

**UNIVERSITY OF CO-OPERATIVE AND MANAGEMENT, SAGAING**  
**DEPARTMENT OF ECONOMICS**  
**MASTER OF REGIONAL DEVELOPMENT**

**AN ANALYSIS OF FOREIGN DIRECT INVESTMENT ON  
ECONOMIC GROWTH IN MYANMAR (1989-2021)**

**KHIN SOE WAI**  
**SEPTEMBER, 2023**

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**A thesis is submitted to the Board of Examiners in partial fulfillment of the requirement  
for the degree of Master of Regional Development**

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## ACCEPTANCE

This is to certify that this paper entitled “**An Analysis of Foreign Direct Investment on Economic Growth in Myanmar (1989-2021)**” submitted as a partial fulfillment towards the degree of Master of Regional Development has been accepted by Board of Examiners.

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## **ABSTRACT**

The objective of the paper is to analyze the relationship between foreign direct investment (FDI) and economic growth in Myanmar during the period of year 1989 to 2021. In addition, the paper aims to analyze the direction of causality between GDP, FDI and inflation rate in Myanmar. The study includes the variables such as GDP FDI inflows and inflation rate. GDP is considered as a proxy variable for economic growth of Myanmar. Augmented Dickey-Fuller (ADF) Unit Root test is applied to determine whether the variables are stationary or not. Johansen co-integration test is also used to test the co-integrating relationship among the variables. Vector Error Correction Model (VECM) is used to analyze the relationship between FDI and economic growth for both long-run and short-run. According to the VECM results, GDP and FDI have positively relationship and significant at 1% level in the long-run. If the inflows of FDI increase, GDP of the country will also increases due to increasing capital formation, management skill and technology. GDP and inflation rate have positively relationship but not significant in the long-run. Increasing FDI causes rising GDP in the short-run. Thus, FDI is important for economic growth of Myanmar in long-run and short-run. The government should give more incentive to foreign investors to invest in power and manufacturing sectors because Myanmar has cheap labor force to supply for manufacturing sector and needs sufficient electricity for the development of the country.

## ACKNOWLEDGEMENTS

Firstly, I would like to gratefully acknowledge and thanks to Dr. Moe Moe Yee, Rector, University of Co-operative and Management, Sagaing for permitting thesis paper, her kindness, and invaluable advices and for taking responsibility of chairman on Master of Regional Development Steering Committee.

Secondly, I am also thanks to Dr. Daw Yi Aye, Rector (Retired) and Visiting Professor, University of Co-operative and Management, Sagaing for her patience, insightful comments and valuable suggestions to finish my graduate study.

I would like to acknowledge to Professor and Head of Department of Statistics (Retired), Daw Khin Aye Myint, University of Co-operative and Management, Sagaing for her kindness, guide and useful advices during my thesis paper.

And then, I am also especially thankful to supervisor, U Kyaw Thura, Professor and Head of Department of Economics, University of Co-operative and Management, Sagaing for his patience, invaluable comments and encouragement during my thesis. His advices and guidance helped me from the beginning to the end of the entire process.

I would like to thankful to Dr. Kyi Kyi Win, Professor and Head of Department of Co-operative Studies, University of Co-operative and Management, Sagaing for her kindness and valuable suggestions during my graduate study.

I am also thankful to Broad of Examiner, Master of Regional Development program for verification of my thesis paper. Moreover, I want to express my gratitude to all teachers of Department of Economics, University of Co-operative and Management, Sagaing for their encouragements, useful advices, knowledge and supports for my studying period.

Finally, I would like to mention my parents and all my sisters and brothers because of their financial supporting and encouragement during my thesis. I would like to mention my colleagues and my friends who encouraged me to achieve my goals and be thankful with great pleasure and acknowledgement to all the people who helped me directly or indirectly in my preparation of the paper.

**Ma Khin Soe Wai**

**2MRD-2**

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## **LIST OF ABBREVIATIONS**

ADF	Augmented Dickey-Fuller test
ADRL	Autoregressive Distribution Lag
AEC	ASEAN Economic Community
ASEAN	Association of Southeast Asia Nations
BOT	Balance of Trade
CPI	Consumer Price Index
CSO	Central Statistical Organization
CSR	Corporates Social Responsibility
DICA	Directorate of Investment and Company Administration
FDI	Foreign Direct Investment
FIL	Foreign Investment Law
FY	Fiscal Year
GDP	Gross Domestic Product
HICP	Harmonized Index of Consumer Prices
IMF	International Monetary Fund
INF	Inflation Rate
MIC	Myanmar Investment Commission
MIL	Myanmar Investment Law
OECD	Organization for Economic Co-operation and Development
PCE	Personal Consumption Expenditures Price Index
PPP	Purchasing Power Parity
R & D	Research & Development
REER	Real Effective Exchange Rate
SEEs	State-owned Economic Enterprises
SEZs	Special Economic Zones
SLORC	State Law and Order Restoration Council
SPDC	State Peace and Development Council
UNCTAD	United Nations Conference on Trade and Development
VAR	Vector Autoregressive Model
VECM	Vector Error Correction Model
WB	World Bank
WTO	World Trade Organization

# **CHAPTER 1**

## **INTRODUCTION**

The wealth of nations depends on the economic growth of the country. So, all countries around the world are trying to achieve rapid economic growth. There are many indicators to measure gross domestic product (GDP) of the country. Increasing or decreasing investment effects on GDP of the country. There are two types of investment such as domestic and foreign direct investment (FDI). As a result, the governments of the developing countries are inviting foreign investors to make more and more investments. Foreign direct investment is an important factor for developing countries because it increases the interaction among nations, states, regions, organizations, firms and projects. In addition, FDI provides developing countries to access to the world market in order to increase the level of economy's productions.

The developing countries can get capital investment, technologies, skilled labors, knowledge, well-developed transportation and communication infrastructure, and employment flow tax rate, stable, political and social institution, favorable regulatory environment, and so on from receiving FDI. So, the governments of many developing countries and policy makers are setting policies to attract FDI in order to increase economic growth and technology spillovers which could help in the formation of human capital. International trade rises rapidly than FDI in the period of 1970s and it is important than other international economic activities. In the middle of the 1980s, the importance of world's FDI increases rapidly because of transferring technologies, marketing, and international networking.

When economic performance of the countries changes from an agriculture-based economy to an industrial economy, technological enhancement and FDI play a vital role in the country's economic growth. Technological change increases productivity by minimizing production cost. At the same time, FDI creates capital and employment with the creation of a new production sector. In many countries, especially developing countries, FDI contributes to as an important part in economic and social enhancement.

Myanmar is one of the developing countries and the largest one in Southeast Asia. According to Myanmar National Portal, country's area is 261227 square miles or 676578 square kilometers and it is bounded China in the north and northeast, in the western by India and Bangladesh and Laos and Thailand in the southeast. Myanmar is

the agricultural country and it possesses the abundant natural resources and labor. Myanmar changed its economic systems from centrally planned to market-oriented in the late 1988.

The Government of the Union of Myanmar has given the opportunity to the private sector involving extensively in almost all economic activities especially in the areas of trade and investment in the late 1988. The State Law and Order Restoration Council promulgated new laws including two significance that it would play a major role for building up the market-oriented system. The government accepted FDI inflows after changing the market-oriented system.

The first law was the Union of Myanmar Foreign Investment Law (FIL) enacted in November 1988 to increase export promotion and acquisition technology. Later in 1988, the government allowed FDI inflows in various sectors with the purpose increasing gross domestic product and so economic growth of the country increased through the increasing GDP.

State-owned Economic Enterprises Law (SEEs Law), the second law of the Council promulgated, was enacted in March 1989 to provide private sector by investing in all economic activities with the exception of 12 economic activities that are reserved in the domain of the State sectors. In 1990, FDI was an important component of development strategy in both developed and developing countries.

In 2012, Myanmar government introduced FIL in order to attract more FDI. The Myanmar Investment Commission (MIC) and ministers and deputy ministers with the Directorate of Investment and Company Administration (DICA) approved foreign investment law 2012 required all foreign investment. Foreign investment increases more than the previous years after FIL enacted. The new foreign law was finally approved in October 2016 and will come into force in April 1, 2017, replacing the 2012 FIL and the Myanmar Citizen Investment Law was enacted.

This new law allowed foreign investors to invest as sole ownership (100% stake) or a joint venture with local citizens, government or organizations. Myanmar has entered in ASEAN Economic Community (AEC) in order to increase exports and reduce tariffs and restrictions on trade. FDI brings capital inflows, balance of payments and economic benefits such as employment opportunities, export market expansion technology and entrepreneurial skill enhancement.

In 2017, Myanmar Investment Law (MIL), the Investment Rules and Myanmar Companies Law are vital and these are the government's efforts to attract

foreign investment to Myanmar. Foreign investments decrease because MIL includes high restrictions and tax for investors. Therefore, the government of Myanmar more emphasizes the country's economic growth and more attract the foreign investors to create more job opportunities.

The effects of foreign direct investment on economic growth of developing countries have several different ways. Among many causes that affected the Gross Domestic Product (GDP), FDI is one of the causes of affecting on GDP. GDP is the indicator of the country's economic growth; FDI and international trade are also important parts of the indicator of economic growth.

As a result of the international trade, more competitive market, pricing and brings a cheaper product home to the consumer. The country can trade with other countries in cooperation, investment and sales of goods and services based on the international procedures. In term of trade, when the export is greater than import, balance of trade is positive at these conditions and balance of trade is negative when export is less than import. Therefore, Myanmar government attracts foreign direct investment for higher exports and imports. GDP of the country will also increase when foreign direct investment increases. As a result, FDI inflow is one of the vital roles to achieve the country's economic growth with the increasing capital and advancement technology.

## **1.1 Rationale of the Study**

Foreign direct investment is the important element of gross domestic product, the only one that allows domestic production to increase and with labor's employment. Foreign direct investment was the great importance for most of the developing countries because its country has a lower income, underdeveloped industrial structure, and lower level of welfare and technology availability and opportunities. Consequently, these nations also have fewer jobs opportunities, low level of education and health services. Myanmar is one of the developing countries. Therefore, the government of Myanmar introduced about the FDI's Law and Regulation in order to attract the foreign investors and for increasing GDP.

The inflow of FDI in Myanmar was US\$ 235 million in 1991 because of the increase in private investment and special focus on enhancement of production, especially in agriculture and export promotion. Export significantly increased in first three years of short-term plan. In 1997, the amount of foreign direct investment was

US\$ 879 million and then GDP of Myanmar has been reached US\$ 10839 million at this year (UNCTAD).

So, the government enacted foreign investment law (FIL) in 2012 to attract the foreign investors and to reduce the restriction for foreign investors. Foreign direct investment was US\$ 3141 million in 2013. In 2016, the government enacted foreign investment law and this law includes 100% of the ownership, joint venture and partnership. The government achieved capital, management skill, equipment, experience and technology with FDI inflows. In 2017, foreign direct investment inflow was US\$ 4409 million.

Many researchers reveal that FDI inflows into the country increase GDP of the country or economic growth in many developing countries. Therefore, Myanmar government tried to increase the foreign investment by promulgating or enacted the above foreign investment law. After FIL has been promulgated and enacted, FDI inflows increased.

According to the previous study, foreign direct investment is the positive impact on the country's economic growth. Foreign investors are trying to invest in the developing countries by introducing high-technology, skilled management and production. If the capital and technological advancement do not enough, the country can't reach economic growth and development. Therefore, policy makers are trying to inflow FDI into the country in order to increase the economic growth.

