BINDURA UNIVERSITY OF SCIENCE EDUCATION FACULTY OF COMMERCE

DEPARTMENT OF ECONOMICS

EFFECTS OF FOREIGN DIRECT INVESTMENT ON ECONOMIC GROWTH IN ZIMBABWE (2000 – 2023)

SUBMITTED BY CHIEDZA JAQUELINE CHITENGU (B202296B)

SUPERVISOR DR. D. DAMIYAMO

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE BACHELOR OF SCIENCE HONORS DEGREE IN ECONOMICS OF BINDURA UNIVERSITY OF SCIENCE EDUCATION

JUNE 2024

RESEARCH APPROVAL FORM

NAME OF STUDENT : CHIEDZA JAQUELINE CHITENGU

REGISTRATION NUMBER : B202296B

NAME OF SUPERVISOR : DR. DAMIYANO

RESEARCH TOPIC: EFFECTS OF FDI ON ECONOMIC GROWTH IN ZIMBABWE (2000 - 2023)

The undersigned is hereby acknowledging that the above-mentioned student has consulted me for supervision of his research dissertation until completion. I therefore allow the student to submit his work for final assessment.

Signed.....Date.....

DECLARATION

I, Chitengu Chiedza Jaqueline declare that the project herein is my original work and has neither been copied, or lifted from any source without the acknowledgement of the source nor submitted at any institution in fulfilment of any academic or professional qualification.

…….. ……..…/……./……

SIGNED DATE

RELEASE FORM

STUDENT NAME : CHIEDZA JAQUELINE CHITENGU

RESEARCH TITLE : EFFECTS OF FDI ON ECONOMIC GROWTH IN ZIMBABWE (2000 – 2023)

DEGREE TITLE : **Bachelor of Science Honors Degree (Economics)**

YEAR OF DEGREE

COMPLETION : June 2024

Permission is hereby granted to the Bindura University of Science Education Library to produce single copies of this research project and to lend or sell such copies for scholarly and/or scientific research purposes only. The author reserves publication rights of the research project, no extensive extracts from it may be printed or otherwise reproduced without the author's written permission.

SIGNED ……..

DATE ……/……../…….

PERMANENT ADRESS: 352 RAINHAM, MT HAMPDEN

ZVIMBA, ZIMBABWE

DEDICATION

I dedicate this dissertation to my parents, Peter S. Chitengu and Priscillah Chitengu (née Dzuda), with the utmost thanks. Their unfailing support, knowledge, and love have guided me throughout my life.

ABSTRACT

The study looks at how Zimbabwe's economic growth was affected by foreign direct investment between 2000 and 2023. The significance of additional macroeconomic metrics on GDP, like trade tariffs, GDP growth prices, net inflows of foreign direct investment, consumer price inflation, and employment (to population ratio, overall, 15+) (based on ILO model estimates), was also examined in this study. The analysis uses a variety of econometric approaches, such as unit root tests, the generalized method of moments (GMM) approach, the co-integration matrix, and ordinary least squares (OLS) regression, using time series data from the World Bank.

While the Granger Causality test demonstrates the oriented correlation between foreign direct investment and GDP expansion, the co-integration analysis verifies the series is not co-integrated and, consequently, does not exhibit a long-term link. There is a significant positive correlation between the two variables, as shown by the correlation matrix.

Additionally, the unit root level demonstrates that neither variable is statistically significant, whereas the unit root first difference indicates that both are. The GMM estimation supports the FDI-growth nexus finding. Overall, the analysis offers solid empirical support for the claim that rising FDI inflows have been a major factor in Zimbabwe's economic expansion across the examined all of it. The outcomes highlight the significance of policies meant to draw in and encourage FDI as a way to boost the nation's economy.

Acknowledgements

I would like to sincerely thank the following people for their help and contributions during the completion of my dissertation for my bachelor's degree.

First and foremost, I want to express my gratitude to Dr. Damiyano, who oversaw my dissertation, for all of his help, advice, and insightful criticism. Your guidance and observations have been beneficial in forming my research.

I also want to express my sincere gratitude to the BUSE Economics department faculty. I appreciate the difficult and encouraging academic environment you provided during my undergraduate studies, which allowed me to develop both intellectually and personally.
I would like to acknowledge my father and mother, Peter S Chitengu & Priscillah Chitengu (nee Dzuda) respectively for providing me with financial assistance that has enabled me to focus on my studies and complete this dissertation.

