MOSES HARRIS FLOMO

LINKING FOREIGN DIRECT INVESTMENT AND ECONOMY DEVELOPMENT IN SIERRA LEONE (1980-2020)

MAY, 2023

NEAR EAST UNIVERSITY

INSTITUTE OF GRADUATE STUDIES

DEPARTMENT OF BANKING AND FINANCE

LINKING FOREIGN DIRECT INVESTMENT AND ECONOMY DEVELOPMENT IN SIERRA LEONE (1980-2020)

MSc. THESIS

MOSES HARRIS FLOMO

Nicosia

MAY, 2023

NEAR EAST UNIVERSITY

INSTITUTE OF GRADUATE STUDIES

DEPARTMENT OF BANKING AND FINANCE

LINKING FOREIGN DIRECT INVESTMENT AND ECONOMY DEVELOPMENT (1980-2020)

MSc. THESIS

MOSES HARRIS FLOMO

Supervisor

Prof. Dr. Turgut Tursoy

Nicosia

MAY, 2023

Approval

We attest to having read the thesis submitted by "**MOSES HARRIS FLOMO Titled LINKING FOREIGN DIRECT INVESTMENT AND ECONOMY DEVOLOPMENT IN SIERRA LEONE (1980-2020),"** In addition, we are of the view that it fulfills all of the requirements, both in terms of its breadth and its level of quality, to be a thesis for the Master of Education Sciences degree.

Examining Committee	Name-Surname	Signature
Head of the Committee:	Prof. Dr. Turgut Tursoy	…………………
Committee Member*:	Asst. Prof. Dr. Mehdi Seraj	…………………
Committee Member*	Asst. Prof. Dr. Ala Fathi Assi	…………………
Supervisor:	Prof. Dr. Turgut Tursoy	…………………

Approved by the Head of the Department

14…/5…/2023

………………………

Prof. Dr. Turgut Tursoy

Head of Department

Approved by the Institute of Graduate Studies

……../……/20….

Prof. Dr. Kemal Hüsnü Can Başer

Head of the Institute

NEAR EAST UNIVERSITY INSTITUTE OF GRADUATE STUDIES 1988

Declaration

I thus certify that all information, documents, analysis, and findings included in this thesis were gathered and presented in line with the Near East University Institute of Graduate Studies' academic standards and ethical principles. I have attributed and referenced all non-original sources and data utilized in this study, as required by these standards and regulations.

MOSES HARRIS FLOMO

…../……/20….

Acknowledgment

Without YHWH Elohim's blessing, my time at Near East University would not have been fruitful. Dr. Turgut Tursoy, a dynamic supervisor from the Banking and Finance Department at Near East University, deserves much of the credit for the success of my paper; he caught a few things that weren't quite right in the application I submitted and helped me polish them into a masterpiece. Without his inspiration and direction, this paper never would have been finished. The words of encouragement from my great department chair, Dr. Turgut Tursoy, have taken deep root in my heart, and I am grateful to him for his rapid responses to my inquiries throughout my academic journey.

In addition to Allah, I owe a great debt of gratitude to my sponsors, Mr. Richard Brennan and Mrs. Kim Kilander Brennan, for their unwavering love and encouragement from my earliest memories until today. Since starting out on this path to a master's degree, they have been an invaluable resource, their prompt responses to my many requests have made my time on this island both enjoyable and manageable. I am happy that I can fulfill the desire of my mother Mrs. Nowai Flomo prayers for me by earning a master’s degree. I know she is well pleased.

In addition, I'd like to express my appreciation to my friends and brothers John Kolleh Weetor and Dave Q. Togba for their encouraging words. I owe much to the consistent motivation he provided, and I count myself fortunate to call him a friend. I'd like to express my gratitude to Mr. Clarence D M Zoker for his assistance with this project, whose enthusiasm is appreciated, deserves special recognition; he, together with MUMTAZ ALI is largely responsible for turning this project into a pleasure to work on.

MOSES HARRIS FLOMO

___/____/20____

Abstracts

LINKING FOREIGN DIRECT INVESTMENT AND ECONOMY DEVELOPMENT IN SIERRA LEONE (1980-2020)

MOSES HRRIS FLOMO

MSc. BANKING AND FINANCE

JUNE, 2023 Page,110

This thesis looks at how foreign direct investment and economic growth in Sierra Leone changed from 1980 to 2020. Despite possessing huge quantities of minerals such as iron ore, rutile, and diamonds, as well as vast areas of fertile so il land for agricultural purposes, Sierra Leone is still considered a developing nation. As a result, the country is compelled to depend on foreign direct investment and aid from other countries to sustain its economic activities. Regardless of the fact that the country holds a vast quantity of land that may be utilized for agricultural purposes (this is the case), the entry of foreign direct investment (FDI) into a country generates job opportunities as well as the export of products and services from the home country. Moreover, this form of investment strengthen s financial institutions and increases capital mobility throughout the nation. It is not possible to overstate the importance of foreign direct investment (FDI) in the process of creating multinational corporations as well as domestic or local industries that are improved with the goal of increasing exports and creating new jobs in underdeveloped countries with vast mineral deposits like Sierra Leone. The data for this thesis was gathered from the World Bank data portal. For analysis, the ARDL and Granger causality are utilized. The findings reveal that FDI, currency rate, and interest rate have a beneficial influence on Sierra Leone's economic development both in the short and long run; however, wide money has a negative impact in the long run while having a good impact in the short run. To attract FDI and profit from foreign firms and knowledge transfer, the host nation needs strict regulations protecting foreign companies and enterprises. The government should assist the private sector in obtaining funds from inside the nation in order to engage in beneficial enterprises. A local business environment that promotes healthy competition among domestic and Foreign Service providers with the purpose of boosting operational effectiveness to enable the domestic business sector to participate fully in the global economy, the government should make every effort to raise the degree of openness in foreign commerce.

Keywords: FDI, Economic growth , Exchange rate, interest rate, Foreign Aid

Özet

SIERRA LEONE'DE DOĞRUDAN YABANCI YATIRIM VE EKONOMİK GELİŞİMİ BAĞLAMAK (1980-2020)

MUSA HARRIS FLOMO

MSc. BANKACILIK VE FİNANS

HAZİRAN 2023 Sayfa,110

Bu tez, Sierra Leone'deki doğrudan yabancı yatırımın ve ekonomik büyümenin 1980'den 2020'ye nasıl değiştiğini inceliyor. Demir cevheri, rutil ve elmas gibi büyük miktarlarda minerallere ve tarımsal amaçlar için geniş verimli topraklara sahip olmasına rağmen, Sierra Leone hala gelişmekte olan bir ülke olarak kabul ediliyor. Sonuç olarak, ülke ekonomik faaliyetlerini sürdürmek için doğrudan yabancı yatırıma ve diğer ülkelerden gelen yardıma bağımlı olmak zorunda kalmaktadır. Ülkenin tarımsal amaçlar için kullanılabilecek çok büyük miktarda toprağa sahip olmasına bakılmaksızın (durum budur), bir ülkeye doğrudan yabancı yatırımın (DYY) girişi, ürün ihracatının yanı sıra iş fırsatları yaratır ve ana ülkeden hizmetler. Ayrıca, bu yatırım şekli finansal kurumları güçlendirir ve ülke genelinde sermaye hareketliliğini artırır. gibi geniş maden yataklarına sahip az gelişmiş ülkelerde ihracatı artırmak ve yeni istihdam yaratmak amacıyla geliştirilen yerli veya yerel sanayilerin yanı sıra çok uluslu şirketler yaratma sürecinde doğrudan yabancı yatırımın (DYY) önemini abartmak mümkün değildir. Sierra Leone. Bu tez için veriler Dünya Bankası veri portalından toplanmıştır. Analiz için ARDL ve Granger nedenselliği kullanılmıştır.Bulgular, DYY, döviz kuru ve faiz oranının hem kısa hem de uzun vadede Sierra Leone'nin ekonomik gelişimi üzerinde olumlu bir etkiye sahip olduğunu ortaya koymaktadır; ancak geniş paranın kısa vadede iyi bir etkisi olurken uzun vadede olumsuz bir etkisi vardır. DYY'yi çekmek ve yabancı firmalardan ve bilgi transferinden kar elde etmek için, ev sahibi ülkenin yabancı şirketleri ve işletmeleri koruyan katı düzenlemelere ihtiyacı vardır. Devlet, faydalı girişimlerde bulunmak için özel sektöre ülke içinden fon sağlama konusunda yardımcı olmalıdır. Yerli iş sektörünün küresel ekonomiye tam olarak katılmasını sağlamak için operasyonel etkinliği artırmak amacıyla yerli ve Yabancı Hizmet sağlayıcılar arasında sağlıklı rekabeti teşvik eden bir yerel iş ortamı, hükümet dış ticarette açıklık derecesini yükseltmek için her türlü çabayı göstermelidir. .

Anahtar Kelimeler: DYY, Ekonomik büyüme, Döviz kuru, faiz oranı, Dış yardım

Table of Contents

Approval i

Declaration ii

Acknowledgment iii

Abstracts iv

List of tables v

Abbreviations viii

CHAPTER I

Introduction 1

Statement of the problem 14

Purpose of the Research 15

Research Questions 16

Research Hypothesis 16

Significance of the Research 17

Limitation 18

Definition of terms 18

CHAPTER II

Literature Review 21

Theatrical Literature 21

Theories of FDI 21

Empirical Literature 27

FDI and Growth Nexus 27

Exchange Rate and Growth Nexus 40

CHAPTER III

Methodology 45
Data.. 45
Variables.. 45
Model Specification.. 52
Descriptive Statistic.. 53
Unit Roots Test.. 54
ARDL Bond.. 55
ARDL Model.. 56
Residual Diagnostic.. 57
Granger Causality Test 59
Stability Test.. 60

CHAPTER IV

Results and Interpretation 62
Descriptive Statistics 62
Unit Roots Test.. 64
ARDL Bond Test.. 65
ARDL Long.. 66
ADRL Short.. 67
Residual Diagnostic.. 68
Granger Causality Test.. 70
Stability Test.. 72

CHAPTER V

Overview, Conclusion, and Recommendation 74

Over view 74

Conclusion 81

Recommendation 84

Abbreviations

FDI: Foreign Direct Investment

GDP: Gross Domestic Products

SAP: Structural Adjustment Process

REER: Real Effective Exchange Rate

RIR: Real Interest Rate

ARDL: Autoregressive distributed Lag

IMF: International Monetary Fund

ADF: Augmented Dickey-Fuller

WB: World Bank

CHAPTER I

Introduction

Although this is not always the case, it is anticipated that FDI will have an effect on the expansion of a nation's economy, and that this effect is anticipated to be both positive and considerable Ezeabasili (2014). Sierra Leone is still considered a developing country despite having vast reserves of minerals such as iron ore, rutile, and diamonds, as well as vast amounts of rich soil land for agricultural purposes. As a consequence of this, the nation is forced to rely on foreign direct investment and assistance from other nations in order to prop up its commercial activity. Despite the fact that the nation owns large amounts of land that can be used for agricultural purposes, this is nonetheless the case. According to Duramany-Lakkoh (2020), foreign direct investment coming in (FDI) into a nation creates employment possibilities as well as the export of goods and services from the home nation. Additionally, this type of investment improves banking institutions and the mobility of capital within the country itself. It is impossible to sufficiently emphasize on the significance of direct investment from abroad (FDI) in the process of creating multinational corporations as well as domestic or local industries that are improved with the goal of increasing exports and creating new jobs in underdeveloped countries with vast mineral deposits such as Sierra Leone. In countries where the transfer of knowledge and advanced manufacturing techniques is critical to supporting local enterprises in becoming better and more productive, An important source of capital is foreign direct investment. money and resource inflows. This is especially true in nations where foreign direct investment is a significant source. Duramany-Lakkoh, (2020). In recent years, Sierra Leone's economic operations and the country's deficits in the national budget have both been funded in part by international assistance. Despite the fact that the nation has a considerable stock of minerals and fertile terrain that might be exploited for agriculture (Duramany-Lakkoh, E.K. (2021)).

Foreign direct investment, is usually regarded as among the most important tools for encouraging economic expansion and growth in developing countries, including Sierra Leone. This is because investment from abroad has the potential to serve as a growth catalyst by continuing to increase the possibility for developing countries to integrate into international capital as well as financial streams, expanding their workforce and transfer bases, generating science and technology processing capabilities and effectiveness spillover effects to domestic firms, and establishing portfolio provisions that boost host nations' commercial viability.

Expansion (Olayiwola & Okodua, 2013). The presumption that The Foreign Direct Investment (FDI) helps contribute to the growth or the slowing of regional sectors for the purpose of promoting exports has generated resentment against multinational corporations and their direct investments in a great number of nations. This viewpoint, on the other hand, started to lose traction as soon as it became obvious that the rate of savings in these kinds of emerging economies is a great deal lower than the necessary investments that might cause greater growth rates in the economy. This realization caused this perspective to begin to lose its footing. As a direct result of this, there is almost universal consensus that directs investment from abroad (also known as FDI) is a primary factor in economic growth. FDI plays a catalytic role in growth because it supplies a large inflow of capital invested in the industries of the host nation and assists native businesses in becoming more productive by adopting technologies that are more efficient. This is because FDI plays a catalyst character in growth.

The majority of developing nations, including Sierra Leone, saw direct investments from the outside world as their primary source of finance. Investments made directly from outside are seen as a factor that boosts economic growth. Several times, international free trade has been referred to as the "engine of growth" that powered the emergence of today's modern economically prosperous nations over the decades of the nineteenth and twentieth centuries. This is because of its role in driving economic development in such countries. This is due to the fact that these countries' progress was aided by the growth in global trade liberalization. The rapidly growing commercial sector, notably within the realm of exports, has provided further impetus for the establishment of large-scale firms in response to the developing demands of the local community. Exports have a propensity to increase at the greatest pace in those nations that have trade regimes that are more open, and those nations have also had the highest growth rate.

Suggests that there is a positive association linking Investments from overseas directly contribute to a rising economy, the direction of causation between the two factors has continued to be a topic of debate among academics and economists alike. This is because economic theory believes there is a strong relationship between economic development and foreign direct investment. Despite the fact that financial development has been shown to be positively connected with investment from other countries, this continues to be the case. It is of the utmost importance to have a thorough understanding of the sequence of occurrences that led to the current state of the economy, as this will provide valuable insight into the variables that the government as well as its departments essential to exert regulator over in order to accomplish the stages of those variables that are being targeted. This understanding is of the utmost importance since it offers details on the different factors that the government as well as its departments have to regulate in order to accomplish the intended levels of the different factors (Sajid and Sarfraz, 2008). For example, if it is determined through empirical research that there is a friendly connection among investment from abroad and economic expansion, then the government and those in charge of formulating policy will devise methods to entice foreign investment in order to advance economic development. This is because economic expansion is directly correlated with the level of foreign direct investment(FDI). If, on the other hand, it is found that productivity recovery is a reason for international investment, then the government may choose to enact policies that hasten the growth of the economy in order to expand the total amount of investment from overseas sources that flows in. This is done in order to maximize the amount of money that is brought in by foreign investors. Endogenous growth theorists have, in recent years, started putting a larger focus on the role that external influences play in economic development (see Barro, 1991; Barro and Sala-i-Martin, 1995). The advocates of this type of philosophy hold the opinion that factors including direct investment from abroad help to satisfy the preserving difference in developing nations (the distinction between saving and investing in one's future) and support capital development. This difference can be thought of as the distinction between investing and saving. In contrast to this, investment from abroad makes it easier to share technological know-how and business skills, as well as create new job opportunities; all of these aspects contribute to a quicker pace of economic development in nations that are recipients of FDI. According to the research of this institution, increases in direct investment from outside sources are positively correlated with economic growth. A number of empirical investigations, such as those carried out by Ericsson and Irandoust (2001), Oscar Eddy Kiiza (2007), Sumei Tang et al. (2008), and Balamurali and Bogahawatte (2008), lend credence to the proposition that economic expansion is stimulated and caused by investments from abroad. On the other side, there are scholars who are of the opinion that stronger economic growth encourages higher flows of direct investment from abroad in the countries that are home to these investments. They claim that economic growth can result in a rise in the flow of greater international money, particularly when direct foreign investment is looking to tap into the consumer market or when earnings growth leads to economies of scale. Both of these scenarios have the potential to lead to a rise in the flow of global money. This is due to the fact that the expansion of the economy might result in an increase in the flow of increasing amounts of money across international borders. This is because economic growth can lead to an increase in the flow of greater international money.. This is especially true once foreign direct investment is trying to seek the global market in a developing nation. This is particularly true in circumstances in which both of These situations exist concurrently with one another. In point of fact, studies conducted by academics such as Veugelers (1991), Trevino et al. (2002), Chowdhury and Mavrotas (2005), and Obida Gobna Wafure and Abu Nurudeen (2009) have proven that a development in the influx in the form of direct investment from several other nations is the outcome of economic progress.

The vast majority of nations that are still in their developmental stages are becoming increasingly aware that luring The acronym "FDI" wich stands for investment from outside the country, sometimes known as foreign direct investment, is an overall plan for the advancement of their economies. It's possible that this is because direct investment from the outside world is considered a way to consolidate technical advancement, financial resources, marketing strategies, and management expertise. According to Oluchukwu et al. (2013), the purposeful reassurance of cross-border investments, in particular by multinational corporations, is one of the characteristics of today's drive for internationalization that is the least fascinating. The spectacular expansion of foreign direct investment (FDI) that the global economy has been seeing ever since the beginning of the 21st century has captured the attention of the overwhelming majority of economic analysts.

Because of this, a significant proportion of decision-makers in both developing and wealthy nations consider FDI a significant driver of economic progress. You are Mohammed, A. (2012). It is apparent that The possible effects of foreign direct investment could include influence on essential problems, including deficiencies of resources, technical know-how, economic ability, capabilities, and the establishment of linkages with local enterprises, which are all very vital to the economy. Because of this, officials in emerging nations such as Sierra Leone have made FDIs, or investments made using money from other countries a lead focus of their attention, and the nation is not an exception to this trend. The acceleration of Sierra Leone's economy in recent years has benefited significantly from the assistance provided by international donors. which might have had a different effect on the nation's capacity to draw foreign direct investment (FDI). Duramany-Lakkoh, E.K. (2021) The epidemic of Ebola in Sierra Leone had a substantial influence on the quantity of money that comes into the country from other countries, which had been steadily expanding up until the year 2012. The level of investment flows in 2017 was 129 million US dollars, which was their lowest level since 2010; however, investment flows improved in 2018 and reached 599 million US dollars, according to UNCTAD. (2019).

Following numerous years of prohibiting foreign direct investment (FDI), Sierra Leone, like every other emerging government (Barro and Sala, 1992), is again attempting to recruit shareholders and is spending enormous amounts of money on projects to improve its infrastructure in order to seduce foreign companies. These projects will include a water supply system as well as improvements to the roads and the electrical infrastructure. According to Duramany-Lakkoh (2021), With the conclusion of the civil war in the year 2002, Sierra Leone has received a significant amount of attention on a global scale regarding the promotion of commerce and investment. This attention has been particularly concentrated on the nation potential to attract direct investment from overseas. Since the advent of the endogenous growth theory, there has been a steady increase in the amount of empirical research looking at the connection with both financial expansion and the development of the fiscal division, as as well as investments made by foreign governments directly. This increase in the amount of research has been accompanied by an increase in the number of studies looking at the connection between the two. This rise has been happening in spite of the fact that the endogenous growth theory (FDI) has been in operation throughout this entire time. When it comes to the subject of whether or not investment from outside the country positively contributes to the expansion of both the economy and the field of inquiry that has come to be known as the "FDI literature" has produced conclusions that are inconsistent with one another. (see, for example, Balasubramanyam et al., 1996; Borensztein et al., 1998; De Mell7, 1999;

Hansen and Rand, 2006). Studies such as those by Balasubramanyam et al., 1996, and Borensztein et al., among others, fall within this category. In the meantime, the empirical findings in the literature on financial growth and development have become more definitive. According to the findings of the vast majority of research, There is a positive correlation between the expansion of the financial industry and the growth of the economy. (e.g., Beck et al., 2000; King and Levine, 1993a; Levine et al., 2000). This was discovered in the examination done on the expansion and development of the financial sector.

When successfully completed, the process of attracting foreign direct investment (FDI) often results in two separate economic rewards. To begin, utilizing investment from abroad (FDI) as a means of obtaining outside finance is an alternative for nations whose domestic investments are just so inadequate that they are unable to support a plan of economic growth. This is because FDI comes from other countries rather than their own citizens (or where inadequate financial intermediation has a similar impact). It is widely agreed upon that this is a particularly important point to think about in the context of economies that are still growing or that are developing. According to a significant body of research in the field of economics, the presence of multinational firms from other countries is often associated with beneficial economic "spillovers" that trickle down to the economy of the nation that is playing host to the multinational corporations. There are at least five distinct channels via which the spillovers exert their influence on the system. The presence of a firm based in another country enables one to achieve the following aims more effectively: 1) Act as a catalyst for the exchange of expertise and know-how; 2) Help in the Growth and Restructuring of Enterprises, Particularly in Relation to Privatization; 3) Contributes Bigger Global Trade; 4) Raise the Level of Competition in the Business Sector; and 5) Help to Support the Formation of Human Resources in the Nation That Hosts the Investment (De Mello 1997; Todo 2003; Basu and Guariglia 2007). Second, foreign direct investment (FDI) flows have a tendency to be more secure when associated to other options. This is because it is said that FDI flows are much more costly to overturn and less subject to external shocks than some other forms of international investment, such as foreign portfolio investment. In other words, FDI flows have a tendency to be more stable. This is because FDI flows are said to be more stable when compared to other options because they are said to be more expensive to reverse than other options (Lipsey 1999).

The rise of manufacturing around the globe is being driven by a confluence of economic and technological reasons. In addition to this, it is gaining steam as a consequence of the continuous deregulatory process regarding international ties and direct investment from abroad (FDI). When seen in this light, the emergence of globalization has provided developing nations with a potential the likes of which have never been seen before. In other words, this potential is unprecedented. Because of this potential, these nations are able to speed up the pace at which their economies are expanding by participating in higher levels of trade and investment. In the 1970s, the rate at which international trade expanded at a slower pace than the rate at which direct investments from other countries were made was evident. As a direct consequence of this, global commerce was far more significant than the great majority of other significant economic activities taking place on a global scale.

Towards the middle of the 1980s, there was a significant change in this condition. This was about the time when direct investment from other countries started to show symptoms of expanding rapidly all over the world. During this time frame, the significance of direct investment from abroad across the world has grown as a result of the transfer of technology and the formation of advertising and purchasing networks for more efficient production and sales on a global scale. This growth is due to the fact that marketing and purchasing networks allow for more effective production and sales on a global scale. This is because foreign direct investment (FDI) makes it possible to have more effective manufacturing and sales (Shujiro Urata, 1998). Both the nations that receive the advantages of foreign direct investment (FDI) and the nations that supply the FDI are able to gain from this type of investment. Foreign direct investment is an investment that is made directly from one country to another.

