

Evaluating the impact of Foreign Direct Investment (FDI) on economic growth in Zambia, 1996-2020

Dumisani Ndlovu

University of Zambia, Graduate School of Business

Lubinda Haabazoka

University of Zambia, Graduate School of Business

<https://orcid.org/0000-0003-4055-2531>

Article DOI: 10.59413/eafj/v3.i1.5

Abstract:

Zambia has sought to attract foreign direct investment because of the many benefits that it brings to the economy. Foreign direct investment is considered beneficial not only because it brings in much-needed capital but also because it generates employment and provides access to advanced technologies and other spillovers. It has been argued that foreign direct investment has a positive impact on the economic growth of the host country by reducing inflation, unemployment, interest, and the national saving rate. This motivated the conduct of this study. The aim of this study was to establish the relationship between FDI and a country's economic growth, in the case of Zambia from 1996 to 2020, with the purpose of providing knowledge and information to the government, potential investors, and academia on how FDI can contribute to the economic growth of the country. The study was designed with a case study nature and made use of secondary data accessed from UNCTAD, the World Bank, the Bank of Zambia, CSO, etc. and analyzed using an econometrics software known as EViews. The main findings are that the inflow of foreign direct investment varied at a decreasing rate from 1996 to 2020. The results justify the decreasing rate due to the to the global pandemic and a reduction in mining activities. Further, it was found that overall, FDI leads to economic growth. Although the results show that FDI leads to an improvement in interest, unemployment, and the national saving rate, the impact was not significant. However, the results show that FDI has a significant impact on inflation. Hence, the government should build stronger and also safeguard its relationship with foreign investors, as they are key partners in fostering the economic growth of the country.

Keywords: Foreign Direct Investment, Economic growth, inflation, interest, unemployment and national saving rate

1. Introduction

The fact that FDI has emerged as a key component of the globalization process and has recently overtaken commerce has sparked a tremendous amount of interest in the factors that influence FDI (Almsafir et al, 2011). As a result of this growing interest in

foreign direct investment, numerous theories have been produced (Freckleton et al., 2012; Konig, 2009). However, there was a restricted theoretical framework in the early study on FDI, and theories were produced independently from a trade theory standpoint (Zekiwas, 2012). These theories sought to provide an explanation for why multinational corporations engage in FDI, why certain countries are preferred over others for conducting business, and why certain entrance methods are used.

According to the Heckscher-Ohlin model, capital will relocate to countries where the return on capital is higher and the return on labor is lower since commodities differ in relative factor intensities and countries vary in relative factor abundance (Chika, 2014). Quoc and Thi (2018) expanded on the topic of why capital crosses international boundaries by mentioning variations in the premium incurred due to exchange rate risk. Since they may borrow money with a lower exchange rate risk premium, multinational corporations in countries with stronger currencies have an advantage over local enterprises in nations with weaker currencies (UNCTAD, 2012)

Theoretical and empirical research both show that foreign direct investment (FDI), which is defined as an overseas investment made with the intention of acquiring a lasting interest by an entity based in one economy in the operations of an enterprise based in another economy (Msoni, 2012), can support economic growth. Theoretically, FDI can strengthen the host country's economy by accumulating money via the introduction of new products and foreign technologies as well as by increasing a local knowledge base through the transfer of talents (Elboiashi, 2011). Investing in information technology poses an additional challenge in the journey towards e-procurement implementation (Jama et al., 2024). The majority of these technologies are sourced from foreign markets.

Quoc and Thi (2018) emphasize that by boosting investable capital and technical spillovers, FDI plays a significant role in the economic growth of host nations. World Bank (2016) further argues that FDI represents a potential source for sustainable growth and development due to its alleged capacity to (i) produce technology spillovers, (ii) support human capital formation and development, (iii) aid in host country integration into the global economy, (iv) support the creation of a more competitive business environment, and (v) promote the growth of enterprise. Because FDI is important, this then provides motivation to conduct this study in Zambia.

1.1 Background of the study

For decades, foreign direct investment (FDI) is said to play a vital part in the connection between economic growth and globalization (Wakyereza, 2017). This has seen many countries including developing ones positively embracing this international FDI network (UNCTAD 2015). Experts argue that FDI brings scarce capital and technology, management and entrepreneurship skills from rich to poor countries which in the long run will accelerate growth of the host country (Chea 2011; Sy & Rakotondrazaka 2015; UNCTAD 2015). In the developing world, it is often contended that the possibilities appear endless (Olusanya 2013).

Foreign direct investment (FDI) is defined as a set of investments in which a resident enterprise in one country establishes a long-term interest in another enterprise outside its country borders (OECD, 2016). The Organization for Economic Cooperation and Development (2016) therefore looks at foreign direct investment as establishing a lasting interest by a resident enterprise in one economy (direct investor) in an enterprise (direct investment enterprise) that is resident in an economy other than that of the direct investor. The lasting interest implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the enterprise. The direct or indirect ownership of 10% or more of the voting power of an enterprise resident in one economy by an investor resident in another economy is evidence of such a relationship. Further definitions asset that foreign direct investments (FDI) are the net inflows of investment to acquiring long lasting management interest in an enterprise operating in an economy other than that of the investor (World Bank, 2014).

Many scholars have conducted research on the effect of FDI on various economies and many of them have confirmed a positive effect on various economic indicators such as national output, employment, among others (Rahman, 2015; Tiwari & Mutascu, 2011; Moyo 2013).

Barua (2013) argued that foreign capital inflow supplements the supply of funds and resources for investment, consequently, stimulating capital formation in the recipient economy. They also further note that FDI provides a lot of desirable recipes for growth to an economy such as cheaper facilities of production and manufacturing, new foreign markets and advanced marketing networks, advanced skills, technology and machinery (Egbo et al.2011; Alkhasawneh, 2013). In the same vein, other studies also argue that provided a conducive environment exists, FDI can establish long-term links between

economies, which are strong impetus for economic growth and development (Ghoshal and Saxena, 2012, p.561).

Zambia shares its robust economic growth and capital inflows in the past few years with other Sub-Saharan countries, growth supported by high commodity prices that while declining is still at historical high levels. High commodity prices have induced large foreign direct investment (FDI) flows, mainly in extractive industries but also in services sector, supporting growth. Zambia's mining sector has benefited from FDI, receiving almost 1 billion dollars in 2011 alone. A large gap has emerged between available resources and likely spending in 2013. The government responded with a full range of adjustments, including cutting recurrent spending (such as on travel and motor vehicles), cutting capital projects, and stepping up revenue collection. The government raised fuel prices and reduced maize and fertilizer subsidies, but the medium-term fiscal impact of these initiatives was uncertain. These reforms aimed to create space for expanding better targeted spending programs.

