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THE IMPACT OF FOREIGN DIRECT INVESTMENT ON INCOME INEQUALITY IN DEVELOPING COUNTRIES: A PANEL DATA ANALYSIS.

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CERTIFICATION

The undersigned certifies that he has read and hereby recommend for acceptance by the Polytechnic University of Marche a dissertation titled*:* " The impact of Foreign Direct Investment on income inequality in developing countries 2005-2014" in fulfilment of the requirement for the award of degree of Master of Science (International Economics and Commerce) of the Polytechnic University of Marche.

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Prof Massimo Tamberi

(Supervisor)

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Date

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DECLARATION

I, **IRENE AWELANA ATADANA** do hereby declare that, with the exception of due acknowledgements, this thesis under the guidance of my supervisor is the result of my own original work, which has not been and will not be presented for any degree elsewhere, submitted this day for the award of Master of Science Degree in International Economics and Commerce at the Department of Economics, Facoltà de Economia "Giorgio Fua" Università Politecnica delle Marche, Ancona.

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Signature

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Date

DEDICATION

I dedicate this work to my parents **BRUNO AWIAH ATADANA** and **MARY ATADANA** and my siblings for their prayers and advice throughout my studies especially **FELIX AZIWEH ATADANA** for his support, encouragement, inspiration, guidance, and above all mentorship invested in me.

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ABSTRACT

The study examines the impact of foreign direct investment on income inequality by considering the two modes of FDI entry – cross-border mergers & acquisitions (M&A) and Greenfield FDI, and to examine whether these two modes of FDI entry have differential effects on income inequality in developing countries for the period 2005-2014. The study uses the system generalized method of moments (GMM) developed by Arellano and Bond (1991) and Arellano and Bover (1995) to investigate the impact of FDI on income inequality. The study finds that FDI has a positive and significant relation to income inequality irrespective of the mode of entry. The study results also show that an increase in Growth in Government expenditure while improvement in secondary school enrolment does not reduce income inequality.

RIASSUNTO (ABSTRACT IN ITALIAN)

Lo studio esamina l'impatto degli investimenti diretti esteri sulla disuguaglianza di reddito considerando le due modalità di accesso agli IDE: fusioni e acquisizioni transfrontaliere (M&A) e IDE Greenfield e per esaminare se queste due modalità di accesso agli IDE hanno effetti differenziali sulla disuguaglianza di reddito nei paesi in via di sviluppo per il periodo 2005-2014. Lo studio utilizza il metodo (GMM) sviluppato da Arellano e Bond (1991) e Arellano e Bover (1995) per studiare l'impatto degli IDE sulla disparità di reddito. Lo studio rileva che gli IDE hanno un impatto positivo e significativo sulla disuguaglianza di reddito indipendentemente dalla modalità di ingresso. I risultati dello studio mostrano anche che, l'aumento della crescita della spesa pubblica e del tasso di partecipazione alla scuola secondaria non riduce la disparità di reddito

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LIST OF ACRONYMS AND ABBREVIATIONS

ARDL	Autoregressive Distributed Lag
CEE	European Economic Community
DFID	Department for International Development
EDU	Education
FDI	Foreign Direct Investment
GDP	Gross Domestic Products
GMM	Generalized Method of Moments
GRGOVEXP	Growth in Government Expenditure
ICT	Information Communication and Technology
IMF	International Monetary Fund
LA&CA	Latin America and the Caribbean
LEAP	Livelihood Empowerment Against Poverty
LFP	Labour Force Participation Rate
LI	Low Income
LMI	Lower Middle Income
M&A	Merger and Acquisition
MKT	Market
MNE	Multinational Enterprise
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
SEE	South-East Europe
SSA	Sub-Sahara Africa
SWIID	Standardized World Income Inequality Dataset
UK	United Kingdom
UMI	Upper Middle Income
UNCTAD	United Nations Conference on Trade and Development
US	United States
USAID	United States Agency for International Development
WDI	World Development Indicators
WIR	World Investment Report

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

The world is confronting a trend in rapid globalization whereby international capital flows are increasing and nations are extending their trade boundaries. FDI (Foreign Direct Investment) is one of such international capital flows which has received a considerable amount of interest from scholars and policymakers.

The reasons why nations have increased their efforts to bring in more FDI comes from the fact that FDI has more positive impacts than negative ones. These positive impacts include gains in productivity and technology transfers, the introduction of new processes, and technical know-how among others. These benefits of FDI, coupled with other growth complementing factors can stimulate and enhance the living conditions of individuals in the host countries.

The two main branches in the literature of growth emphasize on the fact that growth is related to inequality in one perspective and with FDI on the another. In principle, FDI can support a host nation's economy through capital accumulation when new products and advanced foreign technology are introduced in the host nation. FDI has grown enormously in the last three decades. For example, prior to the recent economic crisis, global FDI has risen to US $ 1,833 billion in 2007 a little above US $ 1,748 billion in 2000 (UNCTAD, 2008). OECD (2002:5), further suggest that FDI is a potential source for sustainable growth and development, because of its assumed ability to generate technology spillovers, assist in human capital formation and development, help host nations to integrate into international trade, helps in creating a more competitive business environment, and enhance the development of enterprises.

However, articles by Naomi Klein (2000), No logo or Stiglitz's (2002) have highlighted that globalization and its discontents have taken the issue back to the forefront of public and

strategic considerations. While FDI may bring about some development in the host nation, it is not quite clear whether everyone benefits to a similar degree or undoubtedly whether some people will be better off or worse off.

The argument is that if FDI is causing the income gap between the poor and the rich to widen, then it may as well result in negative welfare effect and that could balance some of its beneficial outcomes on growth. Inequality in this study is considered as income inequality. In other words, this study seeks to investigate whether FDI benefits everybody as far as incomes are a concern. Thus, being unbiased with respect to inequality, or whether it eases, or really worsens inequality in incomes. It is mostly discovered that FDI can have a positive impact on economic growth but what is generally ignored is the issue of inequality. There is a limited amount of studies on the impact of FDI on inequality in less developed and developing countries. Most of these studies focused on the developed part of the world.

The conventional way of thinking proposes that recent patterns in inequality and FDI may support economic growth in developing countries. A few other studies find that higher inequality actually reduces growth in developing countries (Barro 2000), despite the fact that these findings are far from conclusion. FDI is broadly viewed as a tool of economic growth in the host nations as it comes along with innovations and know-how in addition to foreign capital (OECD 2002).

A number of empirical studies support the assertion that FDI is related more to inequality by raising the wage of skilled labour in the less developed countries. For example, inward FDI has profited skilled labours more than unskilled labour in some Asian developing economies including Indonesia (Lipsey and Sjöholm 2004), Korea (Mah 2002), and Thailand (Te Velde and Morrissey 2004).

This study seeks to contribute to the existing gap in extant literature by looking at how FDI impact income inequality, both empirically and theoretically in less developing countries. According to a United Nation Human development report in 1999, the indication is made that, there is an increased infusion of modern technology, and this widens the gap between the poor and the rich. Many scholars have discussed enormously on the widening of income and wage inequality in many countries around the world.

The focus of this study is on developing countries with the view of investigating the relationship between FDI and income inequality. Since the 1980s, developing countries have been strongly encouraged to expand and strengthen their relations by reducing tariffs and create an investment-friendly environment as a strategy to attract foreign investment for development. FDI became important in these periods and is seen as the top-most development strategy in the developing world especially following the debt crises of developing countries (Ajayi, 2006; Ndulo and Walle, 2014).

1.2 Statement of Problem.

A lot of literature has been written on FDI and growth but little is said about FDI and inequality and its impact on the host country in developing countries. Taylor and Driffield (2005), finds that there is a link between relative wages and FDI using data from the industries in the UK. They also show that this effect is non- linear. However, in similar work for the US, Blonigen and Slaughter (2001) suggest that there is no significant effect of FDI on wage inequality between skilled and unskilled workers. Besides, a study by Greenaway and Nelson (2001) reveal that FDI raises the wages of skilled workers in domestic firms not only in that particular sector but also in other parts of the economy. This finding, however, is important and beneficial to policymakers for consideration. More of his is discussed in Chapter three

Although there is an increasing number of studies concentrating on the impacts of FDI on inequality in developed countries, the story is not the same when it comes to developing countries, as much has not to be done when it comes to FDI and income inequality in developing countries. Thus, this study seeks to contribute to the few existing works of literature in this regard. For Instance, the literature reveals that most studies concentrate on one sector of the economy such as the manufacturing but this study seeks to address the issue in all sectors of the economy.

The study, therefore, seeks to examine the impact of FDI on income inequality in host nations in developing countries, as well as the distinctive impact of the two modes of FDI on Income inequality by using panel data of 107 developing countries for the period (2005-2014). Many countries and continents (especially developing ones) now see attracting FDI as an important instrument in their strategy for economic development but sometimes forget to think about its impact on inequality. This may be because FDI is seen as a combination of capital, technology, marketing and management. The study focuses on the following components or modes of FDI entry, namely Greenfield, merger and acquisitions (M&As), as well as other determinants of FDI as control variables such as GDP per capita, Growth in Government Expenditure, Labour force participation rate, Education (Human Capital), with Inequality being the dependent variable.

1.3 General Objectives

The study has as its general objective the investigation of the overall impact of foreign direct investment (FDI) on income inequality in developing countries for the period (2005-2014).

1.4 Specific Objectives

The following are the specific objectives of the study:

i. To examine the relationship between FDI and income inequality.

ii. To determine the relationship between Greenfield as a mode of FDI entry and income inequality

iii. To determine the relationship between Mergers and Acquisitions (M&As) as a mode of FDI entry and income inequality.

Iv. To identify other determinants of FDI and their relationship on income inequality

1.5 Research Questions

The following are the questions that this study seeks to address.

i. What influences does FDI have on income inequality in developing countries?

ii. Does the mode of entry have a differential effect on income inequality in developing countries?

iii. How has developing countries share of global FDI over the years been?

iv. What other relevant factors or Policy interventions are worth pursuing to influence income inequality reduction in developing countries?

1.6 Research Hypotheses

The study seeks to investigate and test the following hypotheses:

i. H_0 : FDI does not impact income inequality

H_1 : FDI impacts income inequality

ii. H_0 : Greenfield, as a mode of FDI entry does not impact income inequality

H_1 : Greenfield, as a mode of FDI entry impact income inequality

iii. H_0 : Merger and Acquisitions (M&As), as a mode of FDI does not impact income inequality

H_1 : Merger and Acquisition (M&As), as a mode of FDI impacts income inequality

1.7 Scope of The Study

The study attempts to examine and investigate the overall impact of FDI on income inequality as well as to distinguish between the two modes of FDI – cross border mergers & acquisitions (M&As) and Greenfield FDI and examine whether the two modes of FDI have differential effects on income inequality in developing countries using a panel data of 107 countries and system GMM panel data analysis for the period 2005-2014.

1.8 Structure of the study

The study is divided into five (6) chapters: Chapter one (1) looks at the general introduction to the study, chapter two (2) deals with the General overview and trend of FDI, chapter three(3) covers theoretical and empirical review of the study, chapter four (4) present the research methodology, chapter five (5) presents data analysis and discussion of results and finally, chapter (6) summarizes the findings, implications, conclusion and relevant policy recommendations.

1.9 Significance of The Study

As indicated above, FDI inflows into developing countries have increased considerably. However, despite the crucial role played by FDI on economic growth in developing countries, there is a significant dearth of literature on the relationship between FDI and income inequality and policies and strategies to attract FDI and boost economic growth and thereby lessen income inequality. Most studies focus on the impact of FDI on income inequality in developed countries, just a few studies are done on the impact of FDI on income inequality in developing countries. Most of these studies concentrate on one sector of the economy such as manufacturing.

Secondly, since the late 1990s, developing countries including African have adopted friendly FDI strategies and policies with the hope of stimulating economic growth without much thought on its effect on income inequality as a whole. Most policymakers in this region have been advocating for more FDI's as one of the strategies to boost national, regional and international economies. As far as extant literature, studies and my knowledge are concerned, no study has been conducted specifically, investigating the relationship between FDI and income inequality within this region. Thus, this study is aimed at contributing to existing literature and policy debate on the role of FDI on income inequality and the distinctive impact of the two-mode of FDI entry on income inequality in developing economies using panel data and system GMM for the period 2005-2014, comparable to some studies that have used time-series data and other methodologies.

CHAPTER TWO

2.0 GENERAL OVERVIEW AND TREND OF FDI

2.1 Introduction

This chapter takes a look at the evolution of FDI over the years across regions in the world. This chapter also focuses on the trends of FDI and to find which part of the world receives more inflows of FDI and from where.

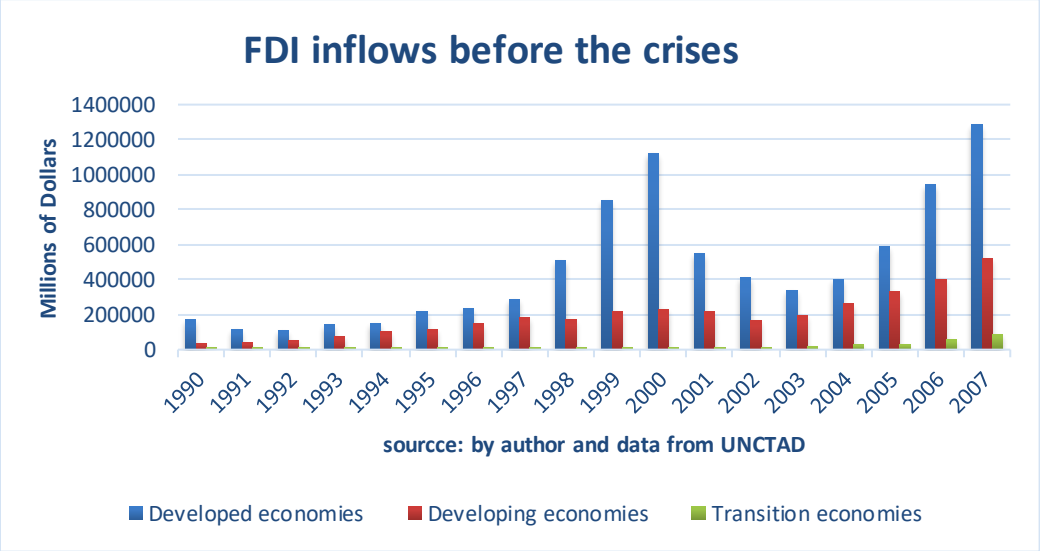
Trade has always been an essential part of the economy and with the concept of globalization, it has reached the international level. FDI has grown significantly in both volume and importance during the past 30 years (UNCTAD, 2012). The role of Foreign Direct Investment (FDI) in this development process is very crucial. It is broadly accepted that foreign direct investment (FDI) leads to economic growth in the recipient countries by providing capital, foreign exchange, technology and by enhancing competition and access to foreign markets. Foreign Direct Investment occurs when an investor based in one country acquires an asset in another country in this process, the company investing in the host country also transfers assets such as technology, management and marketing.