Countries that are recipients about investments made by other countries benefit first from the adoption of fresh technologies as well as greater involvement in global manufacturing and export channels, while investors from other countries benefit from increased efficiency in the utilization of their assets and resources. Foreign direct investment (FDI) flows increased by 24 percent worldwide between the years 1991 and 2000; however, FDI in developing countries as a group increased by 20 percent when adjusted for inflation over the same time period (World

Development Report, 2002). Over 3 percent of a nation's (GDP) was subsidized by foreign direct investment (FDI), which reached a record high in developing countries. Nevertheless, after reaching a peak in the year 2000, worldwide FDI flows declined dramatically the following year, in 2001. This decline occurred after the flows had reached their highest point in the year 2000. According to the 2002 World Investment Report, capital outflows increased by 55% while capital inflows decreased by 51%. This was the first time that both inflows and outflows had decreased since 1991 and 1992, respectively. In 2001, economies in over 12 nations, including the three biggest economies in the world, slipped into a state of recession. The primary contributor to the fall in FDI in 2001 was the deceleration that was seen in the global economy. Even though there was a significant decrease in FDI flows throughout the world this year, the net FDI flow to developing nations remained practically the same. The potential for a company to gain a greater profit, which in turn encourages companies to invest overseas, largely as a result of cheaper labor costs, is the aspect that ultimately decides whether or not a specific company will locate its production facilities overseas. Traditional methods to the study of universal trade and savings started with the assumption that components of output, including capital and staff, weren't really transacted across international boundaries. This was the starting point for these old methodologies. Nevertheless, in everyday life, variables are mobile across international boundaries, and at the very least, since the 19th century, foreign labor migration and foreign investment have played an major part in the expansion of the global economy (Jayasuriya and Weerakoon, 2000). While differences in the cost of labor may occasionally play a role in helping to influence the geographical choices that firms make, this is by no means the whole story. According to the statistics on foreign direct investment, the majority of FDI is still directed toward developed nations, specifically the United States, which has relatively high salaries in comparison to those in developing countries. This is because the United States is a developed nation with a strong economy. It is interesting to consider the possibility that a business that makes an investment in a foreign country, in which it is unfamiliar with both the local market and the institutions, would often have to bear greater expenses, at least in the beginning. This is due to the fact that the corporation will need to acquire more knowledge about the local environment in order to successfully complete such an investment. At the level of theory, economic analysis presents a variety of distinct explanatory strategies that attempt to demonstrate why, notwithstanding these downsides, firms may still choose to invest abroad. These techniques include: As per John Dunning (1977), companies will engage in foreign direct investment (FDI) when three conditions are met and the benefits that follow from those conditions are sufficient to outweigh the inherent drawbacks of having to do business in a different nation. These three benefits are referred to as the ownership benefits (Hymer, 1960), locational benefits (Vernon, 1966), and international benefits (Buckley and Casson, 1976). The phrase "foreign direct investment," more often abbreviated as "FDI"refers to capital that is invested from outside the country and enters the economy directly. Foreign direct investment (FDI), also referred to as is widely believed by those who determine policy to boost the by data from real-world situations. Concerning the topic of referred to more often as FDI (which stands for "foreign direct investment") and the role it plays in the expansion of an economy, a substantial amount of academic investigation has carried out. Even though the researchers employed a diverse selection of study approaches and their findings occasionally contradicted one another, most scholars have reached the conclusion that foreign direct investment (FDI) contributes in a constructive way to the expansion of the economy. One example of research that explores the effect that external straight savings have on financial development in developing nations is the study that was carried out by Balasubramanyam and colleagues in the year 1996. According to his analysis, which makes use of cross-section data and OLS regressions, foreign direct investment (FDI) has a beneficial outcome on financial development in host nations that employ an export-promoting policy, but it doesn't have such an effect on the general economic growth of countries that employ an importation exchange policy. This conclusion is based on the observation that FDI does not contribute to the consequence on economic development in nations that employ an importation exchange policy. He arrives at this verdict as a result of his research, which showed that (FDI) does, in fact, contribute to the expansion of the economy in nations that prioritize strategies that emphasize exports.

Olofsdotter (1998) make available an analysis that and this one are extremely similar. Using bridge data, she learns that an increase in FDI share price is positively correlated with growth. while the impact is greater for host countries that have a superior level of organizational capacity. This finding is significant because it suggests that nations that are more capable of attracting direct investment from abroad will experience more growth. This ability is measured by how well a country upholds property rights of its residents and by the efficiency with which it manages its bureaucracy. When De Mello (1999) Using time series and panel data with fixed effects estimates to analyze a sample of 32 industrialized and emerging nations, he finds only minimal signs of a positive link between foreign direct investment (FDI) and economic development. Notwithstanding the fact that the sample includes both industrialized and developing nations, this is the conclusion that can be drawn. On the other hand, Zhang (2001) and Choe (2003) Examine how There is a correlation between the growth of the economy and the rise in the amount of money coming in from other countries. Zhang draws on data from eleven developing nations ranging throughout East Asia and South America for his analysis. Zhang (2001), Cointegration and Granger causality analysis are utilized here, manages to find that now in five studies, job expansion is augmented by FDI and that home nation circumstances, including economic system and price stability, are indeed the main drivers of growth. With such a propensity toward the development having caused FDI, there isn't much indication that FDI creates receiving country expansion. In other words, growth tends to cause FDI; however, there is little evidence that FDI causes economic expansion in the receiving country. In other words, growth is frequently brought about through direct investments made by foreign companies. If the rate of economic growth quickens, it may lead to an increase in the amount of direct financing made by foreign enterprises. Further research was conducted by Chowdhury and Mavrotas (2003), in which the authors investigated the correlation between economic expansion and inflows of foreign direct investment (FDI). They were able to accomplish this by applying a one-of-a-kind econometric strategy that allowed them to investigate the direction of causation between the two variables, which in turn enabled them to discover the the way in which the link that is there between the two variables should be understood. The time span that was covered by the time series data that were used for this analysis was from 1969 all the way up until 2000. for each of the following three rising nations:

Chile, Malaysia, and Thailand were all on the list. These nations are all important beneficiaries of foreign direct investment (FDI), yet their respective histories of major economic developments, best achievements, and patterns of economic expansion are very distinct from one another. Their evidence-based results strongly indicate that GDP did cause FDI inside this particular instance of Chile, but not conversely, whereas for both Malaysia and Thailand, there's still significant proof that there is a gender-fluid cause and effect between both of the two factors. In Chile, however, their findings strongly suggest that GDP causes FDI, not vice versa. According to their results, GDP drives foreign direct investment in Chile rather than the other way around. The fact that a bootstrap test was carried out with the intention of determining whether or not the result was legitimate is proof that the aforementioned findings may be trusted. Further, Frimpong and Abayie (2006) scrutinize the path of causality among two or more variables by analyzing the fundamental association between foreign direct investment (FDI) and GDP growth in Ghana even during the pre-SAP and post-SAP periods. This will allow you to determine whether or not the structural adjustment process (SAP) was actually the cause of the growth in GDP. Taking all of this into consideration for the investigation, "GDP growth" refers to "gross domestic product," while "FDI" stands for "foreign direct investment." The researchers also investigate the question of whether the period of time prior to the installation of the SAP was more advantageous than the period of time following the implementation of the SAP. We examined and studied the data that was gathered from a yearly time series that ran from 1970 all the way up until 2005. According to the findings of the research, There isn't any relationship between rising levels of foreign direct investment (FDI) and rising levels of economic growth during either the pre-SAP sample period or the entire sample period. This holds true for both time periods. On the other hand, the rise in GDP that occurred after the SAP may be directly attributable to the growth in the amount of money invested directly from abroad that took place throughout that time period.

The most important advantage that foreign direct investment (FDI) provides to emerging nations is that it helps bring and introduce modern technology, abilities, education, and other important and relevant resources to their economies. This is by far the most important benefit. FDI also brings other relevant and vital materials (Hossain & Hossain, 2012). In addition to this, the possibility of gaining a job is an important benefit offered by the host nation. When foreign companies expand their operations into a country, they bring with them not only greater levels of technology but also higher levels of managerial efficiency. It offers developing nations the potential to compete with international rivals and generate services and commodities of better quality in the future. This is because emerging countries benefit from this capacity. On the other hand, the key factor driving the need for foreign direct investment is the requirement for large amounts of money to be invested in emerging countries (FDI). As a consequence of this, foreign direct investment may be of aid to them in enhancing their quality of life and improving their nation. This may be accomplished through the creation of more employment and the implementation of significant projects that need a significant amount of funding. Research conducted in 2001 by Nair-Reichert and Weinhold found that the amount of foriegn direct investment (FDI) made in underdeveloped nations has increased by 17 percent over the course of the previous two decades. Throughout the last twenty years, globalization has served as a crucial factor in supporting the inflow of means of production around the world. This support has been provided by globalization. This trend has been made possible by advances in communication and information technology. When deciding in which specific developing countries to invest their money, multinational corporations sometimes consult a variety of indices and metrics. Hence, despite the advancements that have been made when it comes to employing technologies in the administration and production of these enterprises, these firms need more advanced technology as well as a workforce that has a high level of education. Nonetheless, in order to sustain a skilled labor force, these countries need to provide better possibilities for higher education at all levels. The qualified job sector is numerous in emerging nations because of their large populations and large labor forces. In addition to this, a larger amount of financial resources has to be put aside (ILGUN et al., 2010).

The recipients in terms advantages derived from investments made abroad gain from the acquisition of technologies and from becoming involved in networks that affect global manufacturing and commerce as a result of the foreign investors' effective utilization of their own resources and other assets made possible through FDI. Foreign direct investment (FDI) flows increased by 25% worldwide between 1991 and 2009, while FDI in developing countries as a group increased by 22% at constant prices. This growth occurred over the period 1991–2009. (World Development Report 2010). the proportion of a country's total population that gross domestic product GDP that is made up of foreign direct investment has recently reached around 5 percent. Nonetheless, foreign direct investment (also known as FDI) allows developing countries to get access to a variety of resources, including financial capital, technological know-how, managerial expertise, an entrepreneurial spirit, brands, and markets. These are all really valuable sources of information. They are essential for developing countries in order for them to industrialize, develop, and provide job opportunities as part of their fight against the pervasive poverty that occurs in their country. As a result, the vast majority of emerging countries have arrived at the realization that foreign direct investment (FDI) has the possibility of being of great value. As a direct result of this realization, these nations have begun to engage in asset promotion strategies and have globalized their portfolio regimes in order to attract a variety of investors. Alterations to the volume and structure of foreign direct investment (FDI) are possible, as are decreases in the costs of trade that can be brought about through globalization and regional integration arrangements. Notwithstanding this, investments in developing countries made through channels of foreign direct investment (FDI). started picking up during the middle of the 1990s. This was essentially the result of a gradual loosening of restrictions on foreign direct investment (FDI) in the majority of these countries, as well as the adoption of policies that were typically more export-focused.

The significance of direct investment from foreign sources for the growth of the economy has been a hotly contested matter of discussion in a number of countries, together with India. The importance of foreign direct investment (also known as FDI) cannot be overstated. or efforts being made to globalize the economies of the world. The expansion of worldwide production is being propelled by a combination of economic and technological factors. In addition to this, it is being pushed forward by the occurring liberalization of trade policies and foreign direct investment (FDI). One of the most notable characteristics of the world as it exists today is the circulation of corporate capital outflows in the form of investment from abroad in developing nations, particularly during the 1990s. This phenomenon has been going on for quite some time. During the 1980s, multinational firms (MNCs) established themselves as significant actors within the globalization process as a whole. Governments in every country on the planet, whether in wealthy and developing nations, have been working to entice multinational corporations to invest their foreign direct investment (FDI) in their respective nations. It's possible that this experience is connected to the larger backdrop of liberalization, in which the majority of developing and transitional countries have shifted their tactics to become more market-oriented.

When viewed in this light, globalization presents developing nations like India with an unrivaled chance to accelerate their economic growth through increased levels of trade and investment. Because international commerce expanded at a faster rate than foreign direct investment (FDI) throughout the 1970s, it was a far more significant component of the economy on a global scale than the vast majority of other significant international economic activity at the time. This circumstance underwent a dramatic shift in the middle of the 1980s, when foreign direct investment (FDI) all over the world began to show signs of rapid expansion. During this time period, foreign direct investment has become increasingly significant due to its ability to facilitate the transfer of technology and the establishment of marketing and procurement networks, all of which are necessary for effective production and sales on an international scale (Shujiro Urata, 1998). Foreign direct investment (FDI) refers to the provision of capital by foreign investors, either directly or indirectly, to businesses located in a different economy. These investors do so with the intention of reaping profits as a result of their participation in the management of the business in which they invest their money. International investors get a proportional share of the asset ownership in the companies of the host country based on the amount of equity they have invested. This is the empirical definition of foreign direct investment that several nations have used in order to differentiate it from the flows of the portfolio. The International Monetary Fund (IMF) has said that. the following is an accurate definition of foreign direct investment: "an investment that is undertaken to acquire an enduring interest in an enterprise operating in a country that is different from that of the investor." The ability of the investor to apply a considerable amount of inspiration over the frequent operations of the corporation is the primary goal of the investor (IMF, 1977). The procedure through which citizens of one nation (the source country) purchase the proprietorship of properties in another nation in order to exercise influence over the production, distribution, and other productive activities of a corporation located in that nation is mentioned to as foreign direct investment (FDI) (the host country).

Statement of the problem

Since its independence from the British in 1961, Sierra Leone, a nation that is rich in inorganic resources including gold, diamonds, bauxite, and iron ore, amongst many others, has also captivated very little foreign direct investment. This is despite the reality that Sierra Leone is one of the least wealthy nations in terms of its citizens' average income per year (FDI). This is due to the country's political unrest, including the civil war that took place in the 1990s, as well as its socioeconomic issues. Although it receives very little or maybe no foreign direct investment (FDI), Sierra Leone has attracted investors from all around the world. The country's environmental crisis is exacerbated by investments from overseas direct investors. There has been a movement in the location of certain polluting sectors from wealthy countries to developing countries. The automotive industry is the one that has been hit the hardest. The vast majority of these have been moved to poorer countries, where there is less of a threat of contamination in their new homes. One of the factors that can contribute to a currency crisis is direct investment made from overseas. In the year 2000, many nations in Southeast Asia were affected by currency problems brought on by foreign direct investment (FDI). Exports have decreased, which has led to a large loss in the worth of the national exchange. This is a direct effect of the exporters' participation in the inflationary process. As a direct consequence of this, foreign direct investments (FDIs) started pulling their money out, which led to a crisis in the currency. A currency crisis is the inevitable outcome of placing undue dependence on foreign direct investments (FDIs). In every country where the FDls have made inroads and adopted a new culture that is foreign to the country, the native people have gone through a period of cultural assimilation and have consequently suffered from cultural shock. The dominant culture of the home either vanishes entirely or experiences significant decline. This can be seen in the deterioration of the people's value system as well as the social structure and family dynamics. As a consequence of the hi-fi style of life, there has been a negative impact on human relationships. Inflation in the country has also been exacerbated by the presence of foreign direct investments (FDIs). They spent a significant amount of money on marketing to consumers and advertising. This is done at the expense of the clients, which ultimately results in an increase in the price. They will also form cartels in order to gain market power and take advantage of customers. OPEC, the greatest cartel in the world, is an example of foreign direct investment that exploits consumers.

Purpose of the study

Direct investment from abroad may contribute to the financial development of a target country by making the climate more advantageous for local firms and investors, as well as the local populace and economy. Because nations frequently impose their own import charges, international commerce is frequently complicated. To ensure success in terms of sales and goals, a presence in international markets is necessary for a number of different economic sectors. FDI is responsible for simplifying a significant number of these aspects of international business. When investors establish new businesses in other countries It brings about a rise in both the amount of available opportunities and the amount of newly created jobs. It is possible that this may result in an increase in the income and spending power of local residents, both of which would be advantageous to the economies that are being targeted. As a result of this, the purpose of this thesis is to conduct research into the relationship that exists between the growth of the economy and the expansion of the market. in Sierra Leone and the investment of direct foreign currency from other countries.

Research questions

1. Is there a connection between direct investments made by foreign governments and economic growth in Sierra Leone?

2. What is the impact of foreign direct investment on the Sierra Leonean economy?

3. Is there a long-term and short-term link between foreign direct investment and economic development in Sierra Leone?

Research hypothesis

H1: There is no relationship between FDI and economic growth in Sierra Leone

H2: There is a relationship between FDI and economic growth in Sierra Leone

H1: There is no relationship between real interest rate and economic growth in Sierra Leone

H2: There is a relationship between real interest rate and economic growth in Sierra Leone

H1: There is no relationship between real effective exchange rate and economic growth in Sierra Leone

H2: There is a relationship between real effective exchange rate and economic growth in Sierra Leone

Significance of the research

One of the most crucial benefits of FDI is the development of human capital. The education level and overall amount of human capital in a country are both increased by the skills that are gained by the workforce through training. Countries that are recipients of foreign direct investment (FDI) benefit from developing their human resources while maintaining ownership. The transfer of resources, as well as the exchange of information, technology, and skills, can be made possible through the use of direct investment from foreign sources. Investments made directly from overseas have the ability to bring the revenue-to-cost ratio closer together. As a direct consequence of increasing their total education and human capital, nations will be in a position to guarantee that the expenses of production will remain stable and that their goods will be easier to sell on the market. Countries that are recipients of foreign direct investment (FDI) benefit from developing their human resources while maintaining ownership. The transfer of resources, as well as the exchange of information, technology, and skills, can be made possible through the use of direct investment from foreign sources. Investments made directly from overseas have the ability to bring the revenue-to-cost ratio closer together. As a consequence, nations will be able to guarantee that the costs of production will remain unchanged, and as a result, items will be easier to sell on the market. It's possible that the infrastructure and tools provided by foreign investors will help a target nation's workforce become more productive. One further key advantage of direct investment from abroad is that it contributes to an increase in the revenue of the nation that receives the investment. The gain in national income that typically follows an expansion in employment and a rise in pay is one of the primary drivers of economic growth.

Large corporations frequently pay wages that are higher than the norm in the nation they are trying to recruit workers from, which can lead to an increase in income. The study will assist policymakers in better understanding the amount of money coming into Sierra Leone from other countries as direct investments, and it will also assist other scholars in conducting additional investigation on the relationship between foreign direct investment and rising economic activity in other nations. All of this and more will be included in the study.

Limitation

This thesis is restricted to establishing a connection link development in economic activity and investments made by foreign direct investors in Sierra Leone between the years 1980 and 2020. This thesis makes use of many theories on FDI. This thesis is restricted to the ARDL model with a total of five variables: foreign direct investment (FDI), wide money, financial development, exchange rate, and interest rate.

Definition of terms

Economic development: The process that ensures the overall health and standard of living of a nation, territory, surrounding community, or individual are strengthened in conformity with particular purposes and objectives is referred to as economic and social development (ESD). Despite the fact that the concept has been around in the Western world for a far longer period of time, the phrase enjoyed widespread usage in the twentieth and twenty-first centuries. While talking about the advancement of the economy, additional phrases that are frequently used include "modernization," "Westernization," and, most significantly, "industrialization." During the 1960s, the focus of economic development plans switched from industrialization and infrastructure to poverty alleviation. Before, economic development plans were concentrated on industry and infrastructure. (Martha, 1996). [Martha] However, The phenomenon of increased market productivity and overall gross domestic product is what's known as economic growth. According to the economist Amartya Sen, economic development is a process in which growth in the economy is only "one aspect of the process." Although economic development is an intervention by the government designed to increase the well-being of people, economic growth is a phenomenon of primary data and rises in GDP. Economic development is an intervention by the government. The growth of both the economy and the economy both at the same time as a whole are typically the primary concerns of economists, although the socioeconomic development of communities is also a major focus of community economic development specialists. additional terms that are frequently utilized when talking about the advancement of the economy. During the 1960s, the focus of economic growth strategies switched from industrialization and infrastructure to poverty alleviation. Before, economic development plans were concentrated on industry and infrastructure. (Martha, 1996). [Martha] However, The phenomenon of increased market productivity and overall gross domestic product is what's known as economic growth. According to the economist Amartya Sen, economic development is a process in which growth in the economy is only "one aspect of the process." In spite of the fact that economic growth is a governmental initiative with the goal of enhancing the standard of living of the populace, economic growth is a phenomenon characterized by increases in GDP and market productivity. Typically, the key concerns of economists are growth both in terms of individual businesses and the overall economy. But community economic development specialists also place a significant emphasis on the socioeconomic development of communities as a major focus of their work.

Economic growth- An The term "economic growth" refers to any rise or improvement in the market value of the goods and services generated by an economy over the course of a given fiscal year. This value is determined by adjusting for inflation. Usually, statisticians compute such growth as a percentage rate of rise in tangible national output, or real GDP. To eliminate the distorting impact of hyperinflation on the pricing of things produced, growth is often judged in actual terms, i.e., inflation-adjusted terms. Accounting for national income is the method that is utilized for calculating economic growth. Bjork (1999); 1999 Because it is the annual percent change in gross domestic product (GDP), economic growth incorporates all of the positive and negative aspects that are associated with that indicator. When comparing the rates of economic expansion of different nations, the ratio of GDP to population (per-capita income) is frequently used.

Exchange rate- The value of one currency, as expressed in terms of another currency, is referred to as the exchange rate. At this price, currencies can be exchanged for one another. This is known as the exchange rate. Some exchange rates are linked or locked to the worth of a particular nation's currency, in contrast to the majority of exchange rates, which are allowed to vary in reaction to changes in the supply and demand of the market.

Interest rate The amount of money it will set you back to borrow money or the amount of money you will earn by saving money is indicated by the interest rate. Hence, if you're a debtor, the interest rate is the amount of money that you pay in return for borrowing money, and it is expressed as a percentage of the total amount that you have borrowed. In other words, the interest rate is the sum of money that you pay in exchange for borrowing money.

Foreign direct investment- The phrase "foreign direct investment," or "FDI," refers to a specific type of overseas funding that indicates a long-term interest on the part of an investor in a business established in another nation. When we talk about an investor having a "lasting interest" in a company, we imply that they have a link to that company that will last for a long time and that they have a significant amount of say in how that company is managed. This type of interest is formally regarded as existing when a direct investor controls 10% or more of the electoral power on the board of trustees (for an incorporated corporation) or the equivalent (for an unorganized enterprise). Companies that invest in the establishment of a new plant or office, as well as companies that purchase the existing assets of a foreign company, are examples of businesses that engage in foreign direct investment (FDI). These companies seek to augment or replace globalization of commercial activity by producing (and frequently selling) goods and services in nations other than the United States one in which the company was initially created.