By increasing FDI inflows, job opportunities will be created for skilled and unskilled labors. Moreover, financial capital, knowledge, technology, management skill, infrastructures and machines will also be created for the government. The price of goods and services will increase by increasing the circular flow of money within the country. The increasing general price of goods and services will raise the inflation. According to the economic theory, moderate inflation increases the gross domestic product of the country but hyperinflation can reduce the GDP and cause the recession.

Finally, FDI is important to develop the country's economic growth for many countries especially for developing countries. Therefore, the government of Myanmar recognizes foreign direct investment as an important factor for economic growth in Myanmar because the government and other domestic companies, firms, organizations and enterprises have no strong enough capital, management skill, equipment, experience, technology and infrastructure. In addition, increasing or decreasing the inflation rate affects the country's economic growth. For these reasons,

FDI and inflation rate are considered as variables affecting on the economic growth or GDP in Myanmar.

## **1.2 Objectives of the Study**

The objectives of the study are:

- (i) To analyze the relationship between foreign direct investment and economic growth in Myanmar during the period of year 1989 to 2021.
- (ii) To analyze the direction of causality between GDP, FDI and inflation rate in Myanmar.

## **1.3 Methods of Study**

The study used quantitative method based on the time series data from the period of 1989 to 2021 in order to analyze the relationship between foreign direct investment (FDI) and economic growth in Myanmar. These reliable data were collected from the United Nations Conference on Trade and Development (UNCTAD), Directorate of Investment and Company Administration (DICA), many researchers and relevant websites. Augmented Dickey-Fuller (ADF) Unit Root test is used to examine whether the variables are stationary or not and then Johansen co-integration test is used to test the co-integrating relationship among the variables. After that, Vector Autoregressive Model (VAR) and Vector Error Correction Model (VECM) are used to determine the relationship between GDP, FDI and inflation rate in short-run and long-run.

## **1.4 Scope and Limitations of the Study**

The study is to analyze the relationship between foreign direct investment (FDI) and economic growth in Myanmar based on the time series data from the period of 1989 to 2021 by using the Vector Error Correction Model (VECM). GDP, foreign direct investment and inflation rate were used to analyze the causal relationship in long-run and short-run. These variables were collected from the United Nations Conference on Trade and Development (UNCTAD) and Directorate of Investment and Company Administration (DICA). Gross domestic product (Constant US\$ in Million) is used as the proxy variable for economic growth of the country.



## **1.5 Organization of the Study**

The study consists of five chapters. In Chapter 1, it includes the introduction of the study, rationale of the study, objectives of the study, methods of study, scope and limitations of the study and organization of the study. Chapter 2 organizes literature review. Chapter 3 considers background history of foreign direct investment in Myanmar. Chapter 4 presents the analysis of foreign direct investment on economic growth in Myanmar. Findings and discussions, suggestions and needs for further study are described in Chapter 5.

## **CHAPTER 2**

### **LITERATURE REVIEW**

In this chapter, the existing related literature on the theories and empirical studies of FDI are described as follows. Theoretical reviews of foreign direct investment are explained in this part. Gross domestic product and types of GDP, relationship between GDP, FDI and inflation rate, inflation rate and causes of inflation are also presented. After that, endogenous growth theory is mentioned associated with the country's economic growth. Finally, empirical reviews on the previous studies are mentioned in the end of this chapter.

#### **2.1 Theoretical Reviews of Foreign Direct Investment**

Foreign direct investment is the investment such as capital, factories, technology from the foreign countries and investors can buy local enterprises and joint venture with local governments, groups, and private companies to obtain various rights and to directly operate enterprises. Foreign investors' purpose invested in a country is to achieve lasting benefits and the purpose of the country is to increase the per capita income, technology, management skill, knowledge, and employment by approving the foreign investors within the country. So, every country especially developing countries is trying to attract the foreign investors with their raw materials, low costs, economies of scale, and stabilize domestic customers. Moreover, foreign direct investment is the important role in the country's economic growth and it can solve the financial situation.

According to the Organization for Economic Co-operation and Development (OECD), direct investment is a category of international investment made by a resident entity in one economy (direct investor) with the objective of establishing a lasting interest in an enterprise located in an economy other than of the investor (direct investment enterprise). FDI is the occupation for the country's resident and entity in another country outside the investor's country establish the long-run relationships, and control investment activities with the purpose of controlling long-run interests.

According to the International Monetary Fund (IMF, 1993), FDI refers to an investment, which is made to acquire lasting interest in enterprise operating outside of the economy of the investor. The investor's purpose is to have a significant influence and to gain an effective voice in the management of the enterprise.

According to the World Bank, FDI refers to the net inflow of investments from companies with foreign direct investment operations in economies other than investors that have sustained management rights (10% or more of voting shares). Langviniene N., Vengrauskas P., Žitkiene R., (2004) believes that foreign direct investment is a foreign investment in production and non-production, and is the basis for long-run relationships and interests between foreign investors and enterprises.

According to UNCTAD (United Nations Conference on Trade and Development), it is defined as an investment involving management control of a resident entity in one economy by an enterprise resident in another country. It is also defined as an investment involving a long-run relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investment(FDI enterprise or affiliate enterprise or foreign affiliate). FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy.

Investment is one of the important factors of economic growth for the countries especially developing countries. There are two types of investment: domestic and foreign investment. Foreign investment includes foreign direct investment and foreign portfolio investment. Foreign direct investment is the physical assets of the foreign country and long-run investment but foreign portfolio investment is the financial assets and short-run investment. Therefore, developing countries are more interest foreign direct investment to achieve sustainable economic growth.

Angle One Website describes types of foreign direct investment. According to this website, there are four types of foreign direct investment. They are horizontal FDI, vertical FDI, conglomerate FDI and platform FDI.

The most common type of FDI is Horizontal FDI, which primarily revolves around investing funds in a foreign company belonging to the same industry as that owned or operated by the FDI investor. Here, a company invests in another company located in a different country, wherein both the companies are producing similar goods.

Vertical FDI is another type of foreign investment. A vertical FDI occurs when an investment is made within a typical supply chain in a company, which may or may not necessarily belong to the same industry. As such, when vertical FDI happens, a business invests in an overseas firm which may supply or sell products.

Vertical FDI's are further categorized as backward vertical integrations and forward vertical integrations.

When investments are made in two completely different companies of entirely different industries, the transaction is known as conglomerate FDI. As such, the FDI is not linked directly to the investors business.

The last type of foreign direct investment is platform FDI. In the case of platform FDI, a business expands into a foreign country, but the products manufactured are exported to another, third country.

## **2.2 Gross Domestic Product (GDP) and Types of GDP**

Gross domestic product (GDP) is the total monetary or market value of all the finished goods and services produced within a country's borders in a specific time period.<sup>1</sup> GDP provides an economic snapshot of a country and it is also used to estimate the size of an economy and its growth rate.

According to the Central Statistics Office (CSO), Gross Domestic Product (GDP) is a measure of the size of the economy, the total economic activity in a country. GDP is a very comprehensive indicator of economic health, and also important for industrial output, wages and consumer spending while GDP attempts to measure the entire economy.

GDP can be calculated in three ways by using expenditures, production and incomes method and it can be adjusted for inflation and population to provide deeper insights. All private and public consumption, government outlays, investments additions to private inventories, paid-in construction costs, and the foreign balance of trade are considered in the calculation of country's GDP. The foreign balance of trade is especially important for the calculation of the country's GDP.

Trade surplus occurs when the total value of goods and services that domestic producers sell to foreign countries exceeds the total value of foreign goods and services that domestic consumers buy. If the amount that domestic consumers spend on foreign products is greater than the total sum of what domestic producers are able to sell to foreign consumers, the GDP of a country tends to decrease. When this situation occurs, it is called trade deficit.

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<sup>1</sup> <https://www.investopedia.com/terms/g/gdp.asp>

There are several types of GDP. They are nominal GDP, Real GDP, GDP per capita, GDP growth rate and GDP purchasing power parity (PPP). Nominal GDP is an assessment of economic production in an economy by using current prices in its calculation. The prices of goods and services are actually sold for in that year are counted in nominal GDP. Nominal GDP is used when comparing different quarters of output within the same year. Nominal GDP is usually higher than real GDP because inflation is typically a positive number.

Real GDP is an inflation-adjusted measure that reflects the number of goods and services produced by an economy in a given year, with prices held constant from year to year to separate out the impact of inflation or deflation from the trend in output over time. Rising prices tend to increase a country's GDP, but this does not necessarily reflect any change in the quantity or quality of goods and services produced.

GDP per capita is the amount of output or income per person in an economy and it can indicate average productivity or average living standards. GDP per capita considers both a country's GDP and its population. If a country's per-capita GDP is growing with a stable population level, it could be the result of technological progressions that are producing more with the same population level.

GDP growth rate compares the year-over-year (or quarterly) change in a country's economic output to measure how fast an economy is growing. Usually expressed as a percentage rate, this measure is popular for economic policymakers because GDP growth is thought to be closely connected to key policy targets such as inflation and unemployment rates.

While not directly a measure of GDP, economists look at GDP purchasing power parity (PPP) to see how one country's GDP measures up in international dollars using a method that adjusts for differences in local prices and costs of living to make cross-country comparisons of real output, real income, and living standards.

### **2.3 Inflation Rate and Causes of Inflation**

Inflation is the rate at which prices for goods and services rise or purchasing power drops can be reflected in the average price increase of a basket of selected goods and services over some period of time. Inflation affects all aspects of the economy such as consumer spending, business investment and employment rates to government programs, tax policies, exchange rate and interest rates.

Inflation is associated with the country's economic growth. Although high inflation or hyperinflation can cause an overheated economy, moderate inflation sustain the economic growth. If gross domestic product and foreign direct investment accelerate very rapidly, demand grows even faster and producers raise prices continually because businesses and consumers spend more money on goods and services. The falling rate of inflation is known as disinflation. At this condition, the country's economic growth begins to slow. Deflation indicates a general decline in prices when the inflation rate falls below 0%. Disinflation and deflation are not the same.

The most country measured inflation by using the consumer price index and GDP deflator. The consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly. In the U.S., the Consumer Price Index (CPI) is the most widely followed indicator, although the Federal Reserve prefers to emphasize the Personal Consumption Expenditures Price Index (PCE). In the UK, inflation is measured by Consumer Price Index (CPI), or the Harmonized Index of Consumer Prices (HICP).

There are many causes of inflation. They are classified into three types: demand-pull inflation, cost-push inflation, and built-in inflation. Demand-pull inflation occurs when an increase in the supply of money and credit stimulates the overall demand for goods and services to increase more rapidly than the economy's production capacity. At this condition prices of goods and services rise because of increasing demand.

Cost-push inflation is a result of the increase in prices working through the production process inputs. As production costs increase, businesses will increase the product price for consumers to ensure that the product remains as profitable as possible for the business. Costs for all kinds of intermediate goods rise when additions to the supply of money and credit are channeled into a commodity or other asset markets.

Built-in inflation is related to adaptive expectations or the idea that people expect current inflation rates to continue in the future. As the price of goods and services rises, people may expect a continuous rise in the future at a similar rate. Workers may demand more goods and services to maintain their standard of living.

Their increasing wages were used in a higher cost of goods and services, and this wage-price spiral continues as one factor induces the other and vice-versa.

#### **2.4 Relationship between GDP, FDI and Inflation Rate**

Economic growth of a country represents the increase in the total production of goods and services over a specific period. As a way, economic growth can be measured by the gross domestic product. Economic growth of a country depends mostly on the government's policies, laws and regulations, the growth rate of other sectors and foreign direct investment of a country.