When Zambia's economy was liberalized in 1991, it served two purposes: it encouraged foreign investment in various forms while also allowing for the creation of indigenous private industry. Zambia has been a significant receiver of FDI because of its favorable market access, affordable labor, and wealth of natural resources. Its participation in regional and multinational organizations, such as the Common Market for Eastern and Southern Africa and the World Trade Organization, that allow economic cooperation agreements made market access necessary for it (ZDA 2015). Ndaba (2015) reported that the main aim of accessing FDI in Zambia had been to ensure economic growth.

An increase in the quantity of products and services produced in a nation is a sign of economic growth. Gross Domestic Product (GDP), which estimates yearly output in a specific nation using the domestic production base, is a standard way to measure it. Achieving dynamic growth is much different from merely contributing to economic growth. Although Zambia's economy has been expanding, it has not yet reached the level of expansion that would enable it to take off. It is projected that considerable development will come from the mining sector, on which FDI is heavily concentrated, as the engine of economic expansion. However, after opening its economy to international investment for more than 20 years, Zambia has just recently gained lower middle-income status, with 60% of its population living in poverty and 42% in severe poverty (World Bank 2015).

An unheard-of economic expansion is referred to as growth dynamism or dynamic growth. One that enables a nation to quickly convert into one of the best in the world. The

East Asian Tigers are frequently linked to growth dynamism because of how quickly their economies underwent change. Zambia must adopt a pattern of quick and sustained growth that derives from diverse industrial output and equally diverse exports if it is to catch up to developing and fast-growing economies (Brühlhart et al 2015). Because Zambia has a private sector-led economy (Foreign Private Investment and Investor Perceptions (FPIIP) 2014), which includes foreign investors, it is important to maximize FDI's contribution to economic growth in order to achieve economic growth dynamism. Dependence on the mining industry for the past 25 years has had disastrous effects on the economy. Ironically, 86% of all FDI has gone to the mining industry (Zambia Report 2015). Zambia is Africa's top producer of cobalt and copper, claims ZDA (2015). Zambia has not, however, benefited from the type of competitive edge that promotes quick economic expansion.

1.2 Statement of the problem

Zambia has been able to attract foreign investors over the last decade because of its peaceful nature, and this has led to an increase in FDI (World Bank, 2021; ZDA, 2020). However, the country continues to report high unemployment rates (increase from 7.85% to 13.20 in the decade) and a decrease in GDP from 25.5 billion dollars to 21.2 billion dollars in the last decade (Trading economies, 2022). This is an indication of poor economic performance, thus the need to explore how FDI has influenced the economy of Zambia.

Although most growth theories acknowledge the contribution of FDI to investment and growth (Olusanya, 2013), empirical evidence indicates that the development role is controversial (Agrawal, 2011). For example, a number of studies have noted a positive relationship between FDI and economic growth (Egbo et al., 2011; Alkhasawneh, 2013; Moyo, 2013); other authors have found a negative relationship between FDI and economic growth (Attari et al., 2011). This creates controversies in the results, thus creating contradictory evidence that needs to be closed in the Zambian context.

1.3 Research Questions

Based on the aim of the study, the following are the research questions:

- 1) What has been the trend of FDI in Zambia from 1996 to 2020?

- 2) What is the effect of FDI on economic growth in Zambia in the period under review?
- 3) What are the ways to enhance economic growth in Zambia through FDI inflows?

2. Literature Review

2.1 Literature on Foreign Direct Investments

Foreign Direct Investment (FDI) is characterized as an investment carried out by a resident entity within one economy with the purpose of obtaining a lasting stake in a company situated in another nation (UNCTAD, 2016, pp-17). Furthermore, the net capital inflows into a firm that operates in a country other than that of the investors are termed as foreign direct investments (FDI) (World Bank, 2014). The importance of FDI inflows has been debated for various reasons, such as the enhancement of the labor market, heightened competitiveness, and the transmission of knowledge through training (Mawila & Nyambe, 2015). These aspects have prompted developing countries to heavily rely on foreign direct investment as an external funding source. Consequently, numerous nations have devised strategies to encourage FDI inflows. Moreover, FDI provides developing countries with an opportunity to reduce their reliance on external assistance, thereby bolstering the state's independence concerning donor policies (Younus et al. 2014).

Younus et al. (2014) contend that trade openness is also perceived as a significant mechanism through which a host country can capitalize on the positive impacts of FDI. Hence, developing nations are urged to continue liberalizing trade to maximize the benefits from foreign investment. Highlighting the pivotal role of trade openness in the growth effects of FDI, Ndaba (2015) observe that FDI employs sophisticated integration strategies that require unrestricted imports of intermediate goods at all stages of the production process.

While FDI offers numerous advantages, some studies suggest that it can also entail certain drawbacks due to its crowding-out effects (Yusof & Hoong, 2012). For example, the activities of multinational corporations may displace local firms that struggle to compete effectively against foreign counterparts, hindering the growth of domestic enterprises. According to Dogan (2014), the substantial fixed costs deter several governments and local firms in less developed countries from undertaking large investments, financing research and development, or efficiently exploiting natural resources. It is also proposed that many developing nations have streamlined their FDI processes by offering substantial tax incentives and subsidies to attract more FDI

(Mavrotas et al., 2011). Hence, FDI should complement local businesses rather than displacing them to positively impact economic growth.

OECD (2018) posits that FDI serves as a potential avenue for sustainable growth and development owing to its purported ability to (i) facilitate technology spillovers, (ii) foster the formation and enhancement of human capital, (iii) assist in the host country's integration into the global economy, (iv) foster the creation of a more competitive business environment, and (v) stimulate enterprise growth. Conversely, UNCTAD asserts that FDI is a more dependable source of financing as it is grounded on a long-term evaluation of the recipient country's economic prospects, availability of raw materials, and market access (UNCTAD, 2016).

Foreign direct investment (FDI) is crucial for Africa, especially in the sub-Saharan area where the majority of nations have weak financial markets. The majority of the nations in this area have struggled to mobilize enough internal resources to satisfy their domestic investment needs as a result of this issue. FDI is therefore seen as a crucial tool for acquiring access to foreign resources to fill the funding gap and complement local investments, fostering growth, job creation, and the reduction of poverty in host nations (UNCTAD, 2013). Due to the perceived advantages of FDI, the majority of African nations have implemented legislative changes to lower barriers and draw in these investments (Kargbo, 2017).

