

**EFFECT OF OUTWARD FOREIGN DIRECT  
INVESTMENT ON GROSS DOMESTIC  
PRODUCT, DOMESTIC INVESTMENT,  
AND UNEMPLOYMENT IN INDONESIA**

**TUTIK WIRYANTI GONDO**

**UNIVERSITI SAINS MALAYSIA**

**2022**

**EFFECT OF OUTWARD FOREIGN DIRECT  
INVESTMENT ON GROSS DOMESTIC  
PRODUCT, DOMESTIC INVESTMENT,  
AND UNEMPLOYMENT IN INDONESIA**

by

**TUTIK WIRYANTI GONDO**

**Thesis submitted in fulfilment of the requirements  
for the degree of  
Doctor of Philosophy**

**May 2022**

## ACKNOWLEDGEMENT

Firstly, I would like to express our gratitude to Allah SWT for giving blessing helping me endlessly in finishing the thesis. Second and foremost, I would like to take the opportunity to convey my highest appreciation to my main supervisor, senior lecturer Associate Prof. Dr. Tajul Arifin Masron, and co-supervisor Dr. Haslindar Ibrahim for their valuable suggestions and tremendous support throughout this thesis. Third, gratitude also goes out to Prof. Dr. Noor Hazlina Ahmad as Dean School of Management, Universiti Sains Malaysia (USM), and all the team management that support service to this thesis. Fourth, I would like to thank Dean Institute Postgraduate Studies (IPS) and team members for giving input, advice, and involvement in updating the USM Guidelines in finishing the thesis. Finally, a special dedication and my deepest gratitude go to my mother, younger brothers, and sister who encouraged and supported me throughout my study. Thanks also go to all of them who had always encouraged me, helps along to my graduation, happy hours in the Universiti Sains Malaysia.

## TABLE OF CONTENTS

<b>ACKNOWLEDGEMENT</b> .....	<b>ii</b>
<b>TABLE OF CONTENTS</b> .....	<b>iii</b>
<b>LIST OF TABLES</b> .....	<b>viii</b>
<b>LIST OF FIGURES</b> .....	<b>xxi</b>
<b>LIST OF ABBREVIATIONS</b> .....	<b>xii</b>
<b>ABSTRAK</b> .....	<b>xiv</b>
<b>ABSTRACT</b> .....	<b>xvi</b>
<b>CHAPTER 1 INTRODUCTION</b> .....	<b>1</b>
1.1 Introduction .....	1
1.2 Background of Study.....	6
1.2.1 Outward FDI to Economic Development .....	6
1.2.2 Outward Foreign Direct Investment in Indonesia.....	9
1.2.3 Domestic Investment Pattern in Indonesia.....	12
1.2.4 Unemployment in Indonesia .....	16
1.2.5 Can Inward FDI, Financial Development, and Education moderated?.....	18
1.3 Problem Statement .....	19
1.4 Research Questions .....	22
1.5 Research Objectives .....	23
1.6 Scope of Study .....	23
1.7 Significance of Study .....	24
1.8 Key Terms.....	24
1.9 Organizational Scheme of Research .....	26

<b>CHAPTER 2</b>	<b>LITERATURE REVIEW .....</b>	<b>27</b>
2.1	Introduction .....	27
2.2	Theoretical Review .....	27
2.2.1	Review of Growth Theory .....	27
2.2.1(a)	Classical Growth Theory .....	27
2.2.1(b)	The Neoclassical Growth Theory .....	29
2.2.1(c)	The Exogenous Growth Theory .....	30
2.2.1(d)	The Endogenous Growth Theory .....	33
2.2.2	Review of Investment Theories .....	35
2.2.2(a)	Neoclassical Theory of Investment .....	35
2.2.2(b)	Accelerator Theory .....	38
2.2.2(c)	Duensenberry's Accelerator Theory of Investme .....	39
2.2.3	Theoretical Review of Unemployment .....	40
2.2.3(a)	Efficiency-wage Model .....	40
2.2.3(b)	Imperfect Labor Market .....	41
2.2.3(c)	Theory of Effective Demand .....	42
2.3	Empirical Review .....	43
2.3.1	Empirical Review of Growth Model .....	43
2.3.1(a)	Education on Economic Growth .....	43
2.3.1(b)	Export on Economic Growth .....	46
2.3.1(c)	Inward FDI on Economic Growth .....	50
2.3.1(d)	Outward FDI on Economic Growth .....	52
2.3.1(e)	Outward FDI-GDP is Moderated? .....	54
2.3.2	Empirical Review of Domestic Investment Model .....	55
2.3.2(a)	Income on Domestic Investment .....	55
2.3.2(b)	Inward FDI on Domestic Investment .....	57
2.3.2(c)	Financial Development on Domestic Investment .....	60

2.3.2(d) Outward FDI on Domestic Investment .....	63
2.3.2(e) Outward FDI- Domestic Investment is Moderated?.....	66
2.3.3 Empirical Review of Unemployment Model .....	66
2.3.3(a) Labor Cost on Unemployment .....	66
2.3.3(b) Education on Unemployment .....	68
2.3.3(c) Inward FDI on Unemployment .....	70
2.3.3(d) Outward FDI on Unemployment .....	71
2.3.3(e) Outward FDI-GDP is Moderated? .....	73
2.4 Framework of Study .....	73
<b>CHAPTER 3 METHODOLOGY .....</b>	<b>76</b>
3.1 Model Specification .....	76
3.1.1 Economic Growth Model.....	76
3.1.2 Investment Model.....	78
3.1.3 Unemployment Model .....	82
3.1.4 Hypothesis.....	86
3.1.4(a) Gross Domestic Product (GDP) Model.....	86
3.1.4(b) Domestic Investment Model.....	87
3.1.4(c) Unemployment Model.....	87
3.2 Estimation Procedure VECM .....	88
3.3 Data Sources .....	91
<b>CHAPTER 4 RESULTS.....</b>	<b>93</b>
4.1 Introduction .....	93
4.2 Descriptive Analysis .....	93
4.3 Correlation Analysis.....	95
4.4 Results of Growth Model .....	96
4.4.1 Unit Root Test-ADF and PP Tests of Growth Model.....	96
4.4.2 Lag length Selection.....	97

4.4.3	Cointegration Tests of Growth Model .....	98
4.4.4	Error Correction Model on Growth Model .....	99
4.4.5	Long-run Equation of Growth Model .....	100
4.4.6	Granger Causality of Growth Model.....	103
4.5	Results of Growth Model with Moderating Factors.....	105
4.5.1	Result of Growth Model moderated by Inward FDI.....	106
4.5.2	Result of Growth Model moderated by Education .....	113
4.6	Results of Domestic Investment Model .....	119
4.6.1	Unit Root Test-ADF and PP Tests of Growth Model.....	119
4.6.2	Lag length Selection.....	120
4.6.3	Cointegration Tests of Growth Model .....	121
4.6.4	Error Correction Model on Growth Model .....	122
4.6.5	Long-run Equation of Growth Model .....	124
4.6.6	Granger Causality of Growth Model.....	127
4.7	Results of Domestic Model with Moderating Factors .....	128
4.7.1	Unit Root Test PP and Tests for DFD*OFDI .....	128
4.7.2	Result of Domestic Investment Model moderated by IFDI.....	129
4.7.3	Result of Investment Model moderated by Domestic Financial Development .....	136
4.8	Results of Unemployment Model .....	142
4.8.1	Unit Root Test-ADF and PP Tests of Unemployment Model .....	142
4.8.2	Lag length Selection.....	143
4.8.3	Cointegration Tests of Growth Model .....	144
4.8.4	Error Correction Model on Growth Model .....	144
4.8.5	Long-run Equation of Growth Model .....	145
4.8.6	Granger Causality of Growth Model.....	147
4.9	Results of Unemployment Model with Moderating Factors.....	148
4.9.1	Unemployment Model moderated by Inward FDI.....	148