My sincere gratitude is extended to my family and friends. Throughout my academic journey, I have found constant motivation from my sisters, grandmother and grandfather, Junior and Jullianie Chitengu, Perpetua Dzuda (Senior), and the late Elias T. Dzuda (May his soul continue to rest in peace). I am truly grateful for your unwavering love, encouragement, and understanding. I sincerely appreciate your help.

I also wish to convey my appreciation to my classmates and peers for experiencing the highs and lows of this project together. My undergraduate experience has been enhanced by the conversations, teamwork, and exchange of experiences.
I sincerely appreciate everyone's assistance in seeing my dissertation through to the conclusion.

Table of Contents

Table of Figures

CHAPTER I:

1.0 INTRODUCTION

In an increasingly globalized world, for both rich and developing nations, FDI has become a crucial factor in economic growth and development. An investment made to acquire a long-term stake Foreign direct investment, or FDI, occurs when a firm operates in a different economy than the investor's (UNCTAD, 2011). In the case of Zimbabwe, FDI can play a crucial role in revitalizing the economy, attracting capital, and technology, and fostering sustainable development.

According to observations on the period of economic decline and political instability, Zimbabwe strives to create an enabling environment for foreign investors and stimulate economic growth. According to Moyo (2013), foreign direct investment (FDI) involves management, joint ventures, technology transfer, and enterprise. FDI has the potential to contribute significantly to the country's development by promoting job creation, technology transfer, infrastructure development, and export diversification. However, Foreign Direct Investment's Complex Effect on economic development and multifaceted, and it is essential to examine the dynamic in the Zimbabwean context. FDI can have noteworthy consequences on the expansion of the economy of equally the host as well as the home countries, depending on various factors such as the type, source, and destination of FDI, the institutional and policy environment, and the spillover effects on domestic firms and sectors (Digital Millenium, 2024).

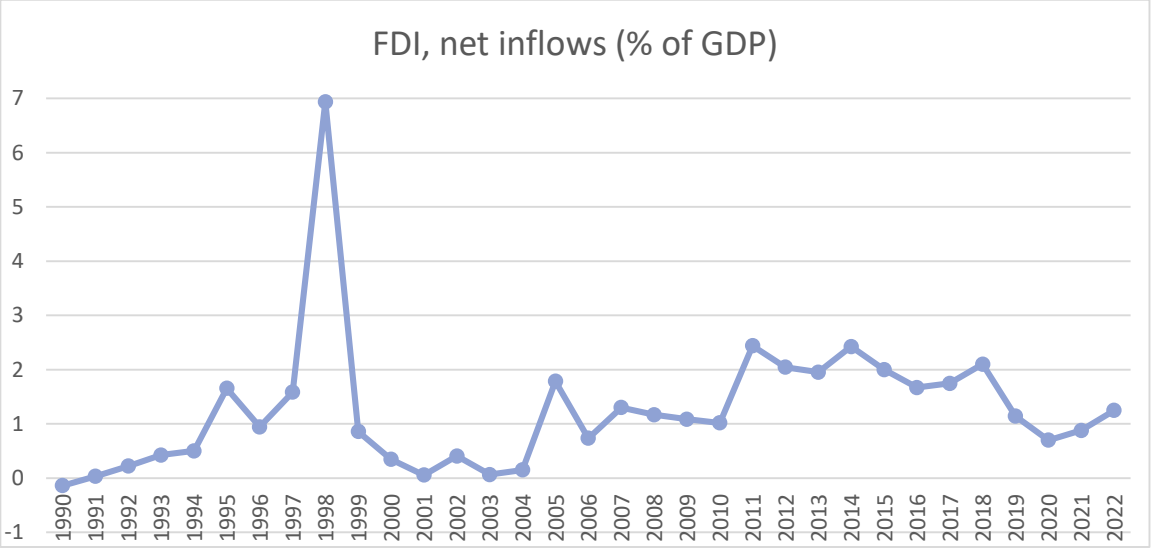
By examining the effects of Investment in economic growth in Zimbabwe, this research aims to add to the corpus of knowledge already in existence on FDI and provide evidence-based insights. The findings of this study can inform the creation and application of plans and policies that maximize the positive impacts of FDI while minimizing potential risks. In this regard, While there is evidence that FDI has a favorable influence (Moyo, 2013; Musharavati, 2017), Makova (2010) offers evidence that FDI does not have an exogenous

effect on economic growth. Ultimately, the research aims to contribute to Zimbabwe's sustainable development and expansion of the economy, promoting a more inclusive and prosperous future for the country.