The disputes on the African continent have generally focused on whether FDI is mostly drawn into big and/or resource-rich nations, which has led to a rising debate concerning the reasons pushing FDI to emerging economies (see UNCTAD, 2013). These ideas have gained traction in African debate over the past ten years, especially in light of growing market economies like China and India's high demand for natural resource extractive goods (see Brautigam and Gallagher, 2014; Brown, 2012).

2.2 Literature on economic growth

Economic growth theory is frequently used to explain steady-state or long-run growth as measured by the percentage rise in national income or another standard-of-living indicator, such as the HDI (human development index) (Sengupta & Titus, 2011). Supriyanto (2016) claims that one indicator of the health or level of economic activity in a nation is economic growth. Gi et al., (2019) therefore draws the conclusion that the key to understanding growth theories is to understand which variables, as well as their dynamic behavior and pertinent parameters, account for the growth in GDP. On the other hand, Pitak (2015) argues that while growth is still the key indicator of wealth, it does not always reflect the true level of a population's living standards. He therefore proceeded to use

economic growth as a metric for describing the country's economic processes; however, this has certain disadvantages (Pitak, 2015). Economic growth is an improvement in a country's economic position over a previous period by taking into account a number of metrics pertaining to the residents' financial distresses.

Sukirno (2017) asserts that economic growth is defined as a rise in GDP (Gross Domestic Product), which disregards population growth. According to Sukirno (2017), wealthy countries typically use the word "economic growth" to describe an increase in GDP, whereas developing nations use the term "economic development" to describe the same phenomenon. Numerous factors, such as a nation's state income, per capita income, labor force size, unemployment rate, and decline in poverty levels, are used to measure economic progress in a nation (Supriyanto, 2016). Jati Sengupta (2011) asserts that economic growth has two aspects: the first is the output side, with consuming as the end-use, and the second is the cost side, with the cost implications of the various resources employed in the economy's production and distribution processes.

Economic growth has indicators that reveal whether the country is doing well or not. According to the OECD (2015), some of the indicators of economic growth are national saving, production levels, foreign trade and prices of goods. On the other hand, Garry and Villarreal (2016) pointed out that economic growth can be measured using social and economic indicator. Social growth includes life expectancy, levels of distribution, gender equality and access to basic needs while economic indicators include employment rate, interest, inflation, trade, GDP and GNP.

Determinants of economic growth

The study reveals that trade, demography, monetary policy, physical capital, fiscal policy, human capital, and financial as well as technological aspects are the key macroeconomic determinants of economic growth in developed nations (Chirwa & Odhiambo, 2017). It is widely acknowledged that factors related to productivity (technological advancements) and state factors such as the accumulation of physical capital (investment) and human capital stock play a crucial role as macroeconomic determinants of economic growth in nearly all countries (World Bank, 2015).

Bhaskara-Rao and Hassan (2011) conducted a study on the factors influencing the long-term economic growth of Bangladesh from 1970 to 2007. The results, obtained through an Autoregressive Distributed Lag technique, indicated that government expenditure and inflation had negative and significant relationships with economic growth,

while reforms implemented since the 1980s, foreign direct investment (FDI), money supply, and trade openness were positively and significantly correlated with it.

Examining 36 African nations from 1980 to 2009, [Chang and Mendy \(2012\)](#) explored the empirical link between openness and economic growth. Utilizing a panel fixed effects regression model, the findings revealed positive and significant associations between economic growth and foreign aid, exports, imports, employment, and trade openness. Conversely, foreign direct investment, domestic investment, and gross national savings exhibited negative and significant relationships. The breakdown of foreign aid by region displayed varying outcomes, with positive strong correlations in the Middle and North African regions but adverse and significant correlations in the West and East African regions.

[Anyanwu \(2014\)](#) employed an empirical growth model to analyze the variables impacting economic growth in China and Africa. The study demonstrated that increased levels of domestic investment, net official aid, secondary school enrollment, the metal price index, government effectiveness (governance), and urban population were positively and significantly linked to economic growth in African countries during the 1996–2010 period. In the case of China, time series data spanning 1984–2010 were utilized. The findings in China indicated significant positive correlations between economic growth and domestic investment and trade openness, whereas official development assistance, population growth, inflation, credit to the private sector, agricultural material prices, and oil price indices exhibited significant negative correlations with economic growth.

2.3 Empirical studies in Africa

[Nosseyamba \(2012\)](#) conducted a study on FDI in the Sub Sahara African (SSA) region. The findings demonstrate that an improved business climate enhances FDI inflow into the host nation. He argues that in order to attract FDI, changes must enhance infrastructure, remove corruption, uphold the law, and put an end to sociopolitical violence. The study under review chose to focus on the determinants of FDI and not the effect it has on the economy.

[Adefabi \(2011\)](#) discovered that FDI has no impact on economic development. [Abefabi](#) demonstrates both FDI and the interaction term between FDI and human capital affected economic development favorably but not significantly from 1970 to 2006 using panel data of 24 SSA nations. According to the research, nations with worse beginning labor skills are likely to see lower FDI inflows. In this study, one identified weakness is the data analyzed was from 1970 to 2006 implying that more recent discoveries are required.

For Sub-Saharan Africa, [Abaidoo \(2012\)](#) looked at the dynamic trivariate causal link between economic growth, savings, and FDI. The study used aggregate data from 1977 to 2010 using an error correction modeling (ECM) methodology. The analysis discovered two causal relationships: one running unidirectional from FDI and savings to GDP growth, and the other running unidirectional from GDP growth and savings to growth in FDI inflow.

[Gohou and Soumare \(2012\)](#) use a sample of 52 African nations from 1990 to 2007 to explore the connection between FDI and wellbeing (the elimination of poverty) in Africa. Unlike the majority of previous research, this one employed the Human Development Index and FDI net inflows per capita as its main factors. The outcome suggests that FDI has a favorable and considerable impact on reducing poverty in Africa. It was made clear that FDI has a more significant influence on wellbeing in less developed nations than it does in developed nations. In Central and East Africa, FDI has a favorable and considerable impact on reducing poverty, but this impact is not as great in North and Southern Africa. In West Africa, the relationship was found to be unclear. The results in this study were controversial given that each region revealed different results. Therefore, suffice to say that the results could be different at country level thus the need to conduct this study in Zambia. Moreover, the data used for analysis is not recent (1990 to 2007). Using a panel of 46 nations from the years 2000 to 2007 and a dummy variable for oil exporters, [Loots and Kabundi \(2012\)](#) give the same finding. Similar to the previous study, [Anyanwu \(2012\)](#) uses a dummy variable for oil exporters for a sample of 53 African countries between 1996 and 2008 and discovers a significant positive impact of natural resources on FDI to African nations. One identified weakness is the data analyzed was from 2000 to 2007 implying that more recent discoveries are required.