If FDI increases, the supply of total capital will increase and the capital formation will also rise. At the same time, it increases competitions among the businesses, enterprises and firms. By increasing competitions, skills for labors will improve and also increase knowledge, technology, infrastructures, etc. The nation's economic growth depends on the globalization process of the world economy. FDI related with the world economy. Thus, FDI will promote the economic reform of the country.

Most empirical studies conclude that FDI contributes to both factor productivity and income growth in host countries, beyond what domestic investment normally would trigger. According to the OECD 2002, in the least developed economies, FDI has been attributed to the presence of "threshold externalities". Developing countries need to have reached a certain level of development in education, technology, infrastructure and health before being able to benefit from a foreign presence in their markets. Imperfect and underdeveloped financial markets may also prevent a country from reaping the full benefits of FDI. Weak financial intermediation hits domestic enterprises much harder than it does multinational enterprises (MNEs).

Thus, FDI plays the important and basic role to improve the country's economic growth. Therefore, FDI was considered by many researchers, policy makers and economists as an importance part of an economic growth of a country.

In general, high levels of inflation are seemed as negative because it will decrease the consumer purchasing power and it will cause a significant increase in the cost of living for consumers. In theory, high levels of inflation can cause in downturn in foreign investments and it can lead to a depreciation of the local currency. However, moderate levels of inflation could be beneficial to foreign directors and it

may help promote domestic growth, leading to reduced values of debts to suppliers and increased levels of competition in exports.

The effect of inflation on FDI varies with the nature of the host economy and its current level of inflation. In addition inflation can measure the country's economic growth and living standard of citizens. Although low levels of inflation causes the economic stability or economic growth, high levels of inflation can signal uncertainty and economic instability or overhead economy. Economic stability can be a major factor for host countries to attract the inflow of FDI. Therefore, government should control causing higher inflation because economic crises or uncertainty can discourage investment.

According to Kinyanjui (2014), through its effect on the cost of inputs and the price of outputs, inflation reduces the real return on investment and firms "competitiveness". Hence, countries that pursue policies that reduce inflation rate have better chance in attracting FDI. Low and predictable inflation rate is central for the long-run investment of both domestic and foreign companies. Therefore, higher and unpredictable inflation will decrease the inflow of FDI. Low inflation rates are expected to have a positive impact on FDI.

When inflation is increasing, people will spend more money because they know that it will be less valuable in the future. At this condition, GDP increases with increasing price. In U.S., Federal Reserve Board's Open Market Committee (FOMC) is charged with implementing monetary policy and to control the amount of circular money in the economy. Today, the most economists agree that a small amount of inflation, about 1% to 2% a year, is more beneficial than detrimental to the economy. But the high of inflation or hyperinflation can cause the recession in the country.

## **2.5 Endogenous Growth Theory**

Endogenous growth theory explains long-run growth as emanating from economic activities that create new technological knowledge. This article sketches the outlines of the theory, especially the 'Schumpeterian' variety, and briefly describes how the theory has evolved in response to empirical discoveries. Endogenous growth is long-run economic growth at a rate determined by forces that are internal to the economic system, particularly those forces governing the opportunities and incentives to create technological knowledge.



In the long run the rate of economic growth, as measured by the growth rate of output per person, depends on the growth rate of total factor productivity (TFP), which is determined in turn by the rate of technological progress. The neoclassical growth theory of Solow (1956) and Swan (1956) assumes the rate of technological progress to be determined by a scientific process that is separate from, and independent of, economic forces. Neoclassical theory thus implies that economists can take the long-run growth rate as given exogenously from outside the economic system.

Endogenous growth theory challenges this neoclassical view by proposing channels through which the rate of technological progress, and hence the long-run rate of economic growth, can be influenced by economic factors. It starts from the observation that technological progress takes place through innovations, in the form of new products, processes and markets, many of which are the result of economic activities. For example, because firms learn from experience how to produce more efficiently, a higher pace of economic activity can raise the pace of process innovation by giving firms more production experience. Also, because many innovations result from R&D expenditures undertaken by profit-seeking firms, economic policies with respect to trade, competition, education, taxes and intellectual property can influence the rate of innovation by affecting the private costs and benefits of doing R&D.

### **2.5.1 AK theory**

The first version of endogenous growth theory was AK theory, which did not make an explicit distinction between capital accumulation and technological progress. In effect it lumped together the physical and human capital whose accumulation is studied by neoclassical theory with the intellectual capital that is accumulated when innovations occur. An early version of AK theory was produced by Frankel (1962), who argued that the aggregate production function can exhibit a constant or even increasing marginal product of capital. This is because, when firms accumulate more capital, some of that increased capital will be the intellectual capital that creates technological progress, and this technological progress will offset the tendency for the marginal product of capital to diminish.

In the special case where the marginal product of capital is exactly constant, aggregate output  $Y$  is proportional to the aggregate stock of capital  $K$ :

$$Y=AK..... (1)$$

Where, A is a positive constant. Hence, it is the term ‘AK theory’.

According to AK theory, an economy’s long-run growth rate depends on its saving rate. For example, if a fixed fraction  $s$  of output is saved and there is a fixed rate of depreciation  $\delta$ , the rate of aggregate net investment is:

$$\frac{dK}{dt} = sY - \delta K$$

which along with (1) implies that the growth rate is given by:

$$g \equiv \frac{1}{Y} \frac{dY}{dt} = \frac{1}{K} \frac{dK}{dt} = sA - \delta$$

Hence an increase in the saving rate  $s$  will lead to a permanently higher growth rate.

Romer (1986) produced a similar analysis with a more general production structure, under the assumption that saving is generated by inter-temporal utility maximization instead of the fixed saving rate of Frankel. Lucas (1988) also produced a similar analysis focusing on human capital rather than physical capital; following Uzawa (1965) he explicitly assumed that human capital and technological knowledge were one and the same (Howitt, 2010).

## 2.6 Empirical Reviews

Bouchoucha, N., & Ali, W. (2019) analyzed the impact of FDI on economic growth by using the time series data during 1980 to 2015 of Tunisia. This study used Autoregressive Distribution Lag (ADRL) approach to examine the impact of FDI on economic growth in Tunisia over the period the period 1980-2015 by using the variables such as GDP, FDI, Domestic investment (ID), enrollment rate and trade openness. This paper found that FDI has positive impact on economic growth in both the short and the long run and trade openness has a negative effect on economic growth in short-run and long-run. But domestic investment and human capital have had a positive and significant effect on the economic growth in Tunisian economy in the short run rather than in the long run.

Rajib, M. I., & Rahman, R. (2020) investigated that foreign direct investment and economic growth in Bangladesh Economy in a period of 1989-2017 employing the time series analysis techniques. This study employed regression is valid unit root test and Johansen’s co-integration test. Dependent variable is GDP growth rate and the independent variables are FDI inflows, domestic investment, government consumption, exchange rate and population size and dummy variable is world trade

organization. To identify the effect of FDI on economic growth in the perspective of Bangladesh over the period from 1989 to 2017 is the objective of this study. The researcher reveals that FDI inflow, government consumption, population size and joining WTO have a positive impact on economic growth but the exchange rate seems to be less significant in economic growth.

Rayhan, M. A. (2014) employed the contribution of foreign direct investment to economic growth in Bangladesh by using Ordinary Least Square (OLS) and Vector Autoregressive (VAR) and causality in a period of 1975-2012. GDP per capita is the dependent variable and gross capital formation, foreign direct investment, human capital, total trade and broad money. The objective of this study is to examine the contribution of FDI towards economic growth in Bangladesh over a period of 38 years from 1975 to 2012 in a multivariate regression framework. The finding of this research is that if FDI increases 1% percentage point, per capita growth could rise by 1.65 to 6.05 % percentage points. The relationship between FDI and GDP per capita has bi-directional relationship in the Granger causality.

Hussain, M. E., & Haque, M. (2016) examined that the foreign direct investment, trade, and economic growth of Bangladesh by using the time series data in a period of 1973-2014 and Vector Error Correction Model (VECM). This paper used the variables such as GDP per capita, FDI and Trade. The aim of the study is to explore relationship between foreign direct investments, trade, and growth rate of per capita GDP for Bangladesh with the help of annual time series data for 1973 to 2014. The trade and foreign investment variables have a significant impact on the growth rate of GDP per capita. The residuals of the regressions have normal distribution and do not show any auto-correlation. FDI and trade are important to frame policies that promote growth and reduce the barriers for capital flows.

Sani, A. I. (2015) investigated that the impact of foreign direct investment on economic growth by using a comparative study of Ghana and Nigeria. This study used the time series analysis techniques such as Vector Error Correction Model (VECM) and FDI, trade openness, gross fixed capital formation and human capital. This research aimed to analyze the impact of FDI on economic growth of Ghana and Nigeria taking trade openness, gross fixed capital formation and human capital as control variables. In Ghana, all the explanatory variables have long run relationship with economic growth. In Ghana, it revealed that only trade openness and gross fixed capital formation are statistically significant and therefore have short run relationship

with economic growth. Ghana's correction of the speed of adjustment in a year moves faster than that of Nigeria.

Trinh, N. H., & Nguyen, Q. A. M. (2015) analyzed that the impact of foreign direct investment on economic growth in Vietnam by using the Augmented Dickey-Fuller (ADF) unit root test, Johansen Co-integration test and Diagnostic test. GDP growth rate, foreign direct investment inflows, domestic investment, trade openness, inflation rate, government consumption and secondary education (general pupils) are the variables used in this study. The objective is to investigate the impact of FDI inflows on economic growth in Vietnam over the period from 1990 to 2013 that address the problem of non-stationary. The result is that FDI inflows, domestic investment, trade openness and secondary education have positive impacts on economic growth whereas inflation rate is found to have the negative effect on economic growth. In addition, the impact of government consumption on economic growth is negative and statistically insignificant.

Adhikary, B. K. (2015) examined that the dynamic effects of FDI, trade openness, capital formation and human capital on the economic growth rate in the least developed economies: evidence from Nepal. Vector Error Correction Model (VECM) and Granger causality test are used. GDP per capita growth rate, FDI, trade openness, capital formation and human capital are applied to investigate the linkage between FDI, trade openness, capital formation, human capital, and economic growth rate in Nepal. The study's objective found that a long-run equilibrium relationship exists between variables. Besides, trade openness and FDI have a dynamic positive effect on the GDP per capita growth rate in Nepal. On the other hand, human capital does not appear to be a significant factor, whereas capital formation demonstrated a negative association with rates of economic growth.

Asaduzzaman, M. (2019) investigated that FDI as an opportunity for economic growth of Bangladesh by using Johansen Co-integration test and VECM analysis. GDP growth is the dependent variable and FDI, trade openness and real effective exchange rate are independent variables. This study aimed to investigate the empirical relationship between economic growth (GDP) and FDI as well as real effective exchange rate (REER) and the trade openness (TOP) of Bangladesh over the period from 1973 to 2017. There is a distinctive short-run and long-run relationship that exists between economic growth and foreign direct investment in Bangladesh. While

the Error Correction Term (ECT) result exhibited that real effective exchange rate and trade openness are causing economic growth in the long-run.

Irena Kikerkova, et al., (2018) employed that Vector Error Correction Model on FDI and their impact in the Republic of Macedonia by using the variables such as GDP growth rate, FDI, labor productivity rate, trade openness, current account balance, index of institutional factors and index of political factors. The study is to analyze the interconnection of FDI with a number of economic, political and institutional variables in Macedonia. The result showed that the positive relation between the rate of GDP growth and the FDI inflows are highly expected and credible.