4.9.2	Result of Unemployment Model moderated by Education.....	155
<b>CHAPTER 5 CONCLUSION .....</b>		<b>160</b>
5.1	Introduction .....	160
5.2	Recapitulation of the Study .....	160
5.3	Summary of Findings .....	162
5.4	Implication of the Study .....	165
5.4.1	Practical Implications.....	165
5.4.2	Theoretical Implications.....	167
5.5	Limitation of the Study .....	167
5.6	Suggestion of the Future Study .....	168
<b>REFERENCES.....</b>		<b>169</b>



## LIST OF TABLES

		<b>Page</b>
Table 1.1	The Definition of Key Terms.....	25
Table 3.1	The Variables, Measurement, and Sources.....	92
Table 4.1	Descriptive Analysis.....	94
Table 4.2	Correlation Analysis.....	95
Table 4.3	Unit Root Test-ADF and PP tests of Growth Model.....	97
Table 4.4	Lag length Selection of Growth Model.....	98
Table 4.5	Cointegration Test of Growth Model.....	99
Table 4.6	Error Correction Model of Growth Model .....	100
Table 4.7	Long-run Equation of Growth Model .....	101
Table 4.8	Granger Causality of Growth Model.....	105
Table 4.9	Unit Root Test for Interaction Variables .....	106
Table 4.10	Lag length Selection of Growth Model with IFDI moderator ....	107
Table 4.11	Cointegration Test of Growth Model with IFDI moderator .....	108
Table 4.12	Error Correction M. of Growth Model with IFDI moderator.....	108
Table 4.13	Long-run Relationship of Growth Model with IFDI moderator...110	
Table 4.14	Granger Causality of Growth Model with IFDI moderator .....	112
Table 4.15	Lag length Selection of Growth Model with EDU moderator ....	113
Table 4.16	Cointegration Test of Growth Model with EDU moderator .....	114
Table 4.17	Error Correction M. of Growth Model with EDU moderator .....	114
Table 4.18	Long-run Relationship of Growth Model with EDU moderator.....	116
Table 4.19	Granger Causality of Growth Model with EDU moderator.....	119
Table 4.20	Unit Root Test-PP and ADF tests of Domestic Investment M... 120	
Table 4.21	Lag length Selection of Domestic Investment Model.....	121

Table 4.22	Cointegration Test of Domestic Investment Model.....	122
Table 4.23	Error Correction Model of Model Domestic Investment Model ....	123
Table 4.24	Long-run Equation of Domestic Investment Model .....	125
Table 4.25	Granger Causality of Domestic Investment Model.....	127
Table 4.26	Unit Root Test-PP and ADF tests for DFD X OFDI.....	128
Table 4.27	Lag length Selection of Domestic Investment Model with IFDI moderator .....	129
Table 4.28	Cointegration Test of Domestic Investment Model with IFDI moderator .....	130
Table 4.29	Error Correction Model of Domestic Investment Model with IFDI moderator .....	131
Table 4.30	Long-run Relationship of Domestic Investment Model with IFDI moderator.....	133
Table 4.31	Granger Causality of Domestic Investment Model with IFDI moderator.....	134
Table 4.32	Lag length Selection of Domestic Investment Model with DFD moderator .....	136
Table 4.33	Cointegration Test of Domestic Investment Model with DFD moderator .....	137
Table 4.34	Error Correction Model of Investment Model with Domestic Financial Development moderator .....	137
Table 4.35	Long-run Relationship of Investment Model with Domestic Financial Development moderator.....	139
Table 4.36	Granger Causality of Domestic Investment Model with Domestic Financial Development moderator.....	142
Table 4.37	Unit Root Test-PP and ADF tests of Unemployment Model.....	143
Table 4.38	Lag length Selection of Unemployment Model .....	143
Table 4.39	Cointegration Test of Unemployment Model .....	144

Table 4.40	Error Correction Model of Unemployment Model .....	145
Table 4.41	Long-run Equation of Unemployment Model.....	146
Table 4.42	Granger Causality of Unemployment Model .....	148
Table 4.43	Lag length Selection of Unemployment Model with Inward FDI moderator .....	149
Table 4.44	Cointegration Test of Domestic Investment Model with Inward FDI moderator .....	150
Table 4.45	Error Correction Model of Unemployment Model with Inward FDI moderator .....	150
Table 4.46	Long-run Relationship of Unemployment Model with Inward FDI moderator.....	152
Table 4.47	Granger Causality of Unemployment Model with Inward FDI moderator .....	154
Table 4.48	Lag length Selection of Unemployment Model with Education Expenditure (EDU) moderator .....	155
Table 4.49	Cointegration Test of Unemployment Model with Education Expenditure (EDU) moderator.....	156
Table 4.50	Error Correction Model of Unemployment Model with EDU moderator .....	156
Table 4.51	Long-run Relationship of Unemployment Model with EDU moderator .....	157
Table 4.52	Granger Causality of Unemployment Model with EDU moderator	159
Table 5.1	Summary of Finding.....	163

## LIST OF FIGURES

	<b>Page</b>
Figure 1.1	Gross Domestic Product and Inward FDI in Indonesia .....3
Figure 1.2	Gross Domestic Product versus Foreign Direct Investment in Indonesia .....8
Figure 1.3	Outward FDI and Gross Domestic Product in Indonesia.....9
Figure 1.4	GDP per capita and Inward FDI in Indonesia..... 12
Figure 1.5	Domestic Investment in the selected Asia countries..... 14
Figure 1.6	Outward FDI and Inward FDI in Indonesia ..... 16
Figure 1.7	Unemployment in Indonesia ..... 17
Figure 1.8	Outward FDI Versus Unemployment and in Indonesia..... 18
Figure 1.9	Domestic Financial Development and Education in Indonesia ..... 19
Figure 2.1	Total Productivity under Classical Growth Model .....28
Figure 2.2	Output versus Net Investment Under Accelerator Model.....39
Figure 2.3	Framework for Growth Model..... 74
Figure 2.4	Framework for Domestic Model..... 74
Figure 2.5	Framework for Unemployment Model ..... 75

## LIST OF ABBREVIATIONS

ADF	Augmented Dickey-Fuller
AIC	Akaike Information Criterion
ASEAN	Association of South-East Asian Nations
DFD	Domestic Financial Development
DINV	Domestic Investment
ECT	Error Correction Term
EDU	Expenditure on Education
Eq	Equation
EXP	Exports
FD	Financial Development
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GDPC	Gross Domestic Product per Capita
ICLS	International Conference Labor Statisticians
IFDI	Inward Foreign Direct Investment
ILO	International Labor Organization
LCO	Labor Cost
LF	Labor Force
M&As	Merger and Acquisitions
MNCs	Multinational Corporations
NAFTA	North America Free Trade Agreements
NIES	Newly Industrialized Economies
OEDC	Organization for Economic Cooperation and Development
OFDI	Outward Foreign Direct Investment
PP	Philips and Perron's
R&D	Research and Development
SBC	Schwarz Bayesian Criterion
TLC	Total Labor Cost
TLF	Total Labor Force
ICB	Investment Coordinating Board
UE	Unemployment

UNCTD	United Nations Conference on Trade and Development
VAR	Vector Auto Regression
VECM	Vector Error Correction Model
Wh	Wage per man hour
WB	World Bank
WDI	World Development Indicator

**KESAN PELABURAN LANGSUNG ASING KE LUAR NEGARA  
TERHADAP KELUARAN DALAM NEGARA KASAR, PELABURAN  
DOMESTIK DAN PENGANGGURAN DI INDONESIA**

**ABSTRAK**

Keluaran Dalam Negara Kasar (KDNK) Indonesia berkembang tetapi pada kadar yang lebih rendah berbanding kadar sebelum berlaku krisis ekonomi pada 1997. Ini dapat diterangkan oleh pelaburan domestik yang rendah dan hanya meningkat akhir-akhir ini berpunca dari FDI keluar negara (OFDI). Sebagai implikasi dari kadar pertumbuhan KDNK dan pelaburan domestik yang rendah di Indonesia, kadar pengangguran mula meningkat kembali, selepas menurun dalam dekad yang lalu. Oleh itu, kajian ini merasakan jawapannya ada pada OFDI. Oleh itu, persoalan utama kajian ini adalah untuk menyelidiki kesan OFDI ke atas KDNK, pelaburan domestik, dan pengangguran di Indonesia. Oleh kerana mengawal OFDI bukan sesuatu yang mudah, kajian ini percaya bahawa strategi menangani kesan tidak baik OFDI perlu dibentuk, iaitu menggalakan kemasukan FDI (IFDI), dan mempromosi pendidikan dan pembangunan kewangan domestik yang lebih baik. Kajian ini mencuba melihat kepentingan mereka dengan meletak mereka sebagai tiga objektif tambahan dalam kajian ini. Memanfaatkan data Indonesia bagi tempoh 1980 hingga 2018 menggunakan pendekatan model pembetulan ralat vektor, kajian ini mengesahkan bahawa OFDI mempunyai kesan negatif ke atas KDNK, pelaburan domestik dan pengangguran di Indonesia. Walau bagaimanapun, kesemua tiga faktor penengah kelihatan bukan sahaja mampu mengurangkan keseriusan kesan tetapi mampu untuk menukar kepada positif sekiranya IFDI, pendidikan dan pembangunan kewangan domestic dalam

ditingkatkan ke satu tahap yang tinggi.