In addition to this, the investing company also get chances of power to exercise control over decision making in a foreign land enterprise; to the extent of which it held equity control, such investment could also be in the form of reinvestment of earning in the shape of retained earnings, by the host country‘s enterprises that also strengthen the control of foreign investors.

According to the world investment report 2018, Global foreign direct investment (FDI) flows decline by 23 per cent in 2017 to $1.43 trillion from $1.87 trillion in 2016. The decline is in stark contrast to other macroeconomic variables, such as GDP and trade, which sees substantial improvement in 2017. The fall is caused in part by a 22 per cent decrease in the value of net cross-border mergers and acquisitions (M&As) WIR (2018). But even discounting

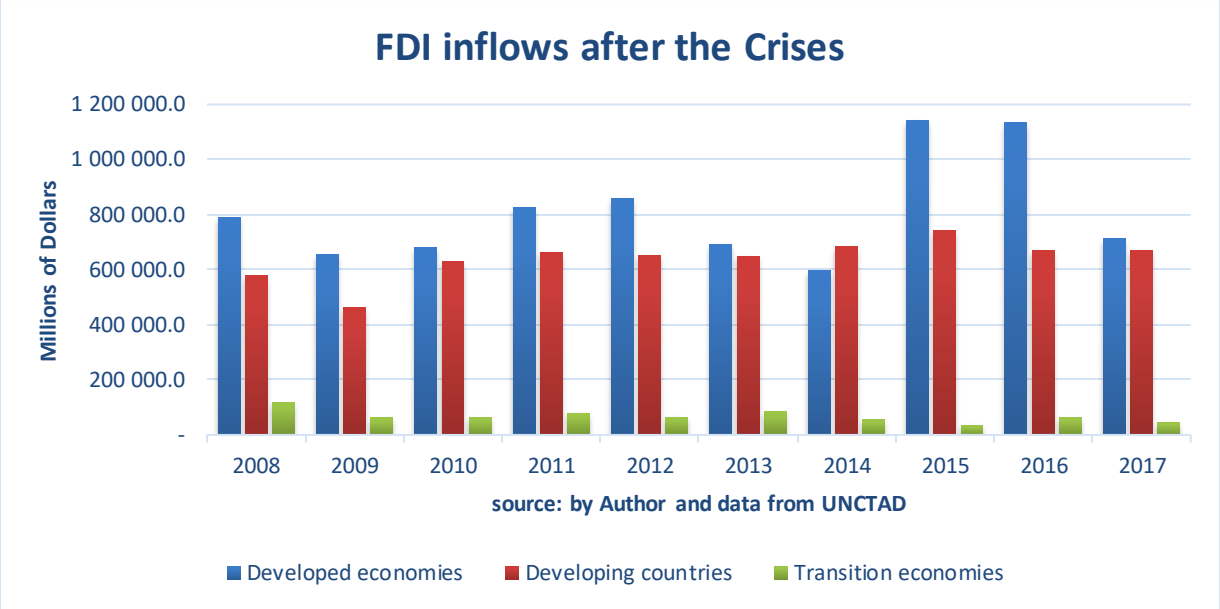
the large one-off deals and corporate reconfigurations that inflated FDI in 2016, the 2017 decline remains significant. The value of announced Greenfield investment, an indicator of future trends, also declined by 14 per cent, to $720 billion. There is also evidence that cross-border M&As have already been sharply affected as a direct consequence of the crisis, with a 17 per cent decline in cross-border M&As in the first 10 months of 2008 as compared to the same period of 2007. (See WIR 2018) This decline is due, among other factors, to the fact that leveraged buyouts, a common transaction method in M&As, have fallen considerably due to weakened world stock markets. For some countries, the difficulties emerging in M&As deals have brought large privatization projects to a halt. The decline in cross-border M&As is of utmost importance for FDI flows, which are strongly correlated with cross-border M&A amounts. (UNCTAD 2009).

Figure 2.1: FDI Inflows Before the Crises



From the table above, it is obvious that FDI has been increasing with a peak around 2000 and then begins to fall again. Looking at the data, developed economies always had higher inflows of FDI as compared to the developing economies and then again, the transitional economies only see the face of FDI inflows just before the crises around 2003. It can also be observed that FDI inflows into developing countries have not seen a drastic change as compared with the developed economies.

Figure 2.2: FDI Inflows After the Crises



The situation of FDI inflows is quite different after the Crises. It can be seen from the graph above that FDI flows drop in developed economies and in the transition while those to developing economies remains stable. As a result, developing economies accounted for a growing share of global FDI inflows in 2017, absorbing 47 per cent of the total, compared with 36 per cent in 2016. Flows to developed economies drop by more than one-third, to $712 billion.

The geographical pattern of FDI activity has been experiencing a rapid transformation, with new economies rising as large sources as well as hosts of FDI. It has been the case that

developed nation outward FDI into either developed countries or developing economies and emerging economy outward FDI are generally restricted. In any case, the growth of FDI flows from emerging business sector economies to developing economies has seen a vital recent trend. Bilateral FDI agreements among the US, the UK, Canada, the Netherlands, and Germany use to dominate the worldwide picture of bilateral agreements. Today, the pattern of bilateral FDI activities is seen as more diversified and complex, reflecting the involvement of many more economies especially emerging business sector economies, in international production. For instance, the bilateral FDI agreement between Hong Kong and China is the world's second-largest after the one between the US and the UK.

Foreign-owned firms are typically larger, more productive and more trade-oriented than local firms. Consequently, these firms can have large direct impacts on employment, production and value-added in the regions in which they are located. As these firms have been able to establish themselves in a foreign market, it is generally acknowledged that they comprise large amounts of technical, operational and managerial knowledge. This knowledge can 'spillover' to local firms and enhance their productivity and growth also known as the displacement effect

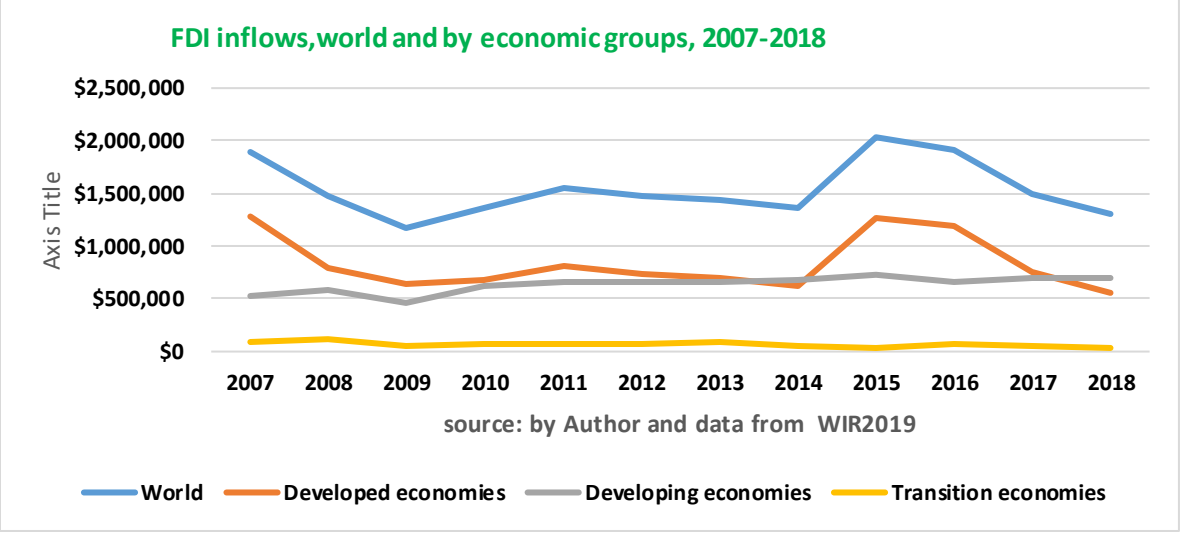
A wide range of factors go into the decision process of investing abroad, some of which will be specific to the company and thus difficult to describe in general terms. However, studies across a large number of sectors and countries over time have allowed researchers to provide a knowledge base about common factors which can help explain the location pattern of foreign firms. These factors may be determined at the bilateral, national, and supranational. FDI is highly concentrated across European territories with non-European owned firms being located mainly in urban regions which are about 69 per cent, capital metropolitan regions 54 per cent and more developed regions 79 per cent. Urban regions that makeup 27 per cent of all the regions included in the study thus account for a disproportionately high share of non-European

owned firms. The opposite is the case for rural regions, which make up 28 per cent of all regions but only host six per cent of all non-European owned firms in Europe.

According to the World Investment Report 2019, Global foreign direct investment (FDI) flows continue their slide in 2018, falling by 13 per cent to $1.3 trillion as shown in the graph below. The decline – the third consecutive year's fall in FDI is mainly due to large-scale repatriations of accumulated foreign earnings by United States multinational enterprises (MNEs) in the first two quarters of 2018, following tax reforms introduced in that country at the end of 2017.

The tax-driven fall in the first half of 2018 (which ends 40 per cent lower than the same period in 2017) is cushioned in the second half by increased transaction activity. The value of cross-border merger and acquisitions (M&As) rose by 18 per cent, fuelled by the United States MNEs using liquidity in foreign affiliates that are no longer encumbered by tax liabilities. As shown in the figure below.

Figure 2.3: FDI inflows, World and by Economic Groups 2007-2018



2.2 Determinants of FDI

FDI can influence growth and development in so many ways depending on certain important factors. That is, when we understand the impact of FDI on the economy, it is very necessary to investigate what attracts FDI and how this can be changed over time, and what these changes in determinants and types of FDI mean for differential growth prospects. In making the case for increased FDI flows into developing countries, advocates and policymakers cite these and other potential channels of FDI in developing countries especially African countries. The main channels of inward FDI can be put into several categories.

General policy factors such as political stability and privatisation. The theory states that political stability promotes long- term investments as it reduces the risks for the investor. This is backed-up by investor surveys, and largely by the evidence. It is believed that a small amount of inward FDI goes to politically unstable countries. The main exception to this rule are countries rich in natural resources which have managed to attract considerable amounts of FDI despite often unstable environments such as some developing countries in Africa.

Trends in general policy factors have been important. Developing countries are increasingly creating a friendly environment for the private sector to operate. Countries that have done this consistently over time have also attracted more FDI. Countries in some developing country regions such as Latin America have privatized earlier, and more broadly, than countries in other regions (e.g. most African countries), and have attracted significant flows of FDI (in utilities, banks, telecommunications, etc.), many scholars find this to be true. According to Herzer (2010), using heterogeneous panel cointegration for 44 developing countries, he finds that the effects of FDI on growth are positive and related to freedom from government interventions and negatively on FDI volatility and natural resource dependence. The author further states that the effect of FDI on growth is negative in developing countries and predicts that this effect could improve when there are proper resource allocation and

minimization of the regulatory burden on business. Furthermore, Bengos and Sanchez-Robles (2003) estimate the relationship between FDI and economic growth using a panel data for eighteen Latin American countries for the period between 1970-1999. Their results suggested that FDI has a positive impact on economic growth and significant in the host nation. They also indicate however that, this is only made possible when the host nation acquires more human capital, political and economic stability and liberalize market environment to be able to gain from long-term FDI inflows. They, therefore, encourage policymakers to embrace FDI and make economic freedom their topmost priority in order to attract more FDI. Djankov et al. (2000) also show that heavier regulation of business entry is associated with higher corruption and thus weaker governance, deterring investment. Even though countries have begun to understand what a friendly investment environment involves, there is still a wide variation in administrative and regulatory practices. With increased liberalization of trade and investment regimes and technological advances in areas such as ICT, countries are beginning to be more concerned about the competitiveness of their economies. This involves paying more attention to created assets, such as skills and infrastructure. There is also a divergence in the availability of these main sources of competitiveness across countries and hence the influence of investment activities generally. It is believed that, for example, 40 per cent of capital (DFID, 2000) is based outside Africa, while the Commonwealth Business Council finds that 40 per cent of African skills are currently based outside the continent. The gap in skills and infrastructure between African and other countries is also widening. The same factors are also crucial for countries to gain from FDI. This is very prominent in many developing countries especially Africa.

Privatization is often seen as a major channel for attracting FDI. A large amount of inflow of FDI and privatization of the state-owned companies across different sectors are the most important progress in many developing and transition economies. Privatization has been a

significant revenue earner and a major channel for foreign direct investment (FDI), which in turn is a source of benefits not only to the receiving firm but also to the wider economy. Notwithstanding, the level of commitment to privatization has varied across countries. This is part of the reason why progress in South-East Europe has been slower than in Central Europe and the Baltic States.

The benefits of privatization do not only depend on how many enterprises are sold off, but also on the method used to privatize them. Enterprise development may be held back by an inappropriate choice of privatization method. Privatization is indeed strongly linked to enterprise restructuring, on average, privatization to outside buyers is associated with 50 per cent more restructuring than is privatization to insiders (people already in the firm at the time of sale) (Djankov, S.; Murrell, P., 2002). There are often problems with insider privatisation, such as the tendency to leave the parties in charge of vested interests, which have little or no incentives to implement changes. Most of the countries in SEE use varied methods such as direct sales, vouchers among others as a model of privatization. The choice of method usually depends on the size of the enterprise to be sold.