Research on the effect of FDI on economic growth in Zimbabwe was conducted by [Moyo \(2013\)](#). In that study, Moyo employed a multiple regression model to link foreign direct investment to the gross domestic product as well as other macroeconomic variables like government spending and individual saving. It was discovered that FDI had a very significant positive impact on economic growth in the nation. In addition, foreign direct investment and economic development in Nigeria were examined using a Granger causality test by [Egbo et al. \(2011\)](#). The study found a positive relationship between FDI and GDP, suggesting that FDI stimulated economic growth in Nigeria during the time period covered by the study. The study used annual time series variables covering a period of 27 years from 1981 to 2007. From the research conducted by [Moyo \(2013\)](#) and [Egbo et al. \(2011\)](#), both were not conducted in Zambia. Although the countries are both in Africa just like Zambia, they have different economic and cultural values and these limits generalizing the results to Zambia.

2.4 Empirical studies from outside Africa

Mohammad (2014) looked at how the FDI influx affected the GDP and trade balance of four ASEAN nations and found that FDI was positively linked to trade which in turn leads to economic growth. Additionally, Ahmad (2013) empirically examined the association between FDI inflow, trade balance, and Pakistan's GDP growth rate. It was found FDI leads a positive economic growth. Mohanasundaram and Karthikeyan (2015) supported the findings in prior research by revealing that there is a correlation between high FDI influx and GDP growth rate.

Unlike the majority of the research which claims that there is a positive relationship between FDI and economic indicators, some studies don't have a conclusive answer as to how FDI might boost future GDP. Rahman (2015) used yearly data from Bangladesh to objectively examine a negligible impact of FDI on the growth rate of GDP. Therefore, this study produces controversial results which go against a majority of the research published.

For the years 1970–2008, Mohamed et al. (2013) employed the VECM to examine the short- and long-term causal relationships between FDI, domestic investment, and economic development in Malaysia. According to the empirical findings, there is no causal link between FDI and economic growth in the short- or long-term. On the other hand, it was discovered that domestic investment and GDP had a bidirectional causal connection. The researchers suggested that the government instead concentrate on providing incentives for local investors given that this study was performed against the backdrop of Malaysia's government's strong attempts to attract FDI.

The influence of FDI on Haiti's economic growth was examined by Chen et al. (2013) using a system of two simultaneous equations that is approximated using the two-stage least squares (2SLS) technique. The analysis of the 1980–2010 data set revealed that FDI has no impact on economic growth.

The Granger causality test, which uses error correction, was recently utilized by Acaravci and Ozturk (2012) to analyze the causal relationships between FDI, exports, and GDP in 10 transitional European countries. GDP at constant prices, exports at constant prices, and the ratio of FDI to GDP were the variables utilized. Quarterly data from 1994 to 2008 were used in the study. In four out of ten nations taken into consideration, the findings of the causality tests indicated evidence of both a long-run and short-run causal link between FDI, export, and economic development. The study came to the conclusion that the nation's ability to advance in terms of economic growth will depend on its FDI promotion policies.

2.5 Variables and Hypotheses

This study employed a conceptual framework based on the Harrod-Domar growth model, with the primary goal of demonstrating whether Zambia's cumulative foreign direct receipts from 1996 to 2020 time frame had a meaningful influence on the country's economic growth. The model predicts that foreign direct inflows itself should have an effect on the nation's economic growth. Thus, the independent variable is the FDI and the four dependent variables are; interest rate, inflation rate, unemployment rate and national savings rate. Here is how the conceptual framework is presented:

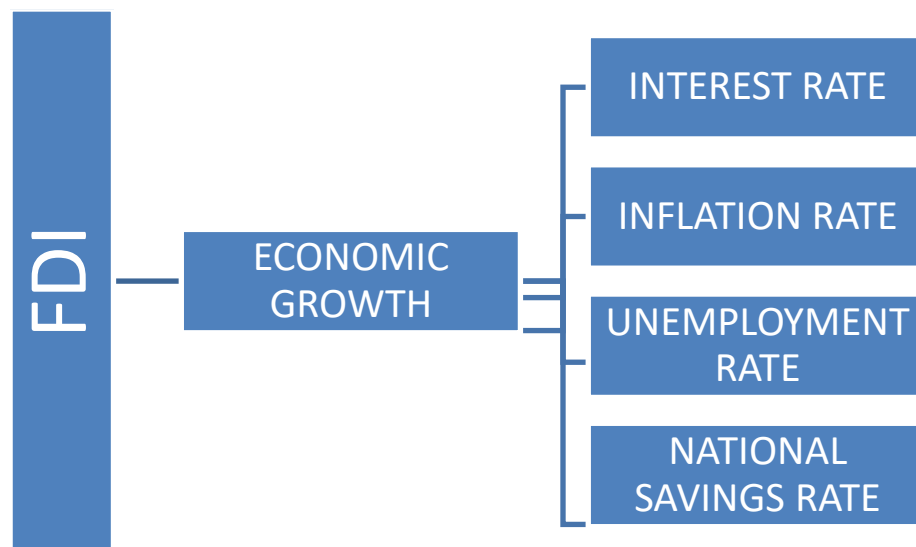


Figure 1: Conceptual Framework

In the study, economic growth implied changes in unemployment rate, GDP, national saving, interest and inflation rates. Therefore, the following hypotheses were tested:

- H₀:** FDI inflows as share of GDP have no positive influence on the unemployment rate in Zambia.
- H₁:** FDI inflows as share of GDP have a positive influence on the unemployment rate in Zambia.
- H₀:** FDI inflows as share of GDP have no positive influence on the national saving rate in Zambia.
- H₂:** FDI inflows as share of GDP have a positive influence on the national saving rate in Zambia.
- H₀:** FDI inflows as share of GDP have no positive influence on the interest rate in Zambia.

H₃: FDI inflows as share of GDP have a positive influence on the interest rate in Zambia.