*Kata Kunci : KDNK, pelaburan dalam negara, pengangguran, pelaburan langsung asing.*



**EFFECT OF OUTWARD FOREIGN DIRECT INVESTMENT ON  
GROSS DOMESTIC PRODUCT, DOMESTIC INVESTMENT, AND  
UNEMPLOYMENT IN INDONESIA**

**ABSTRACT**

Gross Domestic Product (GDP) of Indonesia is growing but at relatively low rates if compared to the rates before the 1997 economic crisis. This could be explained by the low domestic investment which is only at its high recently but may be due to outward Foreign Direct Investment (OFDI). As part of the implication of the low growth rate of GDP and domestic investment in Indonesia, the unemployment rate is started to take off again recently, after a serious decline in the last decade. This suspects that the answer lies in the outward FDI. Hence, the key questions of this study are to investigate the effect of outward FDI on GDP, domestic investment, and unemployment in Indonesia. Since OFDI is not easy to handle as it is done by private firms, this study believes that several mitigating strategies of the potential adverse effect of OFDI should be designed, namely by inviting more inward foreign direct investment (IFDI), and promoting better education, and domestic financial development. This study tries to confirm their importance by setting them as another three objectives of this study. Utilizing data of Indonesia spanning from 1980 till 2018 by using vector error correction model approach, this study confirms that OFDI has a negative impact on GDP, domestic investment, and unemployment in Indonesia. However, all three moderating factors seem to be not only capable to reduce the severity of the impact but also can turn it into a positive if inward FDI, education, and domestic financial

development are promoted to a high level.

Keywords: GDP, domestic investment, unemployment, foreign direct investment, moderating factor.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Introduction

Indonesia has 34 provinces, a population was 267 million persons in 2019, and is the world's most populous Muslim nation. The geographical location of Indonesia lies in Southeastern Asia, archipelagos between Asia and Australia continents, and between the Indian and Pacific Oceans. Indonesia has 1,107 km of land boundaries with Malaysia, 820 km of borders with Papua New Guinea, and 288 km of boundaries with Timor-Leste, Singapore, and the Philippines. Indonesia has more than 17,508 islands. The area is 1,904,569 km<sup>2</sup>. The land area is 1,811,569 km<sup>2</sup>, the water is around 93,000 km<sup>2</sup>, and the coastline spans 54,716 km. A large percentage of world trade transits the strategically important straits of Malacca that link the Indonesian ocean littoral to the South China Sea and the larger Pacific Ocean basin. The largest islands are Kalimantan, Sumatra, Java, Sulawesi, and Papua. It has multiethnic, multi-culture, almost 300 local languages, and the official language of the country is the Indonesian language. English affords to Indonesians in education, commerce, and international relations. English is widely spoken by businesspeople in major cities. The capital city of the Republic of Indonesia is Jakarta in which the business local, multinational corporate head office, and governmental center take place. Independence Day falls every August 17<sup>th</sup> since it was proclaimed in 1945. Indonesia is rich in natural resources such as coal, minerals like tin, gold, silver, oil, gas, fertile land to support agricultural products. It is producing palm oil, rubber, coffee, cocoa, rice, tapioca, peanuts, copra, poultry, beef, and eggs also else.

The resources have made Indonesia so attractive to foreign traders, rulers, and

investors historically (Indonesia Investment Coordinating Board, 2017). The Indonesian government is building various infrastructure projects in the past five years. This development was continued and increased the human resources capabilities, especially the younger generation. Moreover, the government plans to move the capital city of the Republic of Indonesia to one of the regions in East Kalimantan.

Economically, Indonesia has been growing rapidly, especially before the 1997 financial crisis that struck several East Asian countries, including Indonesia. Nevertheless, As shown in Figure 1.1., after struggling to recover from the adverse effect of the crisis, Indonesia has successfully regained its GDP level before the crisis by 2002. Since then, Indonesia has been growing as shown by a continuous upward trend. Looking at the successful development of developed countries which relied partly on inward FDI to support the development of their domestic markets, Indonesia has been putting serious efforts to lure FDI inflows and has been successful before the crisis in bringing in FDI, given its large market size as the most important incentive to multinational corporations (MNCs) in the past. Nevertheless, in the aftermath of the crisis, the inflows of FDI do not impressive and consistent as shown in Figure 1.1 although it could still be a strong input to Indonesian economic development, given its unique feature of embedded technology and management skills that can be so crucial to Indonesia.

Meanwhile, foreign direct investment is regarded as the crucial input to long-term Indonesian economic growth. Foreign Direct Investment (FDI) is the flow of funding provided by international investors usually a firm to establish or acquire a foreign company or to expand or finance an existing foreign company that the investor owns and controls (Pugel, 2016). The importance of foreign direct investment (FDI)

in assisting economic development is well-known to everyone. Several benefits have been confirmed by past studies. Firstly, FDI is expected to stimulate economic development as confirmed by Zhang (2001), Tiwari and Mutascu (2011), and Adegbite & Ayadi (2011). To lure multinational corporations (MNCs) to invest in the host country, the government of the host country should create a more conducive business environment. By doing so, both foreign and local investors will be attracted and capable to expand their production and eventually, contribute to higher economic growth. Secondly, as the result of the first benefit, FDI will create new jobs with the setup of a new plant in the host country. With job opportunities, the host country's population will enjoy the high income and purchasing power, leading to better welfare (Becker and Muendler, 2008; Hisarciklilar, Gultekin-Karakas, and Asici, 2014). Nevertheless, Seyf (2000) argues that this is not necessarily always be the case.

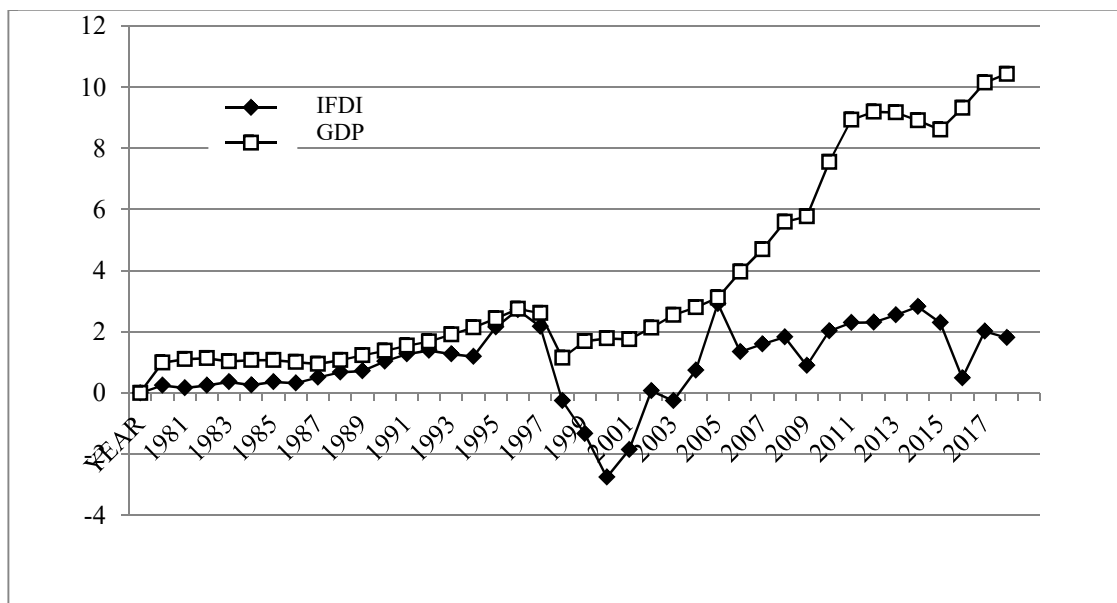


Figure 1.1: GDP (in 100 billion US dollars) and IFDI (in % of GDP) in Indonesia.  
Source: World Development Indicators (World Bank, 2019).