Specific FDI policies such as incentives, performance requirements, investment promotion, international trade and investment treaties. A great part of the FDI potential in developing countries is not understood 3 to 4 decades prior in light of the fact that many nations have serious restrictions on foreign ownership, and a significant number of what is currently regarded favourable factors (e.g. a competitive environment, good quality local capabilities) are not set up. This is continuously evolving. Practically all nations are now effectively welcoming FDI. They have changed their investment regime, however at different points in time. South-East Asian economies (in 1960s: Hong Kong [China], Singapore, Malaysia) are first, while other Asian countries (Republic of Korea, China and India) and Latin America countries start to change during the 1980s and 1990s (even the Republic of Korea, which has

recently restricted FDI and imported technology through licensing, decides after the Asian crisis in 1997 to open up more to FDI for the capital and technology it could bring). According to Empirical research done by Babatunde (2011) on factors that contribute to the effects of FDI on economic growth in developing countries, especially Africa. He argues that trade openness and infrastructure play an important role in the growth effect of FDI. He indicates that FDI has a positive and significant effect on growth and therefore advises policymakers to increase their efforts towards trade openness and infrastructural development to enhance FDI inflow for economic growth.

Macroeconomic factors such as human resources, infrastructure, market size and growth. General and specific FDI policies have turned out to be less restrictive to inward FDI. With fewer policy barriers, other different factors have become more important as determinants. Among these are basic economic pull factors such as good quality and appropriate human resources and infrastructure, on the supply side, and market size and market potential on the demand side. Macro-economic policies that shape the fundamentals of cost-competitiveness have turned out to be increasingly essential after some time in attracting mobile FDI, and hence there is overlap with what the factors that are enhancing spillovers to local firms. Carkovic and Levine (2002) indicate that FDI can only benefit the host nation if the countries have a strong and well-developed financial market. Despite all these concerns, many macroeconomics studies conclude that FDI benefits to developing countries are more, especially countries with high per capita income, better human capital and openness to trade (OECD, 2002**).**

Firm-specific factors such as technology. For instance, ICT developments have had a profound impact on the way companies structure their international activities. Most importantly, it has facilitated a more specialized production attracted to those locations that can offer the most competitive environment for any given activity.

There have been trends in these factors over the past decades and they tend to offer an explanation as to why more FDI has gone to some countries and regions than others have.

2.3 Motivation for FDI

It is very essential to differentiate between the motives for FDI. Notwithstanding, this differentiation does not mean that these motivations are independent of each other. These motivations can work together to drive FDI (Ziegler & Linden, 2010). Moreover, the decisions firms make concerning FDI depend on a variety of factors. This is clearly demonstrated by Eiteman et al. (2001) who identifies five motives for FDI, as follows: market seeking, raw material seeking, production efficiency-seeking, and knowledge-seeking and political safety-seeking. What drives decisions on where to invest? Research has identified motivations driving companies to undertake different types of FDI (USAID 2005):

Resource Seeking Motives.

The motive for this kind of FDI is because resources are not available or inadequate. Resources such as raw materials or low cost of labour. Multinational firms believe in the abundant natural resource in Africa and its low cost of labour. In this case, firms move abroad to invest there because there is a reduction in the cost of production in the host nation. This motive can also be because firms want to increase their profit and to elevate their competitive level in the market. Countries in rich natural resources will be attracted by this kind of FDI according to Campos and Kinoshita (2003). Sometimes this kind of FDI is to take advantage of a specific area, and FDI, in this case, is location-based, for example, the oil and tourism industries (Tekin-Koru, 2007). The main factors that determine this kind of FDI are physical infrastructure, openness, unskilled labour, coastal location and level of agricultural activity. This type of FDI could lead to trade if the country has a comparative advantage in natural

resource instead of FDI. Nevertheless, a country without enough capital for exploiting their resources or lacks advanced technology, FDI will take place. (World Investment Report, 1998; IMF 2015).

Market Seeking Motives

There are several reasons why market -seeking motives would affect investor behaviour. Structure, size and the growth of domestic and foreign markets are some of the factors influencing the market -seeking FDI. Stagnation of the domestic market or limited absorption capacity could lead firms to expand production abroad and to take advantage to invest and reach consumers in foreign high growth markets. New markets provide opportunities for the firm to compete, grow and gain economies of scope. However, Franco et al. (2010) explain that the purpose of the investment is influenced by the choice of the location. If the firm is motivated to exploit the host country's market, then factors such as market size and the availability and intensity of comparative and absolute advantages are the most important factors determining the choice of location.

Efficiency Seeking Motives

The desire to rationalize the structure of production units that already exist in the home country is the main reason for efficiency-seeking FDI. The expansion of FDI seeks to exploit the advantages of each company in the host country. This kind of FDI could lead to the growth of sales and in its investments both at home and abroad. It can also be a defensive FDI seeking cheap labour abroad with the aim of reducing production cost. Many countries encourage FDI by setting up fiscal and physical incentives such as tax holidays, import quotas and simple repatriation of profits. In this case, the costs of production and transport are more important than the size of the market Campos and Kinoshita (2003). According to World Bank report (2015), Efficiency-seeking FDI is believed to have the strongest growth impact of all FDI types

(as has happened in East Asia's manufacturing), but its benefits have not been very pronounced in Africa. Experience has shown that local suppliers and competitors benefit from this type of FDI through adaption and imitation. Strategic-asset seeking FDI is rarely present in Africa. It should be noted that a major part of the foreign investment to Africa is channelled to the oil and gas sector. The strong investment in this sector is because of the high prices of oil and gas, which will increase the investor's profitability (United Nations, 2005).

2.4 Types of Foreign Direct Investments (FDI's)

Horizontal Foreign Direct Investment type is the most common types of foreign direct investment. In this case, a company merges with another company of another country to get stronger in the market and the products/services offered are of a homogeneous nature. It is done first to have a piece of market share in the foreign market and next to reduce competition. Inward FDI is measured by the growing capacity of the host nation. According to Kinoshita and Campos (2003), this type of FDI is a substitute for export. In addition, transportation and commercial expenses inspire horizontal FDI. Horizontal Foreign Direct Investment is the investment in the same industry abroad as a firm operates in at home.

The second type of FDI is Vertical FDI where a company of one country acquires or merges with another company of different country just to add more value to their value chain; it would be called vertical FDI. For example, if a company invests in a foreign company just to have a supplier producing raw materials for them, it would be a vertical FDI. The type is more close-fitting for the investments in the developing countries. This type of FDI comes in two separate forms. That is the backward vertical FDI where corporations abroad deliver inputs for a firm's local production process, (with the MNE in a downstream industry supplied by the local companies), and the forward vertical FDI where foreign corporation sell the output of a

firm's production process, (with the MNE in an upstream industry supplying to the local companies).

Foreign Direct Investments can also be divided into another two types. That is inward FDI and outward FDI. Inward FDI is invested in the local resources and outward FDI is defined as the investments made abroad that are thoroughly backed by the government.

2.5 Greenfield FDI and Cross-border Mergers and Acquisitions

The two types of FDI use for market entry purposes are Greenfield FDI and mergers and acquisitions (M&As). First and foremost, firms progressively enter foreign markets by acquiring a local producer (acquisition) instead of opening a new subsidiary (Greenfield investment). The phenomenon is particularly common in the case of industrialized host nations, where the bulk of foreign direct investment (FDI) inflows enters through acquisition. For instance, in 1998 acquisitions accounted for 90% of inward FDI in the US (UNCTAD, 2000). Additionally, several of these investments are directed to the service sector and few to the manufacturing sector, as in the past. During 2001-2002 services account for two-thirds of total FDI inflows. In fact, while in the early 1970s services accounts for only one-quarter of the world FDI stock, by 2002 this share has risen to about 60% (UNCTAD, 2004).

In spite of the vast literature on FDI-inequality relationship, very few highlights the impact of each FDI mode of entry on host countries' economic growth. Among these, only a limited number of some works analyse in a theoretical way, the potential influence of cross border M&A and Greenfields on growth UNCTAD (2000). FDI is undertaken either through Greenfield investments or through M&As. Although M&As are a phenomenon of significance in the developed countries, around one-third of FDI flows to developing countries in recent years is an account of acquisitions (UNCTAD, 2000). Much of these acquisitions are in Latin

America followed by East Asia. Whilst privatisation programmes account for the growth of acquisitions in Latin America, the East Asian ones are a result of the financial crisis in these countries. As stated earlier, M&As have increased developing country worries concerning the surrender of control over operations to foreign firms. They also pose interesting issues concerning their efficacy in promoting development objectives relative to Greenfield investments.

A comparison of the impact of FDI through cross border M&A with that of Greenfield FDI assumes that the two methods of foreign entry comprise of alternatives from the point of view of both host nations and multinationals. On a fundamental level and even in practice this may be the situation, yet they are rarely perfect substitutes for each other. Following UNCTAD (2000), from a host nation's perspective, substitutability depends on its characteristics, including its level of economic development, FDI policy, the institutional framework and specific circumstances.

An acquisition is the purchase of ownership in an existing local firm in an amount sufficient to confer some control. A Greenfield investment refers to a start-up investment involving new facilities. The differences between these two methods of entry are usually analysed in the context of FDI entry mode literature. Most of these studies emphasize that the entry mode decision is affected by firm, industry and country-specific determinants as in the works of Barkema and Vermeulen (1998), Brouthers and Brouthers (2000), Harzing (2002), Brouthers (2002) and Larimo (2003), Slangen and Hennart (2008).

A major difference between the two methods lies in the fact that the former involves the transfer of assets from domestic to foreign lands and does not add to productive capacity in the host nation for at least at the initial stage. This brings about a series of concerns over insufficient resource transfers, lay-offs, asset stripping, and above all, adverse effects on market structure and competition. Despite all these, the theoretical arguments suggest that, especially at the time

of entry and in the short term, M&A (as compared to Greenfield investments) may involve, in some aspects, smaller benefits or larger negative impacts from the perspective of the host countries development. However, over the longer term, when direct as well as indirect effects are taken into account, many differences between the impacts of the two modes diminish or disappear.

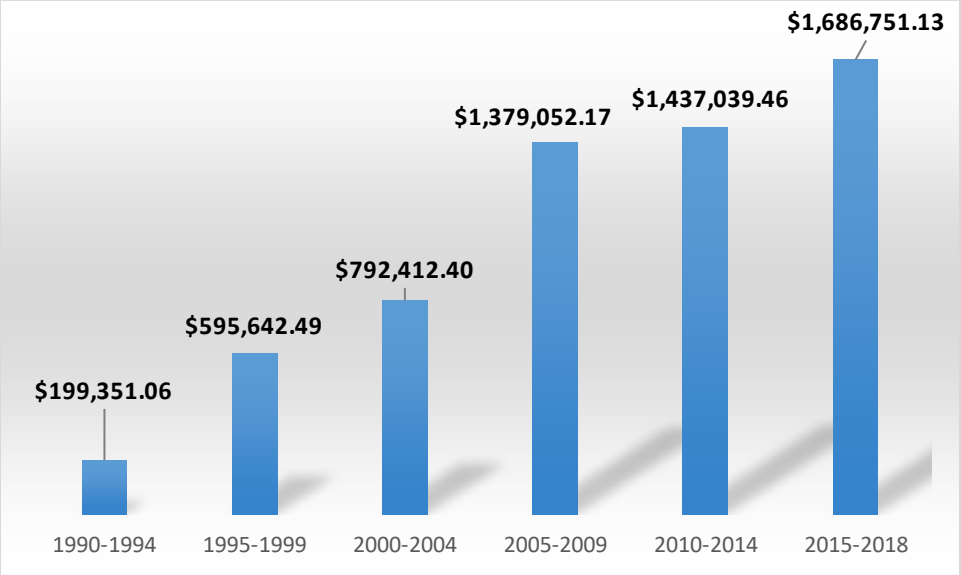
A Greenfield investment enables the MNE to specify the subsidiary according to its technological capabilities, while acquisition allows at first only to use the given facilities.

The theory on mode choice mostly begins at the firm level, where an individual firm chooses its entry mode representing for the costs and benefits of each, a decision which can then be incorporated in a general equilibrium model. An example of this case is Nocke and Yeaple (2008) who give a model wherein an MNE builds up a subsidiary for two reasons: lowering production costs and hiring new entrepreneurs who provide headquarter services. While both modes seek lower production costs, only M&A acquire new entrepreneurs by purchasing an acquisition target whereas Greenfield deals with those it has in the country of origin.

2.6 World FDI inflows

In the 28-year period between 1990 and 2018, global inward FDI flows increase almost 8.5 times from an annual average of US$199,351.06 million in the period 1990-94 to an annual average of US$1,686,751.13 million in the two-year period 2015-2018(figure below). The tremendous increases in FDI may be explained by the rapid advances in technology especially in transport and communication (Dupasquier & Osaki, 2005).

Figure 2.4: Average World FDI inflows (US$Million)



Source: computed by Author from UNCT AD (2019)

2.7 Global FDI inflows by Regions

In terms of global regional distribution, developed economies are the recipients of the bulk of world FDI inflows. Specifically, during the period 1990-2018 around 63% of world FDI flowed to advanced countries, 34% to developing countries and 3 per cent to African alone (table below).

Table 2.1 Distribution of World FDI Inflows (%)

Distribution of World FDI Inflows (%)							
Region	1990-1994	1995-1999	2000-2004	2005-2009	2010-2014	2015-2018	Average
Developed Economies	69	71	71	62	49	56	63
Developing Economies	31	28	27	33	46	41	34
Africa	2	1	2	3	4	3	3

Source: computed by Author from UNCTAD World Investment Report (2019)

2.8 FDI Inward flows to Developing countries

Throughout the 28-year period which is covered by this study Africa has not been a major recipient of FDI and lags behind other regions of the world (Table below). On an annual average basis, Africa's share of global FDI inward flows is small, averaging 2%, throughout the period. It should be noted that this figure is below the average for LA & CA which stands at 9% and way below that for Asia which stands at 23%. Therefore, Africa currently attracts a relatively small share of global FDI.

The table also covers the share of inflows among the main developing regions. Africa's share within the group is again relatively small averaging 7%. Again, it should be noted that this figure is below the average for LA & CA which stands at 27% and way below that for Asia which is 65%. The main beneficiary of FDI inflows in the developing world in the study period in Asia.