H₀: FDI inflows as share of GDP have no negative influence on the inflation rate in Zambia.

H₄: FDI inflows as share of GDP have a negative influence on the inflation rate in Zambia.

3. Research Methodology

3.1 Philosophy, approach, design, sample size and data sources

The positivism research philosophy was adopted with a deductive research approach and utilized a causal/ correlational research design

Unit of analysis-country and population of the study-annual records with sample, 1996-2020. Secondary data was used from sources such as UNCTAD, World banks world development indicators, IMF, OECD etc.

3.2 Data Analysis

Time series annual data from 1996-2020 was used and Multiple regression model applied to the data. To check for stationarity on the time series, Unit root tests were employed. Skewness, Kurtosis and the Jarque-Bera tests were used as indicators of Normality.

Time series analysis was used to test the hypotheses with E views 10 employed to estimate the autoregressive distributed lag (ARDL). The analyzed data included; FDI as a percentage of GDP, national savings, inflation, interest and unemployment rate.

4. Results and Discussion

4.1 model 1- interest rate

In the present model, FDI served as the independent variable, whereas the interest rate functioned as the dependent variable. Both FDI and interest rate exhibited stationarity at the 1st difference level. The application of unit root tests to the first-differences of each series conclusively rejects the notion that the data are stationary at the 1ST difference I(1), a crucial consideration for the valid implementation of the bounds test.

The utilization of "Bounds Tests" enables the examination of the presence of long-term relationships within a set of time-series data, some of which may display stationarity, while others may not. The null hypothesis posits the absence of long-term relationships

between the variables under study, specifically FDI and interest rate. The execution of the COINTEGRATING FORM AND BOUNDS TEST in EViews yields the subsequent results:

Table 1: Bounds test-interest rate

ARDL Long Run Form and Bounds Test
 Dependent Variable: D(INTEREST_RATE)
 Selected Model: ARDL(1, 0)
 Case 2: Restricted Constant and No Trend
 Date: 01/24/23 Time: 16:44
 Sample: 1996 2020
 Included observations: 24

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.665854	1.602144	0.415602	0.6819
INTEREST_RATE(-1)*	-0.330724	0.156611	-2.111761	0.0469
FDI___OF_GDP**	0.159791	0.213921	0.746963	0.4634

* p-value incompatible with t-Bounds distribution.
 ** Variable interpreted as $Z = Z(-1) + D(Z)$.

Levels Equation Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI___OF_GDP	0.483156	0.730077	0.661787	0.5153
C	2.013319	4.241554	0.474665	0.6399

EC = INTEREST_RATE - (0.4832*FDI___OF_GDP + 2.0133)

F-Bounds Test				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	2.218964 1	Asymptotic: n=1000		
		10%	3.02	3.51
		5%	3.62	4.16
		2.5%	4.18	4.79
Actual Sample Size	24	Finite Sample: n=35		
		10%	3.223	3.757
		5%	3.957	4.53
		1%	5.763	6.48
		Finite Sample: n=30		
		10%	3.303	3.797
		5%	4.09	4.663
		1%	6.027	6.76

Table 1 illustrates that the F-statistic pertaining to the Bounds Test is 2.219, which does not surpass the 5% critical threshold for the lower boundary significantly. Consequently, the null hypothesis (H0) is upheld, indicating "No Long-Run Relationship between FDI and interest rate," while rejecting the alternative hypothesis (Ha) suggesting a "Long run relationship between FDI and interest rate." The coefficients in the long-run derived from the co-integrating equation are presented at the conclusion of the table, accompanied by their respective standard errors, t-statistics, and p-values. Specifically, the table indicates that a 1% augmentation in FDI results in a 0.483% escalation in the interest rate. Ultimately, the overall deduction drawn is that there exists inadequate substantiation to confirm the presence of a long-term association between FDI and interest rate ($p > 0.05$).

4.2 Model 2-inflation rate

The quantitative dimension of the research commences with presenting descriptive statistics for the variables utilized in the empirical estimation of the probit model. The examination of six factors focuses on their influence on the probability of taxpayers submitting tax returns on time, encompassing perceptions of economic efficiency, administrative simplicity, equity, flexibility, certainty, and political responsibility associated with the fiscus. Each factor was assessed on a 5-point Likert scale ranging from 1 for strongly disagree to 5 for strongly agree. The dependent variable, timely return submission, was represented by 0 for late submission and 1 for early or timely submission. The mean of the dependent variable was 0.509, indicating a slightly higher likelihood of timely submissions by taxpayers. With a standard deviation of 0.501, the sample of 159 exhibited considerable dispersion regarding timely return submissions. The skewness of the distribution displayed an almost symmetrical yet slightly negative pattern, while the kurtosis value suggested a flat peak around the distribution's center. Concerning the factors predicting timely tax return submission, economic efficiency had a mean score of 3.006. Factors scoring above the median of 3 included certainty (3.031) and political responsibility (3.126). Conversely, administrative simplicity (2.874), equity (2.855), and flexibility (2.975) scored slightly below 3. These factors demonstrated approximately symmetrical distributions, with skewness measures ranging from -0.067 to +0.097. The kurtosis values for all six factors indicated relatively flat peaks around the distributions' centers.

Table 2: Bounds test-inflation rate

ARDL Long Run Form and Bounds Test
 Dependent Variable: D(INFLATION_RATE)
 Selected Model: ARDL(1, 4)
 Case 2: Restricted Constant and No Trend
 Date: 01/24/23 Time: 17:05
 Sample: 1996 2020
 Included observations: 21

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	17.64111	5.600094	3.150145	0.0071
INFLATION_RATE(-1)*	-0.425611	0.125311	-3.396430	0.0043
FDI_OF_GDP(-1)	-2.208173	0.846141	-2.609700	0.0206
D(FDI_OF_GDP)	-0.263194	0.373648	-0.704389	0.4927
D(FDI_OF_GDP(-1))	2.508547	0.841921	2.979550	0.0099
D(FDI_OF_GDP(-2))	1.820690	0.714583	2.547905	0.0232
D(FDI_OF_GDP(-3))	1.222164	0.482368	2.533675	0.0239

* p-value incompatible with t-Bounds distribution.

