millions of US\$ is used as dependant variable.

Independent Variable: TROP = Trade Openness, ER = Exchange rate, INF = Inflation, consumer prices (annual %), GDPC = GDP per capita (current US\$) and WR = Wage Rate are used as dependant variable.

Specification of the Model

The data set consists of the period 1980 to 2019, which is forty (40) years. The observed data was time-series and cross-sectional data converted to Panel data/Pooled data. FDI = Foreign direct investment, net inflows (current US\$), TROP = Trade Openness, ER = Exchange rate, INF = Inflation, consumer prices (annual %), GDPC = GDP per capita (current US\$) and WR = Wage Rate. The paper investigated the relationship between FDI and economic growth.

Research model after including explanatory variables is as follows-

$$FDI_{it} = f(TROP_{it}, ER_{it}, INF_{it}, GDPC_{it}, WR_{it}) \dots\dots\dots (1)$$

Where,

- FDI = Foreign direct investment
- TROP = Trade openness
- ER = Exchange rate
- INF = Inflation, consumer price index
- GDPC = GDP per capita
- WR = Wage Rate

OLS has been used to estimate the equations of regression. However, this type of estimation may create a problem of interpretation when we want to study the country-specific characteristics like policy changes, political regimes and good governance that affect the FDI inflows. After taking the log value of each variable, the model can be written like this:

$$\ln FDI = \beta_0 + \beta_1 \ln TROP + \beta_2 \ln ER + \beta_3 \ln INF + \beta_4 \ln GDPC + \beta_5 \ln WR + u. \quad (2)$$

Unit Root Test

Since the above model data is time series, so first, we have to detect whether the data are stationary or non-stationary. To test the data stationary or non-stationary, we have to apply unit root test (Augmented Decky Fuller Test). In this above model, we have six variables such as: FDI = Foreign direct investment, net inflows (current US\$), TROP = Trade openness, ER = Exchange rate, INF = Inflation, consumer prices (annual %), GDPC = GDP per capita (current US\$) and WR = Wage Rate. If the absolute test statistics is more than the critical value (absolute), then we can reject the null hypothesis and accept alternative

Table 2: ADF unit root test

Variable	ADF test statistics	5% critical value	10%critical Value	Probability value	Decision
Level- FDI	-2.084	-2.943	-2.610	0.9998	Non-stationary I(1)
FDI (-1)	-6.871	-2.943	-2.610	0.000	Stationary I(0)
Level- GFDPC	3.131	-2.938	-2.608	1.000	Non-stationary I(1)
GFDPC (-1)	-4.306	-2.941	-2.609	0.0016	Stationary I(0)
Level- TROP	-0.428	-2.941	-2.609	0.8939	Non-stationary I(1)
TROP (-1)	-10.090	-2.941	-2.609	0.000	Stationary I(0)
Level- ER	-4.640	-2.938	-2.608	0.0006	Stationary I(0)
Level-INF	-4.182	-2.938	-2.608	0.0022	Stationary I(0)
Level- WR	0.392	-2.981	-2.629	0.9913	Non-stationary I(1)
WR (-1)	-4.836	-2.941	-2.609	0.0003	Stationary I(0)

Note: (-1) and (-2) means first and second difference, respectively.

hypothesis. But if the absolute test statistics is less than the critical value, we cannot reject null hypothesis, instead we accept the null hypothesis.

We can check unit root by three methods such as with intercept, with the trend and intercept and no trend and no intercept. In this study, we checked only with intercept. In appendix table-4, the test statistics showed that the estimated value of t-statistics 2.084 is more than the critical value 2.943 at 5% level of significance that means FDI has a unit root or variable FDI is non-stationary. On the other hand, the p-value is more than 5% means we cannot reject null hypothesis or we can accept the null hypothesis that means FDI has a unit root. To remove the unit root from the FDI variable, we convert the variable into the first difference and take the result, which showed there is no unit root into converted data. In this procedure, we checked Trade openness, Exchange rate, Inflation, GDP per capita and Wage Rate. Inflation and exchange rate variable are stationary, and FDI, GDP per capita, trade openness and Wage Rate are the first difference stationary.

Estimated Result and Analysis

The estimated regression equation would be as follows:

$$\ln FDI = -1.1862 + 0.063 \ln TROP - 0.529 \ln ER - 0.088 \ln INF + 1.870 \ln GDPC - 0.594 \ln WR + u \dots (3)$$

The above equation shows that GDP per capita and trade openness have a positive effect and exchange rate, inflation, and wage rate negatively affect FDI. In equation (3), estimated values of the parameters show that if GDP per capita and trade openness increase 1 per cent, then FDI will increase 1.87 per cent and

Table 3: The estimated regression result is given below-

Variable	Coefficient	Standard Error	t-statistics	Pro.
Constant	-1.186243	0.671567	-1.766380	0.0863
LGDP	1.870182	0.437170	4.277929	0.0001
LTROP	0.063463	0.138992	0.456595	0.6509
LER	-0.528661	0.256636	-2.059969	0.0471
LWR	-0.594101	0.461942	-1.286095	0.2071
LINF	-0.088257	0.106737	-0.826863	0.4141

0.063 per cent, respectively, which means GDP per capita and trade openness has a positive impact on FDI. On the other hand, if the exchange rate, inflation and wage rate has a negative effect on FDI increase 1 per cent, FDI will decrease 0.529 per cent, 0.088 per cent, 0.594 per cent respectively, those variables have a negative impact on FDI. However, the respective p values show that trade openness, wage rate, and inflation have insignificant exchange rates, and GDP growth significantly affect FDI.