Table 2.2: Percentage Share of FDI Inflows to Developing Countries

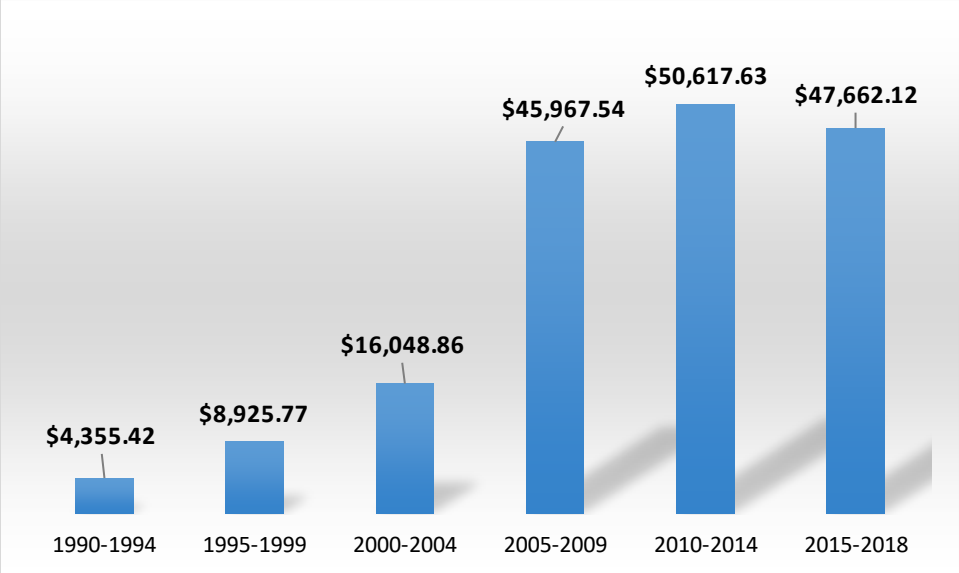
	% share of world FDI			% Share of Developing countries		
Period	Africa	LA&CA	Asia	Africa	LA%CA	Asia
1990-1994	2	8	21	6	25	67
1995-1999	1	10	17	5	36	59
2000-2004	2	8	17	7	30	62
2005-2009	3	7	23	10	21	68
2010-2014	4	13	29	8	28	64
2015-2018	3	9	30	7	21	72
Average	3	9	23	7	27	65

LA&CA= Latin America and the Caribbean. Computed by the author from UNCTAD, world investment report, 2019

2.9 FDI Inward flows to Africa

Within the context of the low global FDI share and tremendous increases in world FDI flows, Africa displays an exponential increase over the 28 years that are covered in this study. Whereas the global inward FDI flows increase almost 8.5 times, the corresponding figure for Africa displays an exponential increase of almost 11 times; from an annual average of US$4,355.42 million in the 1990-94 period to US$47,662.12 million in the 2015-18 period.

Figure 2.5: Average inflows in US$ millions in Africa



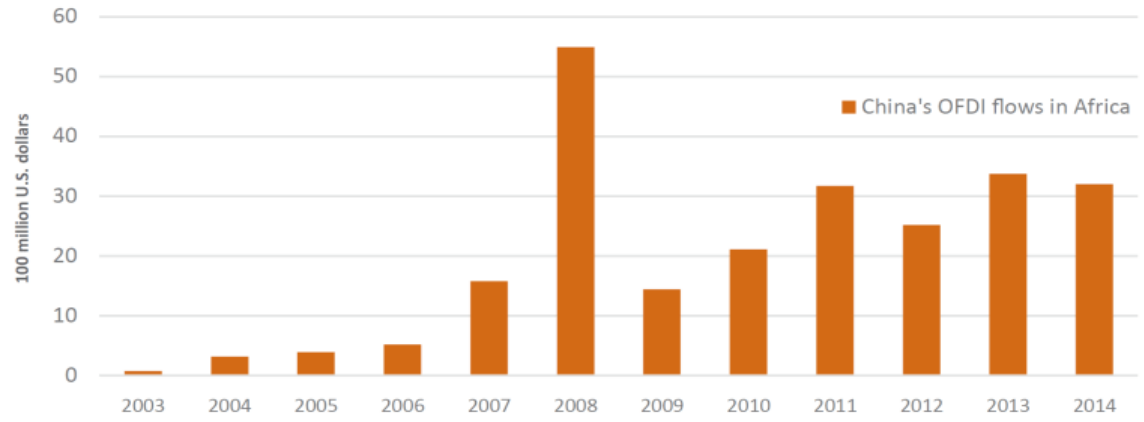
Computed by the author from UNCTAD, world investment report, 2019

On a global and regional level of distribution, it is observed that when compared to the developing countries FDI flows into the developed countries are excessively high. This is quite surprising because it is the developing nations who are most in need of FDI because of their scarcity of capital and the fact that resources are not able to attract as much FDI compared to developed countries. It is therefore important for developing countries to study the aspects of their economy or government that are heavily scrutinized by firms that are considering a

possible long-term investment. A good understanding of these factors would help attract and retain FDI.

Analysis of FDI into Africa shows that although FDI to Africa has been on the increase especially from China, the continent's share of global FDI is very small. Even when compared with other developing regions, Africa still remains a marginal player in attracting FDI. The implication of this finding for Africa is that the continent has to work harder than the rest of the developing world in improving the aspects of their economy or government that are heavily scrutinized by firms that are considering a possible long-term investment

Figure 2.6: China's FDI flows into Africa (2003-2014)



Source: He and Zhu, 2017, based on Peking University data

FDI has remained the major source of external funding for most developing countries especially those in Sub-Saharan Africa (SSA) and African as a whole. The importance of this source of external funding is clear in the efforts of many SSA countries to draw in more FDI through the adoption of FDI-friendly policies aimed at attracting foreign investors. Developed countries have kept fixing their budgets following the global economic crises in 2008, leading to a levelling off or in some cases a decline in development aid and lending from these countries. Moreover, developing countries especially those in SSA have savings deficient, this

makes private foreign capital their only source of capital for investment. Most developing countries prefer FDI to other forms of private foreign capital because they believe that it leads to economic development through job creation, technology transfer, increased productivity and economic growth.

The existence of business opportunities in the extractive sector (e.g. oil and gas, gold, diamonds, cobalt and copper), shifting of light manufacturing from emerging countries like China, development of special economic zones (e.g. Mauritius, and Senegal), and improved investment policy regimes (e.g. investment promotion in Egypt, tax incentives in Tunisia and Zimbabwe) are among drivers of inflow FDI to Africa.

2.10 Country Foreign Direct Investments (FDIs) Stages

In general, countries must be accurate about the trade-offs related to various types of investment; they also must be precise about other types of investment they will be competent to attract. Overall, its economic features and strategies determine the forms of investment that a location will be capable to attract. This affiliation illustrates further down, which classifies nations according to their level of economic growth and economic improvement. This means that the poorest developing countries are perhaps not capable to attract the most type of FDI with the exception of those companies looking for natural resources.

Higher developing countries have reforms that are very attractive to investors requesting to produce goods for the increasing domestic markets. These countries are also able to attract investment opportunities in the form of infrastructural growth and privatisation. Finally, the countries with the highest prospective to attract more FDI is newly developed.

Table 2.3: Illustrative country FDI stages

Country Category	Country characteristic	Economic Policy Dimensions	Inward FDI prospects
Poorest developing country	Unskilled, untrained labour; low incomes; small markets size	Relatively closed markets; import-substitution development policies	Some natural resource- seeking FDI in raw materials and commodities; little or no inward FDI manufacturing
Small, emerging developing countries	Availability of low-cost, trained or trainable labour; growing incomes and markets	Markets reforms and opening export-oriented development policies	Inward FDI in labour-intensive, export-oriented manufacturing; efficiency-seeking
Large emerging developing countries	Growing incomes and markets; a plentiful supply of low-cost labour	Markets reforms and liberalization; privatisation priorities; shift to export-oriented development policies	The slower pace of reforms than in the small emerging developing countries; market seeking FDI, primarily to serve growing domestic market; opportunities for FDI in privatisation and in infrastructure development
Economies in transition	Plentiful supplies of skilled, relatively low- cost labour, growing, but volatile markets	Public-sector reforms and privatisation priorities; market reforms and liberalization; cautious shift to export-oriented policies	Markets-seeking FDI to serve domestic and neighbouring markets; merger and acquisition opportunities in privatisation; FDI in infrastructure developing
Newly industrialised countries	Manufacturing of higher value-added products and services; skilled worked force and higher income, sophisticated consumers	Investment in research technological development, education, and other public goods, open or opening markets, support for outward FDI by indigenous companies. (to obtain lower cost and avoid protectionism)	FDI to serve regional or global markets, plant upgrading or divestment of labour-intensive operations, range of marketing, production, or other activities at the subsidiary level

Source: MIGA (Multilateral Investment Guarantee Agreements

CHAPTER THREE

3.0 LITERATURE REVIEW

3.1 Introduction

This chapter assesses the theoretical and empirical reviews of the works of different researchers on the impact of FDI on income inequality in developing countries. The chapter consists of two sections with the first section, reviewing theoretical works of different researchers and the second section reviewing empirical works of different researchers and shreds of evidence on the various hypotheses.

Since the last two decades, there has been an increase in literature on FDI which is still a trending topic among scholars and policymakers. Most of these studies, nonetheless have tended to concentrate on the gains from the productivity of FDI and less attention to the effects on income inequality. There are so many literature discussions on different countries and continent with severally different methods.

3.2 Theoretical Literature Review

There is not so much theoretical literature on the impact of FDI on income inequality as compared to the Empirical literature. This section, of the study, seeks to highlight the different theories behind the relationship between FDI and income inequality.

One of the theories to be considered here is the conventional Heckscher- Ohlin model of international trade. The model essentially says that countries should export products that use their abundant and cheap factors of production, and import products that use the countries' scarce factors. This is based on some assumptions that the two countries are identical in terms of production technology, constant returns to scale and factor mobility except for their resource endowments. In the case of both developing and developed countries, if developing countries

are seen to be relatively abundant in unskilled labour, and the opposite is true for developed countries, then FDI should be focused on the activities that use less-skilled labour intensively in developing economies, according to this trade theory. This means FDI should lead to an increase in the wage of the less skilled labour as the demand rises, relative to the wages of the skilled labour in the developing country. This will lead to a reduction in income inequality level in the developing country as FDI increases. Nonetheless, when some of the assumptions are relaxed, there could be a negative relationship between FDI and income inequality. For instance, Feenstra and Hanson (1996, 1997) in their model, argue that FDI increases the relative wage of the skilled labour in the developing country (Mexico) as well as the developed country (US).

Then again, when production functions (technologies) is allowed to differ in both countries, FDI may have an adverse effect on income inequality (Grossman and Helpman, 1991). If these new technologies require relatively more skilled than unskilled labour, relative wages of skilled labour increase along with FDI (teVelde, 2003). Figini and Görg (2011) consider FDI to be a vehicle to introduce new technology into a country, such as FDI carried out by multinational firms. They use the endogenous growth model of Aghion and Howitt (1998). A new technological innovation in that model at the initial stage leads to a rise in wage inequality as a result of firms using skilled labour to execute the new technology. Meanwhile, at later stages, wage inequality increases as a result of firms using less skilled labour to carry out new technologies.

3.3 Empirical Literature Review

This section reviews empirical works of different researchers and shreds of evidence on the various hypotheses.

3.3.1 FDI and Growth

FDI used to be viewed as unhelpful, negative and bringing unseemly technology to developing economies. Over four decades on, a drastically different view from the start of the period has developed. FDI is presently viewed as advantageous and almost all nations attempt to give a welcoming climate for investment. Countries have progressively realized that they can influence and attract FDI through the use of both general economic policies and appropriate specific FDI policies.

What is more, given the importance of FDI in economic growth, many are country governments that have begun to realise the positive aspects of FDI. This has also spurred a more nuanced view on FDI and development in the research community, whereby the impact of FDI on economic growth is viewed as not only positive or negative but also the fact that effects of FDI depend on the type of FDI, firm characteristics, economic conditions and policies.

There are several reasons why governments will seek to attract FDI. This may include the desire to support economic growth, to enhance privatisation programmes, to access advanced technology, to acquire managerial skills and create employment and among others. The question to be addressed is whether or not FDI actually contributes significantly to economic growth. Many studies conducted on this topic indicate varied views. Some claim that FDI contributes to economic growth while others disagree partially with such findings because they believe that FDI inflow contribution to economic growth depends on some factors or conditions in the host nation. For instance, Gürsoy, et al. (2013), argues that there is a positive relationship between economic growth and foreign direct investment. He believes that this relationship is very essential for both developed and developing countries. Most governments in developing countries especially, give incentives to draw in more FDI, just because FDI has become one of the major drives of economic growth and development. Multinational firms are

seen as a means to import better management and technology. In so doing, domestic firms cannot be prevented from absorbing technology through spillover or skills Fodor (2005). According to him, a good economic environment is very essential in determining FDI. These include good trade policy, good infrastructure, and macroeconomic stability. Vijaya & Kaltani (2015) also suggest that FDI in as much as it is related to gains recovery to advanced countries advocates the extraction of excess from periphery countries.

Babatunde (2011), finds that FDI contribution to economic growth is positive and significant in developing countries. He argues that trade openness and infrastructure play a significant role in the growth effect of FDI. Further studies in supports of a positive growth FDI effect are provided by Carkovic and Levine (2002) and Ekanayake and Ledgerwood (2010). Carkovic and Levine (2002) indicated that FDI can only benefit the host nation if the countries have a strong and well-developed financial market. Despite all these concerns, many macroeconomics studies conclude that FDI benefits to developing countries are more, especially countries with high per capita income, better human capital and openness to trade (OECD, 2002).

Contrary to these findings, some studies also suggested that the impact of FDI on Economic growth does not depend directly on the level of per capita income of the host nation, the human capital stock or openness to trade instead as other studies suggested, the growth effect of FDI depends positively on the levels of freedom from government interventions and business regulations Herzer (2010), Using heterogeneous panel cointegration for 44 developing countries, he finds that the effects of FDI on growth are positive and related to freedom from government interventions and negatively on FDI volatility and natural resource dependence. He further stated that the effect of FDI on growth is negative in developing countries and predicted that this effect could improve when there are proper resource allocation and minimization of the regulatory burden on business. All these studies indicated that FDI

contributions to economic growth depend on a lot of factors in the host nation, such as freedom from government interventions, human capita stock, financial development among others.