Levels Equation Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI_OF_GDP	-5.188237	2.026194	-2.560582	0.0226
C	41.44887	11.22361	3.693008	0.0024

EC = INFLATION_RATE - (-5.1882*FDI_OF_GDP + 41.4489)

F-Bounds Test		Null Hypothesis: No levels relationship		
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	4.713751 1	10%	3.02	3.51
		5%	3.62	4.16
		2.5%	4.18	4.79
		1%	4.94	5.58
Actual Sample Size	21	Asymptotic: n=1000		
		10%	3.223	3.757
		5%	3.957	4.53
		1%	5.763	6.48
		Finite Sample: n=35		
		10%	3.303	3.797
		5%	4.09	4.663
		1%	6.027	6.76

Table 2 illustrates that the F-statistic of the Bounds Test amounts to 4.713, surpassing the critical value of 5% for the lower bound. Consequently, the null hypothesis (H0) is refuted, suggesting the absence of a long-run relationship between Foreign Direct Investment (FDI) and inflation rate, and the alternative hypothesis (Ha) is embraced, indicating a long-term association between FDI and inflation rate. Additionally, the table indicates that a 1% increment in FDI results in a 5.188% reduction in the inflation rate. In conclusion, the findings provide substantial evidence supporting the existence of a long-term correlation between FDI and inflation rate ($p < 0.05$).

4.3 Model 3-unemployment rate

In this particular framework, the exogenous variable examined was Foreign Direct Investment (FDI) whereas the endogenous variable considered was the rate of employment. Both FDI and the employment rate exhibited stationarity at the first difference level. The employment of unit root examinations on the initial differences of each dataset results in a decisive dismissal of the proposition that the data demonstrates stationarity at the first difference, denoted as I (1), a crucial aspect for the valid implementation of the subsequent bounds test.

The utilization of the "Bounds Tests" enables an evaluation of the existence of enduring associations when dealing with a set of time-series data, some of which may exhibit stationarity whereas others may not. One primary objective of formulating an Autoregressive Distributed Lag (ARDL) model is to serve as a foundation for the execution of the "Bounds Test". The fundamental assumption posits the absence of a long-term connection between the variables at hand; specifically, FDI and the rate of unemployment. The execution of the COINTEGRATING FORM AND BOUNDS TEST within the EViews software yields the subsequent results:

Table 3: Bounds test-unemployment rate

ARDL Long Run Form and Bounds Test
 Dependent Variable: D(EMPLOYMENT_RATE)
 Selected Model: ARDL(3, 4)
 Case 2: Restricted Constant and No Trend
 Date: 01/24/23 Time: 17:17
 Sample: 1996 2020
 Included observations: 21

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.259069	2.658641	2.730368	0.0183
EMPLOYMENT_RATE(-1)*	-0.331353	0.142778	-2.320746	0.0387
FDI__OF_GDP(-1)	-0.607255	0.266917	-2.275075	0.0421
D(EMPLOYMENT_RATE...)	0.640395	0.174304	3.674021	0.0032
D(EMPLOYMENT_RATE...)	-0.320466	0.183298	-1.748336	0.1059
D(FDI__OF_GDP)	0.023265	0.120762	0.192652	0.8505
D(FDI__OF_GDP(-1))	0.406807	0.278642	1.459965	0.1700
D(FDI__OF_GDP(-2))	0.518661	0.228789	2.266988	0.0427
D(FDI__OF_GDP(-3))	0.436727	0.152952	2.855309	0.0145

* p-value incompatible with t-Bounds distribution.

Levels Equation Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI__OF_GDP	-1.832656	0.886262	-2.067849	0.0609
C	21.90738	4.909572	4.462178	0.0008

EC = EMPLOYMENT_RATE - (-1.8327*FDI__OF_GDP + 21.9074)

F-Bounds Test				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	2.563781 1	Asymptotic: n=1000		
		10%	3.02	3.51
		5%	3.62	4.16
		2.5%	4.18	4.79
Actual Sample Size	21	Finite Sample: n=35		
		10%	4.94	5.58
		5%	3.223	3.757
		1%	3.957	4.53
		Finite Sample: n=30		
		10%	5.763	6.48
		5%	3.303	3.797
		1%	4.09	4.663
		1%	6.027	6.76

Table 3 illustrates that the F-statistic pertaining to the Bounds Test is 2.564, failing to surpass the 5% critical threshold for the lower limit. Consequently, the null hypothesis (H0) is upheld, suggesting the absence of a long-term relationship between Foreign Direct Investment (FDI) and employment rate, and the alternative hypothesis (Ha) proposing the existence of such a relationship is not embraced. Additionally, the data indicates that a mere 1% rise in FDI results in a 1.832% reduction in the employment rate. Ultimately, the

findings do not provide adequate support to affirm the presence of a sustained association between FDI and employment rate ($p > 0.05$).

4.4 Model 4-national savings rate

In this model, the independent variable was FDI while the dependent was national saving. Both FDI and national saving were stationary at 1st difference. Applying the unit root tests to the first-differences of each series leads to a very clear rejection of the hypothesis that the data are stationary at 1ST difference I(1), which is important for the legitimate application of the bounds test below.

The "Bounds Tests", allow us to see if long-run relationships are present when we have a group of time-series, some of which may be stationary, while others are not. One of the main purposes of estimating an ARDL model is to use it as the basis for applying the "Bounds Test". The "Bounds Tests", confirms if long-run relationships are present when there is a group of time-series, some of which may be stationary, while others are not. The null hypothesis is that there is no long-run relationship between the variables; in this case, FDI and employment rate. Performing the COINTEGRATING FORM AND BOUNDS TEST in EVIEWS provides the following output:

Table 4: Bounds test-national saving rate

ARDL Long Run Form and Bounds Test
Dependent Variable: D(NATIONAL_SAVING)
Selected Model: ARDL(1, 0)
Case 2: Restricted Constant and No Trend
Date: 01/24/23 Time: 17:42
Sample: 1996 2020
Included observations: 24

Conditional Error Correction Regression				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.218477	2.149000	1.497662	0.1491
NATIONAL_SAVING(-1)*	-0.227309	0.151125	-1.504112	0.1474
FDI__OF_GDP**	0.049710	0.120661	0.411985	0.6845

* p-value incompatible with t-Bounds distribution.
** Variable interpreted as $Z = Z(-1) + D(Z)$.