John, E. I. (2016) investigated that the effect of foreign direct investment on economic growth in Nigeria by using the time series data over the period from 1981 to 2015. The study employed multiple regression technique and Gretl 1.9.8 econometric software was used for the analysis. The study used GDP, FDI and exchange rate variables. And also it explored that foreign direct investment has a positive and significant effect on gross domestic product. It was also found that exchange rate has a positive but not significant effect on gross domestic product and some researchers and other stakeholders found that foreign direct investment has a negative effect on the growth of the economy.

## **CHAPTER 3**

### **BACKGROUND HISTORY OF FOREIGN DIRECT INVESTMENT IN MYANMAR**

In this part, brief history of Myanmar economy, the situation of foreign direct investment in Myanmar economy, FDI's policy and laws and objectives of FIL promulgated by the Pyidaungsu Hluttaw Law No. 40/2016 are briefly expressed. After that, the relationship between foreign direct investment and GDP in Myanmar, performance of GDP in Myanmar (1989-2021), foreign direct investment inflows in Myanmar and foreign direct investment by top ten countries and sector in Myanmar from 2017-2018 to 2022-2023 are presented. Finally, the situation of inflation rate in Myanmar from 1989 to 2021 is also presented.

#### **3.1 Brief History of Myanmar Economy**

During 1948 to 1962, under parliamentary rule, Myanmar's first-generation political leaders who embraced socialism as a guiding ideology seemed to believe that the only way to develop Myanmar's backward economy and achieve economic independence was to replace private capital with state-controlled investment.<sup>2</sup>

Early in 1948, the new state of the Union of Burma was professedly founded upon two basic concepts such as socialism and democracy. A system of parliamentary government based largely on the British pattern with an elected legislature and the separation of legislative, executive, and judicial powers. On 1 April 1948, Myanmar government announced a two-year economic plan to develop the country's economic growth. In the first two years, nationalization and indigenization measures together with the rice export monopoly and foreign exchange restrictions constituted the state's attempt to control the strategic sectors.<sup>3</sup> At these years, economic growth of Myanmar is a good well.

Prime Minister U Nu engaged foreign consultants to conduct a national economic and engineering survey leading to a comprehensive economic development program in 1951. The government also tried to implement a poorly thought out plan

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<sup>2</sup> Phyu, E. E., & Satimanon, M. (2017). Effects of foreign direct investment on GDP growth of Myanmar: analysis for the year of 1989-2014 (Doctoral dissertation, Thammasat University).

<sup>3</sup> Tin Maung Maung Than (2007, Handbook on the Northeast and Southeast Asian Economies)

so-called Pyidawtha (Eight-year) Plan announced with much fanfare at Pyidawtha Conference held in Yangon from 4 to 17 August 1952.

Foreign direct investments had existed since fifteenth century in Myanmar and the most investors are European countries such as Portuguese, British and the Dutch. In nineteenth century, U Nu government, foreign investors from India, China, Japan, UK and etc. had been invested their enterprises or businesses in Myanmar economy. Therefore, foreign direct investment had since these years and economic growth of Myanmar was well condition during these years.

In 1962, the revolutionary government that seized power nationalized the larger commercial and manufacturing establishments, including those of Indian traders and private businesses were nationalized, property was seized, entrepreneurship was discouraged and foreign investment dried up. In March 1962, Revolutionary Council takeover power and the nation's economy and it was followed by an economic scheme called the "Burmese Way to Socialism", as an isolationist policy that nation. Economic growth of Myanmar reached about 9 percent in 1963 according to the World Bank report.

In 1971, one-party system was established with forming Burma Socialist Program Party (BSPP) in order to complete controls the nation's economy. Revolutionary Council was oriented to establish state control over the national economy through nationalization and attempted to expand state-owned enterprises in commerce and industry. Economic growth of Myanmar is slow at this year compared with 1969.

During 1974-88, the overall economic strategy, elaborated in the party's "long-run and short-run economic policies" was to substantially increase commodity production. The BSPP government welcomed multilateral assistance from the International Monetary Fund (IMF), the World Bank (WB) and the Asian Development Bank (ADB) as well as official development assistance (ODA) from Western countries and Japan because of the country's situations. During these years, the country's economy shrunk because of decades of socialist policies and the government followed the closed economy. In the late of 1980, gross domestic product (GDP) decreased to US\$ 7077 million in 1987 compared to US\$ 7858 million in 1985 because of the country's instability.

The State Law and Order Restoration Council (SLORC) was founded by the government. In the late of 1988, the government changed his economic system from

closed economy to open economy and decided to abandon socialism as the organizing principle. Consequently, the government allowed foreign direct investment (FDI) inflows, private initiatives, overhauled the bureaucracy and divested some loss-making State Owned Enterprises. The SLORC was renamed as the State Peace and Development Council (SPDC) in November of 1997. At the same time, GDP reached US\$ 10853 million in 1997.

### **3.2 The Situation of Foreign Direct Investment in Myanmar**

In nineteenth century, foreign investors especially from Britain invested their capital in the trade of timber, rice, petroleum, and other products. FDI existed in Myanmar before World War II and the accumulation of FDI probably peaked during these years. In 1948, Myanmar becomes an independence country. During the 1948 to 1962, Myanmar was based on the market economy and foreign companies invested in the petroleum, teak and other industries and became the important positions in Myanmar. At these years, the government adopted Burmese government's 1955 Investment Policy and promulgated the Union of Burma Investment Act to attract the FDI inflows.

During the period from 1962 to 1988, the military government controlled all of the productive sectors and adopted the closed socialistic structure called "Burmese Way to Socialism". The government was closed to foreign countries and strictly controlled imports and exports, banned investments from overseas, and did not accept the foreign aids. As a consequence of these controlled, closed policies deprived business and the country's economic growth declined slowly.

Therefore, the government implements the various economic reforms in order to increase the foreign aids and investments in the mid-1970s. In the mid-1980s, Myanmar's economic growth slow because primary commodities' price increased and oil production decreased, agricultural production is sluggish and exports decreased, etc.

In the later years of 1981, Myanmar was faced the budget deficit. Therefore, the government aimed at stabilizing the economy but these efforts did not succeed because annual inflation reached 23.29% in 1987 compared to 5.12% in 1982. During this year, the government faced both GDP deficit and hyperinflation. In 1987, the government removed the restrictions on trade in major crops in order to get the country's economic growth in its own way.



In September 1988, the State Law and Order Restoration Council (SLORC) had taken the power. The government changed economy from the central planned economic system to the market oriented system and allowed the trade with foreign countries. In March 1989, a market oriented economic policy was officially adopted. At the same time, foreign investment policy and laws were introduced during this year. In addition, Special Economic Zones were built during these years in order to more attract the FDI inflows into the countries. In the late of 1989, Myanmar's economic growth increased more than the previous years.

### **3.3 FDI's Policy and Law in Myanmar**

Before 1988, the government of Myanmar used the central planned economic system. During these years, the government was not allowed the foreign investment and trade. After this period, the government laid down policy and laws about the FDI.

The government of the Union of Myanmar adopted market-oriented system for the allocation of resources and encouraged private investment and entrepreneurial activity. The government endorsed foreign investment policy on 7<sup>th</sup> December 1988. The government of Myanmar start allowed to foreign trade and investment with the following objectives of the foreign investment policy.

- (a) promotion and expansion of reports;
- (b) exploitation of natural resources which require heavy investment;
- (c) acquisition of high technology;
- (d) developing production and services industries involving large capital;
- (e) creating local employment opportunities;
- (f) developing of works which would save energy consumption; and
- (g) regional development.<sup>4</sup>

In 1990s, government enhanced the investment policy with the embrace micro-economic policies to promote global integration and active investment policy to attract FDI. In 2010, government laid down investment policy to reach inclusive growth and sustainable development. In 2012, investment policies have consequently evolved to a new generation of investment policies that strive to:

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<sup>4</sup> Han, T. A. (2001). *(The) Role of Foreign Direct Investment In Myanmar after 1988-89* (Doctoral dissertation, KDI School).

- (a) Create inclusive growth and sustainable development through the benefits of FDI
- (b) Create synergies with wider economic development goals or industrial policies and achieve seamless integration in development strategies
- (c) Foster responsible investor behavior and incorporate principles of corporate social responsibility (CSR)
- (d) Ensure policy effectiveness in their design and implementation and in the institutional environment within which they operate

To achieve the policy objectives, the new FIL provides incentives to the investors. These incentives are as follows:

- (a) Exemption from income taxes for up to three years
- (b) Accelerated depreciation of assets
- (c) A reduction of up to 50 percent on income taxes due on the investor's produce exported from Myanmar
- (d) Exemption from customs duty on machinery and other capital goods imported as part of the invested capital
- (e) Guarantees against nationalization
- (f) Right to repatriate profits and invested capital
- (g) Carry forward losses for up to 3 years
- (h) Exemption from customs duty on the raw materials imported for the first 3 years of operation

Since 1988, Myanmar has allowed market oriented system and welcomed foreign companies to invest in Myanmar in order to increase the FDI inflows. The government of Myanmar promulgated Foreign Direct Investment (FIL) in November, 1988 based on the Union of Myanmar Investment Act 1959. And then the government formed Foreign Investment Commission on 7 December, 1988. They have tried to get the permit of the MIC when foreign and local investors want to invest in Myanmar. After issuing the FIL and forming the MIC in 1988, foreign investors' investments increase in Myanmar. In 2002, Special Economic Zones Law was promulgated by the government to attract the foreign investors.

In 2011, Myanmar made reform to improve its legal and regulatory framework in order to improve Myanmar's international relations and foreign investments. At that time, Myanmar was the largest regional exporters of energy and natural resources. Foreign Investment Law 2012 was enacted to replace Foreign Investment

Law 1988 in order to more attract the foreign investors. And then, the Ministry of National Planning and Economic Development promulgated the FIL Rule in January 2013.

The government has promulgated Myanmar Investment Law 2016 by replacing the Foreign Investment Law 2012. In 2016, the government revealed 12-points economic policy in order to improve the property rights and business by creating a stable environment where companies feel secure to invest. The objectives of this law are as follows;

- (a) to develop responsible investment businesses which do not cause harm to the natural environment and the social environment for the interest of the Union and its citizens;
- (b) to protect the investors and their investment businesses in accordance with the law;
- (c) to create job opportunities for the people;
- (d) to develop human resources;
- (e) to develop high functioning production, service, and trading sectors.
- (f) to develop technology, agriculture, livestock and industrial sectors;
- (g) to develop various professional fields including infrastructure around the Union;
- (h) to enable the citizens to be able to work alongside with the international community;
- (i) to develop businesses and investment businesses that meet international standards.

Law on Streamlining of Industrial Facility Licensing Procedures, Investment Law, Myanmar investment Rules and Myanmar Companies Law were promulgated in 2017. Thus, these laws are the importance to attract the inflow the FDI in Myanmar. Directorate of Investment and Company Administration (DICA) under the Ministry of Investment and Foreign Economic Relations is one of the major departments. In addition, it is accountable for to promote private sector development and boost domestic and foreign investment. In addition, Myanmar investment Commission (MIC) is important for promoting of the FDI inflows.

Under these new laws and regulations, foreign investors can invest their investment in many sectors such as power, oil and gas, manufacturing, transport and communication, real estate, hotel and tourism, mining, livestock and fisheries,

industrial estate, agriculture, construction and other sectors. According to new FIL, foreign investors can make 100% foreign ownership of joint venture and tax holiday for five years of operation and other form of tax reliefs may also available and then land form the government or private owners can be lease for up to 50 years and extended from 30 years under the 1988 FIL. Therefore, all of the laws and regulations concerning the FDI are important to attract the FDI inflows and it effects the country's economic growth as a way.