3.3.2 FDI and Inequality

How does the mobility of investment capital across countries affect income inequality? Is there a direct link between investment and income inequality? Attention drawn to these questions has focused mainly on the impact of capital inflows on income inequality in host nations. There are many varied views in the literature concerning the relationship between FDI and income inequality. Many believe that inflow of FDI reduces income inequality while others believe otherwise. Using panel data for ten CEE economies, Mihaylova (2015) examines the impact of FDI on income inequality for the period between 1990– 2012. He finds that there is a potential effect of FDI on income inequality depending on the absorptive nature of the host nation. FDI tends to increase income inequality when there are low levels of human capital and economic development. Whereas the effect of FDI on income inequality tends to decrease with an increasing level of Education and GDP per capita. He suggests that policymakers should make more efforts to enhance the spread and quality of education. Since this will lead to an increase in the supply of skilled labour and a reduction in income inequality. Further studies also confirm this positive effect of FDI on income inequality. Driffield et al (2010) in analysing wage inequality, Linkages and FDI finds that inward investment into a country such as the UK is heterogeneous, and therefore inward investment cannot be seen as a homogeneous block of capital. This means that at the national levels, FDI tends to increase wage inequality whereas wage inequality decreases at the local levels. They believe that encouraging FDI into assisted areas tends to increase the demand for unskilled labour locally, thereby reducing inequality. Several other studies also show this positive effect of FDI on income inequality. For instance, Halmos (2011) conducted a research on some Eastern European countries and finds that higher

levels of high-technology exports have an effect on income inequality. The introduction of new technology by inward investors tend to increase the returns on skilled labour and increase inequality. Other positive results of FDI on income inequality is provided by Choi (2006) who finds the same positive relationship between FDI and income inequality. Using a pooled OLS regression, he realised that income inequality increases as the stock of FDI which is expressed as a percentage of GDP increases. Moreover, Te Velde (2003) in examining the relationship between FDI and income inequality for Latin America, his results show that FDI does not reduce wage inequality. He mentioned that this may be as a result of all workers not necessarily gaining from FDI to the same measure. In a similar analysis, Herzer et al (2014), using panel co-integration techniques and regression analysis on some Latin American Countries found out that, there is a significant and positive relationship between FDI and income inequality in the long run.

In contrast to these findings, some researchers believe that FDI has a reducing effect on income inequality. For instance, Chintrakam et al (2010), in examing the link between FDI and Income Inequality, they indicate that there is an insignificant or weakly significant negative effect of FDI on income inequality in the short run but a significant and robust negative effect of FDI on income inequality in the long run. In support of this findings is Zhou et al (2011). They used data from 60 developed, developing and transitional countries and find that, FDI reduces income inequality within countries. Then again, using nonlinear auto-regressive distributed lag (ARDL) modelling approach**,** Ucal et al (2016) analyse the short-run and long-run relationship between income inequality and FDI with Turkish data. They conclude that there is a negative effect of FDI on income inequality but not so strong to be used as a strategy to reduce income inequality. These results are not so different from Jensen and Rosas (2007) who analysed the relationship between FDI and income inequality in Mexico and find a negative relationship between inward FDI and income inequality for 32 states in Mexico.

3.3.3 FDI, Growth and inequality

There are also studies that tried to look at the three phenomena together. There has been an increasing effort by governments of developing countries to draw in inward FDI. FDI is believed to have a positive effect on growth in the host nation such as market access, technology, finance, skills, and negative effects such loss of employment for the unskilled labour and hence a substantial quantity of FDI alone is not enough to generate economic growth and poverty reduction. But is this really the case that, increase inflows of FDI contributes to economic growth and a reduction in income inequality? Basu and Guariglia (2007) in analysing the impact of FDI on inequality and growth, using a panel data of 119 developing countries for the period 1970- 1999, they conclude that FDI has a positive correlation with both inequality and growth but a reduction. However, other studies do not agree with such findings. For example, Kustepeli (2014) examines the link between income inequality and economic growth in the context of EU enlargement. The results show that there is no evidence of a significant effect for any of FDI on economic growth and income inequality of the groups of countries in the studies. Finally, Sun (2007) examined the relationship between FDI, economic growth, and income inequality in a pooled time-series cross-section statistical model with 68 countries from 1970 to 2000 and finds no effect of FDI stocks on income inequality but rather an effect of FDI inflows on income inequality to be non-linear.

3.4 FDI inflows in Africa

The situation in Africa is quite surprising and therefore experiencing an FDI paradox because her labour and natural resource endowments are insufficient to attract financial capital. Other endowments count. Critic among these includes low public capital (e.g. low infrastructure like energy, roads, rails and airports); low human capital (e.g. absence of skilled,

educated and healthy labour force); and low institutional capital (weak security and judicial systems, weak property rights, and poor regulatory and standards). The high quality of these capitals enhances the productivity of physical and financial capitals and reduces the cost of doing business. When these are directly provided by investors, they serve as taxes on returns on investment.

There are so many drivers of FDI. These include fragmented investment policies; information asymmetry (limited access to investment opportunities by foreign investors); and high sovereign risks (e.g. low absorptive capacity, high corruption, political instability, weak capacity to manage shocks). All these aspects weaken government capacity to optimize social returns on investments that could complement and catalyse financial capital.

Financial intermediation costs (e.g. high brokerage, loan evaluation, and agency costs, and contract enforcement) often proxied by domestic lending rates impede FDI inflows. Addressing impediments to the public, human and institutional capitals, as well as reducing sovereign risks and intermediation costs, and ensuring investment policy harmonization across African countries, are central to eliminating FDI paradox in Africa.

Though important, FDI benefits to the host nation or region are not automatic. The accrual of FDI benefits to the host economy depends on a number of factors. For example, host governments, need to implement policies that can encourage FDI and ensure rapid growth or expansion of the sector (promote sectoral and spatial growth). Labour market regulations, intellectual property rights and tax laws, policies aimed at human development and capacity building, for instance, can play a crucial role in harnessing the potential FDI benefits.

Moreover, the benefits depend on the modalities of the FDI. Greenfield investment, which involves new FDI projects, may well have greater benefits than mergers and acquisitions model especially with regard to job creation. In addition, in Africa, market-seeking FDI

generates local and regional linkages, creates new jobs and products for local consumers, among other things. This as seen in apparel exporting countries such as Kenya, Lesotho and Swaziland. Equally, important, efficiency-seeking FDI entails established firms seeking to compete in international markets and it is particularly important for economies looking to integrate into the global market and move up the global value and supply chains.

It is also important to note that manufacturing (especially in high-tech industries) FDI poses some challenges (e.g. loss of manual jobs to automation, from unskilled to skilled jobs) but its adverse effects should not be overstated nor obscure its benefits. Viable solutions, however, can mitigate these negative effects**,** for example, sufficient formal education**;** training and social programmes can quickly assist workers and enable them to compete for skilled jobs. Political instability is one of the reasons that account for Africa's low share of the world's FDI. No multinational firm will like to work under uncertainty but this cannot be guaranteed in some African countries.

In view of the above reasons why Africa cannot draw in FDI, if the continent wants to increase its share of FDI, there must be political stability, good infrastructures and economic stability. If all these are in place, the continent will be able to attract FDI like other developing countries. However, it will take a considerable time to achieve these, Therefore, the inflow of FDI to the continent might not increase in relative terms for a long time to come.

3.5 Overview of The Literature

It is clear from this literature review that the effects of FDI on growth depend on the host nation's characteristics and the sectors where the FDI is directed. Large market size and high incomes may attract more FDI as against small and low-income countries. The few country-

specific studies also indicate that there may be an endogenous relationship between FDI and growth which may have to be taken into account if the results are to be robust.

Based on the literature on FDI and income inequality, it is clear that the effect of FDI depends on the country as well. Although the literature thus far has given so many explanations and insights into the relationship between FDI and inequality. From the above review of empirical studies, it is clear that there is no agreement on the impact of FDI on income inequality regardless of the country. Although there are a number of empirical works of literature examining the dependency hypothesis. The reason for this lack of agreement in the empirical findings may be because of differences in the use of econometric specifications, sample sizes, proxies for measuring FDI and inequality and also the composition of sample i.e. developed, developing, transition and least developing countries etc. Apart from that, it is also clear that the empirical studies have some econometrics difficulties i.e. omitted variable bias, selection bias and the problem of reverse causality or endogeneity problem. Although, few studies such as Figini and Görg (2006), Jensen & Rosas (2007), Herzer & Nunnenkamp (2011) have tried to deal with this issue of endogeneity problem using advanced econometrics techniques.

There also exist certain issues that lack research in the literature. For instance, many of the literature studies have focused on inward FDI and has not emphasized on the different impacts of inward and outward FDI. It is therefore clear that there is an increase in outward FDI to developing countries as a result, it is very essential to take note of how inward and outward FDI effect differ in developing economies. For country-specific, the distribution of foreign direct investment is not equally distributed and some areas and sectors are more attractive to foreign direct investment. Hence, the question that becomes interesting and important to examine is how the impact of FDI differs across the different areas as well as income inequality within a country.

While the existing literature mainly examines the impact of FDI on growth and income inequality, this study adds to the existing literature by exploring the importance of domestic conditions of the host countries in determining the distributional effects of FDI and also the modes of FDI, as well as their differential effects on income inequality. Besides, the study will contribute by way of using the system generalized method of moments (GMM) developed by Arellano and Bond (1991) and Arellano and Bover (1995), and a sample size of 107 developing countries to estimate the impact of FDI on income inequality, comparable to other studies that use different methodologies and sample sizes.

CHAPTER FOUR

4.0 RESEARCH METHODOLOGY

4.1 Introduction

This chapter analyses the methodology used in the study and specifies and explains the model adopted, including data description. It also explains the estimation strategy or econometric technique adopted for the research. This paper attempts to examine the overall impact of FDI on income inequality as well as to distinguish between the two modes of FDI – cross-border mergers & acquisitions (M&As) and Greenfield FDI and examine whether the two modes of FDI have differential effects on income inequality. MNCs can undertake FDI by building their own establishment (Greenfield investment) or to acquire an existing firm (cross-border M&As) (Nocke and Yeaple, 2007). The two forms of investment are different in nature (Wang and Wong, 2009). Economic studies suggest that Greenfield FDI and M&As may have different economic consequences in the host country. The United Nations Conference on Trade and Development (UNCTAD) in the World Investment Report (WIR) (2000) documents that FDI entry through the takeover of domestic firms is less beneficial, if not positively harmful, for economic development than entry by setting up new facilities.

4.2 Area of Study

This study empirically investigates the impact of Foreign Direct Investment (FDI) on inequality as well as to distinguish between the two modes of FDI – cross-border mergers & acquisitions (M&As) and Greenfield FDI and examine whether the two modes of FDI have differential effects on income inequality.

Using a panel data set of 107 developing counties from three income groups: Upper middle income, lower middle income and low-income groups. The countries are selected based on the

availability of data. While the existing literature mainly examines the impact of FDI on growth, this study explores the importance of domestic conditions of the host countries in determining the distributional effects of FDI and also the modes of FDI on income inequality.

4.3 Research Sampling and Design

A panel data analysis is carried out on income inequality as the dependent variable and Foreign Direct Investment, Human Capital, GDP per capita, labour force participation rate, secondary school enrollment and Growth in Government Expenditure as the independent variables. The study covered 107 developing countries for the period 2005-2014.

4.4 Type of Data and Method of Collection

The study uses secondary data. The data is obtained from several sources, including World Development Indicators (WDI), UNCTAD and Standardized World Income Inequality (SWIID) databases.

4.5 Model Specification

The main priority of this study is to analyse the impact of FDI on income inequality in developing countries. Following the literature on income inequality, I added a set of control variables to the regression model. To allow for meaningful regression analysis, these are carefully selected based on theory, FDI-income inequality relationship and data availability. The model is specified in the functional form:

GINI = F (FDI, LPR, GDPpc, EDU, GRGOVEXP)

Where GINI is a measure of income inequality which is expressed in terms of Market Gini and Disposable Gini (Disposable Gini measures inequality in income after considering the effect of taxes and social spending while Market Gini does not consider the effect of taxes and social spending), FDI represents Foreign Direct Investment (expressed in Merger & Acquisition and Greenfield), LPR represents, Labour force participation rate which is the proportion of the population aged 15 years and older that is economically active, GDP per capita (constant 2010 US$), EDU represent Education (human capital as a proxy for secondary school enrolment) which is School enrolment, secondary (% net) and GRGOVEXP represent Growth in Government Expenditure which is measured as General government final consumption expenditure (annual % growth)

The analysis examines the relationship between FDI and income inequality in the developing countries and the distinction of the two modes of FDI on income inequality using the system generalized method of moments (GMM) developed by Arellano and Bond (1991) and Arellano and Bover (1995). This technique provides a way of taking unobserved heterogeneity within the country into account while also controlling for the possible existence of endogeneity, using variables lagged by one or more periods as instrumental variables.

4.6 Methodology and Data

I use the theoretical discussion in Literature as a motivation for my empirical analysis where I focus on examining the effect of FDI on income inequality. Accordingly, the basic specification of my empirical estimation equation is:

$$\mathbf{GINI_{it}} = \propto_{\circ} + \propto_{1} \mathbf{FDI_{it}} + \propto_{2} \boldsymbol{X_{it}} + \boldsymbol{e_{it}}$$

where the subscript i refers to one of the countries, the subscript t refers to the time periods, GINI is commonly used as a measure of income inequality in the world. The percentage income share of the top 10% of income earners (see, e.g., Piketty and Saez, 2003; Frank, 2009); and FDI_{it} expressed in USD in country i at time t and X_{it} is a vector of control variables such as (Human Capital, Labour force participation, GDP per capita, Growth in Government Expenditure). The study used FDI inflows instead of stock.

4.7 Variable Description

Inequality

To measure income inequality, the study uses the Gini disposable and Gini market index for the period 2005-2014. Disposable Gini measures inequality in income after considering the effect of taxes and social spending while Market Gini does not consider the effect of taxes and social spending. The indicator is an estimate of the Gini in household disposable (post-tax, post-transfer) income (Solt, 2014). The two measures of income inequality namely Disposable Gini (Gini-Disp) and Market Gini (Gini-Mkt) are used in the estimations to ensure the robustness of the result. This is taken from The Standardised World Income Inequality Database (SWIID). A Gini index of zero represents perfect equality, while an index of 1 implies perfect inequality.