Conclusion

In recent years, policymakers and multilateral organisations have increasingly emphasised the importance of a good investment climate for promoting economic growth in developing countries. In this age of "location tournament for investment", where governments compete for attracting FDI by offering various incentives and benefits among the nations, the significant challenge for Bangladesh is to ensure an eye-catching and conducive environment for foreign investment. For that, Bangladesh has long been trying to attract FDI to support its internationalisation process. FDI plays a vital role in the process of industrialisation and economic growth in developing countries.

This paper evaluates the strength between inward FDI inflow and various economic indicators and the long-term impact of foreign investment in the case of Bangladesh. To conclude, it can be said that Bangladesh needs to reinforce its infrastructure facilities, improve the quality of its service, liberalise its local and global investment policy further and last but not least to maintain macroeconomic and political stability to improve its inward FDI performance and potential index and so to become an attractive destination for foreign investors. However, to absorb the positive impact of FDI, the government of Bangladesh must strengthen its negotiating capacity on the multilateral stage to protect its interests by retaining the right to choose the types and direction of FDI according to their own needs. Furthermore, consistent incentive packages should be implemented not to crowd out domestic investments because the domestic investment rate needs to be

increased to encourage foreign investors and ensure long-term economic growth. To make our local industries internationally more competitive, we must utilise the opportunity to upgrade our technology, gather global managerial skills and practices from multinational corporations. Only our triumph to do so will ensure sustainable economic growth out of increased foreign investment inflow.

References

- Alam, H. M. (2011). An Econometric Analysis of Export-Led Growth Hypothesis: Reflections from Pakistan Interdisciplinary. *Journal of Contemporary Research in Business*, 2(12), 330-338.
- Balassa, B. (1985). Exports, Policy Choices, and Economic Growth in Developing Countries after the 1973 Oil Shock. *Journal of Development Economics*, 4(1), 23-35.
- Chow, P. C. Y., (1987). Causality between Export Growth and Industrial Performance: Evidence from the NICs. *Journal of Development Economics*, vol. 26, pp. 55-63
- Estrin, S., & Uvalic, M. (2015). Foreign Direct Investment in the Western Balkans: What role has it played during transition? Available at: <https://editorialexpress.com/cgi-bin/conference/download.cgi?> (Accessed on: 27.12.2019)
- Ganic, M. (2013). The Effects of Foreign Direct Investment Flows in Developing Process of Countries of Western Balkan, International University of Sarajevo. Available at: <http://ssrn.com/abstract=2382456> (Accessed on: 23.12.2019)
- Khan, A. H., & N. Saqib. (1993). Exports and Economic Growth: The Pakistan Experience. *International Economic Journal*, Vol. 7, No. 3, 55-64. s.
- Krueger, A. O. (1990). *Foreign Trade Regimes and Economic Development: Liberalisation Attempts and Consequences*. Cambridge, MA: Ballinger.
- Muhammad Azam. (2010). Exports and Economic Growth in Pakistan: An Empirical Analysis. *Journal of Managerial Sciences*, Volume V, Number 2.
- Muhammad S. Anwer., & R. K. Sampath. (1997). Exports and Economic Growth. Presented at Western Agricultural Economics Association 1997- Annual Meeting July 13-16, 1997 Reno/Sparks, Nevada.
- Novak, T. (2013). Economic Perspectives of the Western Balkans – Back to the Past. Available at: <http://transatlanticrelations.org/sites/default/files/WB-Econ.pdf> (Accessed 26.12.2019)
- Pesaran M H., & Shin Y. (1999). An Autoregressive Distributed Lag Modelling Approach to Cointegration Analysis' in S Strom, (ed., *Econometrics and Economic Theory in the 20th Century: The Ragnar Frisch Centennial Symposium*, Cambridge: Cambridge UP.
- Qazi Masood Ahmed, Mohammad Sabihudin Butt., & Shasita Alam. (2000). Economic Growth, Export, and External Debt Causality: The Case of Asian Countries. *The Pakistan Development Review*, 39: 4 Part II (Winter 2000) pp. 591–608.

- Rahman, M., & M. Mustafa. (1998). Dynamics of Real Exports and Real Economic Growth in 13 Selected Asian Countries. *Journal of Economic Development*, Vol. 22, No. 2, 81-95.
- Rehman, Khan., & Ahmad. (2004). Does Fischer Effect Exist in Pakistan A cointegration Analysis? *Pakistan Economic and Social Survey*, volume XLII".
- Siddiqui, S., Zehra, S., Majeed, S., & Butt. M. S. (2008). Export-Led Growth Hypothesis in Pakistan: A Reinvestigation Using the Bounds Test. *The Lahore Journal of Economics*, pp: 59-80.
- Tyler, W.G. (1981). Growth and Export Expansion in Developing Countries: Some Empirical Evidence. *Journal of Development Economics*, Vol. 9, No. 1, 121-130.
- World Bank (1987), *World Development Report 1987*, New York: Oxford University Press.
- Vesaite, R. (2014). FDI from European Union to Western Balkan Countries: is the economic development being intensified in the region? Available at: http://ddd.uab.cat/pub/trerecpro/2014/hdl_2072_240258/25.pdf (Accessed on: 22.12.2019)
- Zakharov, V., & Kusic, S. (2003). The Role of FDI in the EU Accession Process: The Case of the Western Balkans, Available at: <http://www.etsg.org/ETSG2003/papers/zacharov.pdf> (Accessed on: 24.12.2019)