1.1 Background to the Study

According to Gwenhamo (2011), the policy environment in Zimbabwe was adverse to international investors, which is why FDI net inflows were extremely low between 1980 and 1990. Historically, Zimbabwe has experienced fluctuating levels of FDI inflows. The country witnessed a surge in FDI during the 1990s, driven by market-oriented reforms and the liberalization of the economy. However, political instability, land reform policies, and policy uncertainties in subsequent years led to a decline in FDI inflows. As Zimbabwe's government reached terms employing consistently low concentrations of foreign direct investment, its policies toward overseas investors started to shift late in the eighties (Gwenhamo, 2011). (Moyo, 2013) investigates how FDI affects GDP in Zimbabwe, the result exhibits that FDI has too much significant and positive impact on economic growth, therefore, if the nation is to achieve its goals for economic progress, it is in favor of measures that encourage FDI from abroad.

Figure 1 Net FDI inflows in Zimbabwe 1990-2022



Source: Derived from The World Bank Group, 2023.

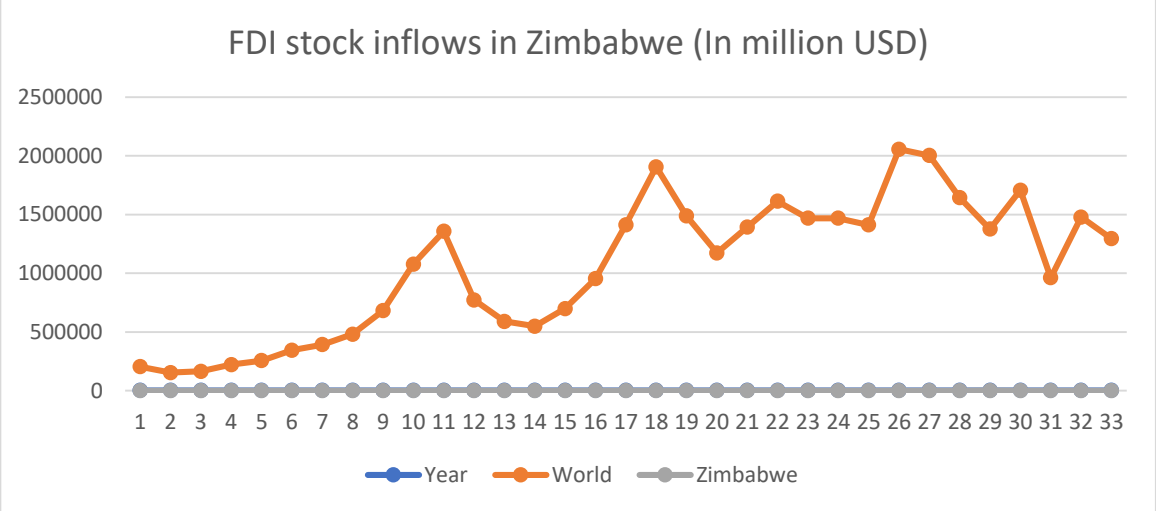
The net FDI inflows into Zimbabwe from 1970 to 2022 are displayed in Figure 1. Regarding the World Bank Group (2023), FDI net inflows increased by 0.5 from 2020 to 2022 as a percentage of GDP. The average figure for Zimbabwe during the very period was 0.88%, resulting in a minimum of 0.45% in 1987 and a maximum of 6.94% in 1998. The most recent value happens to be 1.25 %. Importantly, net foreign direct investment (FDI) inflows into Zimbabwe increased steadily by 3% between 2005 and 2010, but its share of the country's GDP fell by 23%, as evidenced by the FDI to GDP ratio, which decreased from 1.841 in 2005 to 1.410 in 2010. Zimbabwe's economic growth can be divided into three separate periods between 2011 and 2022: positive growth from 2016 to 2018; negative growth from 2019 to 2020; and a recovery period between 2021 and 2012, as seen in the above image.