In Section 40 of the Myanmar Investment Law (2016), the investments are also included as follows:

- (a) enterprise;
- (b) moveable property, immovable property and rights related to property, cash, pledges, mortgages and liens, machinery, equipment, spare-parts, and related tools;
- (c) shares, stocks, and debentures (a) promissory note of a company;
- (d) intellectual property rights under any laws, including technical knowhow, patent, industrial designs, and trademarks;
- (e) claims to money and to any performance under contract having a financial value;
- (f) revenue-sharing contract, or production , management , construction, rights under contracts , including turnkey ;
- (g) assignable rights granted by relevant laws or contract , including the rights of exploration, prospecting and extraction of natural resources

Investment Commission allowed the following rights to land used for the foreign investor according to Section 50 of Foreign Investment Law.

- (a) An Investor who obtains permit or endorsement under this Law has the right to obtain a long-term lease of land or building from the owner if it is private land or building, or from the relevant government departments or government organization if it is land managed by the government, or land or building owned by the Union in accordance with the stipulations in order to do investment. Citizen investors may invest in their own land or building in accordance with relevant laws.
- (b) Foreign investor may lease land or building either from the government or government organizations or from owners of private land or building from commencing on the date of receipt of the permit or endorsement of

the Commission up to the initial period of (50) years in accordance with the stipulation.

- (c) After the expiry of the term of the right to use land or building or the period of right to lease of land or building permitted under subsection (b), a consecutive period of (10) years and a further consecutive period of (10) years extension to such period of lease of land or building may be obtained with the approval of the Commission.
- (d) The investor shall register the land lease contract at the Office of Registry of Deeds in accordance with the Registration Act.
- (e) The Government may grant more favorable terms and conditions for the lease of land and the use of land by Myanmar citizen investors.
- (f) The Commission shall obtain the approval of the Pyidaungsu Hluttaw through the Government, when granting an extension to investor for the rights to lease land or building and the rights to use land or building in this Law, in less developed and remote region for the purpose of the development around the Union.

According to Section 51 of the Foreign Investment Law, MIC enacted the following employments of staffs and workers to appoint in the investor foreign enterprises.

- (a) may appoint of any citizen who is a qualified person as senior manager, technical and operational expert, and advisor in his investment within the Union in accordance with the Laws;
- (b) shall appoint them to replace, after providing for capacity building programs in order to be able to appoint citizens to different level positions of management, technical and operational experts, and advisors;
- (c) shall appoint only citizens for works which does not require skill;
- (d) shall appoint skilled citizen and foreign workers, technicians, and staff by signing an employment contract between employer and employee in accordance with the labor laws and rules;
- (e) shall ensure to obtain the entitlements and rights in the labor laws and rules, including minimum wages and salary, leave, holiday, overtime fee, damages, compensation of the workman, social welfare, and other insurance relating to workers in stipulating the rights and duties of

employers and employees and occupational terms and conditions in the employment contract;

- (f) shall settle disputes arising among employers, among workers, between employers and workers, and technicians or staff in the investment in accordance with the applicable laws.

The government of Myanmar allowed the foreign investors to invest their capitals with the following types of investment. The four types of investment are 100% ownership investment, joint venture, contract and other investment forms. The 100% ownership investment allowed the foreign investors to invest without any local partners in permitted sectors. Joint venture includes foreign investors, local and government organizations or businesses or entities. In the type of contract, foreign investors may act under a mutually-agreed upon contract. Other investment forms include build operate-transfer (BOT) and build-operate-own (BOO) investments.

### **3.4 The Relationship between Foreign Direct Investment and GDP in Myanmar**

Before SLORC takes the state power in the late of 1988, Myanmar's economy was slowly growth and bad shape. During 1962 and 1988, the government of Myanmar adopted the socialist system and then closed the trade and investment from the foreign countries. In addition, enterprises and businesses of both domestic firms and foreign firms expropriated as a state own.

SLORC takes the state power in the late of 1988 and then government adopted open-door performance of economic reforms. After that, the government initiated economic reforms such as financial and economic reforms, price and market reforms, enterprise reforms and legal reforms in order to attract the foreign firms and investors. And then, the government promulgated foreign investment law (FIL) in March 1989. Myanmar's FDI inflow increased after adopting economic reforms and laws and then GDP of the country also increased than the previous years.

According to the UNCTAD data, in 2010, the flow of investment into Myanmar from foreign countries was US\$ 6669 million and GDP reached US\$ 44901 million. In 2014, government enacted Special Economic Zone Law (SEZs) and this law aimed at to reach country's economic development, to improve trading and processing of goods and services and to facilitate technology transfer and workforce education and training. Under Special Economic Zone Law (SEZs), government of

Myanmar founded three special economic zones such Dawei SEZ, Thilawa SEZ and Kyauk Phyu SEZ.

Foreign direct investment of Myanmar reached US\$ 3141 million in 2015 after founding special economic zones and enacting SEZs law. Gross domestic product of Myanmar was US\$ 63835 million at this year. According to UNCTAD data, increasing FDI affected on GDP of the country. Increasing FDI can increase the job opportunities for domestic workers, technical skills, managerial skills, infrastructures, knowledge and wages for labors.

In 2020, flow of foreign investment in Myanmar fall to US\$ 1907 million and GDP decreased to US\$ 74454 million due to the COVID-19 pandemic, other conditions and effects. Therefore, increasing or decreasing FDI can affect the country's economic growth as a way.

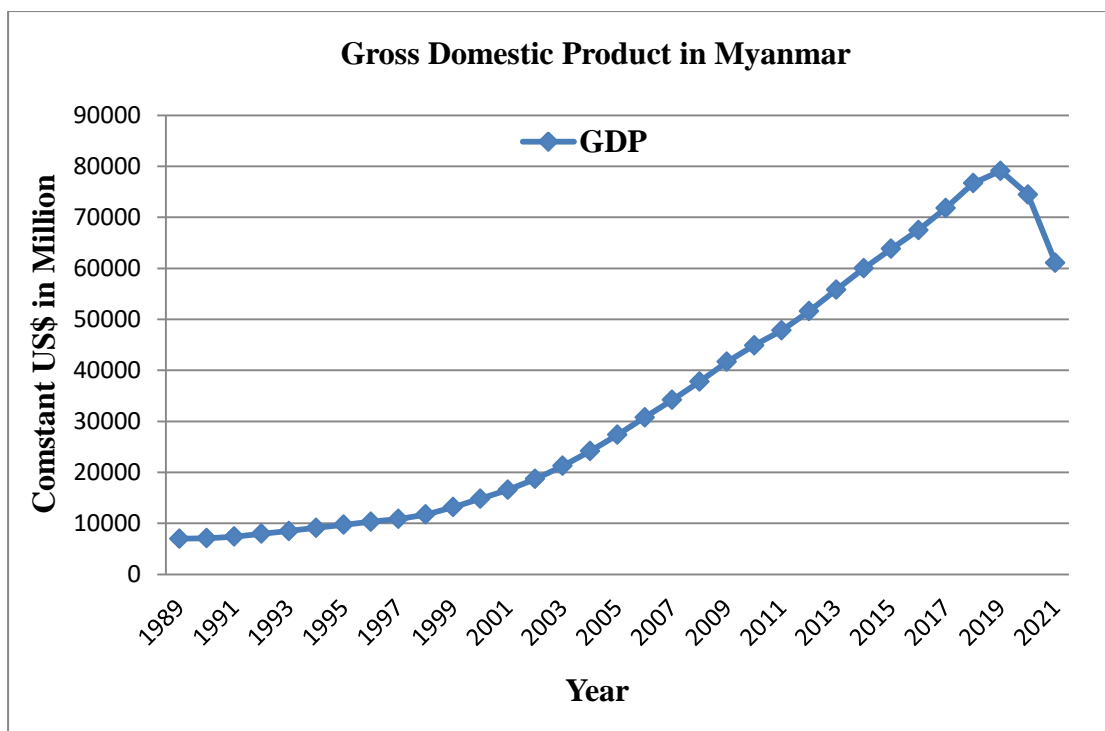
According to many researchers, FDI is also important for the countries such as China and Singapore. China is the second largest foreign investors in the world. China's FDI inflow grew up annually and it was US\$ 108957 million in 2021. The inflow of FDI in Singapore was US\$ 97484 million in 2019. According to the UNCTAD data, FDI inflow was the highest in Singapore in 2019 (UNCTAD,2023).

### **3.5 Performance of GDP in Myanmar from 1989 to 2021**

GDP of the country can be measured in many difference ways. GDP (constant US\$ in million) is mostly used as real GDP. The economic growth of the country depends on increasing or decreasing GDP. Therefore, Gross domestic product of a country is an indicator the economic growth of the country. Figure shows that the gross domestic product in Myanmar from period of year 1989 to 2021.

After country allowed market oriented system, Myanmar's economic growth increased in 1989. At the same time, foreign investments are allowed to increase international trade, and to encourage the development of private sector. Gross domestic product was annually increased from 1989 to 2019 according to UNCTAD data.

The gross domestic product was US\$ 6994 million in 1989 and US\$ 79108 million in 2019. GDP of Myanmar increased with the increasing foreign direct investment because foreign investors invested in many sectors in Myanmar. Therefore, economic growth of Myanmar is a good condition during these years.



Source: UNCTAD, 2023

**Figure 3.1 GDP (Constant US\$ in Million) in Myanmar from 1989 to 2021**

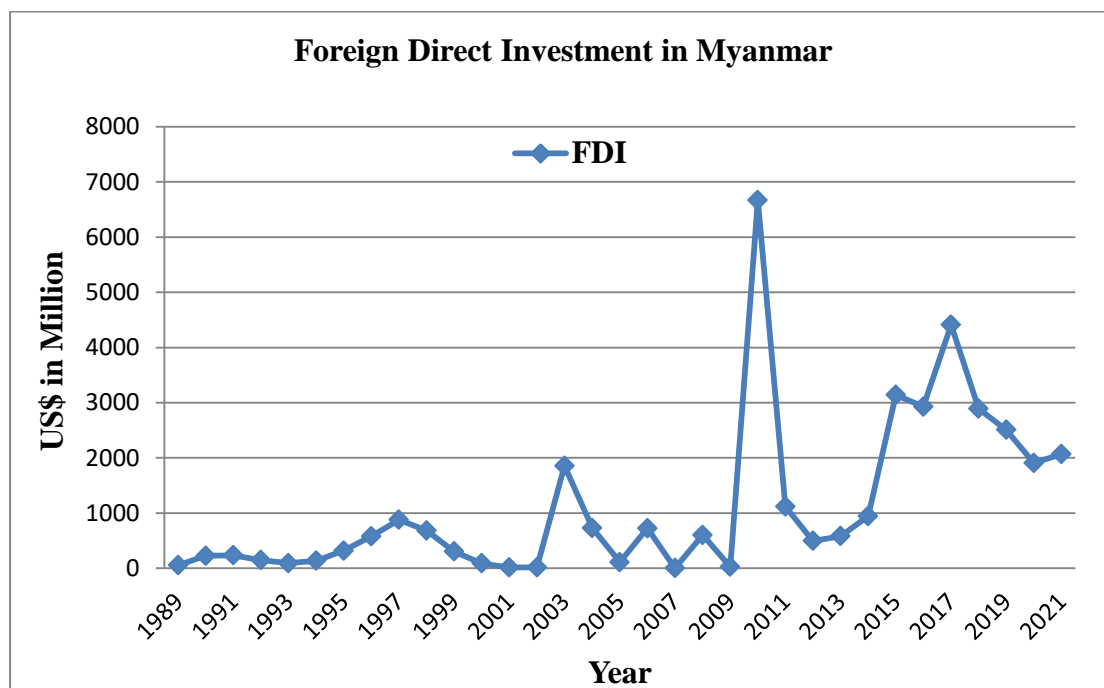
In 2020, gross domestic product of Myanmar economy reached to US\$ 74454 million and decreased US\$ 4654 million compared with the previous year because of the impact of COVID-19. GDP also decreased from US\$ 79108 million in 2019 to US\$ 61099 million in 2021 because of COVID-19 pandemic and disruptions in the global supply chain. The minimum amount and maximum amount of gross domestic product in Myanmar was US\$ 6994 million in 1989 and US\$ 79108 million in 2019 respectively.