Foreign Direct Investment (FDI)

FDI inflows measured in USD was used as the main independent variable of interest. To measure the effect of FDI on income inequality, the study employs the use of the two modes of FDI. That is FDI by Greenfield and FDI by Meger and Acquisitions. Greenfield FDI relates

to investment projects that entail the establishment of new entities and the setting up of offices, buildings, plants and factories from scratch. It is a kind of working capital. FDI involves capital movement that affects the accounting books of both the direct investor and the direct investment enterprise (UNCTAD). FDI M&A is a form of transaction. This entails the taking over or merging of capital, assets and liabilities of existing enterprises (UNCTAD).

GPD per Capita

GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in constant 2010 U.S. dollars.

The level of development, as well as inequality, depends on the economic structure of the country, which is linked to the level of development. The study included GDP per capita in the empirical model in order to make sure that the flow of FDI does not merely pick up the impact of the level of economic development on inequality. Data for the construction of this variable come from the World Development Indicators.

Education(Human Capital)

The proxy for the measure of Human Capital is the Net enrolment rate which is the ratio of children of official school age who are enrolled in school to the population of the corresponding official school age. Secondary education completes the provision of basic education that begins at the primary level and aims at laying the foundations for lifelong learning and human development, by offering more subject- or skill-oriented instruction using more specialized

teachers. The arguments in the literature about the relationship between inequality and Human capital is that a higher level of education in the population reduces income inequality (Castelló and Doménech, 2002). Importance of the level of human capital for income distribution is emphasized by Mincer (1958). Chiu (1998) finds evidence that the higher level of human capital accumulated in society helps to improve income distribution, between individuals. Data to construct this variable comes from the World Development Indicators.

Labour Force Participation rate

Labour force participation rate is the proportion of the population aged 15 years and older that is economically active: all people who supply labour for the production of goods and services during a specified period (WDI). Labour force participation is expected to reduce income inequality. As total earnings become a more important part of household income the greater the dispersion exhibited within the distribution of total earnings will tend to feed into the distribution of household income. The results of Daniel et al (1989), show that high female LFP rates (LFP,) have a negative influence on income inequality for the entire population. High male LFP rates (LFP,) also show a negative relationship with income inequality for the whole population.

Growth in Government Expenditure

Growth in Government Expenditure is used as a proxy for fiscal policy. It is measured as an annual percentage growth of general government final consumption expenditure based on constant local currency. Aggregates are based on constant 2010 U.S. dollars. General government final consumption expenditure (general government consumption) includes all

government current expenditures on fiscal policy which includes transfers. It also includes most expenditures on national defence and security but excludes government military expenditures that are part of government capital formation. For instance, government expenditure on programs or projects that helps to transfers money or income to the poor, such as LEAP (Livelihood Empowerment Against Poverty) in Ghana. This means that government expenditure contributes to a reduction in income inequality

4.8 Method of estimation

As a starting point, the empirical model is first estimated using pooled OLS but due to endogeneity issues, the study proceeds to estimate system GMM which is well suited for panel data structure and solves the endogeneity problem. Since system GMM is superior to pooled OLS given the panel structure of the data used in this study, all discussions are based on the results of the system GMM.

The usual approach today when facing heteroskedasticity of unknown form is to use the Generalized Method of Moments (GMM), introduced by L. Hansen (1982). GMM makes use of the orthogonality conditions to allow for efficient estimation in the presence of heteroskedasticity of unknown form.

CHAPTER FIVE

5.0 DATA ANALYSIS AND DISCUSSION OF THE FINDINGS

5.1 Introduction

The findings of the empirical study carried out on Foreign Direct Investment (FDI) and income inequality is presented in this chapter. It is divided into two broad sections with the first section covering descriptive analysis of data in the form of graphs and tables. The second part deals with the regression analysis examining the impact of FDI on income inequality in developing countries. The statistical tool used in analysing this data is STATA 14.2.

5.2 Data Description

Data are compiled from three sources: cross-border M&As and Greenfield FDI are collected from the FDI database at the UNCTAD website, income inequality from Standardised World Income Inequality Database (SWIID) and the other variables are obtained from the World Bank's World Development Indicators (WDI). The dataset is unbalanced.

This study focuses on 107 developing countries from Upper Middle income, Lower middle income and low-income in the world. The selection of these countries is based on data availability which is from 2005 to 2014. The dependent variable is the Gini index. The independent variables consist of FDI inflows (i.e. expressed as Greenfield FDI and FDIM&A), Labour force participation rate, Growth in Government Expenditure, GDP per capita and school enrolment (a proxy for human capital). School enrolment is the ratio of children of official school age who are enrolled in school to the population of the corresponding official school age. Secondary education completes the provision of basic education that began at the primary level and aims at laying the foundations for lifelong learning and human development.

The data for independent variables were retrieved from the World Development Indicator database of the World Bank.

5.3 Descriptive Data Analysis

The tables below show the statistical description of the panel data. The variables being described here include Disposable Gini, Market Gini, FDIM&A, FDI Greenfield, secondary school enrolment, GDP per capita and Growth in Government Expenditure from 2005 to 2014.

The first 10 countries with the lowest Disposable Gini in the sample are reported in Table 5.1. The first two countries among the 10, namely Belarus and Kazakhstan are Upper middle countries, followed by Ukraine from Lower middle income. Azerbaijan, Iraq and Montenegro on the 4th, 5th and 6th positions respectively are also Upper middle-income countries. 7th position is occupied by a lower middle country, Timor-Leste. Ethiopia is the only low-income country on the list on the 8th position. The last on the list namely, Algeria and Romania are also Upper middle-income countries. Generally, the first 10 countries with the lowest disposable Gini in the sample is dominated by Upper middle-income countries with seven countries including Belarus, Kazakhstan, Azerbaijan, Iraq, Montenegro, Algeria and Romania. Next is Lower middle-income countries, with two countries; Ukraine and Timor-Leste, then followed by Ethiopia as the only Low-income country. With the low Disposable Gini scores recorded for these countries, it is expected that the distribution of income or wealth would be relatively more even in these countries than their counterparts with high Disposable Gini scores.

Table 5.1: First 10 countries with the lowest disposable Gini coefficients in the sample 2005-2014

Rank	Country	Gini
1	Belarus	24.28
2	Kazakhstan	26.74
3	Ukraine	27.47
4	Azerbaijan	28.975
5	Iraq	30.2444
6	Montenegro	31.28
7	Timor-Leste	31.54
8	Ethiopia	32.48
9	Algeria	32.9286
10	Romania	33.16

Table 5.2 below also shows the 10 countries with the highest disposable Gini. It can be seen that top of the list is a lower-middle-income country, Honduras. Second on the list is Colombia, an Upper middle-income country, followed by the Central African Republic on the 3rd position as a low-income country. Suriname is one of the Upper middle income in the 4th position. This is followed by a Lower middle-income country, Lesotho. Haiti is one of the Low-income countries on the 6th position then followed by Zambia, a lower-middle-income country in the 7th position. The last three countries namely Botswana, South Africa and Namibia are all Upper income. Generally, Upper middle-income countries dominate this list with five countries namely, Colombia, Suriname, Botswana, South Africa and Namibia. The second dominant group is the Lowe middle-income countries with three countries namely Honduras, Lesotho and Zambia, followed by Haiti and the Central African Republic as the only two from low-income countries. With the high disposable Gini scores recorded for these countries, it is expected that the distribution of income or wealth would be relatively less even in these countries than their counterparts with low disposable Gini scores.

Table 5.2: First 10 countries with the highest disposable Gini coefficients in the sample 2005-2014

Rank	Countries	Gini
1	Honduras	50.14
2	Colombia	50.21
3	Cent African Rep	50.425
4	Suriname	52.1
5	Lesotho	52.1833
6	Haiti	52.825
7	Zambia	53.76
8	Botswana	58.73
9	South Africa	59.69
10	Namibia	60.21

Table 5.3 below provides information on disposable Gini coefficients across income groups. The countries included in the sample are categorized into 3 income groups namely Low Income (LI), Lower Middle Income (LMI), and Upper Middle Income (UMI) groups based on World Banks's 2019 classification of countries. The largest income e group (income group with more countries) in the sample is the UMI group followed by LMI whiles LI is last. The means in Table 5.3 show that there is no large variation in disposable Gini across the income groups and the average disposable Gini for each of the income groups is less than 50%. At the aggregate level, disposable Gini appears low (less than 50%) but the situation may be different at the country level. The income group with the lowest disposable Gini is the LMI group. The next is UMI, whilst LI has the highest. The higher the Disposable Gini coefficient, the higher the inequality in the distribution of income among the populace. The standard deviations of the income groups seem to be wide apart. LI group has the lowest standard deviation while UMI has the highest. Thus, the standard deviation statistics implies there is more variation in income inequality among countries in UMI group compared to the countries in the other income groups.

Table 5.3: Disposable Gini summary statistics across income groups

Income group	Mean	Std. Dev.	Freq.
Low income (LI)	41.122951	4.8756312	183
Loir middle income (LMI)	40.243963	5.9657708	323
Upper middle income (UMI)	40.843437	7.9557943	419
Total	40.689405	6.7702059	925

The first 10 countries with the lowest Market Gini in the sample are reported in Table 5.4 below. The first country among the 10, is Ukraine as a Lower middle-income county. Followed by three Upper middle-income countries on the 2nd, 3rd and 4th position namely Belarus, Iraq and Kazakhstan respective. On the 5th position is a lower-middle-income country, Timor-Leste Ethiopia as a low-income country. Pakistan is on the 7th position as a Lower middle-income country. The last three countries namely Bulgaria, Myanmar and Algeria are from Upper middle income, Low income and Upper middles income respectively. This group is dominated by five upper-middle incomes countries namely, Belarus, Iraq, Kazakhstan, Bulgaria and Algeria. The next largest group is the Lower middle income with three countries including Ukraine, Timor-Leste and Pakistan, followed by the smallest group which is Low-income countries represented by Ethiopia and Myanmar. With the low market Gini scores recorded for these countries, it is expected that the distribution of income or wealth would be relatively more even in these countries than their counterparts with high market Gini scores.

Table 5.4. First 10 countries with the lowest market Gini coefficients in the sample 2005-2014

Rank	Country	Gini
1	Ukraine	22.63
2	Belarus	32.86
3	Iraq	33.6667
4	Kazakhstan	35.09
5	Timor-Leste	35.19
6	Ethiopia	36.41
7	Pakistan	36.46
8	Bulgaria	36.75
9	Myanmar	36.9
10	Algeria	37.0857

Table 5.5 below also shows the 10 countries with the highest market Gini. It can be seen that; Moldova is the first Lower middle-income country followed by Brail an upper-middle-income country. The next two countries namely, Haiti and the Central African Republic are both Low-income countries. On the 5th position is Macedonia, an upper middle country followed by two lower-middle-income countries namely Zambia and Lesotho. The last three countries on this group are Upper middle-income countries which are Botswana, South Africa and Namibia respectively. With the high market Gini scores recorded for these countries, it is expected that the distribution of income or wealth would be relatively less even in these countries than their counterparts with low market Gini scores.

Table 5.5. First 10 countries with the highest market Gini coefficients in the sample 2005-2014

Rank	Countries	Gini
1	Moldova	55.26
2	Brazil	55.88
3	Haiti	56.1375
4	Cent Afri Rep	56.4
5	Macedonia	56.61
6	Zambia	60.06
7	Lesotho	61.35
8	Botswana	64.82
9	South Africa	68/63
10	Namibia	68.71

Table 5.6 below provides information on Market Gini coefficients across income groups. Similar to Table 5.3, the means in Table 5.6 are also lower than 50% for each of the income groups, suggesting low-income distribution within the groups. However, as mentioned earlier, the low average Gini at the aggregate (or the income group) level does not necessarily imply low-income distribution at the country level. The LMI group has the lowest market Gini while UMI has the highest. The standard deviations of the income groups seem to be identical for the LMI group and UMI group while LI group has the lowest variation in income distribution. The UMI group appears to have both the highest mean and standard deviation in the sample. Thus, the standard deviation statistics implies there is more variation in income inequality among countries in UMI group compared to the countries in the other income groups.

Table 5.6. Market Gini summary statistics across income groups

Income_group	Mean	Std. Dev.	Freq.
Low income (LI)	44.956831	5.3895549	183
Lower middle income (LMI)	44.652322	7.0922199	323
Upper middle income (UMI)	46.810024	7.8966133	419
Total	45.689946	7.2464259	925

Table 5.7 below displays the overall means and standard deviations of variables in their natural log. The variables include Disposable Gini, Market Gini, FDI M&A, FDI Greenfield, GDP per capita, Secondary School enrolment, Growth in Government Expenditure and Labour force participation rate. For this study, between variation refers to variation across country (time-invariant) whiles within variation refers to a variation of a country over time (time-variant). Overall variation measures variation across time and country.

The results indicate mean values for the variables. The means are 3.692184 for Disposable Gini, 3.809236 for market Gini, 18.30295 for FDIMA, 20.6616 for FDI Greenfield, 7.767697 for GDP per capita, 1.627802 for Growth in Government Expenditure, 4.109418 for Labour force participation rate, and 3.970178 for school enrolment. Information in Table 5.7 shows that the standard deviation of overall variation is greater than both within and between variations for all the variables except for school enrolment where between is greater than overall and within. In the case of between versus within variations, the between variation has a higher standard deviation than the within variation for all the variables except Growth in Government Expenditure where the reverse is the case. This implies that for most of the variables, there is a higher variation between countries than within countries.

For the maximum values, the overall variation tends to have the highest values, followed by between variation whiles within is last for all the variables except for Market Gini where

within variation is greater than the overall variation. The minimum values do not seem to follow any pattern. The overall standard deviation for the same variables indicates .1667415 for Disposable Gini, .1606512 for Market Gini, 2.898936 for FDI MA, 2.013601 for FDI Greenfield, 1.013983 for GDP per capita, .5497016 for school enrolment, 1.130742 and .2009705 for Growth in Government Expenditure and Labour force participation rate respectively.