According to the Reserve Bank of Zimbabwe (1997), an analysis of the sectoral distribution of inward FDI from 1993 to 1997 shows that the mining sector has been the major beneficiary of FDI, followed by the manufacturing, and then the financial sector respectively (Reserve Bank of Zimbabwe, 1997). There are several possible advantages of FDI for Zimbabwe's economic expansion. Firstly, FDI can finance investment projects such as infrastructure development which can enhance productivity and competitiveness. Secondly, FDI can facilitate technology transfers and allow knowledge spillovers, allowing domestic firms to improve the production processes and adopt advanced technologies which can lead to increased productivity. Thirdly, FDI can contribute to employment creation reducing the unemployment rate and poverty levels in the country. Lastly, FDI can promote export diversification, helping to reduce dependence on a narrow range of commodities and enhance resilience to external shocks. A few of these initiatives are the Short-term Economic Recovery Programme (2009), Millennium Economic Recovery Programme (MERP) took part from 2000 to 2002, Medium-Term Plan in 2010, and 2012–2016: Trade Policy National, (UNCTAD, 2004).

The nation, Zimbabwe has been given aid foreign direct investment coming from worldwide; however, from 2000 to 2018, the majority of Zimbabwe's FDI stock, totaling USD556.30 million and USD625.54 million, respectively, came from China and South Africa, supported by the figure below (C.Kudakwashe & S.Regret, 2021). Zimbabwe's FDI

flows are significantly lower than their potential due to the 2019 recession induced by Cyclone Idai, El Niño drought, and the COVID-19 epidemic. According to UNCTAD's 2023 World Investment Report, FDI inflows had a sum of USD 341.5 million in 2022 (an increase from 2019- 2021 values), a considerable decrease from pre-crisis levels of USD 745 million in 2018. In 2022, FDI totaled USD 6 billion, 234 million USD.

Figure 2 FDI stock in Zimbabwe 1990-2022



However, the relationship between FDI and economic growth has challenges and risks. It is essential to address potential drawbacks associated with FDI, such as the crowding out of domestic industries, potential exploitation of natural resources, environmental degradation, and concerns about labor standards. Additionally, ensuring that FDI benefits are distributed equitably and contribute to inclusive growth is a key consideration for policymakers.

1.1.1 Statement of the problem

Despite increased foreign direct investment (FDI) in Zimbabwe (from 250 million USD in 2021 to 341.5 million USD in 2022), economic development remains modest, as seen by limited improvements in key macroeconomic indicators and continuing problems in numerous sectors of the economy. The purpose of this dissertation is to investigate the elements that contribute to Zimbabwe's restricted economic growth and to look at prospective possibilities for increasing FDI's beneficial contributions to long-term

economic development. According to The World Bank (2024), Real GDP growth remained high at 6.5% in 2022 from 8.5% in 2021 driven by a continued growth in agricultural production, also, Real GDP growth was projected to slow in 2023, constrained by global headwinds, structural bottlenecks, and price and exchange rate instability.

1.1.2 Purpose of the Study

Primary Objective:

a) To determine the impact of FDI on Zimbabwe's Economic growth.

Secondary Objective:

a) To examine the short-term and long-term effects of FDI on economic growth.
b) To determine empirically if FDI promotes economic growth.

Finding out how FDI affects Zimbabwe's fiscal expansion is the main goal throughout this research. To provide evidence-based insights, the study seeks to analyze the relationship between FDI inflows and various economic indicators such as GDP growth, employment, technological advancement, and productivity. Specifically, the study aims to identify the key determinants that attract or hinder FDI inflows in Zimbabwe and understand the mechanisms through which FDI affects the overall economic performance of the country. By examining historical data, conducting empirical research, and considering relevant economic theories, the study strives to establish a comprehensive understanding of how FDI contributes to economic growth in Zimbabwe. Furthermore, the study intends to shed light on the potential challenges and opportunities associated with FDI in Zimbabwe. It aims to identify the policy implications and strategies that can facilitate the maximization of benefits from FDI inflows while mitigating any negative consequences. Ultimately, the findings of this study will provide valuable insights for policymakers, investors, and stakeholders in Zimbabwe. The research aims to add to the corpus of research already available on FDI and economic development, helping shape effective policies and strategies that can harness the potential of foreign direct investment to drive sustainable economic expansion and advancement in Zimbabwe.

