1703057_Rokyea Akter

by Shaikh Mostak Ahammad

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A Thesis

on

Impact of FDI Inflow and Outflow on the GDP in three Asian Countries: Bangladesh, China and Malaysia

This report is submitted to the department of Accounting Faculty of Business Studies, Hajee Mohammad Danesh Science and Technology University, Dinajpur for the partial fulfillment of the degree of Masters of Business Administration (MBA) in Accounting and Information Systems

Prepared By

Rokyea Akter

Student ID−1703057

MBA in Accounting and Information Systems

Batch 10th

Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Supervised By

Dr. Shaikh Mostak Ahammad

Professor

Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Hajee Mohammad Danesh Science and Technology University

Dinajpur−5200, Bangladesh.

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Rokyea Akter

Student ID−1703057

MBA in AIS

Batch 10th

Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Approved by

Supervisor

Dr. Shaikh Mostak Ahammad

Professor

Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Co-supervisor

Md. Mamunar Rashid

Professor

Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Hajee Mohammad Danesh Science and Technology University

Dinajpur−5200, Bangladesh.

June, 2024

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I submit my earnest thanks to my affectionate parents, who always remains my back to support me, I can never give the returns of their untried struggle for me, but I can only prove myself as they expect from me.

.....

Rokyea Akter

Student ID−1703057

MBA in AIS

Batch 10th

Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Certificate of Supervisor

I hereby declare that the concerned report on "*Impact of FDI Inflow and Outflow on the GDP in three Asian Countries: Bangladesh, China and Malaysia"* is a work done by Rokyea Akter, Student ID: 1703057, MBA in Accounting and Information Systems, Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200, She has completed her research program under my supervision and submitted for the fulfillment of the requirement of the degree of Master of Business Administration (MBA),under the Department of Accounting , HSTU, Dinajpur.

I wish her every success in life.

……

Dr. Shaikh Mostak Ahammad

Professor

Department of Accounting

Faculty of Business

Studies HSTU, Dinajpur.

Certificate of Co-supervisor

I hereby declare that concerned report on "*Impact of FDI Inflow and Outflow on the GDP in three Asian Countries: Bangladesh, China and Malaysia"* is a work done by Rokyea Akter, Student ID: 1703057, MBA in Accounting and Information Systems, Hajee Mohammad Danesh Science and Technology University, Dinajpur-5200, She has completed her research program under my co-supervision and submitted for the fulfillment of the requirement of the degree of Master of Business Administration (MBA), under the Department of Accounting , HSTU, Dinajpur.

I wish her every success in life.

……

Md. Mamunar Rashid

Professor

Professor Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Student's declaration

I hereby declare that the study entitled "*Impact of FDI Inflow and Outflow on the GDP in three Asian Countries: Bangladesh, China and Malaysia"* embodies the result of my own works and efforts, prepared under the supervision of Dr. Shaikh Mostak Ahammad, Professor, Department of Accounting, Faculty of Business Studies, Hajee Mohammad Dansesh Science and Technology University, Dinajpur-5200 .

I further confirm that the work and material included in this thesis report is original and have not been submitted to any other university or institution for credit or any other reason.

……

Rokyea Akter

Student ID−1703057

MBA in AIS

Batch 10th

Department of Accounting

Faculty of Business Studies

HSTU, Dinajpur.

Abstract

This study examines the impact of FDI inflow and outflow on the GDP of Bangladesh, China, and Malaysia using panel data as a framework. The analysis uses the World Bank Development Indicators data set and spans the years 2005–2022. Using Eviews 10 software, statistical analysis is used to interpret the data. The panel co integration analysis and panel unit root test are used in this study to look at the long-term relationships between the variables. The results of the study showed a positive relationship between GDP growth and FDI inflow and outflow. Additionally, the influence of reactions between FDI inflow outflow and GDP, as well as the short- and long-term relationship, are examined using panel impulse response functions (IFRs). The IRFs indicate that the shocks of all the factorss take a maximum of four to five years to reach the equilibrium level once they begin. Additionally, this analysis demonstrates that the three Asian nations of Bangladesh, China, and Malaysia benefit economically from FDI inflows and outflows.

Keywords: GDP, FDI Inflow, FDI Outflow, analysis, relationship.