Table 5.7: Descriptive statistics of panel data

Variable		Mean	Std. Dev.	Min	Max	Observations
lnMarket Gini	Overall	3.809236	.1606512	3.086487	4.242764	N = 925
	Between		.1579556	3.118958	4.229869	n = 107
	Within		.0170424	3.739425	3.884771	T-bar= 8.64486
lnDisposable Gini	Overall	3.692184	.1667415	3.165475	4.112512	N = 925
	Between		.1663375	3.189599	4.097807	n = 107
	Within		.0215143	3.614259	3.78997	T-bar= 8.64486
lnFDIMA	Overall	18.30295	2.898936	9.21034	24.76236	N = 545
	Between		2.381213	12.10989	23.31573	n = 102
	Within		1.688126	12.37601	24.67129	T-bar= 5.34314
lnFDI Greenfield	Overall	20.6616	2.013601	13.71015	25.50161	N = 974
	Between		1.731143	16.43478	25.29701	n = 106
	Within		1.127135	15.60098	25.30689	T-bar = 9.18868
lnGDP per capita	Overall	7.767697	1.013983	5.455082	9.928811	N = 1060
	Between		1.012577	5.788316	9.77967	n = 106
	Within		.1075378	7.222884	8.154349	T = 10
lnSchool enrolment	Overall	3.970178	.5497016	1.956719	4.585615	N = 467
	Between		.5679348	2.301008	4.568304	n = 83
	Within		.0982622	3.311264	4.361333	T-bar = 5.62651

lnLabour Force part rate	Overall	4.109418	.2009705	3.469852	4.489221	N =	1070
	Between		.2004903	3.479438	4.47711	n =	107
	Within		.0230477	4.022208	4.273247	T =	10
lnGrowth in Gov Exp	Overall	1.627802	1.130742	-5.1387	4.677161	N =	720
	Between		.7492078	-1.049756	3.676674	n =	93
	Within		.9201104	-4.671889	4.396378	T-bar = 7.74194	

FDI M&A and FDI Greenfield are measured (in million US dollars). N is the total number of observations, T is the time period and n is the number of countries.

Table 5.8 below explains a measure of dispersion between the variables. As expected, the 25th percentile and the 75th percentile of all the variables are closer to their median values (50th percentile) than their minimum and maximum values. Generally, the minimum values seem further apart from their median values compared to the maximum values. For variables such as FDI M&A, Growth in government expenditure, and School enrolment, the gap between the minimum and median values are relatively much wider than the gap between the median and maximum values.

Table 5.8: Descriptive statistics with percentiles

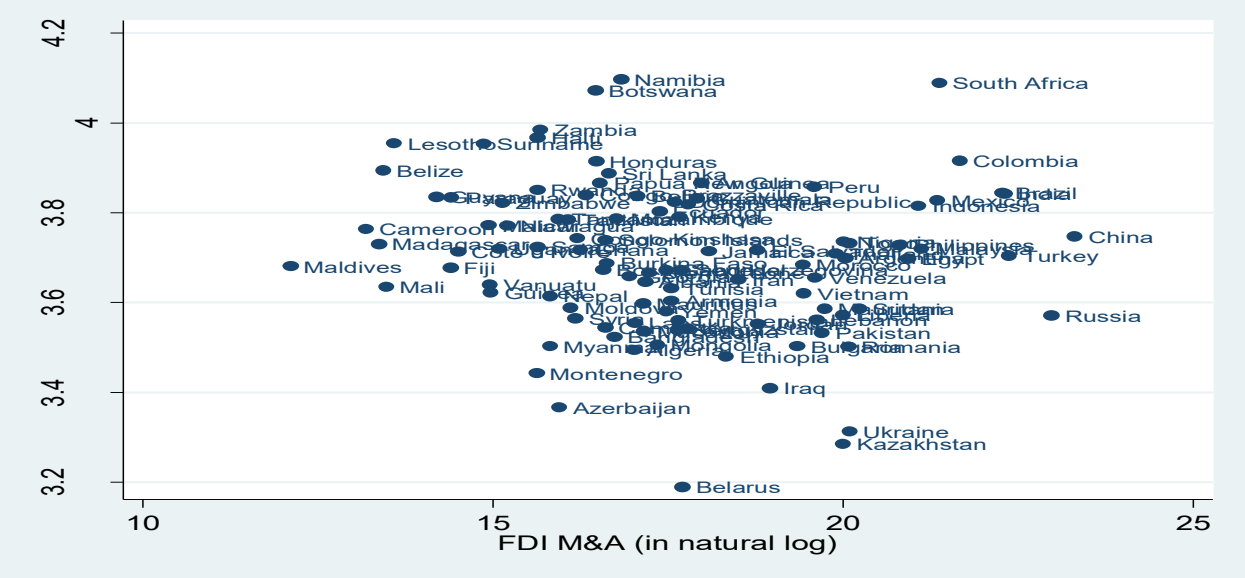
Variable	N	Min	p25	p50	p75	Max
InMarket Gini	925	3.086487	3.716008	3.822098	3.88773	4.242764
InDisposable Gini	925	3.165475	3.577948	3.706228	3.79324	4.112512
InFDI M&A	545	9.21034	16.10835	18.45315	20.5431	24.76236
InFDI Greenfield	974	13.71015	19.51863	20.72327	22.05092	25.50161
InGDP-per-capita	1060	5.455082	6.929516	7.957036	8.581995	9.928811
InSchool enrolment	467	1.956719	3.714036	4.187904	4.366903	4.585615
InLabour force part rate	1070	3.469852	3.988947	4.135046	4.254364	4.489221
InGrowth in Gov Expend	720	-5.1387	1.075982	1.72299	2.320006	4.677161

Labour force part rate is the labour force participation rate of the total population

The graphs below depict the relationship between FDI and inequality. Fig 5.1 shows the relationship between Disposable Gini and FDI M&A. Fig 5.2 tells the relationship between FDI Greenfield and Disposable Gini, Fig 5.3 shows the relationship between FDI M&A and Market Gini, while fig 5.4 indicates the relationship between FDI Greenfield and Market Gini. The study seeks to investigate the impact of Foreign Direct Investment (FDI) on inequality as well as to distinguish between the two modes of FDI – cross-border mergers & acquisitions (M&As) and Greenfield FDI and examine whether the two modes of FDI have differential effects on income inequality. From the three graphs, the data points do not provide any pattern of relationship between income inequality and FDI. The concentration of the data points makes it difficult to predict any relationship between these 2 variables. Further investigations may be required via regression analysis to discover the relationship. From fig 5.3 and 5.4, Ukraine seems to be an outlier. Ukraine appears to be an outlier, having the lowest

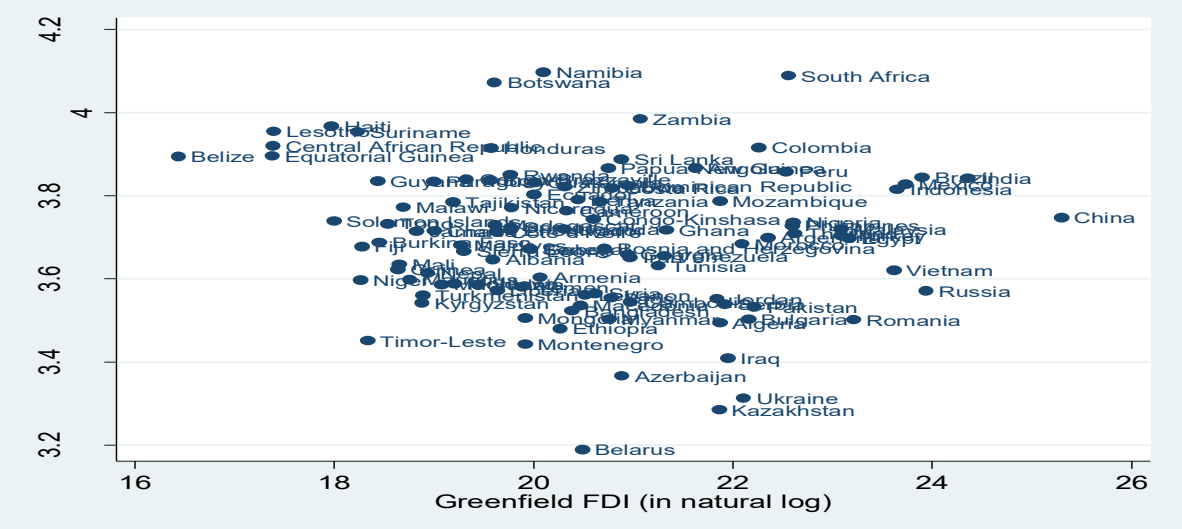
market Gini in Fig 5.3 and fig 5.4. South Africa and Namibia are the only Africa countries that appear to have high Gini coefficients both at the disposable and market-level in fig 5.1, fig 5.2, fig 5.3, and fig 5.4.

Figure 5.1 Relationship between Disposable Gini and FDI M&A



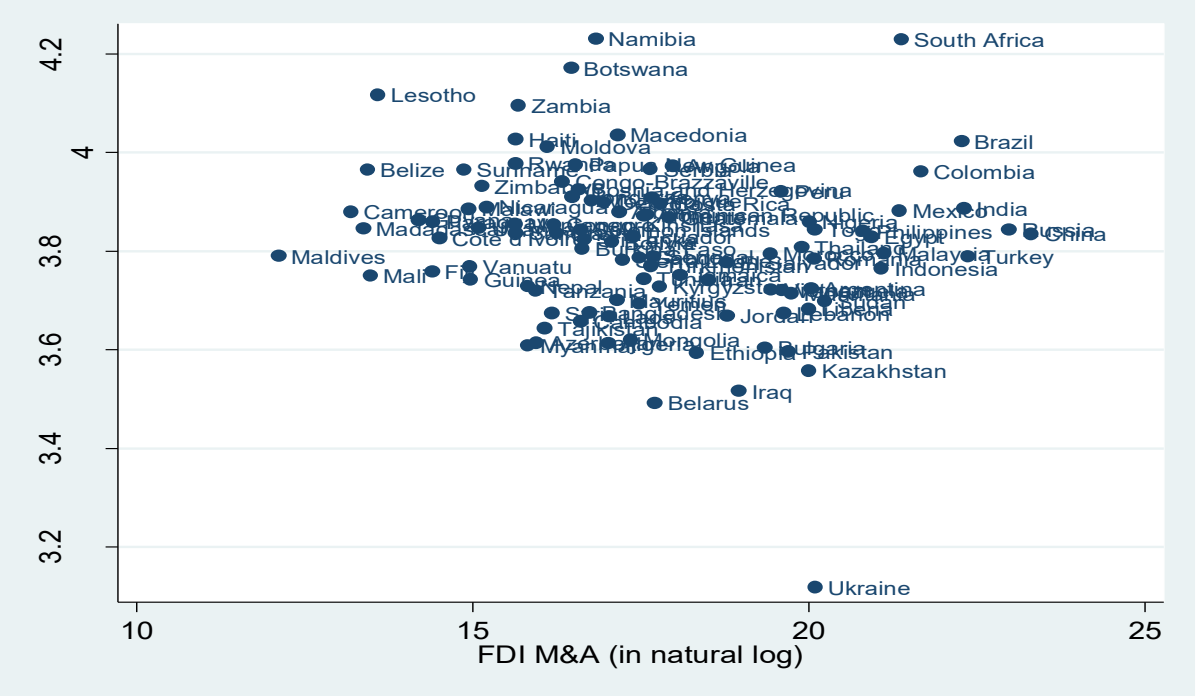
Data source: SWIID (2018) and WDI (2018)

Figure. 5.2. Relationship between FDI Greenfield and disposable Gini



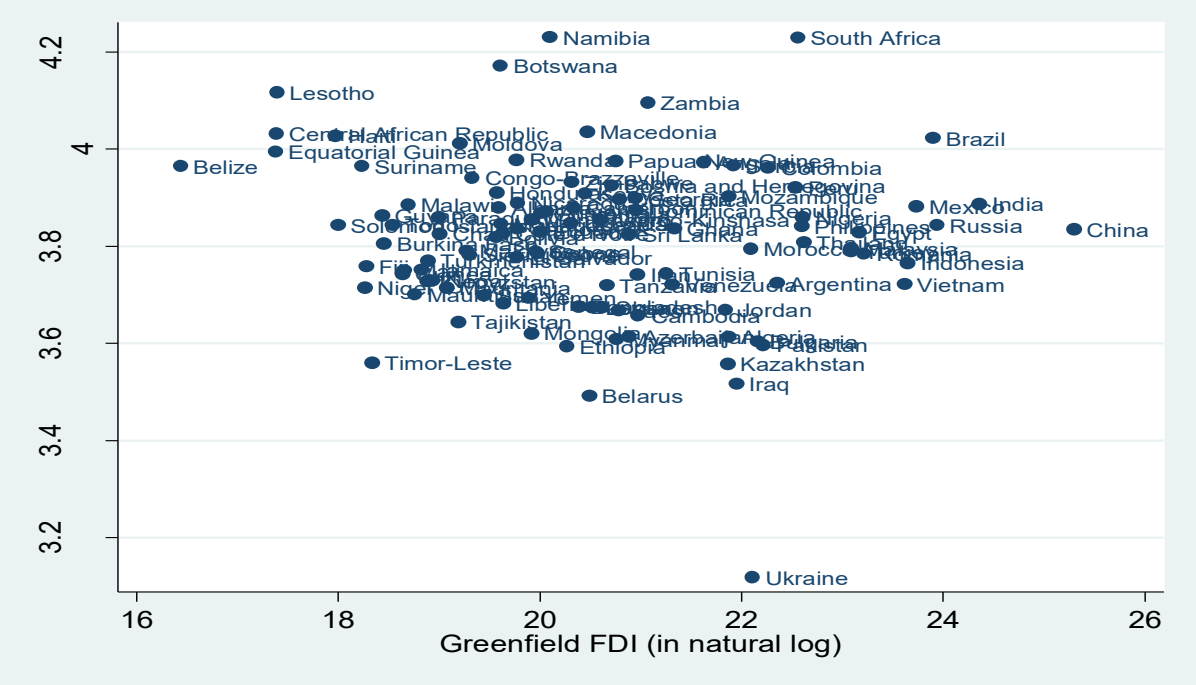
Data source: SWIID (2018) and UNCTAD (2018)

Figure 5.3: Relationship between Market Gini and FDI M&A



Data source: SWIID (2018) and UNCTAD (2018)

Figure. 5.4. Relationship between FDI Greenfield and market Gini



Data source: SWIID (2018) and UNCTAD (2018)

5.4 Econometric Results

Tables 5.9 to 5.12 report the estimation results. As a starting point, the empirical model is first estimated using pooled OLS but due to endogeneity issues, the study proceeds to estimate system GMM which is well suited for panel data structure and solves the endogeneity problem. Since system GMM is superior to pooled OLS given the panel structure of the data used in this study, all discussions are based on the results of the system GMM. Two measures of income inequality, namely Disposable Gini (Gini-Disp) and Market Gini (Gini-Mkt) are used in estimation to ensure the robustness of results.