### 3.6 Foreign Direct Investment Inflows in Myanmar

Foreign Direct Investment (FDI) is the influencing factor on the economic growth in Myanmar. In 1988, the Union of Myanmar's starting transformed their economic system into market oriented system. Then appropriate laws such as Union of Myanmar Foreign Investment Law (FIL) and the State-owned Economic Enterprises Law (SEEs) to strengthen the institutional framework for building up the market economic system were promulgated in November, 1988 and in March, 1989 respectively. Figure 3.2 shows that the amount of FDI net inflows in the period of 1989 to 2021. FDI inflows increase dynamically to US\$ 235 million in 1991. Although the net inflows of FDI in Myanmar increased in 1991, in 1993 and 1994,



FDI inflows decreased US\$ 149 million and US\$ 92 million. The amount of FDI in 1997 was US\$ 879 million.



Source: UNCTAD, 2023

**Figure 3.2 FDI inflows in Myanmar during the period from 1989 to 2021**

FDI inflow in Myanmar was back to low from the period of 1998 to 2002 due to the Asian Financial Crisis. Thus, external factors such as Asian financial crisis and certain restrictions to Myanmar have played the major role in decline of FDI inflows. After the Asian financial crisis, in 2003, Myanmar’s FDI net inflows increased to US\$ 1855 million. The net inflow of FDI grew again in 2003 and 2004 due to the major investment in power sector was made by Thailand. Later in 2005, the inflows of FDI in Myanmar have more fluctuation.

FDI inflow to Myanmar rapidly was high in 2010; the amount was US\$ 6669 million, when the first democracy government had been appointed. This year hit the highest along with the foreign direct investment in Myanmar because all investment came mainly from Asia, the UK and Russia. The inflow of FDI decreased in 2011 and 2012 but it increased from 2013 to 2015.

Myanmar government founded three special economic zones. The government of the Union of Myanmar founded Thilawa special economic zone in January, 2014. And then, SEZs Law was promulgated in 2014. The inflow of FDI increases after the SEZs law because SEZs offers tax holidays, exemptions from customs duties and other taxes, and protection from nationalization for investors and developers.

In February 2017, the expansion of Thilawa SEZ was launched to attract foreign investors. Therefore, the inflows of FDI increased in 2017 rather than the previous year. Later 2017, Myanmar's FDI inflow gradually falls again. In 2020, the inflow of FDI decreases than the previous year because of influencing the COVID-19 pandemic. Investment flow to Myanmar went up to the amount of US\$ 2067 million in 2021. According to the inflow of FDI in Myanmar from the period of 1989 to 2021, the highest investment amount was in 2010 and the least was in 1991.

### **3.6.1 Approved Amount of Foreign Direct Investment by Top Ten Countries in Myanmar**

There are many country invested capital and other businesses into Myanmar. Top ten countries among many countries were highlighted in the study. The table 3.1 shows that the approved amount of foreign investment by top ten countries in Myanmar from 2018-2019 to 2022-2023 fiscal years.

According to Table 3.1, Singapore was the largest investor in Myanmar in 2018-2019, 2019-2020, 2021-2022 and 2022-2023 fiscal years. According to the DICA, Singapore invested US\$ 2409.57 million in the FY 2018-2019, US\$ 1859.21 million FY 2019-2020, US\$ 429.34 million in the FY 2020-2021, US\$ 297.35 million in the FY 2021-2022 and US\$ 1158.74 million in the FY 2022-2023 in Myanmar. Singapore companies mainly made their investments into power, urban development real estate, transport and communication and manufacturing sectors because of abundant labor and insufficient electricity.

In FY 2018-2019, Singapore invested US\$ 2409.57 million and is the largest investor at this year. The second largest investor is China and approved amount from Myanmar was US\$ 634.58 million. Hong Kong (SAR) is the third largest investor in Myanmar in FY 2018-2019 and its total investment amount was US\$ 456.37 million. At this fiscal year, most of the countries invested in transport and communication, manufacturing and other services sectors.

Singapore, Hong Kong (SAR), China and Japan are the largest investors in Myanmar according to DICA. In FY 2020-2021, UK is the largest investor in Myanmar because the investment was US\$ 2506.92 million. UK made investments in power, hotels and tourism and other services in Myanmar. Japan is the second largest investor at this year and it made their most investment in the Thilawa Special

Economic Zone in Yangon. The enterprises invested like Toyota and Suzuki and the total amount was US\$ 518.76 million in the FY 2020-2021.

**Table 3.1 Approved Amount of Foreign Direct Investment by Top Ten Countries in Myanmar (from 2018-2019 to 2022-2023)**

US\$ in Million

Sr. No	Country	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
1	Singapore	2409.57	1859.21	429.34	297.35	1158.74
2	Hong Kong SAR(China)	456.37	1422.34	11.14	104.20	169.57
3	China	634.58	553.31	175.83	142.14	121.16
4	Thailand	221.43	79.20	99.19	7.00	98.35
5	Republic of Korea	89.38	94.20	32.61	62.69	53.15
6	Japan	42.78	123.47	518.76	4.53	21.48
7	China( Taipei)	81.18	63.12	0.44	8.64	4.41
8	Samoa	4.92	32.26	0.50	2.00	2.39
9	UK	23.34	425.16	2506.92	0.34	2.06
10	India	5.00	3.27	1.20	0.55	1.55

Source: DICA from Myanmar, 2023

Hong Kong is the second largest investor in FY 2022-2023 after Singapore. Hong Kong puts investments in real estate, electricity, garment businesses and other services and the total amount was US\$ 169.57 million at the fiscal year. In FY 2022-2023, China is the third largest investor in Myanmar and mainly invests in power sector. Myanmar government allowed foreign projects from 52 countries under the Myanmar Investment Law and Special Economic Zone Law. Although investments from foreign enterprises decrease in the FY 2020-2021 and FY 2021-2022 because of the impact of COVID-19 pandemic, foreign investment increased in FY 2022-2023.

### **3.6.2 Approved Amount of Foreign Direct Investment by Sector in Myanmar**

Foreign investors invested their capital and other assets in all sectors Myanmar. Table 3.2 shows that foreign investment by sector in Myanmar from 2018-2019 to 2022-2023 financial years. According to DICA, transport and communication

sector is the largest investment in the FY 2018-2019. The total amount of foreign investment was US\$ 1538.40 million and manufacturing sector is the second largest investment and the total amount was US\$ 1347.83 million at this year. During this financial year, mining and construction have no investment because foreign investors more emphasized to invest in other sectors.

**Table 3.2 Approved amount of Foreign Investment by Sector in Myanmar  
(from 2018-2019 to 2022-2023)**

US\$ in Million

Sr. No	Sector	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
1	Power	93.28	1026.89	3121.32	20.58	820.27
2	Other Services	650.74	469.78	103.66	219.58	504.12
3	Manufacturing	1347.83	1128.22	286.02	202.67	271.81
4	Real Estate	210.93	1115.96	8.00	38.81	29.00
5	Mining	0.00	3.80	0.00	0.00	7.00
6	Agriculture	19.12	17.73	9.99	0.00	3.50
7	Hotel and Tourism	82.62	53.34	81.00	30.50	2.80
8	Livestock & Fisheries	156.90	138.49	19.70	19.35	2.17
9	Transport & Communication	1538.40	300.45	133.50	45.60	0.00
10	Industrial Estate	48.45	273.49	28.21	0.00	0.00
11	Oil and Gas	10.20	352.82	0.00	0.00	0.00
12	Construction	0.00	0.00	0.00	65.00	0.00

Source: DICA from Myanmar, 2023

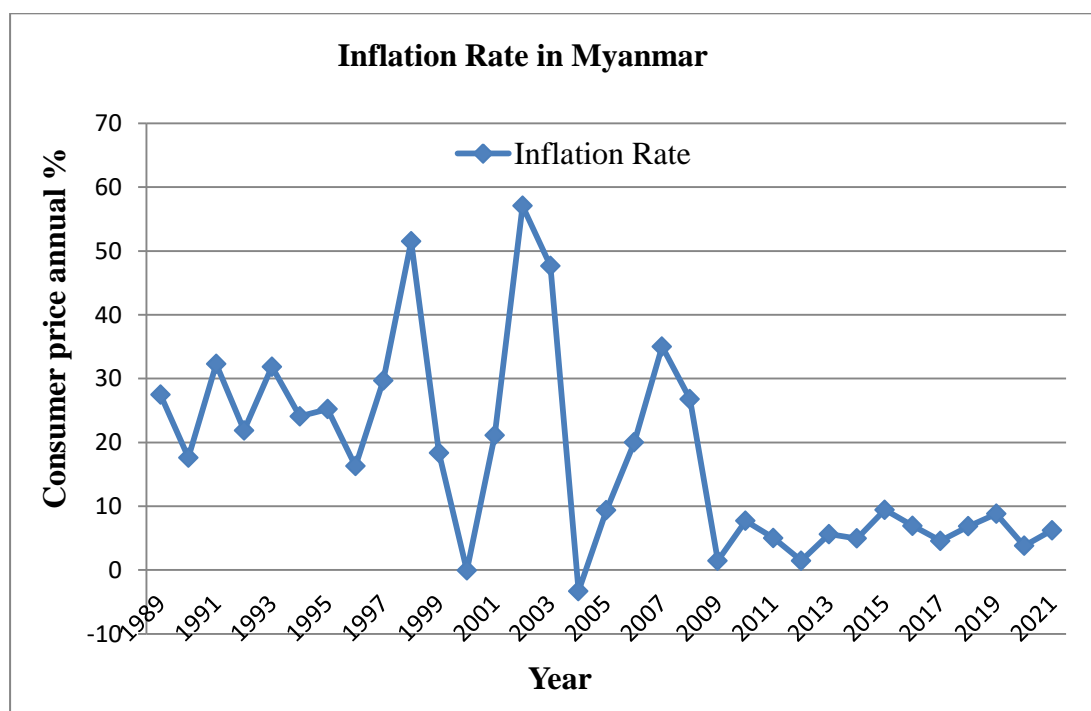
Manufacturing is the largest investment sector and total investment was US\$ 1128.22 million in the FY 2019-2020. Manufacturing sector is the production of products such as cigarette, beer, ready-made garment like wooden products, iron rod, plastic pipe, agricultural machinery equipment, cement, television, radio, export, etc. Today, manufacturing sector is important because Myanmar can produce raw materials. Therefore, foreign investors are more interested in manufacturing sector. Manufacturing sector is the third largest investment sector in Myanmar in the FY 2022-2023 and total investment was US\$ 271.81 million.