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List of Abbreviation

Abbreviation	Elaboration
FDI	Foreign direct investment
GDP	Gross domestic product
VAR	Vector auto regression
Fisher ADF	Augmented Dickey fuller

Chapter I

Introduction

For many nations, foreign direct investment (FDI) is essential to their economic progress. A nation's gross domestic product (GDP) can be significantly impacted by FDI input and outflow. The inflow and outflow of foreign direct investment (FDI) from Bangladesh, China, and Malaysia—three developing nations—has increased significantly during the last few decades. The study's goal is to use panel data analysis to examine how FDI inflow and outflow affected Bangladesh's, China's, and Malaysia's GDP between 2005 and 2022. The three Asian nations were picked because of the similarities between their political, social, and economic systems. Each of the three nations has a sizable population and an expanding economy. They also have a significant part in their economic progress. Moreover, the three Asian countries have implemented various policies to attract FDI inflows and encourage FDI outflows.

In Bangladesh, FDI inflows have been frequently increasing over the past few years, reaching a record high of $3.6 billion in the fiscal year 2020–21. According to the Bangladesh Investment Development Authority, the majority of the FDI has been directed towards the power, energy, and telecommunications sectors. Over the last ten years, Bangladesh's economy has grown at a GDP growth rate of roughly 5-7%. Nevertheless, the COVID-19 pandemic has had a significant effect on the nation's economy, with GDP growth slowing to 5.24% in the 2019–2020 fiscal year. In China, FDI inflows have also been increasing, with a total of $64 billion in the fiscal year 2020–21. The majority of the FDI has been directed towards the services section, followed by computer software and hardware, broadcasting, and construction development. In terms of GDP, China's economy has been growing at a rate of around 6–8% over the past few years. The nation's economy has, meanwhile, also been significantly impacted by the COVID-19 epidemic, with GDP growth dropping to 7.7% in 2020–21. In Malaysia, FDI inflows have been increasing as well, with a total of $2.4 billion in 2020, which is a 7% increase contrary to the previous year. In terms of GDP, Malaysia's economy has been growing at a slower rate of around 3–4% over the past few years. The nation's economy has also been significantly impacted by the COVID-19 epidemic, with GDP growth decreasing to 3.6% in 2020.

Time-series and cross-sectional data are combined numerically in panel data analysis. The effect of FDI entry and outflow on the GDP of the three nations is examined using this

methodology. The World Bank's data from 2005 to 2022 is included in the panel data. The unit root test is used in this study to examine the stationary data of the variables. In time-series analysis, stationary is a fundamental premise. To determine whether the variables are stationary do the unit root test. All variables are stationary, according to the results of the unit root test, indicating that they are appropriate for more investigation. The test for co-integration of the variables is the second step in the study. A statistical concept known as co-integration illustrates the long-term link between two or more variables. Use the Johansen co-integration test to ascertain whether FDI inflow, FDI outflow, and GDP are co-integrated. The variables have a long-term link, as demonstrated by the results of the Johansen co-integration test. This study looks at the variables' impulse responses after the Johansen co-integration test. The examination of impulse response indicates how the other variables in the system are impacted by a single shock to one variable. The results of the impulse response study demonstrate that positive shocks to FDI inflow and outflow cause both short- and long-term GDP increases.

Thus, it can be concluded that the study demonstrates that FDI inflow and outflow significantly affect Bangladesh's GDP, China's GDP, and Malaysia's GDP. The panel data analysis's findings show that FDI inflow and outflow boost each of the three nations' GDPs.. The findings of this study are significant as they provide insights into the importance of FDI inflow and outflow for economic growth in developing countries. These findings can be used by policymakers to develop policies to attract FDI inflows and encourage FDI outflows to promote economic growth.

Chapter 2

LITERATURE REVIEW

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Gries and Redlin (2012) explored the causal link between trade openness and economic progress and found that there was a bidirectional causal relationship between trade openness and economic growth.. The impact of foreign direct investment (FDI) on economic growth has been shown to be positive in both the short and long term by a no of studies.

Liu and Wang (2014) investigated the impact of outward foreign direct investment (FDI) on the domestic employment of Chinese enterprises. The authors argue that FDI can affect domestic employment through several channels, including technology spillovers, resource allocation, and changes in the structure of production. Kao (1999) examined panel data co integration tests. While this test is not specifically about the Kao unit root test, it is an important contribution to the econometrics literature and has been cited in many subsequent studies on panel data co integration and unit root testing.