CHAPTER II

Literature review

Theatrical literature

Theories of FDI

The initial concept of foreign direct investment can be considered a derivative of classical conceptions of global commerce, with its foundations in economics. This line of thinking has been around for quite some time. It is generally accepted that David Ricardo's comparative advantage thesis was the first attempt to explain why other countries' governments allow their companies to invest in their countries (FDI). The early concept of foreign direct investment might be considered a derivative of classical views of international trade, with its basis in economics. This is because both concepts have their origins in the same place: this school of thought has been around for a considerable amount of time. The idea of comparative advantage, which was developed by David Ricardo, is usually acknowledged to have been the first attempt to explain foreign direct investment (FDI). The Heckscher-Ohlin (1933) theory is one of the foundations for the development of the notion of global capital flows for the purpose of international business. This is due to the fact that countries have varying amounts of resources at their disposal. It is an expansion of David Ricardo's comparative advantage theory since it predicts patterns of commerce and output according to the factor endowments of a region that is trading. In other words, it determines patterns of trade and output based on a region's comparative advantage. The fundamental tenet of the concept is that nations would engage in the practice of exporting goods that make use of the factor(s) of production that they have an abundance of and that can be purchased for a low price, and they would engage in the practice of purchasing goods that make use of the factor(s) of production that they have a deficiency in. Yet, Ricardo's theory is not able to account for foreign direct investment (FDI) because of the fact that FDI is dependent on two countries, two goods, and the total movement of components at the local scale. Even foreign direct investment would be banned under such a system. The microeconomic theory of worldwide production was first proposed by Stephen Herbert Hymer in the year 1960. 1960, published in 1976). His contributions to the field of FDI studies are widely considered seminal. According to Hymer, the reasons that lead to the internationalization of a corporation may be broken down into two distinct groups: those that are contingent upon the organization's size and possession of particular assets, and those that are contingent upon the existence of market failures. Investing in a foreign country directly, commonly known as FDI is what led Hymer to his conclusion. can only take place when the rewards of utilizing firm-specific benefits (FSAs) beyond borders are greater than the additional costs of conducting business internationally. According to the opinions held by Hymer, multinational corporations (MNCs) have firm-specific advantages that allow them to profitably operate in other nations. Notwithstanding this, Hymer found four inconsistencies in what Heledd Straker wrote in Understanding the Global Company. These are as follows:

1. An older theory suggested that the movement of money was unidirectional, from industrialized to undeveloped countries. Nevertheless, throughout the war era, foreign direct investment (FDI) was bidirectional among developed countries. 2. It was thought that a country may only engage in inbound or outbound foreign direct investment (FDI). The threshold of outward FDI was discovered to differ between industry sectors, suggesting that if asset allocation was the factor of FDI, there shouldn't be any modification, as all enterprises would've been equally capable and inspired to expand overseas; 4. Furthermore, according to Hymer (1960), as cited by Aliber (1969), et al., MNEs moved either in or out of position all over territorial frontiers in industrialized nations, implying that nations received respectively inward and outward FDI; 5. Hymer observed that MNE. There are flaws in the market, and companies form multinational corporations due to a competitive advantage, which they then employ to their advantage in different countries in order to maximize their output. II. Some industries, due to the nature of their competition, will put more pressure on firms to internationalize their operations than others. However, these benefits must not be granted to enterprises located in the host country under the same terms and circumstances as firms located in the origin country. Caves (1971) takes into account product diversity. The most significant factor that makes a difference According to Caves, foreign direct investment (FDI) can either be horizontal or conglomerate in nature. There are two other ways to categorize vertical types: forward and reverse. Vertical foreign direct investment necessitates the regional decentralization of the company's production chain. This is performed by having affiliates located in countries with lower costs produce labor-intensive intermediates. These intermediates are then sent to nations with higher salaries and, occasionally, even to the parent business itself. Vertical foreign direct investment is typically referred to as "efficiency-seeking" foreign direct investment (FDI) since the primary

objective of the investor is to enhance the pricing of the company's output. This is why vertical FDI is frequently referred to as "efficiency-seeking" FDI.

There are also two possible variations of vertical FDI. When a company engages in backward integration FDI into a foreign industry, they gain access to inputs that may be used in their domestic manufacturing process. Back in the day, the extractive industries were the ones that brought into most foreign direct investment (FDI) (e.g., oil extraction). One type of foreign direct investment is known as forward-looking FDI, and it occurs when an overseas industry sells the products of a company's national production process. Instead of exporting from the MNE's home country, horizontal foreign direct investment (FDI) produces the same product in many factories, which are then supplied to local markets by affiliate manufacturing. This category of foreign direct investment is also known as "market seeking" FDI at times. Generally speaking, horizontal investments driven by market-seeking methods make up the majority of foreign direct investment (FDI) that drifts into industrialized nations. As a consequence, these inflows have a propensity to raise the amount of labor that is required for domestic production in the source nation (Mariotti, S.; Mutinelli, M.; Piscitello, L., 2003). Horizontal investments are those that include the reproduction of the full manufacturing process of the home nation in another nation. This type of investment takes place in international markets. Horizontal foreign direct investment (FDI) is a conventional type of FDI since it attempts to profit from a new and enormous market. Vertical foreign direct investment (FDI) seeks to profit from an existing market (Botric, V.; Skulic, L., 2005). When multinational firms engage in the exploitation or utilization of natural resources, this is another instance of FDI in circumstances where the company's presence on the ground is crucial. In a number of less developed countries, the endowment of oil, gas, minerals, forests, and waterfalls may be the most significant draw for international investment. Buckley and Casson are responsible for the development of the internalization theory (1976). In the body of academic work pertaining to international commerce, the method of foreign direct investment (FDI) that is based on market imperfections is typically referred to as "internalization theory." As a result of weaknesses in the market, it became possible for businesses to conduct transactions among themselves rather than using external parties. It was more practical to increase profitability by doing business internally across national borders as opposed to transacting business between two enterprises based in separate countries. This would be considered "external" business. At this point, it is essential to keep in mind two aspects: first, businesses would search for the location with the lowest operating costs, and second, companies would integrate until the costs exceeded the benefits. In point of fact, however, cost is just one factor that determines success, as companies are also required to take into account cultural, legal, and several other environmental issues (Jigme, 2006). The Internalization Hypothesis is flawed due to the fact that it places an excessive amount of emphasis on industry-specific factors as the primary focal point of the internalization choice. The hypothesis might not always explain why entrepreneurs choose to start firms in certain places based on personal preferences for a certain environment. For example, the hypothesis might not explain why entrepreneurs choose to develop enterprises in a given area. Some websites might be more suitable than others for reasons having to do with religion, language, or culture. Another existing theoretical framework that investigates the origins and manifestations of internationalization is known as the product life cycle (Vernon, 1966). In the middle of the 1960s, Raymond Vernon was the first person to propose this idea. According to Vernon, businesses that are first to market with a new product in their domestic markets frequently engage in foreign direct investment (FDI) in order to manufacture the product for sale in international markets. According to the PLC Theory, businesses move through a number of different phases as their production levels increase over time. The first phase of a merchandise's life cycle is the launch phase, followed by growth, maturity, and then decline. A variety of distinct factors will determine the length of time that a product remains in each of its stages of development. According to Vernon, international direct investment is something that companies do at particular points in the lifespan of an item that they were the first ones to develop.

As stated by the OECD, there are a wide variety of processes and channels via which There is a possibility that foreign direct investment will have an effect on the economic growth of a host country. The repercussions of investments made by foreign direct companies can be both positive and negative. meaning that it may benefit the economy of the recipient country while also imposing some costs on that economy (Mencinger, 2003). The transmission of emerging innovations and expertise, the establishment of human capital, integration into the international economy, competitive pressures in the host nation, and firm growth and restructuring are the five primary mechanisms through which The expansion of the economy may benefit from the receipt of direct investments from outside investors. Each of these mechanisms is broken down further into subcategories (OECD, 2002). Yet, it is possible that several of the processes that have been identified, specifically the first four, will have an adverse effect on the process of economic development. Moreover, FDI might complicate the implementation of economic policy. The level of technology used by a nation may describe the growth rate.. The adoption of increasingly advanced technologies provided by multinational firms is essential for economic development in developing countries. (Borensztein et al., 1998). According to Lim (2001), one of FDI's most important contributions is its involvement in the equipment transfer from industrialized nations to emerging nations.

According to Loungani and Razin (2001), this transmission could result in returns that would not be achievable through the purchase of products and services or the investment of monetary capital. According to Frindlay (1978), foreign direct investment is a approach for enhancing the economic performance of a nation by means of the transmission influence of more advanced technologies provided by multinational corporations. Foreign direct investment (FDI), according to Saggi (2002) and Hermes and Lensink (2003), is the most successful strategy for accelerating economic development since the technology transfer and experience of multinational corporations contribute to a rise in the productivity of local companies. The result of technology transfers, according to Varamini and Vu (2007), is enhanced performance at host enterprises, which contributes to growth in GDP. There is a correlation between the presence of new technologies brought by multinational organizations and a reduction in the amount of money spent on research and development by businesses that receive these breakthroughs. Berthelemy and Démurger (2000) claim that this will increase the competitiveness of these companies by reducing the costs associated with their operations. Technology is voluntarily distributed to the local suppliers of multinational firms in order to enhance the products such suppliers deliver to the multinational corporations (Rodriguez-Clare, 1996). In order to enhance not only the quality but also the quantity of their products, international companies buy, these innovative technologies are disseminated to employees by means of training, practical assistance, and other forms of information (OECD, 2002). According to the same poll, multinational businesses frequently aid their local dealers in the acquisition of intermediate products and raw materials, as well as in the restoration of their facilities. This assistance might also take the form of financial contributions. According to Blomstrom and Kokko (1998), the most significant benefits that multinational corporations can provide to industries that experience rapid technical advancement are new products and new manufacturing procedures. Kottaridi (2005) continues to identify the links that multinational companies have with local research bodies as an important source of technology transfer. These local research agencies include public institutes and universities. Nonetheless, there is a possibility that a transfer of technology will have unintended repercussions. According to Vissak and Roolaht (2005), the potential for the host nation to grow dependent on the technology that is introduced into the country by multinational corporations and other wealthy nations increases when the technology is brought into the country. The results of this study suggest that there has been a decline in the level of interest displayed by local firms in the development of innovative technologies during the course of this study's time period. 5 Sen (1998) notes that in order to keep a technological advantage over domestic businesses, international corporations may react badly to research conducted in the host country. This author also notes that multinational firms only transfer ineffective technologies when they are attempting to accomplish the same aim. Under these circumstances, the host nation's dependence on technological developments occurring on a global scale will be preserved. 2.3 Direct investments from overseas companies and the cultivation of human resources A second way that The growth of the economy could be influenced by direct investment from abroad. of a host nation is by contributing to the expansion of its human resources, or labor force. It's possible that this path will lead to the development of both positive and negative outcomes. According to Ozturk (2007), foreign direct investment encourages productivity expansion in the host nation. This is accomplished by increasing the host nation's productive capacity through the enhancement of its labor force, which is accomplished through training. According to Zhang (2001a) The development of a nation is significantly impacted by foreign direct investment in the economy since it carries with it considerably skilled individuals in addition to specialized know-how in the areas of manufacturing and management systems. It has been said by De Mello (1999),

It is anticipated that foreign direct investment will increase workforce knowledge by providing training opportunities through the implementation of novel production and management techniques. One strategy for boosting the human capital of the host nation is to provide workers with opportunities to learn new skills by observing how multinational corporations implement newly developed procedures (Loungani and Razin, 2001; Alfaro et al., 2004). FDI is a driver for the implementation of novel machineries in the host nation, which means that the labor force in the host nation needs to be able to employ these technologies. This was mentioned earlier. Multinational corporations are frequently motivated to provide the necessary training and, as a result, create capabilities in the host nation by virtue of the fact that this capability is lacking (Borensztein et al. 1998). The Organization for Economic Cooperation and Development reports that local enterprises provide less training than foreign corporations. This can be explained by the introduction of cutting-edge technologies, practices, and procedures that cannot be monopolized by the native population and may limit the applications of these things (Borensztein et al., 1998). The training that is provided by multinational firms has the potential to have a significant influence on the economy of the entire country. According to Hanson (2001), after this step, local businesses would hire the aforementioned individuals, who would then receive training from global corporations and pass it on to their respective organizations. According to Lim (2001), numerous staff members take advantage of new information to start their own businesses after they teach their previous skills and experiences to the personnel of the new company that they form. OECD stands for OECD, which stands for the Organization for Economic Cooperation and Development.

(OECD) (2002) asserts that firms have some of the responsibility for enhancing training in host countries. This is because corporations may demonstrate to national governments the necessity of a trained and qualified labor force.

Empirical literature

FDI and growth nexus

Duramany-Lakkoh et al. (2022) explore the influence that foreign direct investment has on the growth of the Sierra Leonean economy. The whole-time frame that is being looked at, which begins in 1980 and ends in 2016, encompasses a total of thirty-seven years. For the most part, researchers come to the conclusion that foreign direct investment (FDI) has a beneficial effect on the economic development of a nation's economy; nevertheless, in this study, we found that FDI does not have any association with economic growth in Sierra Leone. The data were analyzed using empirical techniques, and the findings are based on a regression analysis that was performed using the data that was available. These are the findings of the investigation suggest that direct investment from abroad is beneficial. (stock) influx into Sierra Leone does not have any effect on the development of the nation's economy. Akadiri et al. (2019) The goal of this study is to analyze the possible explanations for the association between foreign direct investment (FDI) and economic growth for 25 African states. Specifically, the focus of this investigation will be on the continent of Africa. during the period of 1980–2018 using a model that additionally takes into account trade openness. The data set used in this analysis is more current panel dataIn order to establish whether or not there is a relationship that is stable over time, known as cointegration, we used panel bootstrapping cointegration approaches. These techniques take into consideration the influence of cross-sectional dependency. When doing predictive analysis among the panel series, the Granger causality technique is used as the methodology of choice. The results of our study point to the existence of a nexus between the variables that is characterized by a long-run equilibrium, and our investigation revealed a two-way chain of causation among economic growth, trade openness as well as direct investments from other countries. This study provides policymakers and governments in this region with new knowledge that can be utilized to reorganize foreign direct investment (FDI) and trade policies in such a manner that their positive spillover would spread throughout rural areas and enterprises in the local economy. This will, in the long run, cause all African countries to experience economic growth and development that is both sustainable and inclusive. VLATKA BILAS (2019) investigates the connection that exists between foreign direct investment (FDI) and the growth of the economy in Croatia over the course of the period from 2000 to 2019, using data collected quarterly. The span of time from the year 2000 to the year 2019 is the primary focus of the analysis. The databases of the Croatian National Bank and Eurostat were searched in order to gather the data for the study. We looked at two different combinations of time series: Two logarithms are needed here: (1) the logarithm of the expansion rate of GDP and the logarithm of FDI; and (2) the logarithm of the expansion rate of GDP and the logarithm of FDI/GDP. The investigation that was carried out making use of three different types of cointegration tests: the Engle-Granger cointegration test, the Johansen cointegration test, and the bounds cointegration testing (ARDL model). According to the findings of three different According to the results of the cointegration tests, there is no link between the quarterly growth rate of GDP and any of the FDI variables that exist in long-run equilibrium. Because there is no Granger causation link between these series due to the absence of a long-run equilibrium association among the growth rate of GDP and FDI, the two cannot be correlated with one another. In other words, foreign direct investments do not have an influence that is with according to the growth rate, statistically significant of Croatia's GDP during the time under investigation. This research work has significant repercussions, both in the theoretical and practical realms. The predominant kind of foreign direct investment (FDI) being brownfield FDI is one of the hypotheses that might help explain this phenomenon. However, greenfield foreign direct investment is the sort that has greater beneficial impacts on the country that receives it; hence, nations should concentrate their efforts on luring greenfield FDI. Within the context of the relationship between growth in the economy and the expansion of the economy and investments in foreign direct investment (FDI), financial expansion is often seen to function as an absorbent capacity. Therefore, the influence that FDI has on the level of financial growth in a country is proportionate to the pace of economic growth occurring in that nation at that particular time. However, the findings of the research that have been conducted thus far support the "too much finance is harmful to economic growth" concept, which asserts that more financial development slows the rate of economic expansion. Therefore, the issue arises as to how far financial development should be extended in order to maximize the potential benefits that direct investment from overseas can bring to the expansion of a country's economy. This study is groundbreaking in that it reevaluates the role that economic expansion plays in the connection between increasing levels of foreign direct investment (FDI) and growing the economy. To be more specific, it accomplishes this goal by including a word that describes the connection between globalization and foreign direct investment in the nonlinearity of the influence that financial development has on economic growth over time period after the Global Financial Crisis of 2007–2008. Using data from the period 2009–2013 for 65 developing countries, our findings, which contrast the findings from earlier research, reveal that the nonlinear linking of financial development on economic growth is a U-shaped curve. This is an interesting discovery since it contradicts the conclusions from the previous studies. The manner in which absorptive capacity's effects operate is nonlinear. This indicates that the rate of growth can only be sped up by foreign direct investment (FDI) in a country once it has reached a specific degree of financial advancement. However, even a relatively low dose can start to have a positive effect. The results of the study indicate that the level of financial development needs to be improved since it functions as a kind of absorptive capacity that enables recipient nations to experience the favorable benefits of foreign direct investment (FDI). This means that the degree of financial development needs to be increased. Ogege (2019) The major determination of this research is to examine the influence that changes in inflation, interest rates, and exchange rates have had on a range of economic development measures in Nigeria. This research will be carried out by analyzing data collected over the course of one year.

The index of life expectancy, the index of human development, the index of consumption per capita, the index of the physical quality of life, and the index of health and education are all examples of these types of indicators. The descriptive, correlational, and regression analysis methods were utilized in order to make sense of the secondary data that was obtained from the CBN statistics bulletins published between 1981 and 2017. These analyses were carried out on the data. The data from the empirical study showed that there is a relative influence that macroeconomic factors have on the economic development indicators for Nigeria. There are significant repercussions that the various systems of economic quality have on performance metrics. Inferences drawn from this study suggest that the many components of economic characteristics exert a variety of influences on the various metrics of performance. However, It is advised that variables related to economic development be exploited to create an environment that is advantageous for investment. These variables include inflation, interest rates, and currency rates. When attempting to achieve one of its primary goals—namely, inflation in the single digits—the nation's central bank needs to take into account the level at which inflation is considered unacceptable. In addition, the government should use stringent monetary policy measures on occasion in order to keep inflation under control.

Dauda et al. (2019) Not only does it assist to enhance the economy of the host country, However, this not only aids in the development of the local workforce, which is why it is a good idea to invite international corporations to set up factories there. This is due to the fact that the majority of international businesses have a tendency to bring in their own experts, who ultimately end up educating the local workforce on particular new abilities that ultimately result in an improvement in the capability of the human resources, and therefore, the economy of the host nations. Because of this, Foreign Direct Investment (FDI) has a chance to play a significant role in the development of Human Resource Management (HRM) in the nations that receive it. This is particularly true for economies that are still building their HRM practices, such as those in developing countries. Additionally, the cash that is created through FDI may boost the efficient functioning of HRM, which in turn will motivate organizations to reach the production targets that have been established. In order to employ and teach local personnel on how to improve job outputs, qualified foreign Human Resource Experts (HRE) are tasked with this obligation. This article examined the role that international businesses, particularly Chinese businesses, play in the growth of Sierra Leone's economy by concentrating not only on the theoretical underpinnings of human resource management in Sierra Leone but also on its actual implementations there. In the study, we explored the difficulties that are faced by international businesses in Sierra Leone, where HRM is still in its infant stages. With the expectation that everyone involved in the decision-making process and stakeholders in the nation might begin to see foreign direct investment (FDI) as an important component for the human, socioeconomic, and cultural development of the country, this report proposed a number of solutions that are both feasible and effective for addressing such concerns. Miftahu Idris (2019) This research uses yearly time series data ranging from 1980 to 2017 to investigate the effect that varying interest rates have on the pace of economic expansion in Nigeria. This phenomenon is especially intriguing from a theoretical aspect as well as for the purpose of gaining an understanding of the processes that govern financial markets. The vector autoregression (VAR) model and the Granger causality test are used in order to estimate the model coefficients and quantify the degree to which the variables in question are connected to one another in a casual manner. The VAR-based impulse response purpose and its accompanying variance disintegration estimates reveal that there is a negative link between interest rates and financial development in Nigeria. This is shown by the fact that the results show the attendance of this association. In addition, the Granger causality test reveals the presence of a causal link that operates in equal directions, indicating a connection between interest rates and overall economic expansion. As a consequence of this, the authorities in charge of monetary policy should devise and put into effect interest rate policies that encourage investment while also taking into account other factors that slow the growth of investment. The monetary authorities and policymakers in Nigeria need to take policy measures that are growth-oriented and have the potential to propel the economy to greater productivity and sustainable economic development in order for the country to accomplish the level of development that has been set as a goal for the country.

Hayat (2014) conducted research to study the connections between investment from overseas (known as FDI), access to natural resources, and overall economic expansion are all important factors. In order to analyze how the level of foreign direct investment (FDI) impacts the rate of economic expansion in the nation in which it is invested, the study uses a larger sample size of 106 countries as its subjects. In addition, there is the school of thought that an excess of natural resources will retard the expansion of the economy. This investigation's objective is to determine whether or not the accessibility of The available resources from nature plays a part in how rising economic activity and foreign direct investment are related. The sample period for this study is 1993–2012. On the other side, the availability of natural resources is a barrier to the development that is brought about by FDI. The findings remain the same even after accounting for the possibility of endogeneity.

Olawale and colleagues (2021) conducted research to determine how a nation's natural resource endowment influences its level of economic performance (or otherwise). By doing so, some researchers identified organizations (while others recommended human capital) as a channel via which resource extraction endowment fosters economic growth. Others suggested the opposite, namely that human capital is the more important factor. This study's goals can be summarized as follows: investigate the significance of natural resource endowment, foreign direct investment (FDI) and financial development in the Middle East and North Africa (MENA) region. Applying the ARDL methodology to annual data from 1990 to 2017, our empirical results reveal that natural resource endowment is positively associated with growth, whereas human capital has both negative and positive effects, with the negative impact being stronger than the positive impact. In a similar vein, while the aggregated assessment of institution quality produces a negative estimate, the disaggregated assessment of institution quality produces a mixed result. In addition, FDI boosts development in the short term but not in the long term; human capital is considered to mitigate the adverse effects of FDI on the development of the MENA region by 0.01%, while institutions modify the previously demonstrated negative link between FDI and growth by 0.15%. In conclusion, a positive growth impact is generated from the interaction of natural reserve endowment and human capital, as well as a positive coefficient for the interaction role in terms of the quantity and quality of natural resources and institutions. They explain why the relationship between growing economic activity and foreign direct investment effect on natural resource endowment is only 0.01%, whereas institutional quality's effects is 99% has a 0.23% impact on the positive impact that natural resource endowment has on economic growth. [Citation needed]

Gherghina et al. (2019) Examine the connection the correlation between the increase in foreign direct investment (FDI) and the expansion of the economy and the expansion of the economy. In their research, the authors take into account not just the sustainable development goals (SDGs) specified in the Sustainable Development Goals for the 2030 Agenda but also a wide variety of institutional quality indicators. The empirical findings of building regression panel data models for a selection of 11 Central and Eastern European nations from 2003 to 2016 show that there is evidence that a non-linear connection exists between FDI and GDP per capita. This is shown by the fact that there is evidence that a non-linear connection exists between FDI and GDP per capita. The years 2003 through 2016 make up the time period in question. It has been established that some factors have a beneficial effect on the progression of things, such as the management of corruption, the efficiency of government, the quality of regulations, the authority of the law, in addition to voice and responsibility. On the other hand, it has been established that factors such as the absence of violence or terrorism, as well as good governance, do not make a statistically significant difference in development.

In addition, important growth drivers are the Millennium Development Goals (MDGs) of ending extreme poverty and inequality in income, expanding access to quality education, fostering innovation, and enhancing transportation and information and technology infrastructure. The conclusions are supported, in part, by the findings of the panel total modifications and the dynamic ordinary least squares. Panel vectors serve as the foundation for the error-correction model. Granger causalities provide support for both a short-run one-way causal relationship between foreign direct investment (FDI) and growth and a long-run two-way causal relationship between FDI and growth. In addition, Granger causalities provide support for a two-way causal relationship between FDI and growth. In addition, over an extended period of time, unidirectional causal links are established between each institutional quality measure, expansion of the economy, and increases in foreign direct investment (FDI). These relationships are causal in nature.

Orji et al. (2021) A study was done on the repercussions of international direct investment (FDI) on financial development in Nigeria, the largest economy in Africa, as well as the lengthy link between FDI and the expansion of the economy in Nigeria from 1981 to 2017. The study was conducted in 2017. The years 1981 through 2017 were comprised in the study's scope. During the course of the examination, researchers applied both the distributed autoregressive lag modeling technique as well as the standard least-squares technique. The outcomes of the empirical research indicate that during the time frame that was taken into account for the research, it would appear that foreign direct investment (FDI) had a correlation that was both beneficial and significant with the growth of the economy in Nigeria. The research came to a conclusion and made the recommendation that the government of Nigeria develop policies to entice additional foreign direct investment (FDI) in all of its economic sectors, In order to strengthen infrastructure facilities, particularly in both the service and manufacturing sectors, increase production of products in the nation, and increase the size of its labor force. This recommendation was made after the study came to a conclusion and made the recommendation. Finally, there is a need to strengthen the educational policy of the nation in order to expand the supply of skilled labor available in the nation. In order to realize the objective of boosting the availability of skilled workers in the country, it is required to carry out these steps. This will provide useful strategies for attracting productive foreign direct investments to the country, which is the ultimate goal of the educational policy of the nation.