Thirdly, with more open policies accompanying the inflows of FDI, more exports of products of MNCs may also mean more exports of local products, which

are used as inputs for those exported (Zhang & Song, 2001; Zheng, Siler, and Giorgioni, 2004). Fourthly, we can expect to see more productivity in the host country. Multinational Corporations (MNCs) will always bring up-to-date technology and managerial skills in the investment to another country. Technology transfer, if occurred will certainly bring higher production efficiency, while local talent development may also occur although may not be so urgent (Tiits, 2007; Lee, 2009; Zhao & Zhang, 2010). Demir and Duan (2018) argue that FDI may improve the host country's technology level. There are often technological gaps between host and home countries that allow for foreign capital such as FDI to fill in.

Not only receiving, but recently Indonesia has also emerged as an international capital provider by sending outward FDI to overseas. Outward FDI is an outflow of funding provided by companies to expand finance to other countries which are controlled by the government or companies owns. Lee (2010) there was a long-run positive unidirectional causality from outward FDI to gross domestic product (GDP) per capita. Bai Tao et al. (2013) firms' OFDI mode and effects of economic. It is found in the host countries with larger economic distances that it is preferred with the greenfield investment entry mode. Returns from outward FDI are consistent with financial returns, intangible capability returns, and tangible capability returns (Knoerich, 2017). Firstly, financial returns are transferred to the home economy via transactions involving banks or other financial institutions or through mechanisms internal to the firm such as within-firm financial payments or transfer pricing. FDI income has been a few USD billion for most of these countries, with rates of return at 5 percent on average. Rates of return from FDI tend to exceed other types of investment returns (UNCTAD, 2013).

Generally, a proportion of these investment-related earnings are repatriated to the home economy. Repatriated returns on FDI can be substantial, although they tend to fluctuate over time (UNCTAD, 2006). Successful investments by nature yield quantifiable financial gains for the investment firms as they make profits overseas or generate other earnings. Secondly, Intangible capability returns may also be the result of ‘reverse’ linkages and spillover effects in advanced host economies. Multinationals generate returns of intangible capabilities in the form of additional knowledge, skills, technological upgrading, managerial expertise, and a brand’s goodwill by investing overseas. The opportunity of fast-tracking access to know-how and technologies may be an explanation for why as much as 56 percent of global cross-border Mergers and Acquisitions (M&As) were undertaken by multinationals from developing and transition economies in 2013 (UNCTAD, 2014). When OFDI taps into low-cost, unskilled labor in economies which are even less advanced than the country of origin of the investing firm, the resulting movement of labor-intensive economic activity from home to the host economy may force the labor force composition in the home economy to shift in the direction of higher-end activities, thereby inducing economic upgrading (Kojima, 1973, 1975; Kojima & Ozawa, 1984; Lipsey, 2004; Moran, 2006).

Intangible capability returns would help upgrade firms in less advanced home economies. Thirdly, Tangible capacity as the inputs would return, occur when multinationals use OFDI to acquire natural resource companies, mines, and oil fields, obtain exploration and exploitation rights, and purchase land. OFDI can enhance production capacities in the home economy as well as capacities to construct, operate, sell, and consume, thereby supporting processes of development and industrialization. OFDI would help mitigate these shortages and increase capacities, thereby promoting economic growth and stability by securing longer-term ownership and control over

relevant assets in foreign countries. The strategy would minimize risks and ensure stability and continuity of the economic development process. Furthermore, the overseas acquisition of brands can expand a company's sales in the home economy. The output is sold on the international market, resulting in an expansion and diversification of global supply (Chen,2011; Moran, 2010) and a possible reduction of raw material prices globally and to the benefit of any buyers in the home economy.

## **1.2 Background of Study**

### **1.2.1 Outward FDI to Economic Development**

The multinational enterprise conducting the investment in many ways such as the effective and successful pursuit of assets and advantages abroad will result in the generation of returns. The contribution of these returns to the home economy can be either firm-specific in nature, benefiting the investing firm, or it can involve broader gains and benefits to other firms or economic actors. Most notably, returns have a beneficial impact on economic development if they help mitigate certain development needs faced by a home economy, such as financial or technological constraints, capability bottlenecks, resources shortages, or a low number of exports. Technology diffusion plays a central role in the process of economic development. In contrast to the traditional growth framework, where technological change is left as an unexplained residual, the recent growth literature has highlighted the dependence of growth rates on the state of domestic technology relative to that of the rest of the world. Thus, growth rates in developing countries are, in part, explained by a 'catch-up' process in the level of technology. In a typical model of technology diffusion, the rate of economic growth of a backward country depends on the extent of adoption and



implementation of new technologies that are already in use in leading countries. Technology diffusion can take place through a variety of channels that involve the transmission of ideas and new technologies. Imports of high-technology products, adoption of foreign technology, and acquisition of human capital through various means are certainly important conduits for the international diffusion of technology. Besides these channels, foreign direct investment by multinational corporations (MNCs) is a major channel for access to advanced technologies by developing countries. MNCs are among the most technologically advanced firms, accounting for a substantial part of the world's research and development (R&D) investment. Some recent work on economic growth has highlighted the role of foreign direct investment in the technological progress of developing countries. Findlay (1978) postulates that foreign direct investment increases the rate of technical progress in the host country through a 'contagion' effect from the more advanced technology, management practices, etc. used by the foreign firms. Wang (1990) incorporates this idea into a model more in line with the neoclassical growth framework, by assuming that the increase in 'knowledge' applied to production is determined as a function of foreign direct investment (FDI).

Many studies have confirmed that multinationals from advanced economies investing overseas seek assets and advantages as well (Almeida, 1996; Dunning, 1996; Kuemmerle, 1999; Shan & Song, 1997; Cantwell et al., 2004). Ameer et al. (2017) show that there is a positive long-run unidirectional causal relationship running from OFDI to domestic investment in China. In the short-run, domestic investment and OFDI do not show Granger causality. Kazemi et al. (2018) obtain the result that (i) outward FDI to the United State of America is found to benefit East Asian economies, however, investment in Japan and the United Kingdom did not appear to have any

positive impact; (ii) the locational decision for outward FDI was critically important as not all destinations would bring positive benefits for the source countries. Going back to Indonesian experiences regarding FDI inflows, simple regression as shown in Figure 1.2 suggests that it has the potential to create a positive impact on the Indonesian economy. This could be due to huge technology as well as a managerial gap which are normally the common features of developing countries. The small effect could be explained by Khaliq and Noy (2007) that FDI inflows to various sectors in Indonesia do not always produce a positive effect in all sectors.