Im, Pesaran, and Shin (2003) introduced the IPS test. In this paper, the authors derive the asymptotic distribution of the IPS test statistic and demonstrate its superior performance compared to other unit root tests, especially under cross-sectional dependence and heterogeneity.

Pedroni (2004) provided an overview of the asymptotic and finite sample properties of pooled time series tests for panel co integration and included an application to the PPP hypothesis (purchasing power parity). The paper proposes a new test for unit roots in panel data that takes into account cross-sectional dependence and compares the properties of this test to those of other existing tests.

The results of research continuously show that FDI, or foreign direct investment, significantly boosts economic growth. Numerous empirical studies conducted in different nations and regions have shown a strong association between improved economic growth and foreign direct investment (FDI).

Chapter 3

Methodology

3.1 Research Methodology

The study utilizes various empirical methods to analyze the relationship among FDI inflow, outflow, and GDP. Firstly, to regulate the stationary properties of the factors, panel unit root tests including the Levin-Lin-Chu (LLC) test, Im-Pesaran-Shin (IPS) test, and Fisher-type test are utilized. Second, utilizing the Pedroni (2004), Kao (1999), and Fisher (1932) techniques, Johansen panel co integration tests are performed to look for co integration. It is important to remember that the study utilizes the Eviews10 econometric software and follows the procedures suggested by Cruz (2018) to estimate the models and conduct the analyses. It is essential to mention that the use of these methods and software is common in empirical research, and the study adopts these methods to guarantee the validity and reliability of the findings.

3.2 Panel unit root analysis

The unit root test can be used to determine if a time series is stationary or non-stationary. If the series is non-stationary, a unit root is suggested, indicating that the series is trending and does not have a constant mean across time. On the other hand, if the series is stationary, it means that it does not possess a unit root and that its mean is constant over time. A panel data set's individual series' unit root attributes can be examined using a variety of panel unit root analysis tests. The Im-Pesaran-Shin (IPS) (2003) test, the Levin-Lin-Chu (LLC) (2002) test, and the Fisher-type (PP and ADF) test are a few of the frequently utilized tests. It has been discovered that the LLC test, which is non-parametric in nature, has good power in finite samples. The Fisher-type test is based on a combination of the LLC and IPS tests and has been found to have good power with the existence of both serial correlation and intersectional reliance.

For a rational panel—one in which all panel supporters maintain constant autoregressive coefficients—the LLC test is feasible. The basis for the Augmented Dickey Fuller (ADF) standard is this test. The common equation for the LLC test is:

$$\Delta Y_{i,t} = \alpha_i + \rho_i Y_{i,t-1} + \sum_{j=1}^{\rho_i} \beta_1 \Delta Y_{i,t-j} + \gamma_i t + \varepsilon_{i,t} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (1)$$

Where,

Y= Dependent variables

i= (1, 2, 3 …N) above the period

t= (1, 2…. T)

*p*i =quantity of lags

εi, t =Errors terms

3.3 Panel co integration analysis

Once more, Pedroni's (2004) panel co integration test is utilized in this study to determine if the variables under consideration have a long-term relationship. When conducting a co integration test, the null hypothesis asserts that the panel data series under investigation are not co integrated.. If the alternative hypothesis holds, then the time series are co integrated and share a common co integrating vector, but if the null hypothesis holds, then the sequence is either not co integrated at all or co integrated but lacks a common co integrating vector. In plenty of other words, the null hypothesis covers both the possibility of co integration without a shared component and the probability of co integration without it.

Two sets of test statistics, each including seven statistics, are described by Pedroni (2004). The first set of statistics consists of the panel v-statistic, the panel rho-statistic, the panel PP-statistic, and the panel ADF-statistic. While the first three statistics use nonparametric adjustments similar to those of Phillips and Perron, the fourth statistic is a parametric enhanced Dickey-Fuller t-statistic. The second set of statistics consists of the group, group PP, and group ADF statistics. The third statistic is an improved test statistic based on Dickey-Fuller, while the other two statistics depend on nonparametric modifications.

It offers a variety of statistics with different properties that allow researchers to choose the most appropriate test for their specific research question. Kao (1999) and Fisher (1932) tests are also part of the Johansen co integration test.

Pedroni created a variety of co integration tests that account for variation in the intercept and trend over time periods. Take this example of a regression into account:

$$y_{it} = \alpha_i + \delta_i t + \beta_{1,i} X_{1\,i,t} + \beta_{2,i} X_{2\,i,t} + \cdots + \beta_{Mi} X_{M\,i,t} + \mathcal{E}_{i,t} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Here,

t=1, …. T; i=1,….N; m=1,….M; When it is thought that, for rank one, y and x are integrated. If desired, individual and trend impacts can be set to zero.