Levels Equation Case 2: Restricted Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI__OF_GDP	0.218691	0.481970	0.453744	0.6547
C	14.15904	2.633221	5.377081	0.0000

EC = NATIONAL_SAVING - (0.2187*FDI__OF_GDP + 14.1590)

F-Bounds Test				
Null Hypothesis: No levels relationship				
Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic k	0.810045 1	10%	3.02	3.51
		5%	3.62	4.16
		2.5%	4.18	4.79
		1%	4.94	5.58
Actual Sample Size	24	Finite Sample: n=35		
		10%	3.223	3.757
		5%	3.957	4.53
		1%	5.763	6.48
		Finite Sample: n=30		
		10%	3.303	3.797
		5%	4.09	4.663
		1%	6.027	6.76

Table 4 above shows that the F-statistic for the Bounds Test is 0.810, and this does not clearly exceed the 5% critical value for the lower bound. Accordingly, the H₀ is not rejected of "No Long-Run Relationship between FDI and national savings and do not accept the H_a of "Long run relationship between FDI and national savings". The table also shows that a 1% increase in FDI leads to a 0.219% increase in national savings. The overall conclusion is that there is insufficient evidence to conclude that there is a long run relationship between FDI and national savings ($p > 0.05$).

4.5 Summary of hypothesis tested

Based on the results from all the four models, the table below shows a summary of the results.

Table 5: Summary of hypotheses

Hypothesis	P-value	Decision	Conclusion
FDI inflow to employment rate	0.06	Do not reject the H ₀	FDI has no influence on employment rate
FDI inflow to national saving rate	0.654	Do not reject the H ₀	FDI has no influence on the national saving rate
FDI inflow to interest rate	0.515	Do not reject the H ₀	FDI has no influence on interest rate
FDI inflow to inflation rate	0.022	reject the H ₀	FDI has an influence on inflation rate

5. Conclusions

The following were the conclusions made from the research findings;

- For the period 1996 to 2020, FDI had no significant effect on the annual interest rates in Zambia.
- For the period 1996 to 2020, FDI had no significant effect on the annual unemployment rates in Zambia
- For the period 1996 to 2020, FDI had no significant effect on the national saving rates in Zambia.
- For the period 1996 to 2020, FDI had significant effect on the annual inflation rates in Zambia

6. Policy implication and recommendations

The results of this study point to variables that have a significant impact on Zambia's economic development. It is vital to draw the conclusion that these elements can effectively spur growth after using four broad pillars (economic structure, governance, infrastructure, and human capital) to support the various theories and also to capture some of the variables employed in the empirical research. Therefore, a variety of policy implications have been drawn from the study's findings and contributions. Some of the research's policy implications may overlap because of the nature of the study.

First, it is observed that from 1996 to 2010, liberation motivated the increase in FDI values. On the other hand, between 2010 and 2020, economic performance played a role in the reduction of FDI in the country. It is important that the government monitors both. Secondly, in the last decade, the mining sector has faced a number of challenges in terms of abundance of the resources. This has also affected the FDI values in the country. Therefore, government needs to develop policies that support inducing FDI in other sectors such as agriculture, manufacturing and energy. Although there is some investment in the sectors, it is not heavily done as it was being done in the mining sector.

Second, the results showed that FDI does not significantly influence unemployment rates. Yet the coefficient showed that the relationship is negative giving an indication that FDI reduces unemployment rates. One explanation of lacking a significant effect on unemployment rates could be that in most FDI projects, the investing country comes with its specialized labor. Therefore, the government needs to invest in learning facilities to ensure that the country has enough specialized human resource in technical areas such as actuarial science, engineering etc.

Finally, the results showed that FDI reduces the inflation rates in the country more significantly than any of the variables. A reduction in the inflation rate of a country is a one of the key indicators of economic growth. Therefore, it is imperative the government attracts more FDI investments by creating an enabling environment for investors through ensuring political and economic stability in the country among others.

References

- Abaidoo, R., 2012. Economic growth, regional savings and FDI in Sub-Saharan Africa: Trivariate causality and error correction modeling approach. *International Journal of Economics and Finance*, 4(11), pp.40-50.
- Acaravci, A. and Ozturk, I., 2012. Foreign direct investment, export and economic growth: Empirical evidence from new EU countries. *Romanian Journal of Economic Forecasting*, 2(2), pp.52-67.

- ADB. 2011. Seychelles Country Strategy Paper 2011-2015. Tunis-Belvedere, Tunisia.
- ADB. 2012. Namibia 2012, Africa Economic Outlook. AfDB, OECD, UNDP, UNECA. Available at: www.africaneconomicoutlook.org/en(accessed on 20/06/2022).
- Adefabi, R. A. (2011). Effects of FDI and human capital on economic growth in Sub-Saharan Africa. *Pakistan journal of social sciences*, 8(1), 32-38.
- Alkhasawneh, M. F. (2013). The granger causality relationship between foreign direct investment (FDI) and economic development in the state of Qatar. *Applied Mathematics & Information Sciences*, 7(5), 1767.
- Almsafir, M. K., Nor Shaari, M., & Al-Shibami Ahmed, H. (2011). Locational Related Determinants of Foreign Direct Investment in Yemen: Dunning's Eclectic Paradigm Perspective. *Australian Journal of Basic and Applied Sciences*, 5(8), 394-404.
- Barua, R., 2013. A study on the impact of FDI inflows on exports and growth of an economy: evidence from the context of Indian economy. *Researchers World*, 4(3), p.124.
- Bhatt, P. (2011). A causal relationship between exports, foreign direct investment and income for Malaysia. *Journal for Global Business Advancement*, 4(2), 155-166, 4(2), 155-166.
- Brautigam, D. and K. P. Gallagher. (2014). Bartering Globalization: China's Commodity Backed Finance in Africa and Latin America. *Global Policy* 5, no. 3: 346–52.
- Brown, K. (2012). China's Overseas Investment in the European Union. *The International Spectator*, 47(2), 74-86.
- Brühlhart, M. and Schmidheiny, K., 2015. Estimating the rivalness of state - level inward FDI. *Journal of Regional Science*, 55(1), pp.139-148.
- Cassimon, D., Fadare, O. and Mavrotas, G., 2021. Development finance, governance quality and their impact on food and nutrition security in Sub-Saharan Africa. *Review of Development Finance*, 11(2), pp.1-17.
- Central Statistical Office. (2011). *External Trade Statistics Bulletin*. Lusaka: CSO.
- Chang, C. C., & Mendy, M. (2012). Economic growth and openness in Africa: What is the empirical relationship?. *Applied Economics Letters*, 19(18), 1903-1907.
- Chea, A. C. (2011). Global private capital flows and development finance in Sub-Saharan Africa: Exemplary performers, lessons for others, and strategies for global competitiveness in the twenty-first century. *Journal of Sustainable Development*, 4(5), 18-31.