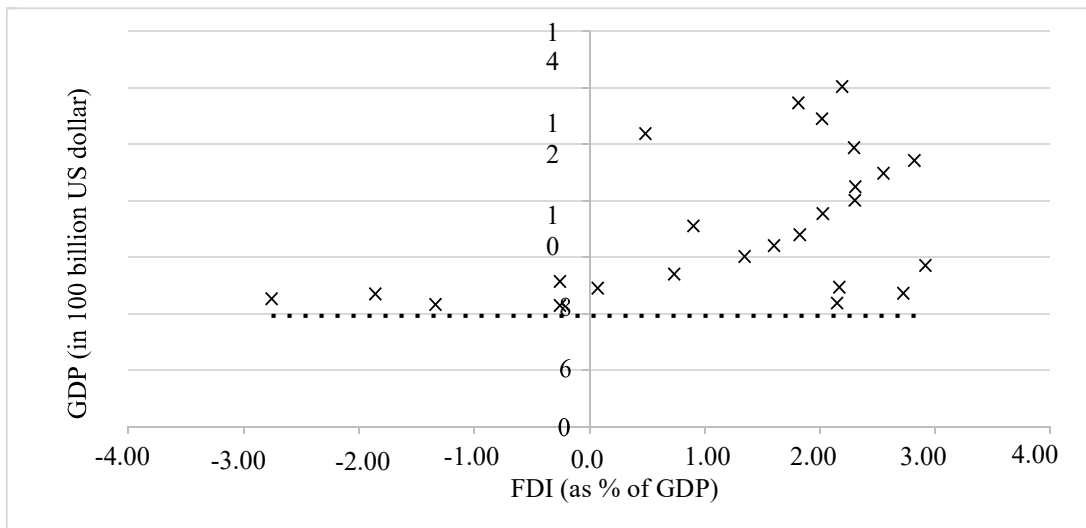


Figure 1.2: GDP versus FDI in Indonesia.

Note: The --- line represents the regression line.

Source: World Development Indicators (World Bank, 2020).

It shows in Figure 1.3 that GDP growth has tended to increase steadily from 1980 to 2018, although two times of declines were in 1998 during the economic crisis and in 2016. Otherwise, the figure for outward FDI looks flat and it was averaged under one percent of Indonesia's GDP for four decades. The total amount of outward FDI per year was very smaller compared to Indonesia's GDP.

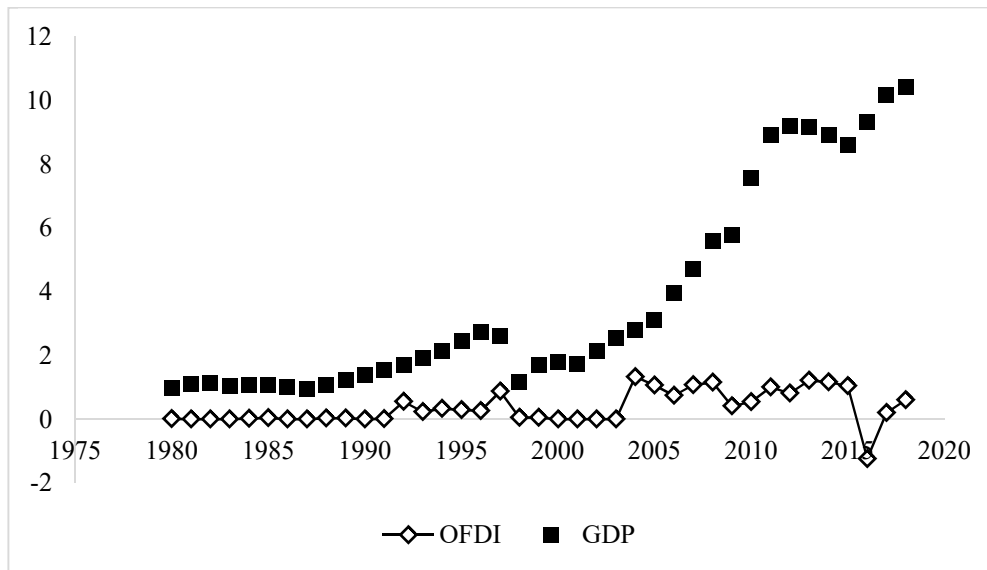


Figure 1.3: Outward FDI (% of GDP) and GDP (100 billion USD) from Indonesia.  
Sources: World Development Indicators (World Bank, 2020)

### 1.2.2 Outward Foreign Direct Investment (OFDI) in Indonesia

While experiencing low inflows of FDI relative to the period before the 1998 economic crisis, Indonesia is always seen as sending its capital out of Indonesia. Theoretically, an outward foreign direct investment is a business strategy in which a domestic firm expands its operations to a foreign country. This can take the form of a greenfield investment which is the company creates a subsidiary in a foreign country, a merger or acquisition, and expansion of an existing foreign facility as part of an outward FDI strategy. Employing outward FDI is a natural progression for firms if their domestic markets become saturated. Perhaps, better business activity opportunities are available overseas (Investopedia, 2019). The developed countries such as the USA, Japan, Germany, and others, which have more funds can be invested in developing countries. There are mutual agreements and outward foreign direct investment (OFDI) will benefit each other for both the home country and the host country. Although countries like the USA, Japan, and Germany have been sending

their capital to other countries for many decades, they have done this without jeopardizing the domestic need. For instance, there is growing evidence that outflows of foreign direct investment (OFDI) can improve the competitiveness of investment in a country, which is extremely important for the long-term sustainable growth of MNCs as well as the country.

Herzer (2011) find a positive relationship between outward FDI, domestic output, and total productivity. There interpreted as evidence of productivity-enhancing, growth-enhancing, and effects of outward FDI. So, the outward investment represents a diversion of domestic economic activity. Onaran et al. (2012) find positive effects of outward FDI on domestic business investment in 19 industries and 10 services sectors. Which OFDI to low-wage countries crowds out domestic investment, however OFDI to high-wage countries outside Europe crowds in domestic investment. Some countries are thus using OFDI as a channel for new development and a catch-up strategy to acquire knowledge and technology (Deng, 2007; Kedia et al., 2012; Li, & Shapiro, 2012), upgrade production processes (Beugelsdijk et al., 2008; Herzer, 2010), boost competitiveness (Gugler, & Brunner, 2007), augment managerial skills (Elia et al., 2009; Lyles et al., 2014), and access distribution networks (Buckley et al., 2015).

Unfortunately, for a country like Indonesia, which is hugely in need of investment to further develop its economy, losing long-term capital or FDI into other countries could be a critical issue. As shown in Figure 1.4, Indonesian GDP per capita (GDPC) has shown a relatively stable path of up-trending, except for the period immediately after the 1998 economic crisis. A big jump in OFDI can be seen between 1993 and 1995, with a minimum effect on GDPC. Although no past study has discussed this issue, we predict that rapid economic growth has brought more income

to firms, which cannot be fully translated into a more domestic investment due to limited domestic capacity during that period. This period is encouraged Indonesia's economy has grown on average by 7.8 percent from 1980 to 1996 and automatically GDP increased at the same time. In the line with the high economic growth and structural transformation in several sectors, the poverty rate declined from around 40 percent in 1980 (54.2 million people) to 17.5 percent in 1996 (34 million people). Furthermore, Indonesia was classified as a Newly Industrialized Economies (NIEs) member. In this period the OFDI had too many outflows to other countries because the GDP jumped from amount USD 158 billion to USD 202 billion in 1993 up to 1995. Hence, Indonesia has more funds that can be invested in other countries that need it. The period between 1996 and 2002 is when GDPC and OFDI were likely to move together. However, the period after 2002 is difficult to conclude but generally, we can say that GDPC has been rising at a rate before the 1997 economic crisis but accompanied by a dropping or cyclical pattern of OFDI, especially in 2017. If causality between the two exists, the possible and sensible causality could be that fewer capital outflows have promoted higher GDPC.

However, it is shown in Figure 1.4 that there was a decline in OFDI from 2015 until 2017, this is because the Indonesian government has more focused on the development of various infrastructures in the country. Consequently, it has required funds for these projects through domestic and foreign funding. This is done to catch up with the infrastructure development and other projects compared to neighboring countries. The reduction in outward FDI can support developmental goals by offering more domestic funds, increase a country's investment competitiveness, strategy to acquire knowledge and technology, innovation, exports, distribution networks, and employment (Amann and Virmani, 2014; Ahmad et al., 2016; Matthew and Perea,

2018; Liu and Ni, 2019).