Baorong and Keita (2022) While the majority of theoretical literature assumed that foreign capital inflows provided wide advantages to recipient countries, this premise has lately been called into doubt in Guinea since the accompanying GDP growth has had a limited influence on social welfare. This empirical analysis provides a clearer Analysis of the level to which FDI has been a driving force behind financial development in Guinea from 1990 to 2017,.The investments made by international companies directly FDI estimates, which stand for foreign direct investment are often derived from foreign direct investment net inflows expressed as a percentage of gross domestic product (GDP), while indices of economic success are typically derived from the rate of increase in GDP. Presented below is a list. of the findings and interpretations that can be drawn from this study: Second, there is a correlation between a significance level of 1% and the favorable and long-lasting effect that sustained levels of direct investment from overseas have on the rate of economic expansion in Guinea over the course of a significant amount of time. According to the findings of this study, there is a correlation between an increase in the number of 0.45% in annual GDP growth and an increase of 1% in foreign direct investment as a proportion of total GDP. In addition, the findings of the primary study on the effects of foreign investment in Africa and other countries that are still in the process of constructing their economies are consistent with this conclusion, which shows that this result is in accordance with those findings. Second, the long-run coefficients and the short-run coefficients tell the same story when interpreted together. Foreign direct investment (FDI) as a percentage of GDP (L1 and L2) contributes constructively and significantly to the expansion of the Guinean economy. Even if there is substantial evidence that FDI has a constructive impact on the state of the economy in Guinea, the government should evaluate the kind of foreign investment that should be welcomed in the nation. Even if there is substantial evidence that FDI has a constructive influence on the economy in Guinea, The findings of the paper suggest that market or effectiveness investment should be prioritized over the search for resources without the intention of transforming those resources. Because of this, the economy of Guinea will experience growth that is both more robust and richer.

The authors, Asante et al. (2022), conduct empirical investigation on the interplay and repercussions of international direct investment (FDI) and fraud on industrial expansion in the region encompassed by the Economic Community of West African States (ECOWAS). This research estimates its conclusions by employing the system-GMM estimation, which mixes a system of regression analysis in difference and in degrees to get over the problem of endogeneity. The panel data used in this study is from 15 different ECOWAS countries and spans the years 2000 to 2019. The research indicates that while foreign direct investment (FDI) does drive economic development on its own, efforts to combat corruption have very little direct impact on growth in the region. The mutually reinforcing effects illustrate how foreign direct investment (FDI) and anti-corruption efforts are mutually supportive of economic development in the ECOWAS region. When there is an improvement in the control of corruption in the first, fifth, tenth, and twenty-fifth percentiles, the development benefit of foreign direct investment (FDI) is bigger and stronger. This study advocates for more openness and a greater level of political support to vigorously investigate, prosecute, and punish corruption in the ECOWAS area. These changes are necessary to increase investor trust, boost foreign direct investment inflows, and maximize the positive effects these inflows have on economic development. Studies have demonstrated that foreign direct investment (FDI) in host nations is an significant component of economic growth; yet, relatively little is known about the ways in which anti-corruption laws influence the connection between rising economic activity and investments made directly from outside. This article offers assistance to policymakers by offering actual data in an effort to help overcome a gap in the existing body of knowledge.

According to Andrew and Co. (2022), Through the utilization of the autoregressive distributive lag (ARDL) technique methodology to the data for the period of 1981–2018, the goal of this research is to look into the situation in the long-term co-integrated connection between both the exchange rate and investment from abroad with economic growth. This will be accomplished by analyzing the data. It has been demonstrated that there is a connection, at least in the long run, between the rate of currency exchange, general financial development, and the increase of direct investments made by foreign entities in the domestic economy. The research indicates that direct investment from foreign sources has a favorable effect on the expansion of the economy and is contributing to it. and adds significantly to the rate of adjustment, which comes in at 78.46%. The study makes a number of recommendations, one of which is that the government of Nigeria create an environment that is favorable to the success of private businesses. The report indicates that the government should take actions that would increase investor confidence and make it possible for multinational firms to take part in the economy of the country. It is strongly recommended that both public and private groups boost the amount of money they put toward the improvement of the nation's educational and medical facilities.

Dinh et al. (2019) explored the immediate and long-term implications of this effect for economies in emerging and developing nations, especially throughout the period of tumultuous economic conditions that coincided with the world economic crisis. This was particularly significant because it occurred during the period of time when emerging and developing nations were experiencing the most difficulty. The impacts that this influence had during this time period were the primary focus of their attention. As a consequence of this, The purpose of this article is to conduct an investigation. and present additional and significant quantifiable information on the influence of foreign direct investment (FDI) on economic development within developing nations that are classified as having a lower-middle income range from the years 2000 to 2014. This information pertains to the time period from 2000 to 2014. This information pertains to the time period from 2000 to 2014. For the purpose of determining whether or not the findings may be relied upon, we will need several distinct econometric techniques, tests like the panel-based unit root test, the Johansen cointegration test, and the vector error correction model (VECM) are examples of these. and the completely modified ordinary least squares model (FMOLS), are utilized.

This research came to the conclusion that foreign direct investment (FDI)) maybe an assistance to the acceleration of a nation's overall economic growth over the course of multiple generations, but it may have the opposite effect in the near term for the countries that were investigated. The explanation of economic progress in these countries relies substantially on the interplay of a number of different macroeconomic factors. On the other hand, a rise in the quantity of cash that is accessible has an optimistic impact on economic expansion in the short run, whereas an increase in the total amount of credit that is made available to the private sector has an adverse impact. A rise in the amount of money available has the consequence of producing a beneficial outcome. An increase in the overall amount of credit that is made available to the private sector will result in the production of an effect that is detrimental. In addition, the total amount of money, the total amount of human capital, the total amount of domestic investment, and the total amount of domestic credit for the private sector are all factors that have an effect on the expansion of the economy over a more extended time frame of time. The conclusions of this study have provided the governments of these countries with some recommendations for the course of action that they should take as a result.

There is a relationship between the volume of foreign direct investment (FDI) that a country receives and the rate of economic expansion in that country. in host nations.

is a hotly discussed topic, and Sarker and Khan (2020) set out to examine it. They aimed to determine whether there was a correlation between the two. In spite of the fact that certain studies have uncovered data suggesting that The term "foreign direct investment" (FDI) refers to capital that originates from sources outside the nation. other studies have uncovered evidence suggesting that this is not the case. The researchers who looked into the connection between Gross Domestic Product and Direct Investment from Overseas Companies found evidence of unidirectional and, in some instances, bidirectional causality as they carried out their investigations. The enhanced Dickey-Fuller test, the augmented Dickey-Fuller generalized least squares test, the Kwiatkowski-Phillips-Schmidt-Shin test, and the Lee-Strazicich test for unit roots were the tests for stationarity that were carried out. The enhanced autoregressive distributed lag (augmented ARDL) bounds testing method was put into place so that it could be used to determine whether or not cointegration actually existed. Researchers turned to the Granger causality hypothesis in order to examine the trajectory that causation was following and make sense of their findings. An improved version of the ARDL model found that there is a consistent link between GDP and foreign direct investment. Also, the findings of the error correction model and the Granger causality analysis suggested the existence of a unidirectional causality that travels from GDP to FDI. This was demonstrated by the fact that the causality went in the opposite direction. This causality was proven by the correlation between the two variables.

Karimi et al. (2009) carried out a study into the relationship between international investment and the expansion of the economy. This particular methodological technique is based on the Toda-Yamamoto test for causality, which also includes a limit testing component (ARDL). The study looked at data from time series from 1970 to 2005 and came to the conclusion that there is not enough evidence to support either a bi-directional causal relationship or a long-run link involving Malaysia's progress in terms of both financial development and foreign direct investment (FDI). This conclusion was reached after looking at data from a time series. This illustrates that In point of fact, investments made directly from abroad do, have an effect, although a secondary one, on the expansion of the Malaysian economy.

The investigation examines the correlation between high levels of foreign direct investment and higher levels of (FDI) and increased levels of economic growth in

Malaysia that was carried out by Har Wai Mun and colleagues (2008) makes use of time series data to look at the period of time from 1970 to 2005. Empirical studies and regressions utilizing ordinary least squares (OLS) are carried out, with yearly data on Malaysia's economic growth and the country's openness to foreign direct investment (FDI). from 1970 to 2005 being used. These studies and regressions are carried out using OLS. This study conducted an analysis of yearly data taken from the International Financial Data Tables that are produced by the International Monetary Fund in order to study the connection between higher rates of economic growth and direct investments from other countries like Malaysia, for example. This was done In order to find out if there is a connection between the two things, we need to determine the possibility that there is a connection (the IMF). According to the results, the I-1 series classification applies to all three of Malaysia's LG series: LGDP, LGNI, and LFDI. There is a lot of evidence to recommend that there is a substantial relationship between the expansion of Malaysia's economy and the amount of money that comes into the country as a result of investments made by other countries, and this assertion is supported by the fact that there is a meaningful connection between the two, which has been seen. The actual Gross Domestic Product (GDP) is directly and favorably impacted by the level of foreign direct investment (FDI) (RGDP). There is a direct relationship between a one percent rise in FDI rates and a 0.046072% increase in growth rates. In addition, FDI, which stands for "foreign direct investment," has a direct and positive influence on RGNI. This is due to the fact that a one percent rise in FDI rates results in a 0.04487 percent gain in growth.

Nisto (2014) examines the significance of foreign direct investment (FDI), which is more correctly referred to as foreign money. FDI stands for "foreign direct investment." The influx of foreign direct investment (FDI) often has a positive impact on the economies that are the recipients of such investment. This effect is known as the "FDI effect." Despite the fact that there is a considerable relationship between the total amount of overseas investment and the amount of GDP, it is in the best interest of all states, there was fierce competition for the nation at both the macroeconomic and microeconomic levels prior to the year 2000. This competition was caused by the fact that the Romanian economy attracted fewer FDI inflows than other rising economies. The manifestation is different depending on the location and region of the host nations, and it is significantly dependent on the quality of the GNI direct investment as well as the volume of it. Obviously, the economies of Romania or the EU are different, and this article tries to identify if FDI the discovery that there is a meaningful connection between the two, which was made possible by observation., specifically GDP growth, in order to appraise if FDI has a beneficial effect on the growth and development of the Romanian economy.

Exchange rate and growth nexus

Ehigiamusoe and Lean (2019) explore the moderating effect of the actual currency rate and its fluctuation on the West African finance-growth nexus. In addition to this, it computes the marginal impacts of financial growth on economic expansion at varying levels of the actual exchange rate as well as the degree to which the actual exchange rate fluctuates. This can be done in a number of different scenarios. According to the findings, the expansion of Over an extended period of time, the contribution of the banking industry to the pace of expansion of the economy has been positive. This effect is felt across the economy. Despite this, some of the benefits of this relationship are mitigated by the real rate of exchange and its volatility. There is a large amount of variation in the marginal effects that financial expansion has on the economy, and these effects are dependent not only on the level in terms of the actual exchange rate but also on its volatility. An increase in the degree to which a shift in terms of the real exchange rate, this has a moderating impact on the impact that increased spending and investment has in relation to the growth of the economy as a whole. In addition to this, we provide proof of the condition in specific countries located throughout the region. The primary hypothesis of the research is that growth in the financial sector will not offer the desired economic advantages unless it is followed by a decrease and stability in real exchange rates. The report presents policy suggestions based on its results.

Kibe et al. (2022) conduct research on the elements that influence economic development and find diverse findings in various nations. In order to stimulate and promote collective development in all spheres of economic activity, as well as the implementation of macroeconomic strategies and initiatives to increase was established. This was done in addition to the implementation of macroeconomic policies and programs to improve the average of living of the individuals of its member nations. Among other things, focus was placed on mobilizing domestic financial resources, mobilizing foreign resources, and boosting international commerce as a development engine. Nevertheless, it is unclear if these policies are a cure for the COMESA nations' economic development problems, and economic expansion in these nations has remained a challenge in all economies. This research looked at factors that influence economic development, such as investor protection, grants and loans to the non-public organization, the foreign exchange rate, and corruption. The research concluded by stating that more providing financial assistance to the private sector stimulates economic development. This is due to investors' willingness to invest in riskier ventures while pushing safe borrowers to be more effective. Currency depreciation may make a country's exports cheaper and its imports more costly. The financial sector, particularly in the economy's formal sectors, is crucial in channeling savings into productive investment. The banking industry is largely considered a critical economic channel for financial intermediation. Credit given to the private sector boosts a country's productivity. This study provides new information by evaluating the factors of economic development in COMESA nations. The findings allow macroeconomists, policymakers, and central monetary authorities from all countries to get a thorough understanding of the impact of investor protection, loans to the private institutions, foreign currency rates, and corruption in stimulating economic development.

Khan (2022) Over an extended period of time, the contribution of the banking industry to the pace of expansion of the economy has been positive. This effect is felt across the economy. living in its member nations the nominal rate of exchange, investment from abroad, and unanticipated event shocks have on the growth of Bangladesh's economy. Both the augmented Dickey-Fuller and the Phillips-Perron unit root tests can be utilized in order to ascertain whether or not unit roots are present. In addition to that, you may use these series of tests in order to determine whether or not the factors under consideration are stationary. In order to find out what kind of connection there is between the factors that are independent and the variable that is being studied the method of analysis known as the ordinary least squares method is utilized. This method of analysis is employed with the intention of elucidating the character of the connection between them. The purpose of this investigation is to find out how the The relationship between independent and dependent variables is established. According to the findings, the rate of currency exchange as well as investments made directly from outside the country have each had a substantial influence on the expansion of the national economy throughout the course of the previous few years. On the one hand, unanticipated events such as COVID-19, natural disasters, and other incidents of a similar nature have a negative impression on the financial development of Bangladesh. On the other hand, the level of price increases, foreign direct investment (FDI), and the exchange rate all contribute to the expansion of Bangladesh's economy in a positive way. The research may be of assistance to policymakers in determining, developing, and putting into action viable plans for the expansion of the country's economy.

According to Morina et al. (2020), the currency rate is a crucial component of the macroeconomic environment that effects both international commerce and the actual economy of each nation. The growth of international trade produces conditions that are favorable for fluctuations in currency exchange rates. The objective of this article is to study the various ways in which actual currency rate volatility affects economic expansion in the nations that are located in Europe's Heartland and its Eastern Periphery. In addition, research is conducted to determine the effects of three distinct channels of impact on economic growth. These channels differ in how they evaluate the volatility of exchange rates. The nature and impact of such movements on growth are investigated in this research by using annual data for fourteen Central and Eastern European nations from 2002 to 2018. The empirical findings, which were obtained by the application of fixed effects estimates to panel data, indicate that fluctuations in exchange rates have a substantial depressing effect on real economic growth. When alternative metrics of indicators of the exchange rate's degree of volatility include the standard deviation and the z-score. are utilized, it appears that the conclusions are consistent with those measurements. In order to stimulate economic growth, the author of this article suggests that policymakers implement a number of different techniques to keep the exchange rate stable.

Rahim et al. (2021) carried out a study in Southeast Sulawesi, Indonesia, with the objective of determining whether or not there is a correlation between the use of gasoline, fluctuations in currency exchange rates, and expansion of the economy as a whole. We utilized annual data from a time series. that went all the way back to 1988 and went all the way up to 2016. The estimated outcomes of the VAR model and the Granger causality test reveal that the apparent causal link among fuel use and financial development is only temporary. More precisely, the Granger causality test shows that the observed causal link is only between fuel use and economic development.

Using time series data and two econometric models—a trivariate VAR and the ARDL bound test—Arthur and Addai (2022) investigate the dynamic interplay between foreign direct investment, economic expansion (GDPG), and the actual exchange rate (RER) in Ghana from 1996 to 2018. Their research covers the period from 1996 to 2018. Using time series data and two econometric representations—a trivariate VAR and the ARDL bound test—Arthur and Addai (2022) investigate the dynamic interplay between expansion of the economy, as well as direct investments from abroad (GDPG), and the actual exchange rate (RER) in Ghana from 1996 to 2018. Their research covers the period from 1996 to 2018. Their investigation spans the years 1996 to 2018. The years 1996 through 2018 are encompassed under the purview of the investigation; however, the most attention is paid to the years 2018 through 2018. In the long run, there does not appear to be any connection between the components, as indicated by the data. Notwithstanding this, both FDI and RER contribute to a positive causal shock that is experienced by GDPG. As a result, there has been a positive response from FDI to the RER shock. Because of the interdependence of the components, it is suggested that the government adopt strategies and procedures that would ensure the best possible equilibrium within this nexus.

Using time series data and two econometric models—a trivariate VAR and the ARDL bound test—Arthur and Addai (2022) investigate the dynamic interplay between foreign direct investment (FDI), economic expansion (GDPG), and the actual currency rate (RER) in Ghana from 1996 to 2018. Their research covers the period from 1996 to 2018. Their inquiry covers the years 1996 all the way up until 2018. The years 1996 through 2018 are covered under the scope of the study; however, the years 2018 through 2018 receive the lion's share of the focus and consideration. According to the findings, there does not appear to be any connection between the components in the long run. This conclusion is drawn from the data. These findings were obtained by taking into consideration of the asymmetric assumption. Changes for the better, such as an increase in how much one unit of cash is worth in relation to US dollar are observed to result in fewer FDI inflows over the long term, whereas negative shocks result in bigger incoming foreign direct investment. Despite this, positive shocks are responsible for the creation of a greater intensity than negative shocks. in the currency rate. The validity of the long-exchange rate for directional causation is demonstrated by the coefficients that make up the error correction term.

CHAPTER III

Methodology

Data

For the goal of conducting a regression analysis, this research makes use of secondary data. The data that was used for this research was obtained from the project supported by the Global Bank. The databases of the World Bank are vital instruments that provide essential management support initiatives and then provide key relevant data for such operational activities of the Bank. These databases are also an important source of information for the general public. The utilization of norms and guidelines that are acknowledged on a global scale leads to the production of a reliable source of information that is consistent in its presentation. Statistics must not only be accurate but also applicable if they are to be of any value. They have to be accurately compiled in accordance with all of the established procedures and standards. They are also obligated to fulfill the requirements of the users and provide solutions to the concerns provided by policymakers. In terms of the generation of data that is reliable and up to these requirements, developing nations confront a variety of challenges. They frequently find themselves trapped in a virtuous cycle in which insufficient funding in national statistical frameworks both restricts operations and produces data of such poor quality that decision makers are hesitant to depend on them. This is a situation in which they find themselves locked in a vicious cycle. Because there is not a lot of interest in the data, there are limited resources readily accessible for the manufacturing of their products and the quality control of those products. The mission of the World Bank is to empower low-income countries to lift themselves out of poverty and into a position of sustained economic expansion. Expenditures on activities related to statistics, the establishment and application of regulations and structures for data collection, analysis, and distribution, the strengthening of the global data model, as well as the collection of international data sets are only some of the many facets of our activity.

Variables

GDP growth-Rate When compared to market standards values and on the basis of levels of the local money that have remained constant over time, the yearly percentage increase of GDP Calculations of aggregates are done with prices from 2015 kept unchanged, and results are presented in US dollars. When calculating gross domestic product (GDP), it is necessary to first total each individual item tariffs and then deduct all of the incentives that are not factored into the item values. This is done so that the final number may be expressed as a percentage. It would appear that the entire quantity of value that was produced by all of the local manufacturers and suppliers within an economy is what is meant to be represented by the term "gross domestic product," or GDP. While calculating it, nothing is subtracted to account for factors like the depreciation of generated assets as well as the depletion and deterioration of other assets of mineral riches. Instead, it is computed without any such deductions. In other words, none of these considerations are taken into account in the analysis. "Gross domestic product" is an acronym that stands for "gross domestic product," which refers to the total amount of value added by each and every one of the nation's manufacturers together. GDP stands for "gross domestic product." The phrase "worth added" refers to the increase in value that occurs when the total output of producers is compared to the worth of the intermediary products and operations that are utilized during the making of. This comparison results in a difference in value. This distinction is made before the value that is placed on the fixed assets that are employed in the manufacturing process is taken into account. Either using basic prices, which do not take into account any additional taxes that have been placed on the commodities, or using producer prices, it is required by the United Nations System of National Accounts recommends an investigation into value added. The term "basic prices" refers to prices that do not take into account any additional taxes that may have been levied on the items being purchased (this includes the net taxes on items paid by manufacturers but does not include sales or value-added taxes).

These calculations don't factor into consideration the expenses associated with travel, which are billed individually by manufacturers. The total GDP is often calculated using purchaser prices. The value contributed by industry is often calculated in relation to the pricing of the base goods when the value added is calculated using the prices of the producers. The technique of least squares is combined with information regarding prices in the currency of a country that have remained constant in order to calculate growth rates for both the GDP as a whole and its individual mechanisms. For computing growth rates for various geographies and income levels, holding all other variables constant price series denominated in US dollars are often used. The next step is to convert the data, which were previously denominated in local currencies, to constant US dollars to use a currency value from the useful reference year. It is possible to get an idea of how quickly an economy is growing by tracking the rate at which the quantity of its production or the real incomes of its citizens change over the course of a predetermined amount of time. According to the 2008 System of National Accounts (SNA) that was published by the United Nations, the three possible indicators that can be used The quantity of gross domestic product (GDP), actual national earnings, and employment rate are the three factors that are used to determine growth and real net governmental revenue. These are the three possible indicators that can be used to calculate growth. These are the figures that were used to compile the 2008 SNA. The total amount of value created by families, the government, and businesses that participate in the economy is what is included in the GDP. This value is calculated using constant prices. The GDP takes into account all of the output that occurs inside a country, regardless of whether the money is earned by local or international entities.

The term "foreign direct investment" (net inflow) refers to the net financial flows of a portfolio that are created specifically with the goal of obtaining a lengthy managerial involvement in a company that operates within an economy that is separate from the investor's own economy. This interest would be held in the business for a longer period of time than the investor would hold it in their own economy. The term "foreign direct investment" comes from the phrase "direct investment in a foreign country." To qualify as having this interest, you need to possess at least 10 percent of the company voting stock. While determining the balance of payments, the entire amount of capital reserves, reinvestment of revenues, additional capital invested for the long run, as well as capital invested for the short term are all taken into account. One example of an additional type of capital is the reinvestment of earnings. Other forms of long-term capital are also included in this category. This series breaks down the net inflows by GDP (new investment inflows minus disinvestment inflows) the economy reporting them has received from international investment. Statistics on the International Financial Services Authority compiles and disseminates balance of payments data; these figures serve as the foundation for the data on stock flows. The data on investment from abroad are supplemented by staff estimates provided by the World Bank. These estimates are drawn from In addition to information from officially recognized sources, The United Nations Committee on Trade and Development (UNCTAD) provides the data. According to the most recent iteration of the Balance of Payments Manual, which was published in 2006, which was accepted for publication by the International Monetary Fund in 2009, the components that make up the international agreement on the term "foreign direct investment" are as follows: equity stake, including resource provisioning with equity that offers ascent to influence or control; investment has indirectly impacted or controlled enterprises; funding in fellow enterprises; debt (except sukuk); equity stake in a fellow enterprise; equity stake in an indirectly influenced or controlled enterprise; investment The parameters that can be used to determine whether or not there is a connection between a cross-border ownership arrangement and direct investment are outlined in the Direct Investment Relationships Framework. These criteria are based on the control and influence of the investment in question. Foreign direct investment also referred to as (FDI), is a type of international investment that differs from other types of international investment in that its purpose is to gain effective leadership oversight of or create a long-term investment in a corporation that is based in another nation. In order to maintain a long-term stake in a particular investment initiative, it is frequently necessary to set up warehouses, manufacturing facilities, and other organizations in a foreign country that are permanent or intended to last for a significant amount of time. An investor has the option of making a direct investment in the form of a greenfield investment, which occurs when the investor establishes a new enterprise in a foreign nation by constructing new operational facilities; a joint venture, which is when the investor enters into a partnership agreement with a corporation abroad to establish a new enterprise; or a merger and acquisition, which is when the investor acquires an already existing enterprise in a foreign country. According to recommendations made by the International Monetary Fund, in order for investments to be categorized as foreign direct investment, they need to constitute at least 10 percent of the voting stock (FDI). This requirement is in place so that FDI can be tracked. In fact, several countries have chosen to set a higher standard for themselves. Several countries choose not to make public the percentage of their income that was put back into the economy, and the concept of what constitutes a long-term loan is understood differently in each nation. "Balance of Payments" is what "BoP" stands for in this context. The vast bulk of the capital that is invested in development originates from private sources and might take the form of either stock or loans. Equity flows are a type of financial transaction that includes both portfolio equity and foreign direct investment (FDI). Debt flows can take many forms, and some examples include the issuance of bonds, the borrowing of money from banks, and the provision of credit to various vendors. The data on foreign direct investment, also known as FDI, do not provide a comprehensive picture of direct investment in an economy. The numbers on foreign direct investment (FDI) that are included in the balance of payments do not take into account the money that was raised locally. Money that was raised domestically is a substantial source of investment finance in a number of developing economies. In addition, non-equity cross-border activities within a unit, such as the transportation of goods and services, are not accounted for in the figures for foreign direct investment. The amount of global personal financial flows that was announce by the World Bank is different from the amount that was published by other sources because of discrepancies in the data in the categorization of economies as well as the method that was used to modify and disaggregate the information that was provided. The World Bank reported a higher number of global private financial flows than other sources did. When it comes to the topic of debt financing, the way in which particular trade installments and some offshore issuances are analyzed can also result in modifications. This is especially important to keep in mind because of the significance of the topic. The data for each nation's equity flows are displayed here, and those numbers cover every country for which there are statistics.