Methodologically, the Kao test is comparable to the Pedroni test; however, it necessitates the use of homogeneous coefficients and cross-section-specific intercepts for the first set of repressors. With reference to the bivariate instance that Kao (1999) examined, as follows:

$$y_{it} = \alpha_i + \beta x_{it} + c_{it} \quad \ldots\ldots\ldots\

Bangladesh, China, and Malaysia, three Asian nations. The natural logarithm of the real gross domestic product, or lnGDP, FDI inflow, and FDI outflow, are the variables of interest in this multivariate panel data analysis. he use of natural logarithms helps to transform the data into a more meaningful and comparable scale, allowing for a better analysis of the variables relationships.

Chapter 4

Empirical Result

4.1 Panel Unit Root tests Results

The Panel unit root tests can be used to investigate the panel data series properties of a set of variables. To ascertain whether a long-term relationship exists between the factors, it is imperative to ascertain whether they are non-stationary or stationary.

Tables 1 and 2 present the outcomes of the panel unit root test for the levels and first-differences of the variables, respectively. The null hypothesis of the tests is the unit root of the variables, which implies that they are non-stationary. According to the alternative hypothesis, the variables are stationary. Due to their inability to reject the null hypothesis that they have a unit root in their values, the results suggest that most of the variables are non-stationary. However, when the variables are differentiated just once, most tests reject the null hypothesis of a unit root and indicate that the variables are stationary in their first-differences. Considering that order one integration of the variables, there may be a chance that they will co-integrate over the long term. Stated otherwise, a potential long-term correlation could exist between lnGDP, lnFDI inflow, and lnFDI outflow. Therefore, further investigation is necessary to determine if there is co integration among these variables.

Table 1: Outcomes of Panel Unit Root LLC Tests and Fisher ADF tests:

	LLC Test			ADF Test		
Variables in levels	**None**	**Individual**	**Individual and trend**	**None**	**Individual**	**Individual and trend**
lnGDP	1.000	0.987	0.2088	1.000	0.3005	0.4720
lnFDI inflow	0.0118	0.0603	0.0041	0.1166	0.0572	0.0551
lnFDI outflow	0.1260	0.775	0.6502	0.3735	0.5187	0.1746

Variables in 1st difference						
lnGDP	0.1206	0.0022	0.0014	0.1111	0.0015	0.0090
lnFDI inflow	0.000	0.000	0.000	0.000	0.006	0.0004
lnFDI outflow	0.000	0.129	0.5730	0.000	0.0044	0.0923

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Table 2: Panel Unit Root PP and IPS test results

	PP Test			IPS Test	
Variables in levels	None	Individual	Individual and trend	Individual	Individual and trend
lnGDP	1.000	0.9385	0.4120	0.9805	0.5471
lnFDI inflow	0.0053	0.0107	0.0006	0.1168	0.0609
lnFDI outflow	0.2643	0.0950	0.0324	0.3953	0.1806
Variables in 1st difference					
lnGDP	0.0067	0.000	0.000	0.0011	0.0090
lnFDI inflow	0.000	0.000	0.000	0.0000	0.000
lnFDI outflow	0.000	0.023	0.000	0.000	0.0764

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4.2 Panel Co integration Result

The variables in this panel data series are integrated, non-stationary at the level, and stationary in their initial differences with regard to the integration order, according to unit roots tests. Panel co-integration testing can therefore be used.

A long-term link between gross domestic output, FDI inflows, and outflows is demonstrated by the results of the panel co integration tests carried out by Pedroni, Kao, and Johansen Fisher for equations 2, 3, and 4.

Most of Pedreni's statistics reject the null hypothesis that there is no co integration among the variables, both when the intercept is the only variable and when both the intercept and the trend are included (Table 3). This implies that the observable variables have a panel long-run cointegration relationship.. The co integration test looks for a shared trend or long-term link between several time series factors. The test results in this instance point to the possibility of a long-term co integrating link between the GDP, FDI inflows, and FDI outflow. The null hypothesis that there is no co integration at the conventional level of significance is specifically rejected by the panel v-statistic, panel ADF statistic, group PP statistic, and group ADF statistic, among other four test statistics, indicating that there may be long-term co-movement among the factors.