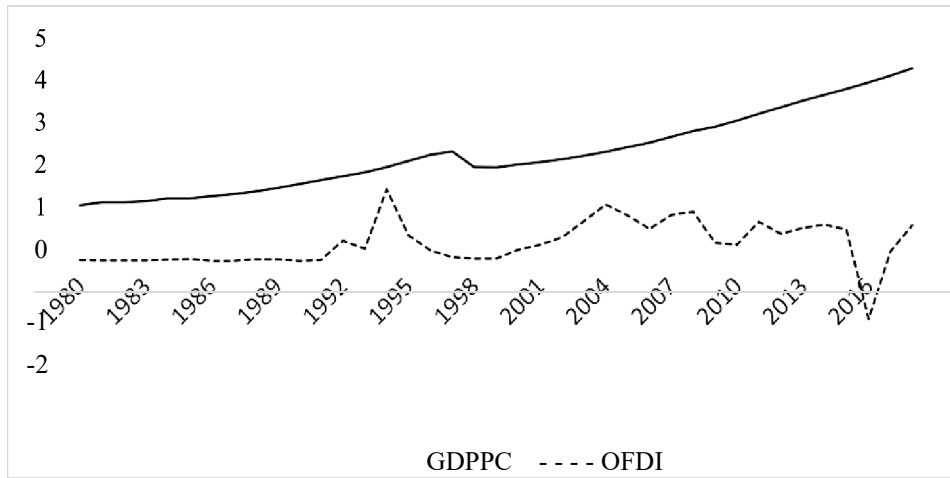


Figure 1.4: GDP per capita (in thousand) and Outward FDI (as % of GDP) in Indonesia  
 Source: World Development Indicators (World Bank, 2019).

### 1.2.3 Domestic Investment pattern in Indonesia

Domestic investment is part of overall investment. Investment in Indonesia consists of foreign investment and domestic investment. Figure 1.5 highlights the pattern of domestic investment in the selected Asian countries, Indonesia, and its neighboring countries. Domestic investment is not necessarily by local investors only. It is the sum of both, local and foreign investors' investments. What can be justified from Figure 1.5 is the remarkable level of domestic investment prior to the 1997 Asian economic crisis, particularly in Malaysia and Thailand. These two countries recorded the highest level of domestic investment, surpassing South Korea in third place. Indonesia generally does not show a consistent pattern of domestic investment. Nevertheless, Indonesian domestic investment remains in fourth place after South Korea before the wake of the 1997 Asian economic crisis, in a better position than the uprising new economies of Vietnam and India. However, it falls into the last place immediately after the crisis and took more than 10 years after the crisis for Indonesia

to be capable to recover the level of domestic investment just before the crisis. Interestingly, in recent years, Indonesia has been at the top level relative to other Asian countries, in contrast to the sharp drop in domestic investment in Malaysia and Thailand.

With the pattern of domestic investment as shown in Figure 1.5, we are curious about the source of this behavior. Among the primary sources of domestic investment is inward FDI from multinational corporations (MNCs) and credit by domestic financial institutions, while the leakage could come from outward FDI. Interestingly, the take-off of the Indonesian economy in the 1980s is accompanied by an uprising outflow of FDI from Indonesia.

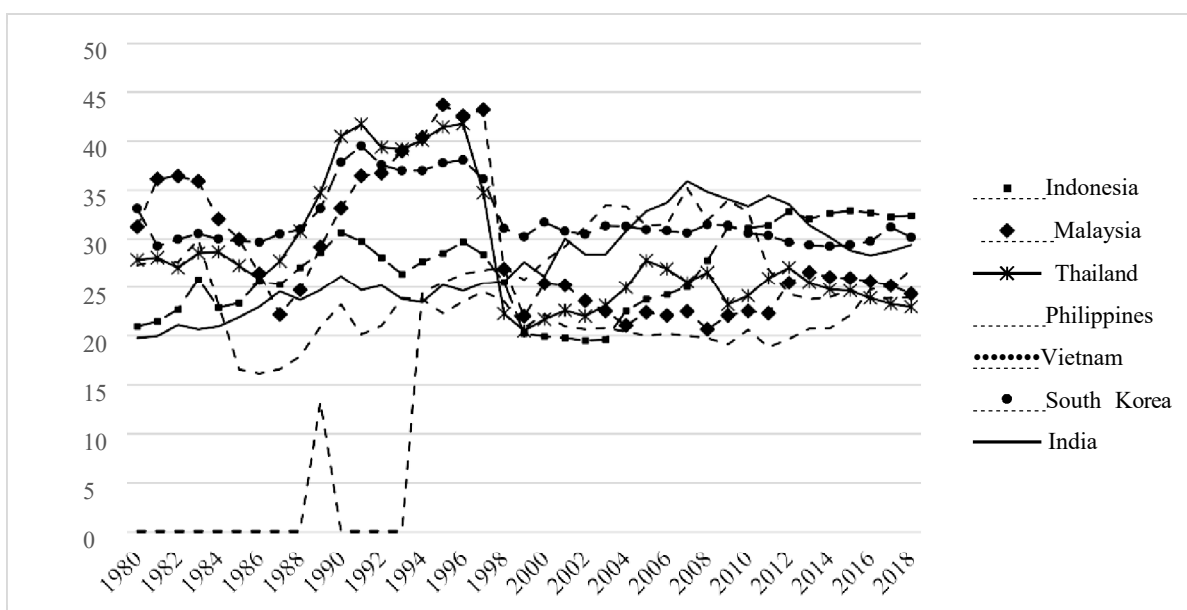


Figure 1.5: Domestic investment in the selected Asian countries (as % of GDP)  
 Note: Domestic Investment is represented by gross fixed capital formation (as % of GDP).  
 Source: World Development Indicators (World Bank, 2019).

Nothing much has been mentioned in the past studies, but referring to high income inequality in Indonesia, we suspect this could be due to low prospect of growth in Indonesia and the rich are seeing more opportunities overseas. Throughout 1980s

also, we could see that inward FDI did not help with limited inflows recorded. We just refer to the volume of inflows, and not really on its connection with GDP. In another word, even though IFDI could be helpful to Indonesian economic growth, its contribution relative to other growth factors could be at a minimum. The sharp decline in IFDI is fortunately followed by low but still positive OFDI from Indonesia. A combination of both low IFDI and positive OFDI could explain why Indonesia took more than 10 years to recover from the crisis. Meanwhile, high IFDI and almost zero OFDI might be explaining why Indonesian domestic investment is currently at the highest relative to other 6 Asian countries to strongly support Indonesian economic development.

One interesting point to note from Figure 1.6 is the behavior between OFDI and IFDI. Both are generally moving together in the same direction. For instance, between 1993 and 1997, when Indonesia enjoyed huge inflows of FDI, at the same time outward FDI also reached its peak. Similarly, between 2004 and 2016, high and positive inward FDI was accompanied by positive close to 1 percent outflows of FDI from Indonesia. Although the recent slump in FDI inflows in 2017 also followed negative outflows of FDI by Indonesian, the latest surge in inward FDI is also closely matched by a resurgence of OFDI. With domestic investment badly needed to rebuild Indonesian economic development, efforts to lure more FDI inflows should also be able to discourage OFDI. Nevertheless, whether discouraging OFDI would be a desirable strategy, depends on its implication for domestic investment. Hence, it is the objective of this study to examine the effect of OFDI from Indonesia on Indonesian domestic investment.



Firm expansion might be done via local credit, rather than profit reinvestment. Domestic firms are more likely to have a strong linkage with other domestic firms, rather than with MNCs. On the causality, the domestic investment may also mean the government has successfully created a good business environment, which is not only conducive for domestic firms but also to MNCs. High domestic investment also indicates that the host country is well prepared with supporting firms that may be needed to be part of the supply networking. Therefore, a country with impressive domestic investment may also be successful in attracting more inflows of FDI (IFDI) to the country. Inflows of foreign investment such as FDI will be contributing to the accumulation of capital necessary to support economic growth. The issue is the focus of this study, in which IFDI is crowding out or in domestic investment, and in addition, Javorcik (2004) stresses shared ownership as the means to create a win-win outcome. The key argument is that foreign know-how can really be jointly utilized by domestic firms to enhance their efficiency and profitability.