Interest rate-The term "real interest rate" refers to the lending rate subsequent to the GDP deflator has been used to adjust it for inflation. Yet, the terms and circumstances that are tied to loan rates vary from nation to nation, which makes it difficult to compare them. A disparity in the status and position of creditors and debtors can give rise to a wide range of interest rates in an economy. These rates are a reflection of the numerous competitive circumstances, the terms that regulate Savings and mortgages, and the variations with regard to the standing and position of creditors and borrowers. In other words, these rates are a product of the market. In many types of economies, the interest rate is typically determined by legislation or an official decree. Sometimes, though, the rate is simply determined by market forces. If a country has If the nominal rates that are stated do not represent the actual rates, or if the markets are flawed, it may be challenging to collect data on borrowing costs that accurately represent real market transactions. This may be the case in countries where such data is difficult to obtain. This may be the case in countries where effective rates do not reflect reported nominal rates. This can be the case in countries where there are actual transactions taking place on the market.

. This may make it difficult to find interest rate statistics. The International Monetary Fund (IMF) compiles data on interest rates on deposits and loans as a proxy for the rates of interest that banks give to their local clients as a representative sample. Nevertheless, the terms and circumstances that are tied to these rates vary from country to country, which makes it difficult to compare them. Before real interest rates can be calculated, nominal interest rates must first be adjusted downward by an amount equal to an estimation of the rate of inflation in the economy. Real interest rates can then be calculated. If the real interest rate is negative, this indicates that there will be a gradual decrease in the value of the principal over the course of the investment. The following is the formula that will be used to determine rates of interest based on real money: I P) / (1 + P) where I stands for the country's benchmark interest rate. on loans and P represents the inflation rate. I P) / (1 + P) (as measured by the GDP deflator). In 2009, the International Monetary Fund (IMF) started providing monetary statistics in a new format for nations that submitted according to the guidelines laid out in its Manual of Monetary and Financial Statistics 2000. This new format was implemented for nations around the world.

This new presentation is applicable to countries that have been reporting data since 2000. The format stays the same for nations that publish their statistics in line with the International Financial Statistics (IFS). Both the banking system's net domestic credit as well as the system's net foreign assets are included as part of the banking system's assets. That portion of credit which has been made available to the private sector and the general administration is factored into the calculation of net domestic credit. Additionally, credit that has been extended to the non-financial government institution as holdings of both short-term and long-term sovereign debt as well as credit that has been extended in the form of loans to state enterprises is also factored into the calculation of net domestic credit. This figure does not take into account any liabilities due to either the public or private institutions, which take the amount of money that is maintained through deposits within the banking system. These liabilities are shown as a negative number. In addition, the total amount of credit extended within the country to nonbank financial companies and banking institutions is factored into the total. Domestic credit is the primary mechanism that is used in the process of regulating variations in the money supply, with lending from central banks to the respective national governments often playing the most significant role. Changing the cost of the recapitalization infrastructure that the central bank provides to banks, adjusting the rate of interest in the market through operations in the open market. Examples of ways in which Financing for privately held companies is subject to regulation by the central bank, institutions include setting ceilings on the amount of credit that banks can provide to the private sector, attempting to control the credit available through changes in the bank reserves that are levied on banks, and trying to control the amount of credit that can be provided to the private sector. The real rate of interest is an essential variable in a wide variety of different economic theories because it helps to explain a wide range of economic occurrences such as the business cycle, economic bubbles, and capital flight are examples of economic phenomena. This is due to the fact that the real interest rate contributes to the explanation of these and other economic phenomena.

Assuming that there is no change in any of the other parameters, the real interest rate will rise when there is a high demand for credit, also known as a strong demand for credit. This will cause a shift in the money supply away from consumption and toward savings. When the rate of interest that is actually being offered is low, there will be a change in the demand for savings away from investments and toward consumption and investments.

Variables Description

#	*Variables*	*Abbreviation*	*Measurement*	*source*
1	*Foreign direct investment, net inflows*	*FDI*	*(% of GDP)*	*World Bank*
2	*Gross domestic product growth*	*GDP*	*(annual %)*	*World Bank*
3	*Real exchange rate*	*REER*	*(2010=100)*	*World Bank*
4	*Real interest rate*	*RIR*	*(%)*	*World Bank*

Model specification

"Model definition" is the process of determining which independent variables ought to be included in a regression equation and which ones ought not to be included. In general, a regression model's specifications should be based more on theoretical than on empirical or methodological factors. This is because The issues of theory are more conceptual than those of empirical or methodological research.considerations. The procedure of selecting which of a set of variables will be utilized in a model is referred to as the "model specification" (MacCallum, 1995). Throughout the process of model definition, there is a conflict between the desire to include all important variables and the need to conserve statistical power. In order to produce models that are both as precise and as simple as is humanly feasible, a variety of techniques for specifying models have been created. In ARDL, the most popular way is to employ p-values, whereas information criterion is the method that is most often used by data scientists. In most cases, the p-value technique results in models that are simpler, in the sense that they include fewer variables. The research questions that may be addressed and the conclusions that can be drawn from them are determined by the variables that are included in a model. The primary purpose of this research is to, among other things. ascertain and explore the part that direct investment plays in the economy from overseas plays in the development of the economy in Sierra Leone. The primary argument that is presented in this piece is that a rise in the total amount of foreign direct investment that is taking place in a nation like Sierra Leone is one of the key factors responsible for the expansion of the economy. of that nation. We have developed the following model in the form of an equation in order to explore the effect that investments from other countries have on the economy development in conjunction with other aspects like the current exchange rate among others, rate of interest. Specifically, we want to look at how these factors interact with each other and with foreign direct investment.

$$GDP_t = \beta_0 + \beta_1 FDI_t + \beta_2 REER_t + \beta_3 RIR_t + \varepsilon_t$$

Whereas:

GDP stand for gross domestic product annually

FDI stand for foreign direct investment net inflow

REER stands for real effective exchange rate

RIR stands for real interest rate

T stands for the time interval

Ɛ *Stand for error term*

β *stand for the constant of the perimeter*

Descriptive statistic

Regarding its function as a count noun, the term "descriptive statistic" refers to a type of summary statistic that statistically characterizes or summarizes characteristics of a collection of information. According to Prem S. (1995), the term "descriptive statistics" may also be employed as a mass noun, despite the fact that the term refers to the way of employing and evaluating such data. In contrast to inferential statistics, the objective of descriptive statistics, which are often referred to as inductive statistics, is to provide a summary of a sample, as opposed to using the information to gain insight into the population that the data sample is considered to represent. into the population that the sample of data comes from. This is in contrast to the goal of inferential statistics, which is to gain insight into the population that the sample of data is thought to represent. This is in contrast to the purpose of inductive statistics, which is to get knowledge about the population that the data sample is believed to reflect. This is due to the fact that the purpose of inferential statistics is to derive conclusions about the population based on the data obtained from the sample. In the discipline of statistics, this aspect of statistics is what differentiates inferential statistics from descriptive statistics. Descriptive statistics focus on the data itself. This often implies that, unlike inferential descriptive statistics are statistics that are not generated based on probability theory, and they are frequently nonparametric statisticsIn contrast, inferential statistics are derived from the theory of probability, whereas the preceding were developed independently. This is in contrast to inferential statistics, which are frequently used to draw conclusions. Statistics that are used to draw conclusions from other types of data are known as inferential statistics. Dodge, Y. (2003). Descriptive statistics are almost always included as well, even when inferential statistics are taken into consideration to derive the major conclusions of a data research. This is because inferential statistics are more complex than descriptive statistics. For example, There is typically a table included in documents that reports on human participants. This table provides data regarding the general sample size, initially offered in significant subgroups (such as for each treatment or exposure group), and population or diagnostic features. These characteristics can include the mean lifespan of the subjects, the percentage the percentage of participants of every sex who were diagnosed with relevant co-morbidities, and so on. and so on. In addition, there is typically a column that provides information on whether or not the study was conducted in a controlled environment. Two types of measurements that are frequently utilized throughout the operation of defining data sets are known as measurements of central tendency as well as variability or dispersion. Central tendency measures and variability or dispersion measures are both sorts of measures. Variability can be measured in a variety of ways, together with the standard deviation, which is sometimes referred to as the variance, as well as the minimum and maximum values of the variables, in addition to their kurtosis and skewness values. All of these are examples of different ways to quantify variability. The average, the median, and the most common example are only three of the ways in which central tendency can be measured. Other examples include the mode and the range. In the computations that are used to measure variability, both the lowest and highest possible values of the variables are taken into account.

Unit root tests

a time series element is subjected to a test for unit roots, during which it is determined whether or not the variable is non-stationary and whether or not it retains a unit root unit. It is believed that the correlation matrix is understood to be equivalent to the existence of a unit root, while the alternative hypothesis can take the form of either being stationary, trending stationary, or having an explosive underlying cause, based on the specific kind of examination that is being carried out. The assumption that is always made is known as the null hypothesis. Both the Augmented Dickey-Fuller test and the serial correlation technique can be used interchangeably without any problems. The Dickey-Fuller test is limited in its ability to handle more complex models than its counterpart, the ADF test, which also possesses a greater amount of power. Both the Augmented Dickey-Fuller test and the serial correlation technique can be used interchangeably without any problems. In comparison to the ADF test, which is able to handle more complicated models, the Dickey-Fuller test has capabilities that are more restricted and therefore less useful. In the field of statistics, One kind of test that can be done to determine the unit root is known as the Phillips–Perron test. The names Peter C. B. Phillips and Pierre Perron were chosen to honor them through this examination. It is used for experiment In the field of time series analysis, the null hypothesis asserts that an integrated time series is completed in the wrong sequence. Another way to say this is that it is used to test the null hypothesis. In the year 1988, statisticians Peter C.B. Phillips and Pierre

Perron came up with the idea for the Phillips-Perron (PP) unit root test. In spite of the fact that the PP unit root test and the ADF test are extremely similar to one another, the primary difference between the two is in the approach that is taken by each test toward the analysis of serial correlation. In contrast to the PP test, which completely ignores the prospect of any kind of serial correlation, the ADF makes use of a parametric autoregression in order to approximate the structure of the errors. This allows for a more accurate representation of the data. In spite of the fact that the two tests are dissimilar from one another in a number of ways, the findings of both of them nearly never indicate to a different conclusion.

ARDL Bound

The ARDL limits experiment methodology is a method of co-integration testing that was advanced by Pesaran et al. (2001) to test whether or not the variables in question have a connection that exists over the course of time. The determination of this methodology is to decide whether or not the variables in question have a connection that exists over the course of time. The goal of this approach is to establish whether or not the many aspects under consideration have a connection that is stable over the passage of time. When compared to the more traditional cointegration tests, this process, which may be described as a relatively new method, provides a number of significant benefits. These positive aspects can be grouped into the following three categories: The method is utilized initially irrespective of whether the series being considered are I (0) or I. This is because the procedure is universal. This is due to the fact that the method can be used in any circumstance (1,2). The ARDL bounds testing can be used to derive the unconstrained error correction model (UECM), which therefore may also be achieved by employing a straightforward linear transformation as a means of acquiring it. This can be done through a procedure that consists of two steps. This model exhibits signs of dynamic behavior both in the near-term and the longer-term future. Both of these time horizons are considered. The findings of the empirical research indicate that the approach is preferable since it generates consistent results despite needing to work with a small sample size. This is the inference that one is able to make in light of the findings presented in the investigation. We would obtain the conclusion If the variables are I(0) and that there is no possibility of co-integration if the variables continue to be as they are estimated F-statistic were to fall below the lower constraint. This would mean that co-integration would not even be a possibility. In order for us to arrive at this assumption, the anticipated value of the F-statistic will need to be less than or equal to the lower limit. It is conceivable for us to reach the assumption that there is co-integration in the data if the F-statistic is greater than the upper limit. In this case, we would be able to do so. The results of the test are indecisive if the F-statistic lies anywhere inside the bounds of the range that was defined for it. In other words, the results of the test are inconclusive.

ARDL model

When there is a requirement to conduct an economic scenario analysis, the Autoregressive Distributed Lag Models (ARDL) model plays a significant role. Each change in one of an economy's variables has with it the possibility of bringing about changes in another economic variable at some point in the future. This change in a variable does not reflect instantly; rather, its effects will be seen throughout all subsequent time periods. A company's brand image may be affected not just by macroeconomic factors but also by other variables, such as whether or not it made a profit or a loss during the previous fiscal year. An ARDL (autoregressive-distributed lag) is an infinite-lag distributed model. The concept of auto regression shows that in addition to being, it is also described by the xt, the yt is also explained by its own lag. This is what the name "autoregressive" refers to. The equation for the ARDL can be written out as follows: (m, n):

$$\Delta InGDP_t = \alpha_0 + \beta_1 InGDP_{t-1} + \beta_2 InFDI_{t-1} + \beta_4 InREER_{t-1} + \beta_5 InRIR_{t-1} + \sum_{i=0}^{q} \Delta\alpha_1\, InGDP_{t-k} + \sum_{i=0}^{p} \Delta\alpha_2\, InFDI_{t-k} + \sum_{i=0}^{p} \Delta\alpha_4 InREER_{t-k} + \sum_{i=0}^{p} \Delta\alpha_5 InRIR_{t-k} + \varepsilon_t$$

$$\Delta\, \mathrm{GDP_t} = \alpha_0 + \sum_{i=0}^{q} \Delta\beta_1\, InGDP_{t-k} + \sum_{i=0}^{p} \Delta\beta_2\, InFDI_{t-k} + \sum_{i=0}^{p} \Delta\beta_4 InREER_{t-k} + \sum_{i=0}^{p} \Delta\beta_5 InRIR_{t-k} + \lambda ECM_{t-1} + \varepsilon_t$$

Residual diagnostic

Serial correlation

When applying models that are similar to regression to actual data series, the Breusch–Godfrey test is a useful tool for determining whether or not certain modeling assumptions, such as those about the relationship between variables, are valid. Breusch, T. S. (1978), and Godfrey, L. G. (1978). In particular, it investigates the question of whether or not the framework for the model that has been proposed takes into account the possibility of a sequential correlation that has not yet been discovered. If such a link were discovered to exist, it would imply that earlier tests have yielded wrong results or that estimates of the model parameters have been acquired that are not as accurate as they may be. Both of these scenarios would point to the need for further investigation. It's possible to use the test with some different regression models in order to investigate circumstances During which values were assigned to the variables that were dependent that are lagging behind are incorporated into the model's representation for subsequent observations in the capacity of independent variables. This occurs when the model is applied to subsequent observations. There is a good chance that econometric models will have a structure that is comparable to this one.

The Breusch–Godfrey test is a test that determines the extent to which the errors in a linear regression are autocorrelated with each other. This test is performed by comparing the results of two linear regressions. The findings of the two different tests can be compared to accomplish this goal. After collecting the residuals from the model that is being investigated in the regression analysis, they are then utilized to generate a test statistic, which is then used on the model. Finally, the model is evaluated. Through the use of this method, the residuals can be put to use. The hypothesis of no effect, often known as the null hypothesis, is built on the assumption that there is not a single order up to p that exhibits a serial correlation. This is known as the "zero hypothesis." The form of correlation known as serial correlation has several subtypes, with this being the most fundamental one. Due to the fact that the examination is predicated on the concept of Lagrange multiplier testing, you might also hear it This type of test for serial correlation is called an LM test. This is the case due to the fact that the LM test is founded on the concept of Lagrange multiplier testing. This is because of the relationship between Lagrange multiplier testing and serial correlation. This is because the Lagrange multiplier testing concept forms the basis of the test. Steven G. (2011) Tests such as the Durbin–Watson test and the Ljung–Box test are two examples of the kinds of assessments that could be utilized in an evaluation of this nature. However, in comparison to the test that uses the Durbin–Watson statistic, which is sometimes referred to as Durbin's h statistic, this test is much more comprehensive. It is only applicable for evaluating the potential of employing an autoregressive model of the first order (such as AR(1)) for the inaccuracies in the regression and only applies to nonstochastic regressors. Durbin is credited with developing the statistic known as the Durbin–Watson statistic, often known as Durbin's h statistic. Even though it does not have any of these limits, the BG test is statistically much more effective than Durbin's h statistic. This is the case despite the fact that it does not have any of these limits.

Normality test

The Jarque-Bera test is a goodness-of-fit test that determines the extent to which the skewness and kurtosis of sample data are in accordance with a normal circulation. The test was named after the two researchers who developed it. The test takes its name from the two researchers who were responsible for developing it. The Jarque-Bera test statistic always returns a positive value; however, if the data from the sample do not follow what is known as a normal distribution, this number must be a large distance from zero in order for it to be considered conclusive. Examine the degree to which it fits in appropriately with other similar items. The Jarque-Bera test is a goodness-of-fit test that assesses the skewness and kurtosis of sample data to check and see if the data follow a normal distribution and report your findings. This test is used in order to establish the validity of the data if they are comparable to a normal circulation. This test was conceived up by Jarque and Bera, who are credited with its creation. The Jarque-Bera test statistic will invariably produce a value that is positive; however, if this value is not very close to zero, this suggests that the data in the population do not follow a distribution that is considered to be normal. If this value is very close to zero, however, this suggests that the data in the population adhere to a normal distribution.

Heteroskedacity

The Jarque-Bera test is a goodness-of-fit test that examines whether or not the skewness and kurtosis of sample data are compatible with a normal distribution. The results of this test are used to draw conclusions about the data. The names of the two researchers who were responsible for developing the test are incorporated into the title of the test. The Jarque-Bera test statistic always yields a positive value; however, if the sample data do not follow a normal distribution, this number needs to be a significant distance away from zero in order for it to be regarded as conclusive. Investigate the extent to which it fits in a suitable manner. The Jarque-Bera test is indeed a goodness-of-fit test that evaluates the skewness and kurtosis of sample data to determine whether or not the data conform to a normal distribution. This test is used to examine whether or not the data adhere to a normal distribution. With this test, one can evaluate whether or not the data follow a normal distribution by seeing how closely they match up. Jarque and Bera are the ones who are credited with the conception of this test because it was their idea. However, if this number is not very close to zero, this shows that the data in the population do not adhere to a normal circulation. The Jarque-Bera test statistic will invariably produce a result that is positive. The fact that this number is close to zero indicates that the data in the population follows a normal distribution.

Granger causality test

The Granger causality test is a type of statistical procedure that was initially introduced to the scientific community in the year 1969. Its inception may be traced back to that year. The objective of this step is to establish whether or not one time series may be utilized effectively in the prediction of another. Granger (1969). On the other hand, Clive Granger proposed that one's ability to forecast the values of a time series that could be possible utilizing previous values of a different time series may be used as a test to determine whether or not there is a causal relationship in economics. Normal regression analyses reflect "mere" correlations; however, Clive Granger made the argument that there is a way to test whether or not a certain economic theory is causal. Yet, Clive Granger claimed that causality in economics might be proven by testing one's capacity to predict future values. Normal regressions show "mere" correlations. Regressions, as a matter of course, reflect correlations, which are sometimes referred to as "mere" correlations. On the other side, Clive Granger proposed that one's capacity to predict the potential outcomes of a time series may be used as a test to determine whether or not there is causality in the field of economics. Regressions reflect "simple" correlations. This was founded on the concept that one's capability to forecast the values that will be recorded in a time series in the future might be measured in some way. Granger conceived of this tactic as a means of resolving the issue that regressions, in most cases, merely reflect correlations. Because of the profound philosophical nature of the subject of "true causality" as well as the post hoc ergo propter hoc fallacy, which is the idea that one thing coming before another may be used as evidence of causality, it is impossible to definitively answer this question econometricians claim that the Granger test can only find "predictive causality." This is because the question of "true causality has a profoundly philosophical meaning. To put it another way, the fallacy is based on the hypothesis that the occurrence of one event before another can be used as evidence to prove that the first thing caused the second thing. This is due to the fact that the subject of "real causation" requires a significant amount of philosophical consideration. This fallacy makes the incorrect assumption that the occurrence of one event before the occurrence of another may be used to infer causality. Francis X. (2007) It is a misconception to refer to Granger-causality just by the word "causality," when this phenomenon is more accurately referred to as "precedence" cas Granger himself stated years later, in 1977. Paul (1977). The question that is investigated by the Granger causality is not whether X is to blame for Y, but rather whether X is able to accurately anticipate Y. James D. (1994).

Stability test

The cumulative sum test is used to identify gradual shifts away from the integrity of the coefficients of regression, on the other hand, while the cumulative sum of squares test is used to identify quick shifts away from the integrity of the regression coefficients. Both tests are used for the purpose of determining whether or not there is a significant difference between the two sets of regression coefficientsIn order to carry out an investigation about the stability of parameters, the cumulative sum (CUSUM) of standardized residuals as well as the cumulative sum of squares (CUSUMSQ) test are both applied (Pesaran & Pesaran, 1997). The cumulative sum test is used to identify gradual shifts away from the consistency of the regression coefficients, while the cumulative sum of squares test is used to determine the significance of the used to identify quick shifts away from the consistency of the regression coefficients. Both of these tests are utilized for the purpose of determining whether or not there is a significant change in the regression coefficients.