Table 3: Panel co integration test (Pedroni)

	Intercept				Intercept and Trend			
	Statistic	**P-Value**	**Weighted Statistic**	**P-value**	**Statistic**	**P-value**	**Weighted statistic**	**P-value**
Panel v-Statistic	1.663134	0.0481	0.433906	0.3322	0.604440	0.2728	0.040179	0.4840
Panel rho-Statistic	-0.575579	0.2824	-0.596947	0.2753	0.565506	0.7141	-0.532399	0.2972
Panel PP-Statistic	-2.699207	0.0035	-1.831463	0.0335	-3.034094	0.0012	-4.432771	0.000
Panel ADF-Statistic	-2.717958	0.0033	-1.939359	0.0262	-2.412621	0.0079	-3.939751	0.000
Group rho-Statistic	-0.028861	0.4885			0.522026	-0.6992		
Group PP-Statistic	-3.094754	0.0010			-7.299179	0.000		
Group ADF-Statistic	-2.790492	0.0026			-3.880180	0.0001		

With the Kao co-integration test, a long-term relationship between non-stationary time series variables can be found. The ADF test is used to calculate it, which checks if a time series is stationary or not. In this case, the ADF test statistic for lnGDP, lnFDI inflow, and lnFDI outflow is -4.369517, with a corresponding probability value of 0.0001 (Table 4). This shows that these variables might have a long-term link.

Table 4: Kao Residual Co integration Test

Variables	ADF	
	t-Statistic	P- value
ln GDP, ln FDI inflows and ln FDI outflows	-4.369517	0.0001

Table 5: Johansen Fisher Panel Co integration Test

Hypothesized No. of CE(s)	Fisher Stat.* (from trace test)	P-value	Fisher Stat.* (from max-eigen test)	P- value
None	27.40	0.0001	17.10	0.0089
At most 1	15.77	0.0150	14.80	0.0218
At most 2	8.595	0.1977	8.595	0.1977

Finally, the gross domestic product, FDI inflows, and FDI outflows have a long-run panel co-integration connection, according to the findings of the Johansen Fisher trace and maximum eigenvalue co-integration tests (Table 5). This indicates that changes in GDP can affect both inflows and outflows of FDI over the long term.

4.3. Panel Multivariate Impulse Response Functions (IRFs)

Real gross domestic product (GDP) shocks are created to all the variables in order to develop the panel impulse response functions (IRFs), FDI inflow and FDI outflow. Panel IRFs for the three variables for three Asian nations are displayed in Figure 1. The shocked variable appears in the column, and the intended outcome appears in the row. Figure 1 shows that after an initial shock, most variables return to their equilibrium levels within four to five years.