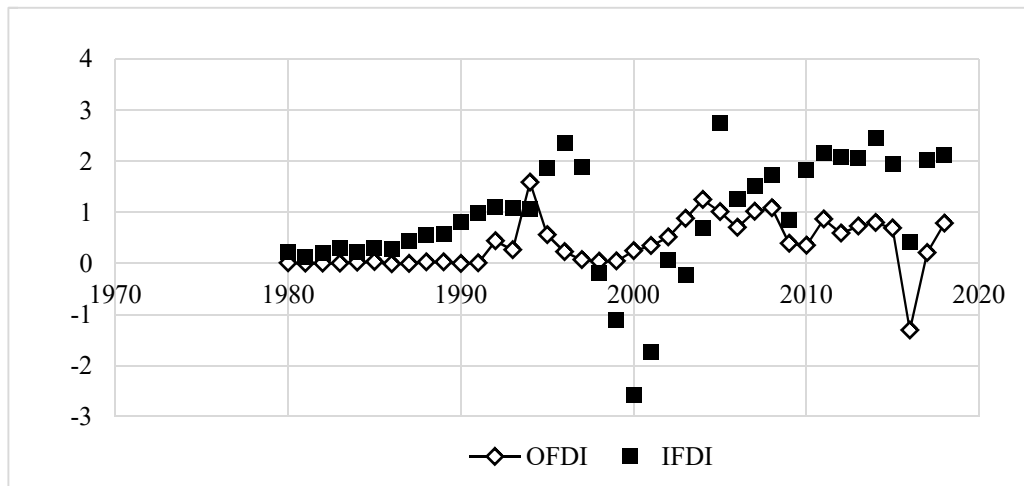


Figure 1.6: Outward FDI (% of GDP) and Inward FDI (% of GDP) in Indonesia.  
Source: World Development Indicators (World Bank, 2020).

#### **1.2.4 Unemployment in Indonesia**

The unemployment rate is calculated by expressing the number of unemployed persons as a percentage of the total number of persons in the labor force. The labor force is the sum of the number of persons employed and the number of persons unemployed (International Conference of Labor Statisticians-ILO, 2013). Figure 1.7 shows that the unemployment rate in Indonesia has from the early 1980s until 2018, for almost four decades, although started to decline in 2008. The lowest unemployment was 1.52 percent of the total labor force in 1984 and the highest was 8.06 percent in 2007. High unemployment in Indonesia may imply the need for more investment to create more job opportunities.

More investment such as outward FDI, inward FDI, and domestic investment is needed to be funding the private and government projects which will increase economic growth and create new jobs in this country and house country. Automatically, there is need for employees to support activities of the industries, manufacturing, mining, and else. Consequently, there will be reduced unemployment in the countries. Low unemployment will reduce social problems like crime and increase the living standard of the people. This is according to the analysis of Stephenson and Perea (2018) that outward foreign direct investment (OFDI) can increase a country's investment competitiveness, crucial for long-term, sustainable growth. Several countries are thus using OFDI as a channel for new development and a catch-up strategy to acquire knowledge and technology, upgrade production processes, boost competitiveness, augment managerial skills, and access distribution networks.

As shown in Figure 1.7, the last 15 years justify the success story of Indonesia

in bringing unemployment down. Unemployment rates in Indonesia went up from the early 1980s until 2006. But, after 2006, a series of falling rates can be observed in the figure. Therefore, the Indonesian government should provide employment opportunities for the people. If it is late to provide employment, there will be more increase in unemployment in Indonesia.



Figure 1.7: Unemployment (% of Total Labor) from Indonesia.  
Sources: World Development Indicators (World Bank, 2020)

Furthermore as shown in Figure 1.8 indicate that outward FDI has the potential to create positive impact on Indonesian unemployment. Therefore outward FDI will create new jobs, opportunities and reduce unemployment.

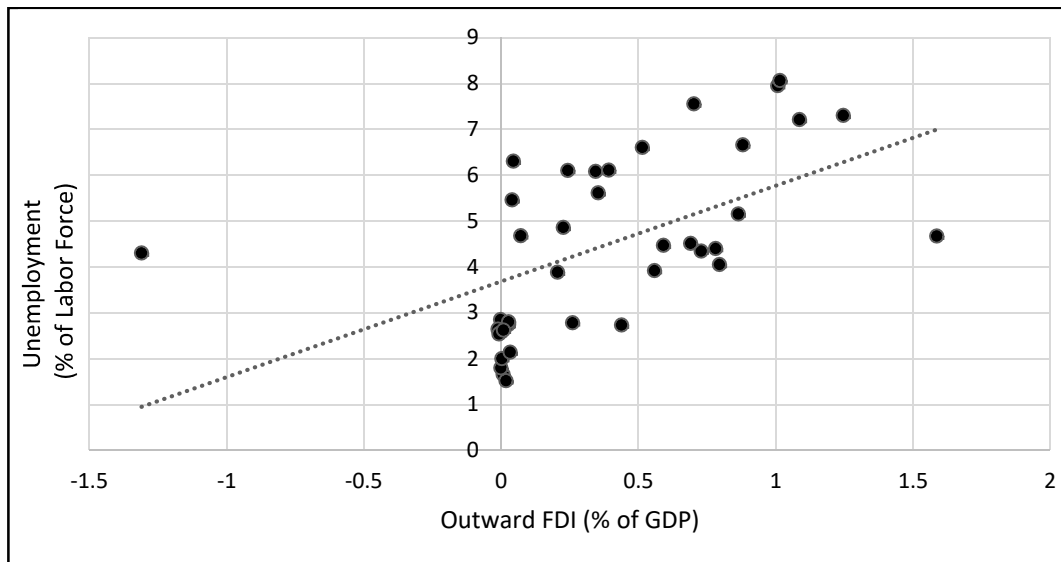


Figure 1.8: Outward FDI Versus Unemployment in Indonesia.

Note: The ..... line represents the regression line.

Sources: World Development Indicators (World Bank, 2020)

### 1.2.5 Can Inward FDI, Financial Development, and Education moderate?

Several types of variables are used in this study, one of types such as moderating variable. Moderating variables can be qualitative or quantitative. In this study used quantitative the moderating variables consist of inward FDI, domestic financial development and education expenditure for three models namely (i) Growth Model; (ii) Domestic Investment Model; and (iii) Unemployment Model. It showed in the framework of the study.

A moderating variable will be effect to relationship dependent variable and independent variable. Moreover, a moderating variable can *moderate* the relationship between two variables in many different ways in the following effects (i) Strengthen the relationship between two variables; (ii) Weaken the relationship between two variables; and (iii) Negate the relationship between two variables, (Zach, 2020). *This study predicts positive effect the moderating variables to strengthen the relationship between dependent variable and independent variable in the three models.*

As we can see from Figure 1.6, the current inflows of FDI into Indonesia are less impressive lately. If proper strategies are installed, more inflows can be expected, which later can help to promote GDP, lower unemployment and complement domestic investment. Similarly, the size of domestic financial development is relatively at a high level and if fully utilized for productive purposes, it can be a vital source to promote domestic investment. Finally, education is also a crucial means to support GDP and employment. Nonetheless, the spending on education is not as high as in the 1990s. Hence, if spending on education to create skillful employees can be allocated, more productivity and efficiency in production can be materialized.