CHAPTER IV
Results and interpretation

Descriptive statistics

In the sense of a count noun, the term "descriptive statistic" refers to a type of summary statistic that numerically characterizes or summarizes characteristics of a collection of information. According to Prem S. (1995), the term "descriptive statistics" may also be employed as a mass noun, despite the fact that the term "descriptive statistics" refers to the way of employing and evaluating such data In comparison to inferential statistics, which are also known as inductive Instead of using the data to gain knowledge concerning the population that the sample is presumed to be representative of statistics, specifically descriptive statistics, are used to summarize a sample. Inferential statistics and inductive statistics are both referred to as descriptive statistics. This is because It is for this reason that descriptive statistics are compiled to describe the characteristics of the sample itself. This is due to the fact that the purpose of inferential statistics is to derive conclusions about the population based on the data obtained from the sample. In the discipline of statistics, this aspect of statistics is what differentiates inferential statistics from descriptive statistics. Descriptive statistics focus on the data itself. This typically suggests that, unlike inferential statistics, descriptive Statistics are not derived from probability theory, and the majority of the time they are nonparametric statistics. This is in contrast to inferential statistics, which are frequently used to draw conclusions. On the other hand, this stands in contrast to inferential statistics, which are constructed using probability theory as their foundation. ***This is in contrast to inferential statistics, which are frequently used to draw conclusions. Statistics that are used to draw conclusions from other types of data are known as inferential statistics. Table***

4.1 descriptive statistic

Variables	*GDP*	*FDI*	*REER*	*RIR*
Mean	*2.478*	*3.062*	*167.278*	*0.344*
Median	*3.464*	*2.119*	*123.241*	*3.475*
Maximum	*26.417*	*32.301*	*562.582*	*27.145*
Minimum	*-20.598*	*-28.624*	*91.353*	*-51.617*
Std.Dev.	*8.329*	*8.004*	*114.456*	*17.477*
skewness	*-0.155*	*-0.122*	*2.164*	*-1.052*
kurtosis	*5.342*	*11.333*	*6.653*	*3.675*

Jarque-Bera	*9.541*	*118.754*	*54.834*	*8.675*
Probability	*0.008*	*0.000*	*0.000*	*0.015*
Sum	*101.626*	*125.560*	*6858.397*	*14.144*
Sum Sq. Dev.	*2775.177*	*2562.954*	*524010.0*	*12219.04*
Observation	*41*	*41*	*41*	*41*

Source: This study

GDP has a mean of 2.478, making it the second-lowest in this category; FD I likewise has a mean of 3.062, making it the third-lowest. The highest GDP for the time period covered by this research is 26.417, while the least is -20.598. Foreign direct investment, on the other hand, may reach a maximum of 32.301 while falling to a minimum of -28.62. The mean value of the exchange rate is at its highest level, which is 167.278. The challenge of characterizing the location and variability of a data collection is a basic step in many different types of statistical analysis. Skewness and kurtosis are two additional characteristics that may be applied to the data. A measure of symmetry, or more accurately, the absence of symmetry, is referred to as skewness. If a distribution, or data set, appears the same to both the left and the right of the center point, then we say that it is symmetric. The kurtosis of a set of data is a measurement that indicates whether or not the data have heavy tails or light tails in comparison to a normal distribution. Data sets that have a high kurtosis are more likely to contain heavy tails, often known as outliers. Data sets that have a low kurtosis often have light tails, which means there are no outliers in the data. The most extreme scenario would be one with a uniform distribution.

Unit root tests

With the intention of establishing whether or not a time series variable is non-stationary, as well as the presence or absence of a unit root for the variable, a test for unit roots is applied to the variable in question using the time series. The basic definition of The existence of a unit root is the other possibility, while the presence of a unit root is the null hypothesis depending on the test, may be either stationary, trend stagnant, or explosive. The presence of a unit root is the general definition of the null hypothesis. The presence of a unit root is the defining characteristic of the null hypothesis, while the alternative hypothesis can take one of three possible forms: explosive, stagnant, or stationary. The hypothesis of no effect, often known as the null hypothesis, is always treated as a given and serves as the default assumption. Both the enhanced Dickey-Fuller test and the serial correlation approach are compatible with one another. Not only does the ADF test have more power than the Dickey-Fuller test, but it is also capable of dealing with models that are more complicated. Both the enhanced Dickey-Fuller test and the serial correlation approach are compatible with one another. In contrast to the ADF test, which is able to handle models with a higher level of complexity, the Dickey-Fuller test has a greater number of restrictions. The area of statistics makes use of a specific kind of test known as the Phillips-Perron test, which is a unit root test. Perron and Peter C. B. Phillips are credited with having carried out this investigation. In time series analysis, the null hypothesis asserts that a time series will always have the same value but does not follow a specific order, is therefore tested using this technique. In the year 1988, The Phillips-Perron (PP) unit root test was developed by statistics professors Peter C.B. Phillips and Pierre Perron. Today, this test bears their names. In spite of the fact that the PP unit root test and the ADF test share a number of similarities, the primary distinction between the two lies in the treatment of serial correlation by the respective tests. In order to provide an approximation of the error structure, An example of a parametric auto regression can be seen in the ADF. This is in contrast to the PP test, which disregards the idea that there could be any kind of serial correlation. In spite of the fact that the two procedures are distinct from one another, it can almost always be said that the results of both validate the same conclusion.

Table 4.2 the unit root tests

	ADF unit root test			***PP unit root test***		
Variables	***Level***	***1st difference***	***Order***	***Level***	***1st difference***	***Order***
GDP	*0.1723*	*0.0045*	*İ (1)*	*0.0000*	*-0-*	*I(0)*
REER	*0.3949*	*0.0004*	*I(1)*	*0.0097*	*-0-*	*I(0)*
RIR	*0.0047*	*-0-*	*I(0)*	*0.0006*	*-0-*	*I(0)*
FDI	*0.3059*	*0.0234*	*I(1)*	*0.0017*	*-0-*	*I(0)*

Source: This study

The outcomes of the ADF and PP unit root tests are shown in Table 4.2 below. These tests are being used in this study to determine the unit root. According to the findings, the GDP is stationary at the first difference when analyzed using the ADF unit root tests, whereas it is stationary at level when analyzed using the PP unit root test. When it comes to unit root testing, both the ADF and the PP find that broad money is stationary at the first difference. The real effective exchange rate is stationary at level for the ADF's unit root test, while it is stationary at the first difference for the PP unit root test. According to the results of the ADF and PP unit root tests, the level of the real interest rate is stable over time. The unit root test for ADF shows that foreign direct investment is stationary at first difference, but the unit root test for PP shows that it is stationary at level. Because of the data shown above, we are able to do regression analysis for this thesis using the ARDL model.

ARDL bound test

Pesaran et al. (2001) developed the ARDL limits testing strategy, which is a way of doing co-integration, In order to find out whether or not the factors under investigation have a link that persists over time. This technique, which isn't as widespread as other co-integration tests, has a number of significant advantages over the others that make it superior in a number of ways. To begin, the approach is used even if the series being considered is I(0) or I. This is because the method is not dependent on the kind of series (1). The unconstrained error correction model (UECM) can be obtained from the ARDL bounds testing by the utilization of a straightforward linear transformation. This can be accomplished in two stages. This model accounts for both in the immediate and the more distant future dynamics of the system. Last but not least, the results of the empirical studies indicate that the method is superior and generates dependable results even when working with a limited number of participants in the study. We would get the conclusion that the variables are I(0) and that co-integration is not feasible since the estimated F-statistic would have to go below the lower limit for us to reach that result. This would lead us to believe that co-integration is not possible. It is possible to draw the assumption If there is co-integration, the F-statistic is higher than the upper limit, and if there is a correlation between the variables, Last but not least, the results of the test are inconclusive if the F-statistic is found to lie within any of the borders.

Table 4.3 ARDL bound test

Model			*Lag.*		*F-Statistics*		*Decision*	
GDP, FDI, REER, BM,RIR			*(1,4,2,1,0)*		*8.641484****		*Co-Integration Exist*	
Bond Critical Value								
					I (0)		*I (1)*	
Sign.			*10%*		*2.2*		*3.09*	
			5%		*2.56*		*3.49*	
			2.5%		*2.88*		*3.87*	
			1%		*3.29*		*4.37*	

Source: this study

The outcome of the ARDL bound is shown in Table 4.3, which demonstrates how strongly correlated the dependent and independent variables are over the long term. The results demonstrate that, at the 5% level of significance, the f-statistics value exceeds both the lower and upper bound limits. We discovered the parameter level of the long-term estimations of our model using Pesaran et al. (2001). The AIC criteria are used to pick the ARDL model (1, 4, 2, 1, 0). The long-term estimates' results, which are displayed in the table, indicate that the null hypothesis that there is no long-term relationship can be rejected because the Ficher statistic, which is calculated as GDP (FDI, REER, and RIR) = 8.641484, exceeds the upper bound for the various significance thresholds (1%, 5%, and 10%). We come to the conclusion that the many variables in our model have a long-term connection with one another.

ARDL long

Table 4.4 ARDL long run test

Variables	**Coef.**	**Std.Error**	**t.statistic**	**Prob.**
D(FDI)	0.349	0.161	2.173	0.039
D(REER(-1)	-0.151	0.043	-3.347	0.001
D(RIR)	0.418	0.102	4.104	0.0004

The findings presented in Table 4.4 indicate that there is a positive relationship between FDI and GDP growth in the long run in Sierra Leone. The coefficient value for this relationship is 0.334, which indicates that an increase of 1% in FDI in Sierra Leone will result in an increase of 0.334% in economic growth. This conclusion is consistent with the findings of Duramany-Lakkoh et al. (2022), who investigated the effect of foreign direct investment (FDI) on the expansion of the Sierra Leonean economy. The whole time frame that is being looked at, which begins in 1980 and ends in 2016, encompasses a total of 37 years. For the most part, researchers come to the conclusion that foreign direct investment (FDI) has a beneficial effect on the economic development of a nation's economy; nevertheless, in this study, we found that FDI does not have any association with economic growth in Sierra Leone. The data were analyzed using empirical techniques, and the findings are based on a regression analysis that was performed using the data that was available. According to the findings of this study, foreign direct investment (stock) influx into Sierra Leone does not have any effect on the expansion of the country's economy.

The real effective exchange in this thesis shows that there is a negative effect on Sierra Leone's economic growth. This finding is consistent with what Jackson et al. discovered: the real-effective exchange of this theory has a detrimental impact on the development of Sierra Leone's economic growth. This thesis's real effective exchange (2021) In order to satisfy the aims of the study, the auto-regressive distributed lag model was adopted. According to the findings, inflation has a positive effect on the operation of the banking sector, while exchange rates have a negative impact that spreads across the economy. Since inflationary pressures are a widespread phenomenon that affects macroeconomic stability and often has an influence on commercial bank performance, it is advised that the monetary authorities and government authorities collaborate to combat exchange rate pressure. This is because inflationary pressures often have an influence on commercial bank performance. As a result, it will be desirable for the banking sector in Sierra Leone to execute its job, which is to advocate for continuing economic development and prosperity. The rate of broad money hurts Sierra Leone's economic growth, while interest rates help the country as a whole.

ARDL SHORT

Table 4.5 ARDL short run

Variables	*Coef.*	*Std.Error*	*t.statistic*	*Prob.*
D(FDI)	*0.389*	*0.150*	*2.581*	*0.0150*
D(REER(-1)	*-0.127*	*0.035*	*-3.601*	*0.0013*
RIR	*0.408*	*0.112*	*3.621*	*0.0012*
ECM	*-0.898*	*0.105*	*-8.498*	*0.0000*

Table 4.5 shows the short-term results, which show that FDI has a positive effect on Sierra Leone's economic growth. This outcome is also In accordance with Agbloyor et al. (2018), this study explores how foreign direct investment (FDI), institutions, and economic development interact in diverse sub-Saharan African nation contexts. To analyze the empirical relations, we use a two-step extended technique of moments estimator with Weidmeijer corrected standard errors and orthogonal deviations. We cannot find evidence that FDI fosters growth in the whole sample. Moreover, we cannot detect a significant correlation between institutions and economic expansion. Ultimately, there is no clear evidence that institutions can influence how FDI affects economic growth in a positive way. Again, we find no significant correlation between FDI and economic growth in the subsample that does not include nations with sophisticated financial markets. Yet, we discover evidence that suggests institutions directly contribute to economic progress. Moreover, it seems that the link between FDI and economic development is positively affected by institutional quality. Lastly, we discover a direct and favorable association between FDI and economic development in the sample that does not include nations with a wealth of natural resources. Also, we discover a connection between institutions and economic expansion. Yet, it seems that FDI's growth-enhancing impacts diminish as institutions' quality rises. The main takeaway from our analysis is that while designing policies to benefit from FDI in order to achieve better economic outcomes, nations should take into account their particular realities. Wiley Periodicals, Inc., 2016.

Residual diagnostic

The Breusch-Godfrey test can be used to figure out if certain modeling assumptions were made correctly when models that are similar to regression are used to observable data series. Breusch, T. S., and Godfrey, L. G. (1978). It specifically looks at whether there is a serial connection that has not been taken into consideration in the structure of the suggested model. If such a link were to be discovered, it would be a sign that prior tests had produced inaccurate results or that less-than-ideal estimates of the model parameters had been acquired. The test can be applied to particular regression models in order to analyze instances in which the values of the dependent variables' lags are being considered and represented by the model as independent variables for subsequent observations. This is done by comparing the results of the test with the original data. In econometric models, you'll frequently see an arrangement similar to this one. The Breusch-Godfrey test is a test that determines whether or not there is autocorrelation between the mistakes that are produced by a regression model. The residuals that were generated by the model are what will be examined in the subsequent step of the regression analysis being investigated serve as the input for the generation of a test statistic. In this process, the residuals play an important role. The theory that there is no correlation of any order in a serial fashion up to p constitutes the null hypothesis. This is the starting point for testing alternative hypotheses. Due to the fact that it is founded on the concept of Lagrange multiplier testing, you might also come across the test being known as the LM test for serial correlation. Tests such as the Ljung-Box test and the Durbin-Watson test may also be utilized in order to carry out an examination comparable to that described in Theodore G. (2011). The Durbin-Watson statistic, which is also commonly referred to as Durbin's h statistic, is only legitimate for nonstochastic regression analysis and for evaluating the likelihood of using a first-order autocorrelation function (such as AR (1)) for the regression errors. This is because the Durbin-Watson statistic evaluates the possibility of a first-order autoregressive model for the statistical errors. In contrast, this test is more open-ended than the previous one. The Durbin-Watson statistic, which is also referred to as the "Durbin's h statistic," was developed by Durbin. The BG test is statistically far stronger than Durbin's h statistic, despite the fact that these constraints were not present in the study. The Jarque-Bera test is used to evaluate the skewness and kurtosis of sample data to determine whether or not they are compatible with a regular distribution. It is a test for the appropriateness of the fit. The names of the two researchers who were responsible for developing the test are included in the name of the test. If the Jarque-Bera test statistic is considerably different from zero, this specifies the fact that the data from the sample do not follow a normal distribution and are always positive. Moreover, this suggests that the sample data are not representative of the population. Check to see if the fit is appropriate. The Jarque-Bera test determines whether or not the skewness and kurtosis of sample data are comparable to those of a normal distribution. This comparison is made by comparing the sample data to a normal distribution. It is a test for the appropriateness of the fit. This test was developed by Jarque and Bera. If the Jarque-Bera test statistic is not extremely close to zero, this indicates indicating there is not a normal distribution present in the data coming from the sample. Nonetheless, the Jarque-Bera test statistic will always produce a positive result. In order to identify whether or not a regression model displays heteroscedasticity, the Breusch-Pagan test is applied to the data. If the p-value of the test is lower than a previously established significance threshold—for example, if it is lower than 0.05—then the null hypothesis is refuted, which leads us to the conclusion that the regression analysis has heteroscedasticity. Reject the null hypothesis and draw the conclusion that heteroscedasticity is present if the Chi-square test statistics with p (the number of predictors) freedom degree falls below some threshold for relevance, such as =.05, for example.

Table 4.6 residual diagnostic

Tests	*Statistic*	*P value*	*Results interpretation*
Serial correlation	*0.805*	*0.3722*	*No serial correlation*
Normality	*2.848*	*0.2406*	*Normal distribution*
Heteroskedasticity	*0.047*	*0.9992*	*No serial correlation*

Source: This study

The diagnostic tests show that there is no serial correlation up to two, that there is no heteroskedasticity, and that the residuals follow a normal distribution.

Granger causality test

The Granger causality test is a particular type of statistical hypothesis test that was developed at the beginning of the 20th century presented for the first time in 1969. It investigates the Granger hypothesis to see whether or not it is correct. One may make the case that the year in question was the point at which it began. At this point in the process, we are going for the purpose of determining whether or not a single time series can be used successfully in the prediction of alternative time series by determining whether or not the two can be predicted using the same model. Granger (1969). Clive Granger proposed that the capacity of a person to make accurate projections regarding the upcoming values of a time series using the prior values of another time series might be used as a criterion with the purpose of establishing whether or not there is a connection of causation between various economic ideas. Clive Granger stated that the concept of cause and effect in economics might be evaluated, contrary to the findings of normal regression studies, which only represent "mere" correlations. Normal regressions only show "mere" correlations, but Clive Granger advanced the idea that economics should be based on causality might be confirmed by evaluating one's ability to foresee future value changes. This is in contrast to the traditional method of using normal regressions. Only correlations are accounted for in normal regressions. On the other hand, regressions represent "mere" correlations, which is a key distinction. Clive Granger proposed that one's capacity to speculate on the values that will be observed in the future of a time series may be used to determine whether or not there is causation in the field of economics. The results of regressions, as a matter of course, reflect "mere" correlations. This was based on the idea that the capability of a person to accurately forecast the values of a time series in the future could be quantified in some way. This thought was the basis for this. Granger came up with this strategy as a method of finding a solution to the problem that regressions, in the majority of instances, merely reflect "mere" correlations.

Table 4:7 Granger causality test

Null Hypothesis:	***Obs***	***F-Statistic***	***Prob.***
FDI does not Granger Cause GDP *GDP does not Granger Cause FDI*	*39*	*2.54684* *0.43427*	*0.0932* *0.6513*
REERdoes not Granger Cause GDP *GDP does not Granger Cause REER*	*39*	*0.15835* *0.21543*	*0.8542* *0.8073*
RIR does not Granger Cause GDP *GDP does not Granger Cause RIR*	*39*	*0.29011* *0.62728*	*0.7500* *0.5401*
REER does not Granger Cause FDI *FDI does not Granger Cause REER*	*39*	*3.36598* *6.23567*	*0.0464** *0.0049**
RIR does not Granger Cause FDI *FDI does not Granger Cause RIR*	*39*	*0.68755* *1.71477*	*0.5097* *0.1952*
RIR does not Granger Cause REER *REER does not Granger Cause RIR*	*39*	*0.04386* *12.9977*	*0.9571* *6.005*

At the 5% level of significance, the results of the Granger causality test are shown in Table 4.7. The results reveal that there is a bidirectional causal relationship between foreign direct investment and the real effective exchange rate. This indicates that the two variables reinforce each other.

Stability tests

The cumulative sum test and the cumulative sum of squares test both examine the consistency of the regression coefficients, but the cumulative sum test looks for sudden shifts in the consistency of the regression coefficients, whereas the cumulative sum test looks for gradual shifts in the consistency of the regression coefficients. The data is compared using both of these tests. Pesaran and Pesaran (1997) In order to assess the degree to which the parameters are stable, run the analysis known as the cumulative sum of squares test (CUSUMSQ) in conjunction with the cumulative sum of recursive residuals test (CUSUM) The cumulative sum test investigates whether or not there are sudden changes in the consistency of the regression coefficients, whereas the cumulative sum of squares test investigates whether or not there are gradual changes in the consistency of the regression coefficients. The data is compared using both of these tests.

Figure 4.1 CUSUM test

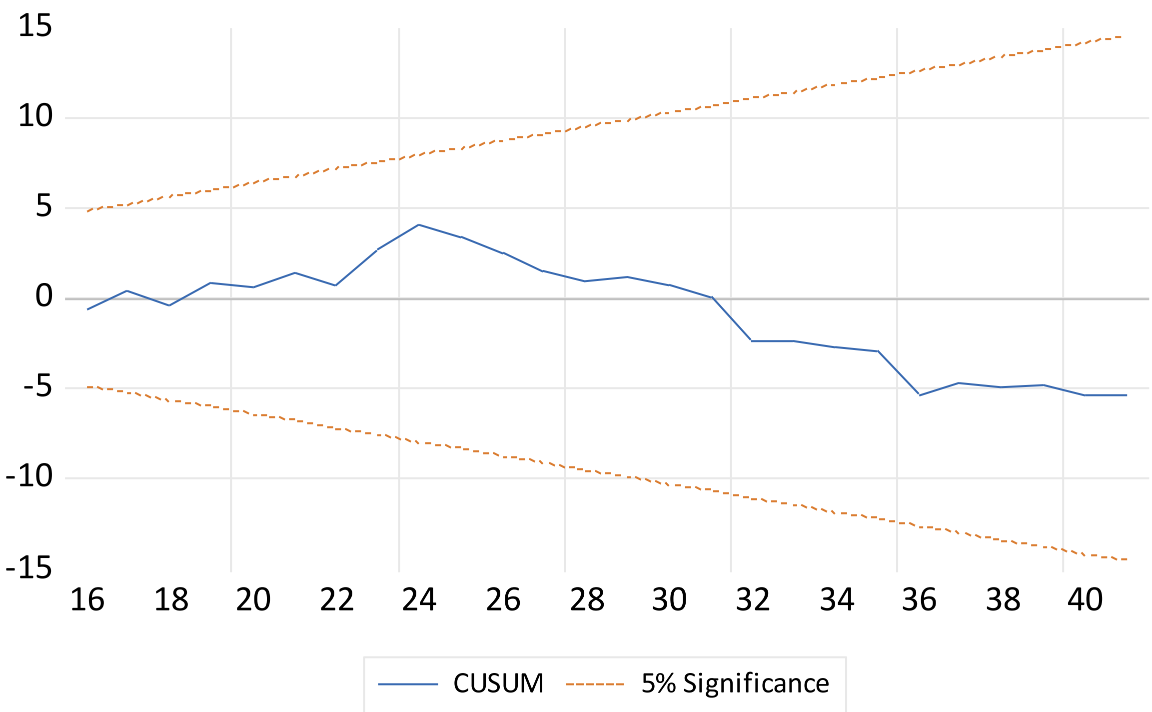
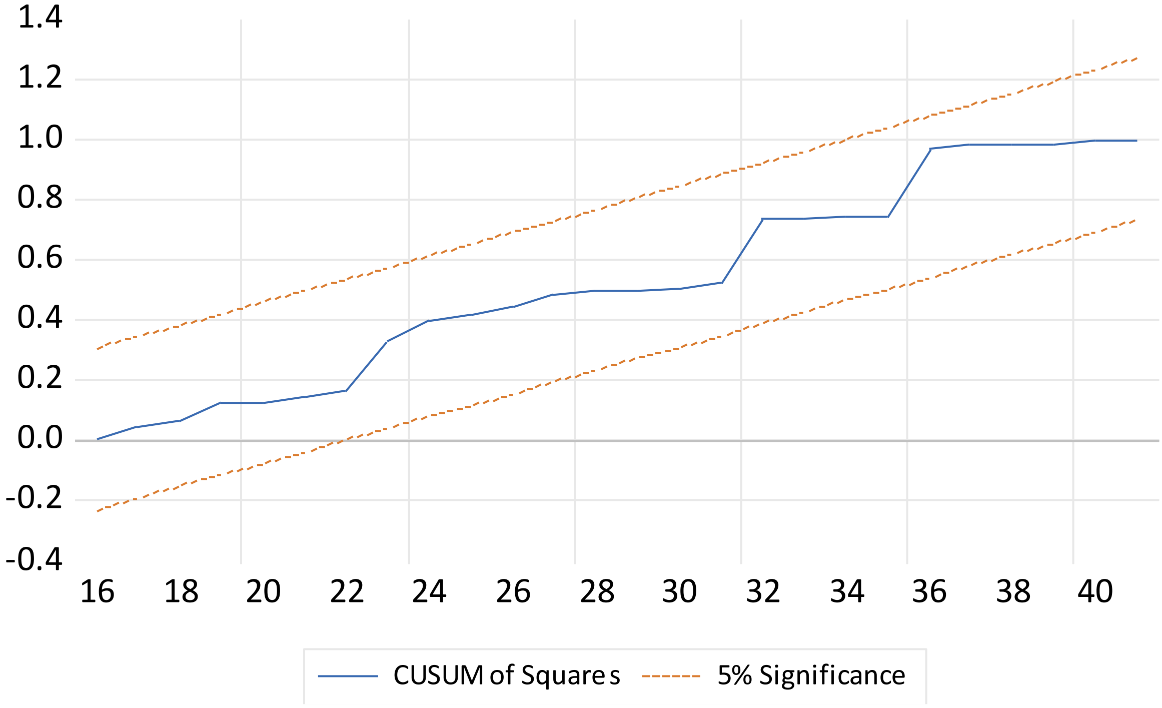


Figure 4.1 CUSUM of square test



The results of the stability test for this thesis may be seen in Figures 4.1 and 4.2. The structural stability of the models is investigated by utilizing the CUSUM and CUSUM of Squares tests on the recursive residuals. The fact that the model is stable, consistent, and dependable is shown by the fact that the findings are not beyond the critical boundaries at the 5% level of significance. The plots of the CUSUM and CUSUMSQ statistics provide evidence that the long-run coefficients as well as all of the short-run coefficients in ECM are stable and have an effect on growth across the sample period of 1980–2020.