- Chen, C., Sheng, Y., & Findlay, C. (2013). Export Spillovers of FDI on China's Domestic Firms. *Review of International Economics*, 21(5), 841-856.
- Chika, O. G. (2014). Determinants of foreign direct investment into Sub-Saharan Africa and its impact on economic growth. PhD Research Report, Bournemouth University, United Kingdom.
- Chirwa, T. G., & Odhiambo, N. M. (2017). Sources of economic growth in Zambia: An empirical investigation. *Global Business Review*, 18(2), 275-290.
- Dogan, E. (2014). Foreign direct investment and economic growth in Zambia. *International journal of economics and finance*, 6(1), 148-153.
- Egbo, O., Onwumere, J & Okpara, G. (2011). Foreign direct investment and economic growth in Nigeria: a granger causality analysis. *International journal of current research* 3(11), pages 225-232.
- Elboiashi, H. A. (2011). The effect of FDI and other foreign capital inflows on growth and investment in developing economies (Doctoral dissertation, University of Glasgow).
- fDi Intelligence. 2013. fDi Intelligence Website. Available at: <http://www.fdiintelligence.com/> (accessed June 20, 2022).
- Freckleton, M., Wright, A., & Craigwell, R. (2012). Economic growth, foreign direct investment and corruption in developed and developing countries. *Journal of economic studies*, 39(6), 639-652.
- Ghoshal, M., & Saxena, S. (2012). Role of Foreign Direct Investment in Indian Small Scale Industries. *International Journal of Management, IT and Engineering*, 2(5), 560-575.
- Gohou, G., & Soumaré, I. (2012). Does foreign direct investment reduce poverty in Africa and are there regional differences?. *World development*, 40(1), 75-95.
- Jama, E. M., Mwanza, B. G., & Mwanaumo, E. M. . (2024). E-procurement Adoption Barriers encountered by Small and Medium-sized Enterprises (SMEs) in the Republic of South Sudan. *African Journal of Commercial Studies*, 4(1), 48-68.
- Kargbo, S. M. (2017). Foreign direct investment and economic growth in Africa.
- Konig, G. (2009, December). The impact of investment and concentration among food suppliers and retailers in various OECD countries. In *Global Forum on International Investment* (pp. 2-16).

- Loots, E., & Kabundi, A. (2012). Foreign direct investment to Africa, dynamics and challenges. *South African journal of economic and management sciences*, 15(2), 128-141.
- Mahembe, E. and Odhiambo, N.M., 2014. A critical review of FDI inflows and economic growth in low-income SADC countries: prospects and challenges. *Problems and Perspectives in Management*, (12, Iss. 1), pp.7-16.
- Mawila, E. and Nyambe, J.M., 2015. Investigating the impact of FDI on economic growth in Zambia: 1980-2012.
- Mohamed, M. R., Singh, K. S. J., & Liew, C. Y. (2013). Impact of foreign direct investment & domestic investment on economic growth of Malaysia. *Malaysian Journal of Economic Studies*, 50(1), 21-35.
- Mohanasundaram, T., Karthikeyan, P., & Krishnamoorthy, V. (2015). Macroeconomic Dynamics of Foreign Institutional Investments in India. *International Journal of Management Research and Reviews*, 5(1), 39.
- Moyo, T., 2013. The impact of foreign direct investment on economic growth: The case of Zimbabwe (2009-2012). *International journal of economics, finance and management sciences*, 1(6), pp.323-329.
- Msoni, J., 2016. Impact of foreign direct investment on Zambia's export performance (1970-2012) (Doctoral dissertation, University of Zambia).
- Mwale, T. (2014). *The determinants of Foreign Direct Investment in Zambia (1990-2011)*. Lusaka: The University of Zambia
- Ndaba, S. (2015). *The Impact of Foreign Direct Investment on Economic Growth in Zambia: A study in the context of a natural resource dependent economy*. International Institute of Social Studies.
- Nosseyamba Benjamin, O. (2012). Foreign direct investment in sub-Saharan Africa. *African Journal of Economic and Sustainable Development*, 1(1), 49-66.
- Olusanya, S. O. (2013). Impact of foreign direct investment inflow on economic growth in a pre and post deregulated Nigeria economy. A granger causality test (1970-2010). *European Scientific Journal*, 9(25).
- Quoc, C. H., & Thi, C. D. (2018). Analysis of foreign direct investment and economic growth in Vietnam. *International Journal of Business, Economics and Law*, 15(5), 19-27.

- Rahman, A. (2015). Impact of foreign direct investment on economic growth: Empirical evidence from Bangladesh. *International Journal of Economics and Finance*, 7(2), 178-185.
- Rao, B. B., & Hassan, G. (2011). Determinants of the long-run growth rate of Bangladesh. *Applied Economics Letters*, 18(7), 655-658.
- Sengupta, D., & Titus, R. (2011). A Comparative Study on Foreign Direct Investment (FDI) in Retail: A Boon or Bane?.
- Supriyanto, Bambang Heri. (2016). Penegakan Hukum Mengenai Hak Asasi Manusia (HAM) Menurut Hukum Positif di Indonesia. *JURNAL AL-AZHAR INDONESIA SERI PRANATA SOSIAL*, 2(3).
- Sy, A. & Rakotondrazaka, F. M. (2015). Private capital flows, official development assistance, and remittances to Africa: Who gets what? Policy Paper 2015-02, Global Economy and Development, Brookings Institution, Washington, DC
- Tiwari, A. K., & Mutascu, M. (2011). Economic growth and FDI in Asia: A panel-data approach. *Economic analysis and policy*, 41(2), 173-187.
- Wakyereza, R. (2017). The impact of foreign direct investment on economic growth, Employment and poverty reduction in Uganda (Doctoral dissertation, Victoria University).
- Younus, H. S., Sohail, A., & Azeem, M. (2014). Impact of foreign direct investment on economic growth in Pakistan. *World Journal of Financial Economics*, 1(1), 2-5.
- Yusof, N. F. M., & Hoong, T. B. (2017). Determinants of Foreign Direct Investment Inflows to Malaysia. *Terengganu International Finance and Economics Journal (TIFEJ)*, 3(2), 59-69.
- Zekiwos, G. T. (2012). Determinants of Foreign Direct Investment Inflows to Sub-Saharan Africa: a panel data analysis (Doctoral dissertation, Master Thesis, Södertörns University).