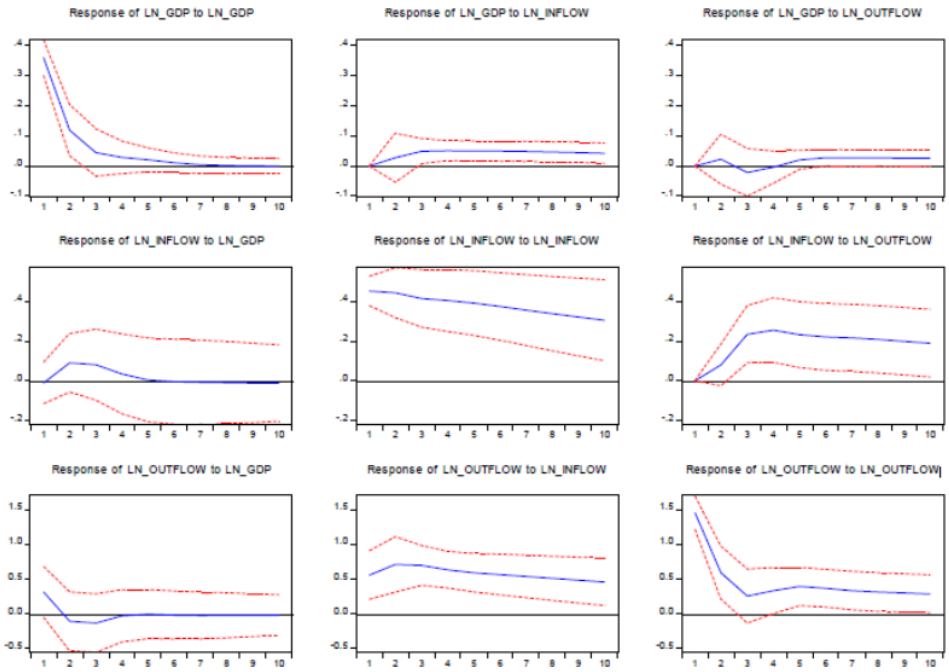

Figure1. Panel (IRFs) comparison of three Asian countries

In Figure 1, the first line of illustrations illustrates the impulse reacts of various economic factors to a single-unit shock in the real GDP. An impulse response shows how a variable responds to a sudden change or shock in another variable. The graph displays that when there is a single-unit shock in real GDP, it initially positively influences both foreign direct investment (FDI) inflow and outflow. This means that when real GDP increases, there is a corresponding increase in FDI inflow and outflow. However, after two 15 and a half to four years, the impulse response shows that the total outflow of FDI is negatively affected by the shock. This means that after a certain period of time, the increase in real GDP may lead to a decrease in FDI outflow. The graph also shows that there are two equilibrium levels for FDI outflow. The first equilibrium level is reached after two and a half years, and the second equilibrium level is reached after almost four years. This means that after these periods, the FDI outflow stabilizes at a certain level. Finally, the graph shows that after four years, the impulse response becomes stable and does not change further. This means that the effects of the shock on the variables become stable after a certain period of time. Overall, the impulse response graph shows the dynamic relationships among real GDP and FDI inflow and outflow over time.

In Figure 1, the second line of illustrations illustrates the impulse reacts of various economic factors to a single-unit shock in FDI inflow. An impulse response shows how a variable reacts to a sudden changes or shocks in another factor. The graph displays that when there is a single-unit shock in FDI inflow, it initially positively affects the real GDP. This means that when FDI inflow increases, there is a corresponding increase in the real GDP. After six years, the shock starts to negatively affect the real GDP, and it becomes stable for ten years. This means that the positive effect of FDI inflow on real GDP is limited to a certain period and then stabilizes at a certain level. The graph also shows that FDI inflow positively affects FDI outflow, and it increases period by period until three years. This means that when FDI inflow increases, there is a corresponding increase in FDI outflow. After three years, the impulse response becomes stable, and FDI outflow does not change further. Overall, the impulse response graph shows the dynamic relationships among FDI inflow and real GDP and FDI outflow over time.

In Figure 1, the third row indicates the impulse reacts of various economic factors to a single unit shock in the outflow of foreign direct investment. An impulse response shows how a variable reacts to a sudden changes or shocks in another factor. The graph displays that when there is a one-unit shock in FDI outflow, it initially positively affects the economic variables. This means that when FDI outflow increases, there is a corresponding positive effect on the other variables. However, after two years, the impulse response shows that the effect of FDI outflows becomes negative and lasts until four and a half years. After four and a half years, the shock reaches an equilibrium level for a period of five to six years. After six years, the shock starts to negatively affect the variables again, and they remain stable for ten years. The graph also shows that FDI outflow positively affects FDI inflow until three years, and after three years, the impulse response becomes stable. This means that when FDI outflow increases, there is a corresponding increase in FDI inflow until a certain period.

Overall, the impulse response graph shows the dynamic relationships among FDI inflow, outflow and GDP over time.

CHAPTER 5

Findings and Suggestions

5.1 Findings

- After a certain period of time, the outcomes of the unit root test indicate that every variable is stationary at the first difference, proving the integration of the variables.
- This study shows that FDI inflow and outflow has a positive long-term impact on the GDP of Bangladesh, China, and Malaysia.
- For all three nations, the findings of the Johansen co integration test, which show that changes in FDI inflow and outflow have an impact on economic growth over time, support the long-term link between FDI inflow, FDI outflow, and GDP
- FDI inflow is positively impacted by a one-unit GDP shock, while FDI outflow is marginally impacted negatively.

= GDP and FDI outflow are both positively impacted by a single-unit shock to FDI inflow

= The equilibrium point is established after four or five years based on how all the factors respond to shocks.

- A unit shock to FDI outflow has a beneficial effect on FDI influx but a negative effect on GDP.