CHAPTER V

Overview, conclusion and recommendations

Overview

Foreign direct investment is a big source of money and other resources coming into a country, especially in places where the transfer of knowledge and advanced manufacturing techniques is important for helping local businesses get better and more productive. Duramany-Lakkoh, (2020). In recent years, Sierra Leone's economic operations and the country's deficits in the national budget have both been funded in part by international assistance. In spite of the fact that the country possesses a sizeable mineral reserve as well as fertile land that has the potential to be utilized for agricultural purposes (Duramany-Lakkoh, E.K. (2021)), the economy is in a state of stagnation. FDI, which stands for "foreign direct investment," is often seen as one of the most critical tactics for encouraging economic growth and development in developing nations like Sierra Leone. This is because FDI can act as a bridge between domestic and international capital markets. Capital investment and portfolio investment are the two distinct subtypes of FDI that can be distinguished from one another. This is because foreign direct investment (also known as FDI) is a significant factor has the potential to serve as a growth catalyst in the following ways: by trying to increase the opportunity for developing nations to integrate into global financial and capital flows; by boosting employment and export bases; by producing technical capability-building and efficiency repercussions to domestic enterprises; by attracting foreign direct investment (FDI); and by establishing investment arrangements that boost the economic growth potential of host countries (Olayiwola & Okodua, 2007). (Olayiwola & Okodua, 2007). In a great number of nations, people have developed an antagonistic attitude toward multinational corporations and their direct investments as a result of the widespread opinion that FDI plays a part in stifling the development of domestic industries in order to boost exports. This position, on the other hand, started to lose steam as it became obvious that the rate of savings in such developing countries is much lower than the amount of investments that would result in better economic development rates. This led to a decline in the popularity of this viewpoint. As a consequence of this, there is widespread agreement among economists that (FDI) is one of the primary issues that contribute to financial development. This is due to the fact that FDI functions as a driver of development by supplying a much-needed influx of financial resources for investment in the sectors of the host nation and supporting local firms in becoming more productive through the use of technology that is more efficient. Although this is not always the case, it is reasonable to anticipate that FDI will have an influence on the economic development of a nation and that this influence will be both positive and considerable. Nevertheless, there is no guarantee that this will be the case. Ezeabasili (2014). Despite having huge resources of minerals such as iron ore, rutile, and diamonds, as well as vast areas of fertile land for agricultural purposes, Because of its low GDP and high level of poverty, Sierra Leone is reliant on foreign direct investment and assistance from other nations in order to keep its economy functioning. This is the circumstance regardless of the fact that the nation possesses vast amounts of arable land in suitable locations for farming. FDI input into a country generates prospects for employment, merchandise, and services being exported from the host country, as well as improvements to financial firms and capital mobility inside the country itself, according to Duramany-Lakkoh (2020) It is not possible to place sufficient weight on the gravity of the matter. of direct investment from abroad (FDI). in the process of creating multinational corporations as well as domestic or local industries that are improved with the goal of increasing exports and creating new jobs in underdeveloped countries with vast mineral deposits such as Sierra Leone. For the purpose of conducting regression analysis. This research takes use of previously collected data; the data that was used for this research was taken from the database of the Global Bank. Databases are vital instruments for supporting crucial management decisions and providing significant statistical information for the operational activities of the World Bank. These databases are maintained and managed by the World Bank. A reliable and consistent source of information is produced as a result of applying norms and criteria that are acknowledged on a local, national, and international basis. For the purpose of conducting regression analysis, this study makes more use of secondary data; the data that was used for this research was taken from the database of the Global Bank. Databases are vital instruments for supporting crucial management decisions and providing significant statistical information for the operational activities of the World Bank. These databases are maintained and managed by the World Bank. A reliable and consistent source of data can be produced through the application of standards and rules that are recognized on a worldwide scale. Statistics must be both accurate and appropriate if they are to be useful. They must be meticulously prepared in compliance with all established processes and standards. They are also responsible for meeting the needs of users and responding to policymakers' concerns. Developing countries have a number of obstacles in terms of generating data that is reliable and satisfies these needs. They are frequently caught in a virtuous cycle that consists of restricted investment within the framework of national statistical systems, which both imposes constraints on actions and produces new data of such poor quality that policymakers are unwilling to rely on them. Often, they are unable to escape this cycle. For the purpose of this thesis, It was determined to use both ADF and PP unit root testing. An investigation known as a unit root test is carried out on a time series variable in order to establish whether or not the variable is non-stationary and whether or not it possesses a unit root. The existence of a unit root in a formula is used as a broad definition for the null hypothesis. The alternative hypothesis, on the other hand, could refer to a stationary trend, an explosive root, or a stationary root, based on the particular examination that was performed. The hypothesis of nothing. is always taken as given and used as the default assumption. Both the enhanced Dickey-Fuller test and the serial correlation technique can be used interchangeably without causing any problems. The Dickey-Fuller test is considered to be less powerful than the ADF test since the ADF test is able to handle more complex models. Both the enhanced Dickey-Fuller test and the serial correlation technique can be used interchangeably without causing any problems. The capabilities of the Dickey-Fuller test are significantly more limited than those of the ADF test, which is able to deal with more complex models. The area of statistics makes use of a specific kind of test known as the Phillips-Perron test, which is a unit root test. The names Peter C. B. Phillips and Pierre Perron have been given to this test in their honor. To put it another way, it is used in time series analysis to test the null hypothesis, which asserts that a time series is not in the correct order. Peter C.B. Phillips and Pierre Perron, Both Phillips and Perron were statisticians at the time, and they came up with the notion for the PP unit root test in the year 1988. Pesaran et al. (2001) came up with a cointegration method that they called the ARDL limits testing methodology. Its purpose is to establish whether or not the factors under investigation are connected in the long run.

Compared to typical cointegration testing, this relatively new technique has a number of major advantages. When it comes to doing an analysis of potential outcomes for the economy, the autoregressive distributed lag model (ARDL) is a useful tool. Any change in one of an economy's variables has the potential to cause changes in another at some point in the future. This change in a variable does not take effect immediately; rather, its impacts are felt throughout all succeeding time periods. A company's brand image may be influenced not just by macroeconomic issues but also by other factors, such as whether it earned a profit or a loss in the preceding fiscal year. An ARDL (autoregressive-distributed lag) model is a distributed model with infinite lag. The idea of autoregression implies that the yt is explained by its own lag in addition to being characterized by the xt. The following is what the research showed as its conclusions: The results of the experiments to determine the unit roots of the ADF and PP are shown in Table 4.2 below. In the course of this investigation, various procedures are utilized in order to pinpoint the location of the unit root. When the ADF unit root tests are utilized for evaluation, it is discovered that the GDP is stationary at the first difference; however, when the PP unit root tests are utilized, the GDP is found to be stationary at level. When it comes to doing unit root testing, the ADF and the PP both get to the conclusion that broad money is stationary at the first difference. When the ADF unit root test is used, the actual effective exchange rate remains stationary at 1. On the other hand, when the PP unit root test is applied, the actual effective exchange rate remains stationary at the first difference. According to the results of the ADF and PP unit root tests, the level of the real interest rate has remained stable over the course of time. [Citation needed] The results of the test to determine whether or not ADF has a unit root indicate that foreign direct investment (FDI) is stable at the first difference; however, according to the unit root test for PP, foreign direct investment is stationary at level. We can undertake regression analysis for this thesis utilizing the ARDL model because of the data presented above. The ARDL bound result is provided in Table 4.3, This indicates the extent to which the dependent variable and the independent variable are related to one another intertwined over the course of time. According to the data, the f-statistics value exceeds both the lower and upper bound constraints at the 5% level of significance. This is the case even though the significance level is only 5%. We were able to identify the parameter level of our model's long-term estimates by utilizing Pesaran et al. (2001). The AIC criterion was used to decide to go with the ARDL model (1, 4, 2, 1, 0). As can be seen in the table, the findings of the long-term estimations indicate that the null hypothesis that there is no long-term link may be rejected. This is due to the fact that the Ficher statistic, calculated as

GDP (FDI, REER, BM, and RIR) = 8.641484, exceeds the upper bound for the various significance thresholds (1%, 5%, and 10%). We conclude that the various variables in our model have a long-term relationship with one another. The data reported in Table 4.4 demonstrate that There is a favorable association between the increase in foreign direct investment and the growth of Sierra Leone's gross domestic product over the long run. The coefficient value for this connection is 0.334, which indicates that an increase of one percentage point in FDI in Sierra Leone would result in an increase of 0.334% in economic growth there. This result is consistent with the findings that were obtained by Duramany-Lakkoh et al. (2022), who examined the influence of foreign direct investment, sometimes known as FDI, on the growth of the Sierra Leonean economy. The entire time frame that is being contemplated spans 37 years, beginning in 1980 and coming to an end in the year 2016. The vast majority of researchers in the academic community come to the realization that increased levels of foreign direct investment (FDI) are associated with faster rates of economic expansion in a country. Despite this, our investigation revealed that FDI does not have any connection to the expansion of the economy in Sierra Leone. The data was analyzed using empirical methods, and the findings were drawn after a regression analysis was carried out utilizing the readily available information. According to the results of the study, international direct investments are beneficial. (stock) in Sierra Leone does not contribute in any way to the expansion of the country's economy. This thesis's actual effective exchange reveals that there is a detrimental impact on Sierra Leone's Economic growth. This result is in line with what was expected. what Jackson et al. discovered: the real-effective exchange of this hypothesis has a negative impact on the economic growth of Sierra Leone. The genuine effective exchange in this theory (2021) It was done using the auto-regressive distributed lag model. achieve the study's objectives. According to the results, inflation has a favorable influence on banking sector operations, while exchange rates have a negative impact that extends across the economy. Since inflationary pressures are a common phenomenon that affects macroeconomic stability and often has an impact on commercial bank performance, it is recommended that monetary and political authorities work together to resist exchange rate pressure. This is due to the fact that inflationary pressures often have an impact on commercial bank performance. As a consequence, it will be desirable for Sierra Leone's banking industry to do its job, which is to advocate for continued economic progress and prosperity. The wide money rate is detrimental to Sierra Leone's economic progress, whereas interest rates benefit the economy as a whole. Table 4.5 displays the short-term outcomes, which suggest that FDI boosts Sierra Leone's economic development. This outcome is also true. According to Agbloyor et al. (2018), This study's objective is to scrutinize the relationships among foreign direct investment (FDI), institutional frameworks, and economic expansion in a number of different contexts across the sub-Saharan African nation-states. In order to conduct an analysis of the empirical relationships, we make use of a two-step extended technique of the moments estimator. This technique integrates both Weidmeijer-corrected standard errors and orthogonal deviations in its calculations. We looked over the entire sample, but we were unable to find any evidence that FDI contributes to economic growth. As a result, we are unable to identify a considerable link exists between institutions and economic growth. Last but not least, there is no compelling evidence that institutions can have a favorable impact on how FDI contributes to increased economic growth. In a similar vein, when we eliminate countries from the subsample that have established financial markets, we find that there is no relevant link connecting economic development and foreign direct investment. This finding is consistent with what we saw earlier. Nevertheless, the evidence implies that institutions make a direct contribution to economic growth. [Citation needed] [Citation needed] It would appear that the level of institutional strength is also a factor in the connection between international direct investment and the expansion of the economy. This is something that can be deduced from the evidence that has been presented. In conclusion, we have determined that foreign direct investment (FDI) and economic growth are directly and favorably related and economic growth in a sample that does not include nations that have an abundance of natural resources. This association is found in countries that do not have an abundance of natural resources. This association is found in a sample that does not include countries that have an abundance of natural resources. In addition to this, we build a connection between institutions and the expansion of the economy. Nonetheless, it would appear that the positive impacts of FDI on economic growth diminish as the level of institutional development increases. The most important takeaway from our research is that nations must take into account their particular situations when formulating policies designed to maximize the advantages of FDI (foreign direct investment) in order to achieve superior economic outcomes. 2016

Wiley Periodicals, Inc., all rights reserved. The diagnostic tests reveal that there is no heteroskedasticity, no serial correlation up to two, and that the residuals have a normal distribution. Additionally, the tests reveal that there is no serial correlation up to two. The outcomes of running the Granger causality test at a significance level of 5% are detailed in the following table, which can be found below. According to the findings, The actual effective exchange rate and foreign direct investment are related to one another in a way that may be described as causative. and this connection acts in both directions. This connection functions in both directions because it functions in both directions simultaneously. This provides further support for the concept. that the two variables serve as a mutual pillar of support for one another. In addition, the finding indicates, at a significance level of 5%, that there is a bidirectional causal relationship between wide money and the real effective exchange rate; this further reveals that both variables influence one another. The real effective The rate at which one nation's currency can be exchanged for the currency of another nation is referred to as the exchange rate. The true interest rate is currently the cause of the wide money supply, whereas the wide money supply does not cause the real interest rate. This unidirectional causal relationship between the wide money supply and the real interest rate brings us to our last point, which is that the wide money supply does not cause the real interest rate. The outcomes of this thesis's stability test are depicted in Figures 4.1 and 4.2, respectively. The CUSUM and CUSUM of Squares tests are applied to the recursive residuals in order to ascertain the findings. This is done for the purpose of determining whether or not the models have a structurally sound foundation. At the 5% level of significance, the fact that the data do not go beyond the critical boundaries shows that the model is stable, trustworthy, and predictable. [More citation is required] The plots of the CUSUM and CUSUMSQ statistics show that the long-run coefficients in ECM, as well as all of the short-run coefficients, are stable and have an influence on growth across the 1980–2020 sample period. This is shown by the fact that all of The sign of the coefficients for the short run is the same as the sign of the coefficients for the long run. The fact that the signs of all of the short-run and long-run coefficients are the same is referred to as sign equality is evidence that this is the case.

Conclusion

This thesis examines the changes that have occurred in Sierra Leone's progress toward economic advancement is facilitated by direct investments from abroad between the years 1980 and 2020. FDI is a significant source of money and other resources entering a nation, particularly in areas where the transfer of knowledge and modern manufacturing processes are critical to assisting local businesses in becoming better and more productive. FDI is an important source of money and other resources entering a nation. Duramany-Lakkoh, (2020). (2020). Over the past few years, Sierra Leone has come to rely heavily on assistance from other countries in order to keep its economic activities and federal budget deficits afloat. (Duramany-Lakkoh, E.K. (2021) argues that despite the fact that the, this continues to be the case nation boasts a sizable mineral reserve as well as fertile territory that may be put to agricultural use. The World Bank data site is the source for data collection for this research. The ARDL is the method used to analyze the data. It is generally accepted that one of the most successful ways to encourage growth and development in the economy of developing nations like Sierra Leone is through the use of FDI stands for "foreign direct investment," which is an acronym. In conclusion, the research demonstrates that the ARDL-bound result is presented in Table 4.3. This result illustrates how tightly the both the independent and dependent variables are connected over the course of time. The findings indicate that the value of the f-statistics surpasses both the lower and upper bound constraints when using a significance threshold of 5%. With the help of Pesaran et al. (2001), we were able to compute the parameter level of our model's long-term estimates. The ARDL model is selected based on the criteria established by the AIC (1, 4, 2, 1, 0). The table demonstrates that it is possible to disprove the null hypothesis that long-term association because the Ficher statistic, computed as GDP (FDI, REER, BM, and RIR) = 8.641484, exceeds the upper limit for the respective significance criteria (1%, 5%, and 10%). This is demonstrated by the fact that the table contains the value 8.641484.

We have reached the conclusion that the variables in our model have a relationship with one another that is persistent across time. According to the data presented in Table 4.4, there’s a a beneficial relationship exists between foreign direct investment and the expansion of Sierra Leone's GDP over the long run. This link has a coefficient value of 0.349, which shows that a rise of 1% in FDI in Sierra

Leone leads to a rise of 0.349% in economic development. This outcome is in agreement with the results that were discovered by Duramany-Lakkoh et al. (2022), who looked into how foreign direct investment affected Sierra Leone's economic growth. The entirety of the investigated time span, which starts in 1980 and goes all the way through 2016, is a total of 37 years. In spite of the widespread consensus among academics that investments made directly from overseas (known as FDI) have a positive impact on the expansion of a country's economy, our investigation revealed that FDI played no role in the expansion of Sierra Leone's economy. An empirical review was performed on the data, and the findings are based on a regression analysis that was carried out utilizing the data that was available. According to the conclusions of the study, foreign direct investment (stock) in Sierra Leone does not contribute in any way to the overall growth of the economy in the country. The real effective exchange that is shown in this thesis reveals that there is a detrimental impact on the financial development of Sierra Leone. This outcome is in line with what Jackson et al. revealed, which is that the hypothesis's legitimate exchange has a negative influence on the economic development of Sierra Leone. Under the premise of this proposal, a genuine and fruitful exchange (2021) would be feasible. It was determined to be best to use the auto-regressive distributed lag model so that the objectives of the study could be accomplished. According to the findings, inflation is found to have a positive influence on the operations of the banking sector, whereas exchange rates are found to have a negative impact that is felt throughout the economy. Since inflationary pressures are a regular event that affect macroeconomic stability and often have an influence on commercial bank performance, monetary and political authorities should collaborate to oppose exchange rate pressure. This is because inflationary pressures often have an influence on commercial bank performance. As a result, Sierra Leone's banking sector will be encouraged to fulfill its duty, which is to lobby for sustained economic development and prosperity. Sierra Leone's economic growth is hampered by the broad money rate, while interest rates assist the economy as a whole. Table 4.5 shows the short-term results, which indicate that FDI helps Sierra Leone's economic growth. This is the end result. also This study, according to Agbloyor et al. (2018), examines how foreign direct investment (FDI), institutions, and trade and industry expansion interact in a variety of circumstances throughout Sub-Saharan African nations. We employ a two-step extended technique of the moments estimator along with

Weidmeijer-corrected confidence intervals and orthogonal deviations in order to conduct an analysis of the empirical connections. We looked at the entire sample and found no evidence that Increasing levels of foreign direct investment (FDI) are beneficial to economic growth. As a direct consequence of this, there is no significant correlation between institutions and the expansion of the economy. In the end, there is no convincing evidence to suggest that institutions can alter the manner in which FDI contributes to economic progress. In a similar vein, we do not discover any substantial link between economic growth and foreign direct investment (FDI) progress in the subsample that consists of nations that have developed financial markets. Nevertheless, the evidence suggests that institutions have a direct influence on the success of the economy. Also, it would seem that the strength of the institutions plays a part in the connection between international capital flows and economic expansion. This is something that needs further investigation. Last but not least, when we take out of our sample the nations that are blessed with an abundance of natural resources, we discover that there is a direct and constructive association concerning foreign direct investment and the advancement of an economy. In addition, we establish a link between the growth of institutions and the growth of the economy. Yet, it seems that the growth-promoting impacts of FDI diminish as institutional quality increases. The main takeaway from our research is that nations must examine their specific conditions when establishing strategies to benefit from FDI in order to obtain better economic benefits. Wiley Periodicals, Inc., 2016. The results of the diagnostic tests show that there is no association in a serial fashion up to two, that there is no heteroskedasticity, and that the normal distribution can be assumed to exist for the residuals. The outcomes of running the Granger causality test with a significance threshold of 5% are shown in Table 4.7 below. According to the outcomes, there is a relationship that can be attributed to cause and effect between foreign direct investment and the real effective rate of exchange. Furthermore, this relationship is bidirectional, meaning that it can go in either direction. This indicates that the two variables are working together to form a positive feedback loop. In addition, at the 5% level of significance, the data indicates bidirectional causality between broad money and the actual effective exchange rate, which implies that both variables influence one another. This is the case because the data suggests that there is some kind of connection between the two variables; in other words, there is a correlation. The root of the problem is the true interest rate. of broad money, but broad money is not the cause of the real interest rate. This is an example of unidirectional causation, which means that the real interest rate causes broad money but that broad money does not cause the real interest rate. Figures 4.1 and 4.2 illustrate the results that were obtained from the stability test for this thesis. On the basis of the recursive residuals, the CUSUM and CUSUM of Squares tests are utilized in order to investigate the structural soundness of the models. The fact that the data do not fall outside of the critical bounds when evaluated at a significance level of 5% demonstrates that the model is reliable, consistent, and capable of making accurate forecasts. According to the CUSUM and CUSUMSQ charts, the long-run coefficients in ECM, as well as all of the short-run coefficients, are stable and have an effect on growth across the 1980–2020 sample period. This is indicated by the fact that all of the short-run coefficients have the same value is known as the identity property.

Recommendations

In order to attract foreign direct investment (FDI) and benefit from the transfer of technology by foreign companies, the country that is hosting the investment should have stringent policies that protect foreign investment for foreign businesses and firms. It is the responsibility of the government to facilitate the private sector's efforts to raise capital from domestic sources in order to finance economically beneficial endeavors. A local business climate that encourages healthy competition between domestic and international businesses in the provision of services, with the objective of increasing operational efficacy. It is necessary for the domestic commercial sector to participate in the global economy in order for it to do so in its entirety, It is imperative that the government does everything in its power to increase the degree of openness that exists in international trade. It has been demonstrated that a nation’s degree of openness to trade is a important factor in calculating the amount of investment from overseas direct corporations that it receives. More liberalization of financial markets should be pursued by the government as a means of attracting foreign direct investment (FDI). In addition, the elimination or significant reduction of trade barriers on a global and regional scale makes the participating nations more appealing to foreign direct investment (FDI); Sierra Leone should do more to promote the admission and expansion of foreign companies. The government should make every effort to promote openness on all macroeconomic concerns, the elimination of corruption in all sectors of the economy, and the strengthening of foreign investors' faith in the economy as a whole are some of the things that need to be addressed. in order to attract more investment. Although the success of the host country's economy is a significant element that enhances investor confidence, our research revealed that this aspect did not meet the criteria necessary to be considered significant. In spite of the fact that the small size of the sample may be to blame for this finding, it is not something that should be disregarded. The government ought to look into ways that it might increase domestic production as well as the amount of employment that is now accessible, because doing so would be beneficial to the economy as a whole and would warrant investigation. Energy and infrastructure are considered by a number of academics to be key variables in foreign direct investment (FDI) flows in developing nations like Sierra Leone. The government ought to do this work to enhance these sectors in order to raise output and attract more investorsAnother significant factor that plays a significant role in determining investment choices in the majority of countries is inflation. As a consequence of this, the government ought to work through the ministry of finance and the central bank in an effort to The inflation rate should be kept in a single-digit range at all times the level that is most conducive to encouraging investment in an economy. Because the majority of economists feel that foreign direct investment (FDI) is negatively impacted when exchange rates are volatile, The goal of fiscal policy should be to maintain some level of control over the currency exchange rate in the financial market. This should be done in order to minimize higher exchange rate volatility. The goal of monetary policy should be to keep interest rates below levels that would encourage foreign direct investment (FDI).