Table 5.9. Gini coefficient and FDI M & A (Pooled OLS result)

	Gini-Mkt		Gini-Disp	
Variables	Coefficient	t-stat	Coefficient	z-stat
FDI (M & A)	-.0097502***	-1.89	.0013312	0.30
GDP per capita	.0931401*	4.55	.0652837*	-3.65
Secondary School Enrolment	-.1563794*	-3.56	-.1199773**	-3.13
Growth in Government Expenditure	.0074374	0.62	.0066729	0.64
Labour force participation rate	.1692332**	2.16	. 243824*	3.57
Constant	3.156657*	8.13	2.631342*	7.76

Source: Author. *, **, *** represent 1%, 5% and 10% respectively. All the variables are in natural log

Table 5.10. Gini coefficient and FDI M & A (System GMM result)

	Gini Mkt		Gini Disp	
Variables	Coefficients	z-stat	Coefficients	z-stat
Gini lag 1	1.024508*	33.14	.9822834*	21.90
FDI (M & A)	.0018682*	2.97	.0021349**	2.10
GDP per capita	-.0126734**	-1.97	-.0136779**	-2.04
Secondary School enrolment	.0023822	0.19	.0008113	0.07
Growth in Government Expenditure	-.0007522	-1.05	-.0033576**	-1.97
Labour force participation rate	-.0463433	-1.60	-.0278311	-0.64
Constant	.1482316	0.82	.2426655	1.09
	Probability		Probability	
Arellano-Bond AR (1)	0.432		0.197	
Arellano-Bond AR (2)	0.498		0.264	
Hansen Test	0.708		0.972	

Source: Author. *, **, *** represent 1%, 5% and 10% respectively. All the variables are in natural log

Table 5.11. Gini coefficient and FDI Greenfield (Pooled OLS result)

	Gini Mkt		Gini Disp	
Variables	Coefficients	t-stat	Coefficient	t- stat
FDI Greenfield	-.0114471**	-2.22	-.0052733	-1.08
GDP per capita	.0473436*	3.49	.0357967*	2.80
Secondary School enrolment	-.063413**	-2.42	-.0379214	-1.53
Growth in Government Expenditure	.000981	0.11	-.0026665	-0.30
Labour force participation rate	.1836751*	3.39	.2428633*	4.74
Constant	3.151632*	12.16	2.681115*	10.96

Source: Author. *, **, *** represent 1%, 5% and 10% respectively. All the variables are in natural log.

Table 5.12. Gini coefficient and FDI Greenfield (System GMM result)

	Gini Mkt		Gini Disp	
Variables	Coefficient	z-stat	Coefficient	z-stat
Gini lag1	1.032783*	51.15	1.039965*	29.74
FDI Greenfield	.0025014*	4.20	.0035415*	4.07
GDP per capita	-.00973**	-2.27	-.014112*	-2.66
Secondary School enrolment	.0042668	0.61	.0041697	0.43
Growth in Government Expenditure	-.0020616***	-1.95	-.0036835**	-2.28
Labour force participation rate	-.0266338***	-1.94	-.0364796	-1.47
Constant	-.0103085	-0.13	.0202018	0.18
	Probability		Probability	
Arellano-Bond AR (1)	0.021		0.041	
Arellano-Bond AR (2)	0.940		0.526	
Hansen Test	0.323		0.235	

Source: Author. *, **, *** represent 1%, 5% and 10% respectively. All the variables are in natural log

From our GMM estimations on Tables 5.10 and 5.12, FDI by Merger and Acquisition has a positive relationship with Income inequality. The results suggest that at 1% per cent significance level when FDI increases by 1%, income inequality will also increase by 0.002% at the market level and 0.002% at the Disposable level. From Table 15, it can also be seen that, consistent with FDI by Merger and Acquisition, FDI Greenfield also has a positive and significant relationship with the Gini coefficients. This means that, when FDI by Greenfield increases by 1%, income inequality also increases by 0.003% at the market level and 0.004% at the disposable level. The results in both Table 5.10 and 5.12 show that FDI inflows to developing countries further increase the income inequality in these countries. This result confirms our expectations and also agrees with the findings of Zhuang and Griffith (2013), who used a sample of 93 countries from 1990 to 2009. They discover that Greenfield investment is positively associated with income inequality while Merger and acquisitions(M&A's) have an

insignificant effect. This agrees with the work of Te Velde (2003). His work does not find any evidence of a reduction in inequality as a consequence of increased FDI into a country. Although his approach is quite different compared to the one presented in this thesis.

Although, not the main variables of interest but on the basis of other determinants of FDI, it is worthwhile commenting on the control variables used in the estimation as well. Secondary school enrolment has a positive relationship with income inequality and is insignificant. This positive and insignificant relationship implies that school enrolment would widen and not impact income inequality respectively. This could be attributed to the fact that FDI mostly flows to urban areas populated by the rich and skilled labour who could afford the cost of education more than the poor and less skilled. This is consistent with the findings of Mincer (1974), Bhagwati (1973), (Wälde, 2000) and others. The results also suggested a negative (inverse) and significant relationship between growth in government expenditure and income inequality. Government expenditure growth is used as a proxy for fiscal policy. As a fiscal policy mechanism, it means that government expenditure on social programs, projects and transfer payments as a means of redistribution of income, contributes to narrowing the income inequality gap in society. Example of such social programme is LEAP (Livelihood Empowerment Against Poverty) in Ghana which gives financial assistance to people below the certain poverty line, particularly in deprived areas of Ghana.

What is more, Labour force participation rate shows an inverse relationship with income inequality for both FDI Greenfield and FDI M & A in the model in Tables 5.10 and 5.12. Although the significance level is against expectation. Thus, when the labour force participation rate increases, more people are likely to gain employment and earn incomes which can reduce income inequality. Besides, this could also affect gender income inequality gap, especially if more women get employed comparable to males. This result is consistent with the

findings of Daniel et al (1989). They find that high female LFP rates (LFP,) have a negative influence on income inequality for the entire population. High male LFP rates (LFP,) also show a negative relationship with income inequality for the whole population. In Contrast, this result is not consistent with the findings of Lipsey and Sjöholm (2004), Mah (2002), and Te Velde and Morrissey (2004). GDP per capita has a negative impact on income inequality and is significant at both 5 % and 1% in the two measures of income inequality, namely Disposable Gini (Gini-Disp) and Market Gini (Gini-Mkt) in table 5.10 and 5.12 respectively. This means that a percentage change in GDP per capita would impact income inequality by -0.0137% and -0.0141% respectively in both measures. This means both results support the view that economic growth reduces income inequality.

CHAPTER SIX

6.0 SUMMARY, CONCLUSION, RECOMMENDATION AND POLICY IMPLICATIONS

6.1 Summary

This chapter is summarized in three parts. Part one provides a summary of the key findings of the study. The second part draws up some useful policy implications based on the results, whereas, the third part suggests the area (s) for further research. The general objective of the study is to examine and investigate the overall impact of FDI on income inequality as well as to distinguish between the two modes of FDI – cross border mergers & acquisitions (M&As) and Greenfield FDI and examine whether the two modes of FDI have differential effects on income inequality in developing countries using a panel data of 107 countries and system GMM panel data analysis for the period 2005-2014.

The study proceeds to estimate system GMM which is well suited for panel data structure and caters for the endogeneity problem. Since system GMM is superior to pooled OLS given the panel structure of the data used in this study for the period between 2005 to 2014, all discussions are based on the results of the system GMM. The Gini indexes are taken as the dependent variable and used as a proxy for income inequality. Two measures of income inequality, namely Disposable Gini (Gini-Disp) and Market Gini (Gini-Mkt) are used in the estimation to ensure the robustness of results. In addition, in order to avoid spurious results and further emphasize robustness of the estimated results, FDI M&A, FDI greenfield, labour force participation rate, Growth in Government Expenditure, GDP per capita and secondary school enrollment are used as independent variables, of which FDI M&A and FDI greenfield are the independent variables of main interest. The statistical software used for the estimation and analysis of the data set is STATA (version 14.2.).

However, the main results of interest relative to the testable hypotheses of the study indicate that FDI M&A and FDI greenfield, the two modes of FDI entry do not have differential impacts on income inequality as expected. Both modes of FDI entry rather turn out to have a similar relation to income inequality and do not reduce income inequality. This result is consistent with empirical works that claim FDI has negative impact on income inequality and growth such as the works of Mihaylova (2015), Carkovic and Levine (2002), and Chintrakam et al (2010); but inconsistent with studies that support the assertion that FDI has positive effect on income inequality and growth such as Campos and Kinoshita (2003). Besides, the results of this study could be attributed to the nature of the methodology, sample composition and sample-sized used. Additionally, the percentage share of global FDI for the period 1990-2018 to developing countries and Africa has not been significant enough (34% to developing countries and only 3% to Africa), (UNCTAD World Investment Report (2019).

6.2 Conclusions

In conclusion, FDI does not influence a reduction in income inequality no matter the mode of entry as expected and also answers the research question, what influence does FDI have on income inequality in developing countries? Findings from the literature point to the fact that there is no clear consensus. Most of the empirical results show a conditional effect of FDI on income inequality. Inflows of FDI comes in two main ways, that is Merger and Acquisition and Greenfield investment. Each of these two modes of entry has the same positive and significant impact on income inequality and most of the empirical and theoretical literature has not made a distinction between them Nocke and Yeaple, (2007). However, the findings of this study failed to justify that the two modes of FDI (Greenfield and M&As) have distinctive impacts on income inequality and also answers the research question, does FDI mode of entry

have differential effects on income inequality in developing countries? The findings of the study show that the effect of the inflows of Greenfield investment and FDI by Merger and Acquisition on income inequality is positively significant which does not reduce income inequality. The likely reason for the study's failure to justify differential effects of the two modes of FDI entry on income inequality could among other factors, be explained by the fact that especially at the time of entry and in the short term, M&A FDI comparable to Greenfield FDI may involve, in some aspects, smaller benefits or larger negative impacts from the perspective of host countries development policies. However, over the longer term, when direct as well as indirect effects are taken into account, many differences between the effects of the two modes could diminish or disappear.

6.3 Policy Implications

On the basis of these findings, literature and some of the empirical works considered, it is evident that substantial FDI alone (or its modes of entry) is not enough to reduce income inequality and generate economic growth, as other complementing factors are equally needed. To answer the research question, what other relevant factors or Policy interventions are worth pursuing to influence income inequality reduction in developing countries? a significant positive effect of FDI depends on existing host countries' policies. For instance, developed countries with more public resources and local capabilities can take a risky and proactive stance towards FDI (e.g. Singapore and Ireland) whereas developing countries have limited local absorptive capabilities toward FDI. Other factors too like country characteristics, financial development, administration and regulatory systems in place, development plans (e.g. trade and industrial policies, educational policies etc), macro-economic stability, fiscal and monetary policies and other social, political and legal factors are critical to ensuring that the intended effects of FDI on income inequality reduction are fully realised. The findings of Djankov et al

(2000), Bengos and Sanchez-Robles (2003) support this assertion. Thus, developing countries' governments and policymakers should realize that the beneficial impact of FDI cannot be automatic.

6.4 Policy Recommendations

The study recommends that developing countries' policymakers put in place relevant policy measures to ensure that a strong macroeconomic environment is created in their economies, which in turns will ensure that the general economic atmosphere is more conducive for attracting more FDI (M&A and Greenfield) by ensuring that, the right macroeconomic fundamentals, in terms of monetary and fiscal policies, exchange rate, inflation, interest rates among other policies are in place. Other factors too such as financial development, FDI-friendly regulatory systems, national development plans (e.g. trade and industrial policies, educational policies etc), macro-economic stability, and other social, political and legal factors that are critical to ensuring that FDI fully impacts income inequality are place.

6.5 Limitations of the Study

Obtaining data for the study was problematic in the sense that most developing countries, especially in Africa, lacked data on income inequality. The initial scope for the research was to cover up to 2018 but because of unavailability of data, it was limited to 2014.

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APPENDIXES

i. Gini coefficient and FDI M&A (System GMM result)

	Gini Mkt		Gini Disp	
Variables	Coefficients	z-stat	Coefficients	z-stat
Gini lag 1	1.024508*	33.14	.9822834*	21.90
FDI (M & A)	.0018682*	2.97	.0021349**	2.10
GDP per capita	-.0126734**	-1.97	-.0136779**	-2.04
Secondary School enrolment	.0023822	0.19	.0008113	0.07
Growth in Government Expenditure	-.0007522	-1.05	-.0033576**	-1.97
Labour force participation rate	-.0463433	-1.60	-.0278311	-0.64
Constant	.1482316	0.82	.2426655	1.09
	Probability		Probability	
Arellano-Bond AR (1)	0.432		0.197	
Arellano-Bond AR (2)	0.498		0.264	
Hansen Test	0.708		0.972	

Source: Author. *, **, *** represent 1%, 5% and 10% respectively. All the variables are in natural log.

iii. Gini coefficient and FDI Greenfield (System GMM result)

	Gini Mkt		Gini Disp	
Variables	Coefficient	z-stat	Coefficient	z-stat
Gini lag1	1.032783*	51.15	1.039965*	29.74
FDI Greenfield	.0025014*	4.20	.0035415*	4.07
GDP per capita	-.00973**	-2.27	-.014112*	-2.66
Secondary School enrolment	.0042668	0.61	.0041697	0.43
Growth in Government Expenditure	-.0020616***	-1.95	-.0036835**	-2.28
Labour force participation rate	-.0266338***	-1.94	-.0364796	-1.47
Constant	-.0103085	-0.13	.0202018	0.18
	Probability		Probability	
Arellano-Bond AR (1)	0.021		0.041	
Arellano-Bond AR (2)	0.940		0.526	
Hansen Test	0.323		0.235	

Source: Author. *, **, *** represent 1%, 5% and 10% respectively. All the variables are in natural log