Power is the largest investment sector in FY 2020-2021 and FY 2022-2023 and total investments were US\$ 3121.32 million and were 820.27 million. The main investors are Singapore, China, Hong Kong (SAR), Japan and other countries. Therefore, foreign investors more invest in Myanmar because it has no enough power infrastructures and electricity generation and so widening power supply-demand gap is high.

According to the DICA, power, manufacturing, transport and communication, real estate and other services sectors are the main investment sectors in Myanmar during FY 2018-2019 to FY 2022-2023. Moreover, hotel and tourism and livestock and fisheries sectors are also the important sectors and made their investment in these sectors.

### 3.7 The Situation of Inflation Rate of Myanmar from 1989 to 2021

Figure 3.3 shows the inflation rate (consumer price annual %) of Myanmar during the period from 1989 to 2021. Myanmar’s inflation rate was 27.48% in 1989.



Source: UNCTAD, 2023

**Figure 3.3 Inflation Rate of Myanmar during the period from 1989 to 2021**

Inflation rate is 32.28% in 1991 but inflation rate reduces from 32.27% to 21.88% in 1992 because interest rate is high. The government banned nonessential imports and foreign capital from flowing out of the country in summer of 1996. As a

consequence, this would generate black market and runaway inflation continued. Thus, inflation rate increased to 29.69% in 1997.

In 1998, inflation rate increased to 51.49% than interest rate in previous year because restrictions on private-sector's commodity exports were imposed and private bank's foreign exchange licenses were revoked. Therefore, the price of the commodity rises with increasing inflation rate.

After this period, inflation rate dynamically falls to 18.34% and -0.06% in 1999 and 2000 respectively. When interest rate increases, people deposit their money in the bank. So, inflation rate falls because the supply of money decreases than the other years. In 2001, inflation rate increases because Myanmar experienced financial crisis or bank crisis.

Myanmar faced hyperinflation in 2002 because account holders withdraw their money from the 20 private banks as a consequence of ASEAN financial crisis. So, inflation rate rises when people hold more money in their hand. In 2003, inflation rate falls because the central bank of the country limits holders withdraw of money from bank account. As a consequence, in 2004, inflation rate significantly falls to -3.29% because people believe on private bank.

In 2005, inflation rate rises again to 9.37% and then inflation rate grew to 35.02% in 2007 because of political instability, general price level is high and inflows of FDI is very few. Inflation rate again falls to 1.47% in 2009. In 2010, inflation rate increases to 7.72% because increasing FDI creates job opportunities and foreign currency earnings. Inflation rate of Myanmar was between 1% and 10% from 2010 to 2021. Inflation rate is the highest in 2002 as 57.07% because of ASEAN financial crisis and -3.29% was the lowest in 2004 because central bank intervenes to solve financial crisis.

## **CHAPTER 4**

### **ANALYSIS OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH IN MYANMAR**

Research methodology and data analysis about the contributions of FDI to economic growth are described in this chapter. The study will firstly applied Augmented Dickey-Fuller (ADF) Unit Root test to investigate whether the time series data is stationary or non-stationary. Secondly, Johansen co-integration test is used to test whether the co-integration between the variables. And then, vector error correction model (VECM) is used to analyze the relationship between GDP, FDI and inflation rate in long-run and short-run.

#### **4.1 Research Methodology**

The paper is to analyze the contribution of the foreign direct investment (FDI) to economic growth in Myanmar during the period from 1989 to 2021. The study used secondary data and it is obtained from the United Nations Conference on Trade and Development (UNCTAD). The data from Ministry of Planning and Finance and Directorate of Investment and Company Administration (DICA), Myanmar are used for descriptive statistics. GDP is the dependent variable and FDI and inflation rate are independence variables. Augmented Dickey-Fuller (ADF) Unit Root Test is used to check whether the variables are stationary or not and Johansen co-integration test is also used to analyze co-integration between the variables. Finally, VECM approach is used to analyze the relationship between FDI and inflation rate on GDP in Myanmar.

Empirical study is important and necessary for the research and the evidence is found from the study. This evidence shows not only the relationship between GDP and FDI but also the relationship between GDP and inflation rate. Therefore, this empirical result can prove the theories and concepts of FDI effects economic growth through econometric techniques.

Endogenous growth theory allowed how effects the economic growth by increasing inputs (labor and capital) and technical progress. Based on the theoretical model of the neoclassical and endogenous growth as Hoang et al. (2010) and Adhikary (2015), the econometric model is derived from production function framework: where  $Y$  is the total production in an economy.  $A$  denotes total factor productivity which is usually known as technology level (and its change in time),  $K$  is

capital, and L is labor and  $\alpha$  is the elasticity of output to capital. The variables such as gross domestic product (GDP), foreign direct investment (FDI) and inflation rate (INF) are used in the study. The regression model for the study is as follows:

$$\ln \text{GDP}_t = \beta_0 + \beta_1 \ln \text{FDI}_t + \beta_2 \text{INF}_t + \varepsilon_t \dots \dots \dots (1)$$

Where,

- $\beta_0$  = constant
- $\beta_1, \beta_2$  = coefficient of elasticity
- GDP = Gross Domestic Product
- FDI = Foreign Direct Investment
- INF = Inflation Rate
- ln = natural logarithm of the variables
- $\varepsilon_t$  = the error term.

#### 4.2 Descriptive Statistics of the Variables

The paper is to analyze the relationship between FDI and economic growth in Myanmar in the period from 1989 to 2021 and to analyze the direction of causality between GDP, FDI and inflation rate. The descriptive statistics on the time series data are summarized in table 4.1.

**Table 4.1 Descriptive Statistics**

Variables	Mean	Median	Maximum	Minimum	Std.dev
lnGDP	23.94	24.03	25.09	22.67	0.85
lnFDI	19.79	20.19	22.62	14.51	1.85
INF	17.66	16.28	57.07	-3.29	15.37

Source: UNCTAD, 2023

In Table 4.1, GDP's (US\$ Million) averages is 23.94% and during the period from 1989 to 2021. And then its maximum value is 25.09% in 2019 and the minimum value is 22.67%. In 1989, GDP for Myanmar was the least because this year was weak the businesses and enterprises, and the government allowed the open economy. In 2019, GDP is the highest because inflow of foreign direct investment and exports increase and inflation rate is during 1% and 10%.

Also, the maximum and minimum values of the inflow of FDI were 22.62% and 14.51% respectively. FDI inflow is the highest in 2010 because first democracy government had been appointed and Asia, UK and Russia invest into Myanmar. The



lowest FDI inflow occurs in 2007 because of political instability and higher inflation rate.

The highest inflation rate (consumer price % in GDP) is 57.07% in 2002 because Asian Financial Crisis occurs and the minimum is -3.29 in 2004 because central bank limits withdraws of money from the commercial bank to reduce the hyperinflation and also foreign direct investment is few at this year.

### 4.3 Augmented Dickey-Fuller (ADF) Unit Root Test

Augmented Dickey-Fuller (ADF) Unit Root Test was used to test whether the variables are stationary or not. The paper uses three variables to test the stationary or non-stationary. Table 4.2 represents ADF Unit Root test for the data series with intercept and p-value.

**Table 4.2 ADF Unit Root Test Results**

Variables	Level	P-value	Result
lnGDP	Level	-1.7917 (0.6535)	Non-Stationary
	1 <sup>st</sup> Difference	-4.764*** (0.01)	Stationary
lnFDI	Level	-3.1969 (0.1102)	Non-Stationary
	1 <sup>st</sup> Difference	-5.5011*** (0.01)	Stationary
INF	Level	-2.7966 (0.2649)	Non-Stationary
	1 <sup>st</sup> Difference	-5.7091*** (0.01)	Stationary

Source: UNCTAD, 2023

\*\*\*, \*\* and \* statistically significant at 1% level, 5% level and 10% level.

All variables are non-stationary in level of ADF unit root test because the mean, variance and autocorrelation of time series data change over time and data has strong positive trend with strong seasonality. GDP, FDI and inflation rate are statistically highly significant and are stationary at the first difference. Time series

data are stationary means that mean, variance, autocorrelation structure do not change over time and no periodic fluctuations or seasonality.

Therefore, there is certainty of having a co-integrating between gross domestic product and the explanatory variables. Thus, FDI and inflation rate effect on GDP of the country.

#### 4.4 Johansen Co-integration Test

Johansen co-integration test was used to find the co-integration among several time series data and to avoid the issues when errors are carried forward to the next step. The test was also used to examine co-integration among the variables of interest. There are two main forms of Johansen co-integration test; (1) Trace test and (2) Maximum Eigenvalue test. The study used both trace test and maximum eigenvalue test. The results of this test are described in table 4.3.

**Table 4.3 Johansen Co-integration Test Results**

<b>Hypothesized No. of CEs=(s)</b>	<b>Eigen Value</b>	<b>Trace Statistic</b>	<b>5% Critical Value</b>
None*	0.6863	65.67	34.91
At most 1*	0.5201	29.73	19.96
At most 2	0.2015	6.97	9.26
<b>Hypothesized No. of CEs=(s)</b>	<b>Eigen Value</b>	<b>Max-Eigen Statistics</b>	<b>5% Critical Value</b>
None*	0.6863	35.94	22.00
At most 1*	0.5201	22.76	15.67
At most 2	0.2015	6.97	9.24

*Source: UNCTAD, 2023*

\*denotes variables have co-integration each other.

According to the Johansen Co-integration test result, trace value and maximum eigenvalue are greater than the critical value, reject the null hypothesis. When its values are smaller than the critical value, accept or fail to reject the null hypothesis. Thus, the result indicates that the existence of 2 co-integrations at the 5% level of significance. Because both trace value and eigenvalue are larger than the critical value at the 5% level of significance in none and at most 1. Therefore, the result indicates that there is co-integration among GDP, FDI and inflation rate. When

variables have more than one co-integration, vector error correction model (VECM) will be regressed. As the variables have the long-term relationship, VECM model can be estimated.

#### 4.5 Vector Error Correction Model

The VECM estimation result shows that the relationship of the variables in the long-run and short-run. VECM estimation results must be negative and significant. After that the relationship between the GDP and FDI was mainly analyzed during the period of year 1989 to 2021.

**Table 4.4 VECM Estimation Results for the Long-run**

Error Correction	D(lnGDP)	D(lnFDI)	D(INF)
CointEq1	-0.0038 (0.0103)	2.5926 (0.6257)***	-20.2614 (4.2134)***
CointEq2	0.0024 (0.0053)	-1.2527 (0.3242)***	-0.5663 (2.1829)
Constant	0.0152 (0.2322)	-36.3890 (14.0866)*	515.4890 (94.8544)***

Source: UNCTAD, 2023

( ) presents p-value

\*\*\*, \*\* and \* statistically significant at 1% level, 5% level and 10% level.

According to the VECM results, Gross domestic product (GDP) and foreign direct investment (FDI) are statistically significant at 1% level and positively relationship in the long-run. If the net inflows of FDI increase, GDP of the country is also increases. Foreign investors invested their capital and other assets into the country. Capital formation, management skill, job for labor and technology can be increased when foreign investments increase. By increasing the investment, it will improve the producers' profits, capital formation, management skill, the employment or reduce unemployment, minimum wage for labor, technology and basic infrastructure. In addition, increasing the inflows of FDI into the country increases tax revenue and earnings foreign income. So, per capita income will be also increased. According to the economic theory, increasing investment can raise the country's

GDP. Therefore, GDP of the country will increase when foreign direct investment increases.