Therefore, it is essential for the government of Sierra Leone to have an understanding of the significance about investments made by other countries and to work toward an improvement in the country's business climate by creating an environment that is secure and inviting to investors. Because of this, the government was needed to create policies that are free of bias and to produce a business climate that can enormously attract investors to put their money into the country. The administration is urged to heed recommendations to speed up the execution of changes that would increase the country's GDP, as well as to begin massive infrastructure development and bring inflation under control through the use of stricter monetary policy.

Refrences

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). FDI and economic growth: the role of local financial markets. *Journal of international economics*, *64*(1), 89-112.

Aliber, R. Z. (1969). Exchange risk, yield curves, and the pattern of capital flows. *The Journal of Finance*, *24*(2), 360-369.

Androniceanu, A., Gherghina, R., & Ciobănaşu, M. (2019). The interdependence between fiscal public policies and tax evasion. *Administratie si Management Public*, (32), 32-41.

Antoni, D., Burckel, H., Josset, E., & Noel, G. (2015). Three-dimensional cell culture: a breakthrough in vivo. *International journal of molecular sciences*, *16*(3), 5517-5527.

Arthur, B., & Addai, B. (2022). The dynamic interactions of economic growth, foreign direct investment, and exchange rates in Ghana. *Cogent Economics & Finance*, *10*(1), 2148361.

Aslam, M., & Awan, A. G. (2018). Impact of monetary policy on economic growth: Evidence from Pakistan. *Global journal of management, social sciences and humanities*, *4*(1), 89-109.

Azam, K., Raza, R., Shezad, N., Shabir, M., Yang, W., Ahmad, N., ... & Hussain, M. (2020). Development of recoverable magnetic mesoporous carbon adsorbent for removal of methyl blue and methyl orange from wastewater. *Journal of Environmental Chemical Engineering*, *8*(5), 104220.

Barro, R. J. (1991). Economic growth in a cross section of countries. *The quarterly journal of economics*, *106*(2), 407-443.

Barro, R. J., & Sala-i-Martin, X. (1992). Convergence. *Journal of political Economy*, *100*(2), 223-251.

Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1996). Foreign direct investment and growth in EP and IS countries. *The economic journal*, *106*(434), 92-105.

Basu, P., & Guariglia, A. (2007). Foreign direct investment, inequality, and growth. *Journal of Macroeconomics*, *29*(4), 824-839.

Berthélemy, J. C., & Demurger, S. (2000). Foreign direct investment and economic growth: theory and application to China. *Review of development economics*, *4*(2), 140-155.

Bilas, V. (2019). FOREIGN DIRECT INVESTMENT AND ECONOMIC GROWTH RELATIONSHIP IN CROATIA. *UTMS Journal of Economics*, *10*(2).

Bjork, R. A. (1999). F 5 assessing our own competence: Heuristics and illusions. *Attention and performance XVII: Cognitive regulation of performance: Interaction of theory and application*, 435.

Blomström, M., & Kokko, A. (1998). Multinational corporations and spillovers. *Journal of Economic surveys*, *12*(3), 247-277.

Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth?. *Journal of international Economics*, *45*(1), 115-135.

Borensztein, E., De Gregorio, J., & Lee, J. W. (1998). How does foreign direct investment affect economic growth?. *Journal of international Economics*, *45*(1), 115-135.

Bowen, D. T., Frew, M. E., Hills, R., Gale, R. E., Wheatley, K., Groves, M. J., ... & Linch, D. C. (2005). RAS mutation in acute myeloid leukemia is associated with distinct cytogenetic subgroups but does not influence outcome in patients younger than 60 years. *Blood*, *106*(6), 2113-2119.

Breusch, T. S. (1978). Testing for autocorrelation in dynamic linear models. *Australian economic papers*, *17*(31), 334-355.

Brudler, R., Hitomi, K., Daiyasu, H., Toh, H., Kucho, K. I., Ishiura, M., ... & Getzoff, E. D. (2003). Identification of a new cryptochrome class: structure, function, and evolution. *Molecular cell*, *11*(1), 59-67.

Buckley, P. J., Casson, M., Buckley, P. J., & Casson, M. (1976). A long-run theory of the multinational enterprise. *The future of the multinational enterprise*, 32-65.

Choe, J. I. (2003). Do foreign direct investment and gross domestic investment promote economic growth?. *Review of Development Economics*, *7*(1), 44-57.

Chowdhury, A., & Mavrotas, G. (2003). Foreign direct investment and growth: what causes what. *Department of Economics, Marquette University, USA, World Institute Development Economic Research/United Nations University*.

Chowdhury, A., & Mavrotas, G. (2005). *FDI and growth: a causal relationship* (No. 2005/25). WIDER Research Paper.

De Bondt, R., & Veugelers, R. (1991). Strategic investment with spillovers. *European Journal of Political Economy*, *7*(3), 345-366.

De Mello Jr, L. R. (1997). Foreign direct investment in developing countries and growth: A selective survey. *The journal of development studies*, *34*(1), 1-34.

Denbel, F. S., Ayen, Y. W., & Regasa, T. A. (2016). The relationship between inflation, money supply and economic growth in Ethiopia: Co integration and Causality Analysis. *International Journal of Scientific and Research Publications*, *6*(1), 556-565.

Dharmastuti, D. P., Agni, A. N., Widyaputri, F., Pawiroranu, S., Sofro, Z. M., Wardhana, F. S., ... & Sasongko, M. B. (2018). Associations of physical activity and sedentary behaviour with vision-threatening diabetic retinopathy in Indonesian population with type 2 diabetes mellitus: Jogjakarta Eye Diabetic Study in the Community (JOGED. COM). *Ophthalmic epidemiology*, *25*(2), 113-119.

Dodge, Y., Cox, D., & Commenges, D. (Eds.). (2003). *The Oxford dictionary of statistical terms*. Oxford University Press on Demand.

Dunning, J. H. (1977). Trade, location of economic activity and the MNE: A search for an eclectic approach. In *The international allocation of economic activity: proceedings of a nobel symposium held at Stockholm* (pp. 395-418). Palgrave Macmillan UK.

Duramany-Lakkoh, E. K. (2020). The effect of fiscal policy on financial sector development in sierra leone: a time series approach. *International Journal of Development and Economic Sustainability*, *8*(4), 1-23.

Duramany-Lakkoh, E. K., Jalloh, H., & Abu, A. M. (2022). A Granger Causality Test on the Impact of Public Debt on the Economic Growth of Sierra Leone. *Modern Economy*, *13*(7), 952-976.

Duramany-Lakkoh, E. K., Jalloh, M. S., & Jalloh, A. (2021). Foreign Direct Investment and Manufacturing Sector in Sierra Leone: A Vector A uto-Regression Analysis Approach. *Journal of Mathematical Finance*, *11*(4), 620-650.

Duramany-Lakkoh, E. K., Jalloh, M. S., & Jalloh, A. (2021). Foreign Direct Investment and Manufacturing Sector in Sierra Leone: A Vector Auto-Regression Analysis Approach. *Journal of Mathematical Finance*, *11*(4), 620-650.

Dauda, L., Long, X., Mensah, C. N., & Salman, M. (2019). The effects of economic growth and innovation on CO 2 emissions in different regions. *Environmental Science and Pollution Research*, *26*, 15028-15038.

Duramany-Lakkoh, E. K., Jalloh, M. S., & Jalloh, A. (2022). An Empirical Examination of the Impact of Banks on Economic Growth in Sierra Leone (2001-2017). *Journal of Financial Risk Management*, *11*(2), 258-276.

Ehigiamusoe, K. U., & Lean, H. H. (2019). Effects of energy consumption, economic growth, and financial development on carbon emissions: evidence from heterogeneous income groups. *Environmental Science and Pollution Research*, *26*(22), 22611-22624.

Emmy-Egbe, I. O., & Oluchukwu, O. C. (2013). Efficacies of Ivermectin and Praziquantel Treatment on Intestinal Helminthiases among Primary School Children in Ihiala, Anambra State, Nigeria. *African Journal of Education, Science and Technology*, *1*(1), 65-71.

Findlay, R. (1978). Relative backwardness, direct foreign investment, and the transfer of technology: a simple dynamic model. *The Quarterly Journal of Economics*, *92*(1), 1-16.

Friedlingstein, P., Jones, M. W., O'Sullivan, M., Andrew, R. M., Bakker, D. C., Hauck, J., ... & Zeng, J. (2022). Global carbon budget 2021. *Earth System Science Data*, *14*(4), 1917-2005.

Frimpong Magnus, J., & Oteng-Abayie, E. F. (2006). Bounds testing approach: an examination of foreign direct investment, trade, and growth relationships. *American Journal of Applied Sciences, Forthcoming*.

Godfrey, L. G. (1978). Testing against general autoregressive and moving average error models when the regressors include lagged dependent variables. *Econometrica: Journal of the Econometric Society*, 1293-1301.

Godfrey, L. G. (1978). Testing for higher order serial correlation in regression equations when the regressors include lagged dependent variables. *Econometrica: Journal of the Econometric Society*, 1303-1310.

Granger, C. W. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica: journal of the Econometric Society*, 424-438.

Gyeke-Dako, A., Agbloyor, E. K., Turkson, F. E., & Baffour, P. T. (2018). Financial development and the social cost of financial intermediation in Africa. *Journal of African Business*, *19*(4), 455-474.

Haile, L. M., Kamenov, K., Briant, P. S., Orji, A. U., Steinmetz, J. D., Abdoli, A., ... & Rao, C. R. (2021). Hearing loss prevalence and years lived with disability, 1990–2019: findings from the Global Burden of Disease Study 2019. *The Lancet*, *397*(10278), 996-1009.

Hansen, H., & Rand, J. (2006). On the causal links between FDI and growth in developing countries. *World Economy*, *29*(1), 21-41.

Hanson, G. H., Conférence des Nations Unies sur le commerce et le développement, & Center for international development (Cambridge, Mass). (2001). *Should countries promote foreign direct investment?* (Vol. 9). UN.

Hayat, A., Sohail, M., Ali Shah Syed, J., Al-Sehemi, A. G., Mohammed, M. H., Al-Ghamdi, A. A., ... & Muzibur Rahman, M. (2022). Recent Advancement of the Current Aspects of g-C3N4 for its Photocatalytic Applications in Sustainable Energy System. *The Chemical Record*, *22*(7), e202100310.

Hermes, N., & Lensink, R. (2003). Foreign direct investment, financial development and economic growth. *The journal of development studies*, *40*(1), 142-163.

Hossain, M. A., Piyatida, P., da Silva, J. A. T., & Fujita, M. (2012). Molecular mechanism of heavy metal toxicity and tolerance in plants: central role of glutathione in detoxification of reactive oxygen species and methylglyoxal and in heavy metal chelation. *Journal of botany*, *2012*.

Hymer, S. H. (1960). *The international operations of national firms, a study of direct foreign investment* (Doctoral dissertation, Massachusetts Institute of Technology).

Hymer, S. H. (1960). *The international operations of national firms, a study of direct foreign investment* (Doctoral dissertation, Massachusetts Institute of Technology).

Irandoust, J. E. M. (2001). On the causality between foreign direct investment and output: a comparative study. *The International Trade Journal*, *15*(1), 1-26.

Jayasuriya, S., Maskay, N. M., Weerakoon, D., Khatiwada, Y. R., & Kurukulasuriya, S. (2005). A single currency for South Asia: Economics and politics of monetary integration. *Economic and Political Weekly*, 3159-3166.

Jigme, S. (2006). Determinants Affecting Foreign Direct Investment. *Bhutan: Perception of Government officers In—Bimst-Ec‖ Member Countries, A Thesis Submitted in Partial Fulfillment of The Requirements for The Degree Of Master of Business Administration, Department of International Business Graduate School, The University of The Thai Chamber of Commerce, 79pp*.

Kawai, M., & Urata, S. (1998). Are trade and direct investment substitutes or complements? An empirical analysis of Japanese manufacturing industries. *Economic development and cooperation in the Pacific Basin: Trade, investment, and environmental issues*, 251-293.

Kawai, M., & Urata, S. (1998). Are trade and direct investment substitutes or complements? An empirical analysis of Japanese manufacturing industries. *Economic development and cooperation in the Pacific Basin: Trade, investment, and environmental issues*, 251-293.

Keita, O., & Baorong, Y. (2022). Foreign Direct Investment and Economic Growth Nexus: Empirical Insight from Guinea. *Asian Economic and Financial Review*, *12*(1), 58-69.

Kiiza, O. E. (2007). The casual relationship between foreign direct investment and economic growth: Case study of Uganda.

King, R. G., & Levine, R. (1993). Finance and growth: Schumpeter might be right. *The quarterly journal of economics*, *108*(3), 717-737.

Kizhakudan, J. K., & Krishnamoorthi, S. (2014). Complete larval development of Thenus unimaculatus Burton & Davie, 2007 (Decapoda, Scyllaridae). *Crustaceana*, *87*(5), 570-584.

Klein, K. O., Martha Jr, P. M., Blizzard, R. M., Herbst, T. O. D. D., & Rogol, A. D. (1996). A longitudinal assessment of hormonal and physical alterations during normal puberty in boys. II. Estrogen levels as determined by an ultrasensitive bioassay. *The Journal of Clinical Endocrinology & Metabolism*, *81*(9), 3203-3207.

Koros, W. J., Chan, A. H., & Paul, D. R. (1977). Sorption and transport of various gases in polycarbonate. *Journal of Membrane Science*, *2*, 165-190.

Krantz, S. G. (2011). *The proof is in the pudding: The changing nature of mathematical proof* (pp. xviii+-264). New York: Springer.

Kurtishi-Kastrati, S. (2013). Impact of FDI on economic growth: An overview of the main theories of FDI and empirical research. *European Scientific Journal*, *9*(7), 56-77.

Langer, J., Jimenez de Aberasturi, D., Aizpurua, J., Alvarez-Puebla, R. A., Auguié, B., Baumberg, J. J., ... & Liz-Marzán, L. M. (2019). Present and future of surface-enhanced Raman scattering. *ACS nano*, *14*(1), 28-117.

Larkin, M. A., Blackshields, G., Brown, N. P., Chenna, R., McGettigan, P. A., McWilliam, H., ... & Higgins, D. G. (2007). Clustal W and Clustal X version 2.0. *bioinformatics*, *23*(21), 2947-2948.

Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality and causes. *Journal of monetary Economics*, *46*(1), 31-77.

Levine, R., Loayza, N., & Beck, T. (2000). Financial intermediation and growth: Causality and causes. *Journal of monetary Economics*, *46*(1), 31-77.

Lim, T. (2001). Rationality and analysts' forecast bias. *The journal of Finance*, *56*(1), 369-385.

Lipsey, R. E., Feenstra, R. C., Hahn, C. H., & Hatsopoulos, G. N. (1999). The role of foreign direct investment in international capital flows. In *International capital flows* (pp. 307-362). University of Chicago Press.

Loungani, P., & Razin, A. (2001). How beneficial is foreign direct investment for developing countries?. *Finance and development*, *38*(2), 6-9.

Loungani, P., & Razin, A. (2001). How beneficial is foreign direct investment for developing countries?. *Finance and development*, *38*(2), 6-9.

MacCallum, R. C. (1995). Model specification: Procedures, strategies, and related issues.

Mariotti, S., Mutinelli, M., & Piscitello, L. (2003). Home country employment and foreign direct investment: evidence from the Italian case. *Cambridge Journal of Economics*, *27*(3), 419-431.

McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (2002). Honor codes and other contextual influences on academic integrity: A replication and extension to modified honor code settings. *Research in higher Education*, *43*, 357-378.

Mencinger, J. (2003). Does foreign direct investment always enhance economic growth?. *Kyklos*, *56*(4), 491-508.

Meyer, K. (1907). The expulsion of the Dessi. *Ériu*, 135-142.

Morang'a, C. M., Ngoi, J. M., Gyamfi, J., Amuzu, D. S., Nuertey, B. D., Soglo, P. M., ... & Awandare, G. A. (2022). Genetic diversity of SARS-CoV-2 infections in Ghana from 2020-2021. *Nature Communications*, *13*(1), 2494.

Morina, F., Hysa, E., Ergün, U., Panait, M., & Voica, M. C. (2020). The effect of exchange rate volatility on economic growth: Case of the CEE countries. *Journal of Risk and Financial Management*, *13*(8), 177.

Moroney, J. R., & Walker, J. M. (1966). A regional test of the Heckscher-Ohlin hypothesis. *Journal of Political Economy*, *74*(6), 573-586.

Negm, N. A., Kandile, N. G., Badr, E. A., & Mohammed, M. A. (2012). Gravimetric and electrochemical evaluation of environmentally friendly nonionic corrosion inhibitors for carbon steel in 1 M HCl. *Corrosion science*, *65*, 94-103.

Nurudeen, A. (2009). Does stock market development raise economic growth? Evidence from Nigeria. *The review of Finance and Banking*, *1*(1), 16-26.

Nurudeen, A., Gobna, O. W., & Usman, A. (2010). On The Causal Links Between Foreign Direct Investment And Economic Growth In Nigeria, 1970-2008: An Application Of Granger Causlity And Co-Integration Techniques. *Romanian Statistical Review*, (3).

Okeke, R. C., Ezeabasili, V. N., & Nwakoby, C. N. I. (2014). Foreign direct investment and economic growth in Nigeria: An empirical evidence. *International Journal of Innovative Research in Management*, *3*(3), 30-39.

Olawale, B. E., Mutongoza, B. H., Adu, E. O., & Omodan, B. I. (2021). COVID-19 Induced Psychosocial Challenges in South African Higher Education: Experiences of Staff and Students at Two Rural Universities. *Research in Social Sciences and Technology*, *6*(3), 179-193.

Olayiwola, K., & Okodua, H. (2013). Foreign direct investment, non-oil exports, and economic growth in Nigeria: A causality analysis. *Asian Economic and Financial Review*, *3*(11), 1479-1496.

Olofsdotter, K. (1998). Foreign direct investment, country capabilities and economic growth. *Weltwirtschaftliches Archiv*, (H. 3), 534-547.

Organisation for Economic Co-operation and Development Staff. (2002). *Education at a glance: OECD indicators 2002*. Paris: OECD.

Ozturk, I. (2007). Foreign direct investment-growth nexus: a review of the recent literature. *International Journal of Applied Econometrics and Quantitative Studies*, *4*(2).

Ogege, S. (2019). Analysis of the Impact of Inflation, Interest Rate and Exchange Rate on Economic Development. *International Journal of Commerce and Finance*, *5*(1), 121-132.

Park, D. W., Schendel, A. A., Mikael, S., Brodnick, S. K., Richner, T. J., Ness, J. P., ... & Williams, J. C. (2014). Graphene-based carbon-layered electrode array technology for neural imaging and optogenetic applications. *Nature communications*, *5*(1), 5258.

Pesaran, M. H. (1997). The role of economic theory in modelling the long run. *The economic journal*, *107*(440), 178-191.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, *16*(3), 289-326.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, *16*(3), 289-326.

Prem, S. (1995). Success of Entrepreneurship Development Programmes: An Evaluative Study. *SEDME (Small Enterprises Development, Management & Extension Journal)*, *22*(2), 1-9.

Rahim, M. (2021). The causal relationship between fuel consumption, exchange rates and economic growth in South East Sulawesi, Indonesia. *International Journal of Energy Economics and Policy*.

Rauf, U., Qureshi, W. S., Jabbar, H., Zeb, A., Mirza, A., Alanazi, E., ... & Rashid, N. (2022). A new method for pixel classification for rice variety identification using spectral and time series data from Sentinel-2 satellite imagery. *Computers and Electronics in Agriculture*, *193*, 106731.

Rodriguez-Clare, A. (1996). Multinationals, linkages, and economic development. *The American economic review*, 852-873.

Saggi, K. (2002). Trade, foreign direct investment, and international technology transfer: A survey. *The World Bank Research Observer*, *17*(2), 191-235.

Sajid, G. M., & Sarfraz, M. (2008). Savings and economic growth in Pakistan: An issue of causality. *Pakistan Economic and Social Review*, 17-36.

Sala-i-Martin, X. X., & Barro, R. J. (1995). *Technological diffusion, convergence, and growth* (No. 735). Center discussion paper.

Saint Akadiri, S., Bekun, F. V., & Sarkodie, S. A. (2019). Contemporaneous interaction between energy consumption, economic growth and environmental sustainability in South Africa: what drives what?. *Science of the total environment*, *686*, 468-475.

Sanh, V., Debut, L., Chaumond, J., & Wolf, T. (2019). DistilBERT, a distilled version of BERT: smaller, faster, cheaper and lighter. *arXiv preprint arXiv:1910.01108*.

Sarker, I. H., Abushark, Y. B., Alsolami, F., & Khan, A. I. (2020). Intrudtree: a machine learning based cyber security intrusion detection model. *Symmetry*, *12*(5), 754.

Tang, S., Selvanathan, E. A., & Selvanathan, S. (2008). Foreign direct investment, domestic investment and economic growth in China: A time series analysis. *World Economy*, *31*(10), 1292-1309.

Théodore, G. B. Z. (2011). Libertés académiques, syndicalisme et politique en Côte d'Ivoire. *Journal of Higher Education in Africa/Revue de l'enseignement supérieur en Afrique*, *9*(1-2), 133-146.

Varamini, H., & Vu, A. (2007). Foreign direct investment in Vietnam and its impact on economic growth. *International journal of business research*, *7*(6), 132-139.

Vernon, D. T., Schulman, J. L., & Foley, J. M. (1966). Changes in children's behavior after hospitalization: some dimensions of response and their correlates. *American Journal of Diseases of Children*, *111*(6), 581-593.

Vernon, D. T., Schulman, J. L., & Foley, J. M. (1966). Changes in children's behavior after hospitalization: some dimensions of response and their correlates. *American Journal of Diseases of Children*, *111*(6), 581-593.

Vissak, T., & Roolaht, T. (2005). The negative impact of foreign direct investment on the Estonian economy. *Problems of Economic Transition*, *48*(2), 43-66.

Zamani, M., Karimi-Ghartemani, M., Sadati, N., & Parniani, M. (2009). Design of a fractional order PID controller for an AVR using particle swarm optimization. *Control Engineering Practice*, *17*(12), 1380-1387.

Zhang, K. H. (2001). How does foreign direct investment affect economic growth in China?. *Economics of transition*, *9*(3), 679-693.

Zhang, L., Yang, K. H., Dwarampudi, R., Omori, K., Li, T., Chang, K., ... & King, A. I. (2001). Recent advances in brain injury research: a new human head model development and validation.

Zhao, Y., Li, Y., Wang, N., Zhou, R., & Luo, X. (2022). A meta-analysis of online impulsive buying and the moderating effect of economic development level. *Information Systems Frontiers*, *24*(5), 1667-1688.

Appendices

Appendix A
Plagarism Report

MOSES_HARRIS FLOMO

ORIGINALITY REPORT

14%	12%	6%	4%
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

1	docs.neu.edu.tr Internet Source	5%
2	www.researchgate.net Internet Source	1%
3	hdl.handle.net Internet Source	<1%
4	Submitted to University of Salford Student Paper	<1%
5	Submitted to Higher Education Commission Pakistan Student Paper	<1%
6	doaj.org Internet Source	<1%
7	data.worldbank.org Internet Source	<1%
8	econjournals.com Internet Source	<1%
9	معاذ صفوت محمد. "The Effect of Financial Inclusion On Banking Performance", مجلة	<1%

NEAR EAST UNIVERSITY

SCIENTIFIC RESEARCH ETHICS COMMITTEE

05.06.2023

Dear Prof. Dr. Turgut Tursoy

Your project **"Linking Foriegn Direct Investment and Economy Development in Sierra Leone (1980-2020)"** has been evaluated. Since only secondary data will be used the project does not need to go through the ethics committee. You can start your research on the condition that you will use only secondary data.

Prof. Dr. Aşkın KİRAZ

The Coordinator of the Scientific Research Ethics Committee