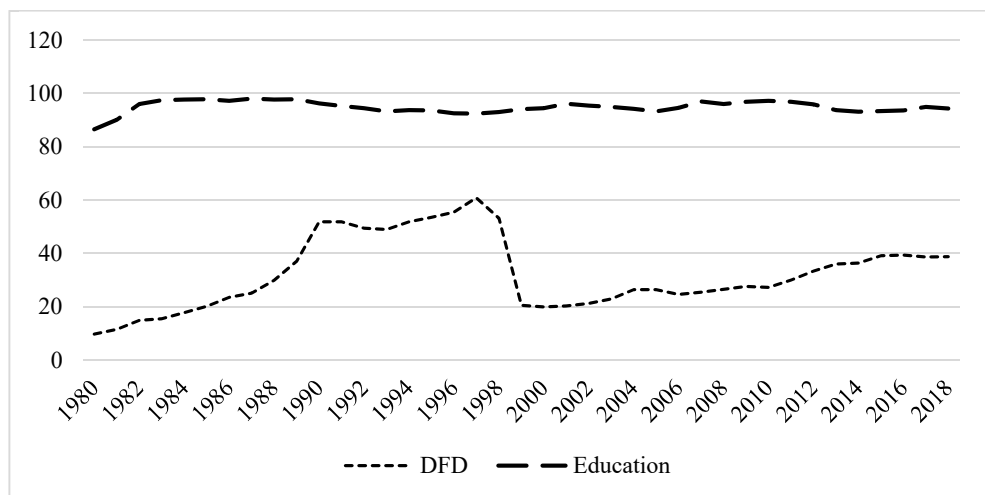


Figure 1.9: Domestic Financial Development and Education in Indonesia.  
 Source: World Development Indicators (World Bank, 2020).

### 1.3 Problem Statement

The Indonesian economy has been halted by the 1997 economic crisis. Only after 2002 that the economy has reached the level of GDP just before the wake of the crisis. Since then, although the pattern of GDP as shown in Figure 1.1 is smoothly uprising, if we check the growth rates of GDP, the average growth rate of GDP since 1997 until 2018 is merely 4.8% as compared to 7.8% prior to the crisis. Hence,

Indonesia is experiencing slow economic growth since then. Although the crisis itself has generated lower capital available for future development, the slow FDI inflows may pose another threat to economic development in Indonesia. To make this worse is the contradictory thing that Indonesia needs inward FDI and domestic investment to be financing several projects, especially after the economic crisis in 1997, however, this study observes that Indonesian fund has been sent out from Indonesia, when domestic development may really need the money as the input. Hence, the first question that this study wishes to ask is “*what would be the impact of outward FDI from Indonesia on the gross domestic product (GDP)?*”

As the key to GDP growth as postulated by new growth theory is technology development, either via product imitation, technology transfer, or own innovation, this study believes that all channels through which technology level can be improved can serve as the solution to mitigate the potential adverse effect of outward FDI. First is the role of inward FDI to transfer technology to local firms and industry and second, the vital role of education to encourage more own innovation or to be more capable to tap technology transfer from multinational corporations (MNCs). Hence, the next question that this study plan to investigate is “*will inward FDI and education moderate the effect of outward FDI on GDP in Indonesia?*”

Another related issue as stated above is the level of domestic investment available to support domestic economic development in Indonesia. With limited capital from outside to inflow to Indonesia, the outflows of domestic capital could be critically reduced the amount of domestic capital. Indonesian domestic investment remains in the fourth place after South Korea before the wake of the 1997 Asian economic crisis, in a better position than the uprising new economies of Vietnam and

India. The pattern of domestic investment has shown in Figure 1.5. It took more than 10 years after the crisis for Indonesia to be capable to recover the level of domestic investment just before the crisis. Interestingly, in recent years, Indonesia has been at the top level relative to other Asian countries, in contrast to the sharp drop in domestic investment and Thailand. Nevertheless, it remains an issue that we need to investigate, it caused Indonesia's domestic investment is unstable. Therefore, this study's second problem to be addressed is "*what would be the possible effect of outward FDI from Indonesia on domestic investment?*".

As investment is an important input to domestic economic development, the forgone fund in the form of outward FDI must be replaced by a new source of funds. Hence, inward FDI can serve this loophole alongside the proper development of a financial system to offer more credit to private sectors in Indonesia. Hence, the next question that this study plans to examine is "*will inward FDI and domestic financial development moderate the possible unfavorable effect of outward FDI on domestic investment?*"

As unimpressive GDP may invite very minimum job opportunities relative to the growth of the Indonesian population, unemployment could be a serious issue in Indonesia. Unemployed workers are suffering long-lasting despair and destitution, so the media publicize high unemployment as a great social problem. Indonesia is a country with the fourth-largest population in the world. The Indonesian government should be able to provide employment for job seekers. Indonesia's unemployment rate has been on average stood at 5.97 percent for the period between 1980 and 2018, relatively close to the world unemployment rate in 2019 which stood at 6.83 percent (World Bank, 2020). Furthermore, the average of Indonesia's unemployment was 5,97

percent for 4 decades, which is considered high relative compared to 3.8 percent in Malaysia, and 2.23 percent in Thailand. Unemployment rate as shown in Figure 1.7 although shows a declining trend at the end of the 2000s, has a tendency to shoot up again. Since unemployment and poverty will trigger crime and social unrest, reducing unemployment in this country could be among the top priority policy. In connection to outward FDI, Kozo (2014) shares the experience of Japan when it started sending capital out of Japan. The multinational companies, especially the manufacturing sector relocated their production sites overseas, which resulted in unemployment and the decline of manufacturing jobs in the home country. Hence, this study's third problem is "*what would be the effect of OFDI from Indonesia on unemployment?*"

As low domestic economic activities may mean lower job opportunities and creation, inward FDI is expected to be able to fill in the loophole by offering more domestic production. Subsequently, Indonesians should also be encouraged to involve in entrepreneurship by first acquiring sufficient knowledge to engage in any economic activities. Hence, given the possibility that outward FDI may worsen unemployment in Indonesia, the next question is "*will inward FDI and education moderate the impact of outward FDI on unemployment?*"

#### **1.4 Research Questions**

In general, this study put forward the question "what is the effect of outward FDI from Indonesia on the Indonesian economy". Specifically, this study has the following 3 sub-questions:

1. What is the effect of outward FDI on economic growth in Indonesia? Can the OFDI-growth relationship be moderated by inward FDI and education?



2. What is the impact of outward FDI on domestic investment in Indonesia? Shall domestic financial development and inward FDI moderate the OFDI-investment relationship?
3. What is the role of outward FDI on unemployment in Indonesia? Would education and inward FDI moderate the OFDI-unemployment nexus?

### **1.5 Research Objectives**

Generally, the objective of this study is to examine the implications of outward FDI from Indonesia on the Indonesian economy. To achieve this objective, we specify 3 sub-objectives as follows:

1. To investigate the effect of outward FDI on economic growth in Indonesia. Subsequently, to examine the moderating effect of inward FDI and education on the OFDI-growth relationship.
2. To examine the effect of outward FDI on domestic investment in Indonesia. Subsequently, to analyze the moderating effect of inward FDI and domestic financial development on the OFDI-growth relationship.
3. To analyze the impact of outward FDI on unemployment in Indonesia. Subsequently, to investigate the moderating effect of inward FDI and education on the OFDI-growth relationship.

### **1.6 Scope of Study**

This study focuses only on Indonesia. This is because Indonesia is a huge country with abundant natural resources and availability of labor, either skilled or unskilled. Given its status as one of the Asian tigers prior to the 1997 financial crisis,

it is interesting to research the prospect of Indonesia regaining this status. Taking the data from 1980 (prior to the 1997 financial crisis) till 2018, this study aims to uncover crucial issues of capital leakage from Indonesia amid the shortage of domestic funds available to finance future development in Indonesia.

### **1.7 Significance of Study**

Not much is known about the implication of OFDI from Indonesia on the Indonesian economy. This could serve as the first few studies dealing with these issues with a focus on its implications on GDP, domestic investment, and outward FDI. The policymakers can gain in several ways. First, it is unclear what would be the effect of outward FDI from Indonesia on the Indonesian economy. With the finding of this study, the government can decide whether encourage or discourage the outflows of capital from Indonesia. Similarly, the knowledge of the impact of OFDI on domestic investment and unemployment may also offer another insight into the seriousness of the role of OFDI, which generally offer positive outcome to developed countries.

Second, since the right to bring capital out of Indonesia belongs to the investors, either Indonesian or non-Indonesian, the analyses outcome of moderating factors may hint at several tools that can be used to mitigate the potential serious unfavorable effect of OFDI from Indonesia.

### **1.8 Key terms**

Several definitions of terms which it is used in this study and showed in the table 1.1. as below.