GDP and inflation rate is positively relationship but is not significant in the long-run. This means that inflation rate can cause gross domestic product (GDP). Increasing foreign investment will develop the employment. When employment increases, the supply of money will increase within the market or country. At that time, the price of the goods and services for consumers will rise because consumers or labors can buy more when they have job. People buy more products although the price level increases because of their expectation. Rising price level or money supply can cause the inflation. On the other hand, the profit for producers or other organizations will increase. Therefore, inflation increases because circular flow of money is strong. If inflation is the moderate inflation, the country's GDP will increase. But if rising inflation is very high or hyperinflation, the country must face economic crisis or recession.

**Table 4.5 VECM Estimation Results for the Short-run**

Error Correction	D(lnGDP)	D(lnFDI)	D(INF)
D(lnGDP-(1))	2.0085 (0.1858)***	0.0041 (0.0045)	0.0010 (0.0005)
D(lnGDP-(2))	-0.7215 (0.2822)*	0.0051 (0.0030)	-0.0002 (0.0005)
D(FDI-(1))	3.2374 (11.2707)	0.2491 (0.2738)	-0.0338 (0.0315)
D(FDI-(2))	-39.3502 (17.1209)*	0.4029 (0.1814)*	-0.0630 (0.0294)*
D(INF-(1))	-95.3090 (75.8931)	-1.2175 (1.8434)	0.8395 (0.2123)***
D(INF-(2))	263.3036 (115.2864)*	-0.2077 (1.2213)	0.3851 (0.1981)

Source: UNCTAD, 2023

( ) presents p-value

\*\*\*, \*\* and \* statistically significant at 1% level, 5% level and 10% level.

Table 4.5 shows that bidirectional and unidirectional causal relationship among the variables in the short-run. According to VECM results, GDP has unidirectional causal relationship on both foreign direct investment and inflation rate in the short-run. Foreign direct investment and inflation rate cause economic growth in the short-run. When foreign direct investment increases, gross domestic product will be increased in the short-run. By increasing foreign direct investment, foreign currency and investment increase annually. Therefore, gross domestic product will also increase. When inflation rate rises, gross domestic product will increase because inflation rate raises the money supply.

Inflation rate will increase when foreign direct investment increases. Increasing foreign investment creates job opportunities and improves investment within the country. At the same time, money supply increases because foreign currency earns into the country. As a result, inflation rate increases because money supply increases. Therefore, inflation rate has unidirectional causal relationship on foreign direct investment in short-run.

There is no bidirectional causal relationship among the variables in the short-run. This means that FDI and inflation rate have no causal relationship on GDP. Increasing FDI and inflation rate improve GDP in the short-run but increasing GDP will not raise the FDI and inflation rate in the short-run. In addition, foreign direct investment affects the inflation rate but inflation rate has no effect FDI in short-run according to the VECM results.

#### **4.6 Diagnostic Tests**

Diagnosics test was used to check the model's stability, normality, heteroskedasticity and serial correlation. Portmanteau (asymptotic) Test (PT) was used to check the serial correlation of the residuals and normality test was used to test the model's stability and ARCH is to check the heteroskedastic problem of the residual in the model. Table 4.6 shows that the diagnostic tests results in this model.

**Table 4.6 Diagnostic Test Results**

Diagnostic Tests	Chi-square	p-value
Serial Correlation (PT) Test	37.493	0.1632
Heteroscedasticity Arch Test	138	0.9913
Normality Test:		
Jarque-Bera (JB-Test)	17.079	0.008997
Skewness	8.4532	0.03752
Kurtosis	8.6259	0.0347

*Source:* UNCTAD, 2023

According to Table 4.6, there is no serial correlation in the residual because p-value is greater than 0.05. The null hypothesis of the Heteroscedasticity Arch Test is “no hetero” and the result reveals that null hypothesis failed to reject because p-value is greater than 0.05. The p-value of JB, Skewness and Kurtosis are less than 0.05 which mean that the data are normally distributed. Therefore, the model is well treated because there is no serial correlation and heteroscedasticity and the data are normally distributed.

## **CHAPTER 5**

### **CONCLUSION**

This chapter explains findings and discussions from each analysis after the whole study. In this part, suggestions for the government and policy makers of the country are discussed after analyzing the data and results. The needs for further study are explained at the end of the chapter. These advices can help further researchers to study the relationship between foreign direct investment and other variables.

#### **5.1 Findings and Discussions**

This study is to analyze the contributions of foreign direct investment on economic growth of Myanmar during the period of 1989 to 2021. These time series data are collected from the United Nations Conference on Trade and Development Statistics (UNCTAD) and the data for descriptive statistics was collected from Directorate of Investment and Company Administration Myanmar (DICA) and other reliable sources. FDI is positively effects on GDP in the most previous studies but it has negative effect on GDP in other studies.

According to the descriptive results, FDI is the important role of the country for an economic growth by analyzing the empirical results. Myanmar government has tried to attract the foreign investors by enacting Foreign Investment Law (FIL). After this law was enacted, foreign investments increase. If the inflows of FDI increase, GDP of the country will increase. Moreover, inflation rate effects on the country's economic growth.

According to the descriptive results, GDP gradually increased from the period of year 1989 to 2019 but decreased in 2020 and 2021 because of the impact of COVID-19 pandemic. The minimum value of GDP was US\$ 6994 million in 2019 and maximum value was US\$ 79104 million. FDI inflow was not fluctuating in nineteenth century but fluctuate in the late. The minimum flow of FDI was US\$ 2 million in 2007 because of political instability and US\$ 6669 million in 2010 was the highest during 1989 to 2021 because the first democracy government has been appointed and inflows of foreign investment come from Asia, UK, China, etc. The highest inflation rate was 57.07 % because of the impact of Asian Financial Crisis and the lowest inflation rate was -3.29% in Myanmar because the central bank decided to limit withdraws of money from the commercial bank.

Gross domestic product (GDP), proxy variable is stationary and FDI and inflation rate are stationary in the first difference according to the Augmented Dickey-Fuller (ADF) Unit Root Test. Trace value and maximum eigenvalue test of the Johansen approach reveal that the existence of 2 co-integrations. Therefore, GDP, FDI and inflation rate have co-integration with each other.

VECM result shows GDP and FDI have positively relationship and significant at 1% level in the long-run. When inflow of FDI into Myanmar, the economic growth of the country also increase with rising capital formation, management skills, job opportunities for labor and technology. By increasing labors' job opportunities and management skills, it will increase income for the domestic workers. As a result, GDP will increase with rising per capita income of the people. According to the objective (1), it can be found that FDI have a positive impact on economic growth in the long run. Thus, FDI is an important factor for economic growth in Myanmar.

GDP and inflation rate have positive relationship but not significant in the long-run. The inflows of foreign direct investment into the country increases investment and supply of money. Increasing investment will raise gross domestic product of the country. In addition, an increase in FDI will increase the demand for the currency of the receiving country, and raise its exchange rate. The circulation of money will increase in the economy. In addition, shortage of supply can cause when demand for consumers increases. When demand for the commodity increases, the price for this commodity forces up. People will buy more products when the price level increases because they expect the price of the commodity will rise in the future. Thus, income for the producers and GDP will increase when money supply increases. Inflation will increase when money supply or price level increases. More money in the economy can increase the overall demand for goods and services and so it lead to an increase in production and overall economic growth. If rising inflation is very high or hyperinflation, country will face economic crisis or recession.

In the short-run, the results reveal that GDP has unidirectional causal relationship on foreign direct investment and inflation rate. Increasing or decreasing foreign direct investment affects gross domestic product of the country. When foreign currency and investment increases, the GDP of the country will increase. Moreover, increasing inflation rate raises GDP in the short-run because inflation rate improve the general prices level of goods and services. As a consequence, people buy more goods



and services because they expect the prices of goods and services will rise in the future.

Thus, inflation rate has unidirectional causal relationship on foreign direct investment in the short-run. This means that inflation rate will increase when the foreign direct investment increases. By increasing the foreign investment, investment within the country will improve and foreign currency will earn. Moreover, rising foreign investment creates job opportunities and increases wage for labor. But there is no bidirectional causal relationship among the variables because variables have no affect mutually in the short-run. In this study, the objective (2) is found that FDI and inflation rate effect on economic growth of Myanmar. Therefore, FDI, inflation rate and economic growth in Myanmar have causality relationship in the short run economy.

The time series data have no serial correlation and hetero according to the PT test and Heteroscedasticity Arch Test. In addition, the data are normally distributed according to the JB, Skewness and Kurtosis tests. Therefore, the model is treated because there is no serial correlation and heteroscedasticity and the data are normally distributed. Findings show that FDI is very important for Myanmar's economic growth as well as inflation rate. In this study, FDI is the most influential factor to economic growth in Myanmar.

## **5.2 Suggestions**

According to the results, the inflows of FDI depend on the country's economic growth during the period of 1989 to 2021 in Myanmar. As a result, Myanmar government must try to attract the inflows of FDI to compare with neighboring developing countries. In order to attract the foreign investments, policy makers should promulgate appropriate FIL laws and regulations for foreign investors.

Moreover, the restrictions for foreign investors are high in Myanmar. The government prohibits in activities which can damage watershed forests, religious sites, farm and grazing land or water resources, exploration and production of jade and gemstones, manufacturing of arms and ammunition and related services, etc. Therefore, the government should reform these restrictions that appropriate Myanmar situation to achieve sustainable economic growth of Myanmar.

The government should give more incentive to foreign investors to invest in power and manufacturing sectors because Myanmar has cheap labor force to supply

for manufacturing sector and needs sufficient electricity for the development of the country.

Kyat depreciation, supply chain disruptions and the spillover effects of higher transport prices have responded on price. The higher inflation rate can decrease the value of the currency. Myanmar's inflation rate has fluctuation in the period of year 1989 to 2009 but inflation rate was between 1 percent and 10 percent in the late of 2010. Therefore, the government should manage the inflation rate between 1 percent and 5 percent because higher inflation rate can cause recession in the economy.

### **5.3 Needs for Further Study**

For further study, the researchers can study the relationship between foreign direct investment and economic growth by comparing ASEAN countries or the net inflows of FDI within developing countries by using the panel data. In addition, the variables that this paper used, should examine how did the other explanatory variables such as trade openness, infrastructures, exchange rate, interest rate, balance of trade, domestic investment and government expenditure including the FDI effect on economic growth. At least, researchers can study the condition before promulgating FIL law and after promulgating the FIL law.

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## APPENDIX

### Data Set

**Table 1 GDP, FDI and inflation rate from 1989 to 2021**

<b>Year</b>	<b>FDI (US\$ in Million)</b>	<b>GDP (Constant US\$ in Million)</b>	<b>Inflation Rate (Consumer Price Annual %)</b>
1989	56	6994	27.48
1990	225	7068	17.62
1991	235	7386	32.28
1992	149	7959	21.88
1993	92	8499	31.87
1994	135	9111	24.08
1995	318	9720	25.21
1996	581	10307	16.28
1997	879	10853	29.69
1998	684	11723	51.49
1999	304	13179	18.34
2000	91	14822	-0.06
2001	15	16557	21.11
2002	18	18707	57.07
2003	1855	21269	47.65
2004	730	24154	-3.29
2005	110	27369	9.37
2006	724	30790	20.00
2007	2	34200	35.02
2008	603	37760	26.80
2009	27	41666	1.47
2010	6669	44901	7.72
2011	1118	47813	5.02
2012	497	51589	1.47
2013	584	55819	5.64
2014	946	59991	4.95
2015	3141	63835	9.45
2016	2930	67506	6.93
2017	4409	71829	4.57
2018	2892	76678	6.87
2019	2509	79108	8.82
2020	1907	74454	3.79
2021	2067	61099	6.24

Source: UNCTAD, 2023