5.2 Suggestions

- The three nations must enact laws and policies that guarantee a balance between drawing in and sending out FDI in order to maximize the positive effects of FDI and limit its negative impact.
- Even if the study concludes that FDI influx and outflow have a favorable long-term impact on GDP, it should be worthwhile to investigate the causes that lead to FDI's limited impact on economic growth during specific times. This can assist decision-makers in determining and resolving the issues impeding FDI's potential advantages.

- While the long-term association between GDP, FDI inflow, and outflow is established, it would be intriguing to look into the direction of causality between these variables. This can assist decision-makers in determining the best measures to draw in and hold onto foreign direct investment.

- The fact that all variable responses to shocks reach equilibrium in four to five years raises the possibility that FDI's influence on economic growth may not materialize right away. Therefore, in developing policies to draw in and keep FDI, officials should keep the big picture in mind.

- It is discovered that a one-unit GDP shock has a minor negative effect on FDI outflow but a positive influence on FDI inflow. This suggests that policymakers should concentrate on fostering an environment that is conducive to FDI, such as by enhancing infrastructure, lowering corruption, and offering incentives to foreign investors.

- The findings indicate that policies that should be supported in order to encourage outward FDI in order to increase competitiveness and access new markets are indicated by the result that a one-unit shock to FDI outflow has an adverse impact on GDP and an advantageous effect on FDI inflow.

- The conclusion that a one-unit shock to FDI outflow has an adverse impact on GDP and an advantageous impact on FDI inflow suggests that policymakers should take steps to keep foreign investors in the country. This means that while continuing to draw in FDI will help to boost economic growth, policymakers should also think about enhancing the business climate, cutting red tape, and offering incentives for reinvestment.

CHAPTER 6

Conclusion, policy implication and future work

6.1 Conclusions

The primary goal of this analysis to examine the link between GDP in Bangladesh, China, and Malaysia and FDI inflow and outflow from 2005 to 2022. These figures show that net FDI inflows and outflows significantly boost Bangladesh's, China's, and Malaysia's GDPs. Following a thorough examination of the effects of FDI inflow and outflow on GDP, it is clear that these factors significantly influence these nations' economic growth.

Firstly, the outcomes of the unit root test show that every variable is stable at the initial difference, suggesting that the variables are integrated and that changes in one would eventually affect changes in the others.

Second, the information shows a sustained relationship between GDP and FDI inflow and outflow. The outcomes of the Johansen co integration test show that changes in FDI inflow and outflow have an impact on economic growth over the long term and validate the long-term relationship between FDI inflow, outflow, and GDP for each of the three nations.

Thirdly, the impulse response analysis indicates that the GDP of each of the three nations initially experiences a positive impact from a one-unit shock in FDI inflow. But over time, the effect lessens and eventually reaches an equilibrium level. After that, the effect turns negative but stabilizes at a particular level. In a similar vein, the impulse response study demonstrates that the GDP of all three nations initially benefits from a one-unit shock in FDI outflow.

After a while, though, the effect becomes negative and reaches an equilibrium level. This suggests that, albeit having a short-lived effect, FDI outflows have a favorable influence on these countries' economic growth. Additionally, the impulse response analysis shows that, although the effect is only temporary, FDI inflow and outflow have a positive relationship. FDI inflow initially influences FDI outflow favorably, but after a while the relationship stabilizes. In a similar vein, FDI outflow initially boosts FDI inflow, but this effect eventually levels out.

6.2 Policy implication

According to the study's findings, officials in China, Malaysia, and Bangladesh ought to give soliciting foreign direct investment (FDI) top priority in order to foster economic growth.

6.3 Future work

Every research project has some gaps, and no research project can cover everything at once. Future work for research refers to the development of research projects that aim to address emerging and future challenges. It is needed to anticipate and respond to the changing needs of society and the world and to generate new knowledge and innovations. Future work in research is crucial for staying ahead of the curve and ensuring that research remains relevant and impactful.

- The most probable future work relevant to this study is the following:
- Future study may be necessary to assess the relationship between FDI and GDP constructs.
- This brings us to our third potential research direction: evaluating the impact of FDI on GDP in these three countries on a regional scale..
- In the future, FDI and GDP in certain countries can be causally linked, and this can be determined using econometric techniques such as Granger causality tests and panel data models.
- An analysis of the sector-specific effects of FDI on GDP in these three Asian nations is another potential avenue for future research.
- Future studies could assess the effects of FDI on various regions within these nations as well as on various economic sectors like manufacturing, services, or agriculture using spatial econometric tools or other regional modeling methodologies.

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