1.1.3 Research question (s)

i. What is the causal connection between Zimbabwe's economic development and FDI?

1.1.4 Statement of the hypothesis

(H0) Null Hypothesis: There's no significant link between Zimbabwe's economic development and FDI.

Alternative Hypothesis (Ha): There is a significant positive relationship between foreign direct investment (FDI) and economic growth in Zimbabwe.

The hypothesis suggests that the null hypothesis assumes no meaningful association between FDI and economic growth in Zimbabwe, while the alternative hypothesis proposes the existence of a positive and significant relationship between FDI and economic growth in the country.

The research aims to gather empirical evidence to either support or reject the null hypothesis. If the study finds sufficient evidence to reject the null hypothesis, it will provide support for the alternative hypothesis, indicating that FDI significantly boosts Zimbabwe's economic development. Conversely, if the study fails to reject the null hypothesis, it would suggest that FDI does not have a significant relationship with economic growth in the country.

The hypothesis will be tested through data analysis and statistical methods, considering relevant economic indicators and variables related to foreign direct investment and Zimbabwe's economic expansion.

1.1.5 Significance of the Study

1. Host country:
    - ✓ FDI can drive economic expansion and increase the host country's overall GDP by boosting productivity and output
    - ✓ It can create new employment opportunities, both directly and indirectly, for the local population.
    - ✓ Access to international markets and integration into global supply chains can expand the host country's export potential.

2. Investing Country:
    - ✓ FDI allows investing countries to expand their market reach and tap into new consumer bases in the host countries.
    - ✓ It can enable investing countries to realize efficiency gains, cost advantages, and access to resources or skilled labor in the host countries.
    - ✓ FDI can help diversify the investing country's investment portfolio, reducing risks associated with domestic-only investments.

3. Local businesses:
    - ✓ FDI can create opportunities for local businesses to integrate into the supply chains of foreign-owned enterprises, potentially leading to increased sales and knowledge sharing.
    - ✓ The presence of foreign firms can introduce competitive pressures, encouraging domestic businesses to improve their efficiency, innovate, and become more competitive.

4. Employees:
    - ✓ FDI can create new job opportunities, particularly in the economy, Zimbabwe, with limited domestic investment
    - ✓ Employees can benefit from training, exposure to advanced technologies, and opportunities for skill enhancement, improving their long-term employability.

5. Consumers:
    - ✓ FDI can increase the availability and variety of goods and services, providing consumers with more choices and potentially lower prices.
    - ✓ The introduction of foreign firms and their established brands can lead to quality improvements in the products and services available to consumers.

The literature on economists has extensively investigated the connection between investment made directly abroad (FDI), also economic growth. Many study investigations have remained initiated and conducted regarding this subject, with varying degrees of success. Economic growth and foreign direct investment have a unidirectional causal link, according to Anfofum (2013). Iqbal (2010) discovered an inverse causal relationship between FDI and GDP in Pakistan, but no causal link was discovered by Maliwa, E. (2015) between foreign direct investment and Zambia's economic growth. To ensure appropriate policy formation, these discrepancies in the results highlight the necessity for country-specific studies. Scholars such as Moyo (2013) have attempted to analyze the connection between FDI, or foreign direct investment, and GDP in Zimbabwe; however, the potential endogeneity of FDI and economic growth has been disregarded.

1.1.6 Assumptions

1. Causal Relationship Assumption: The dissertation assumes that there is a cause-and-effect relationship between FDI and economic growth in Zimbabwe. It supposes that FDI inflows can positively influence economic growth through various channels, such as increased capital investment, technology transfer, job creation, and improved productivity.

2. Exogeneity Assumption of FDI: The study assumes that FDI is an external factor that is determined independently of the Zimbabwean economy. It presupposes that FDI inflows are influenced by factors beyond the country's control, including global economic conditions, investor sentiment, government policies, and international trade dynamics.

3. Economic Stability Assumption: The dissertation assumes a certain level of economic stability in Zimbabwe during the study period. It posits that the country's macroeconomic fundamentals, such as inflation, exchange rates, fiscal policy, and political stability, do not undergo significant fluctuations that could significantly impact the relationship between FDI and economic growth.

4. Data Availability and Reliability Assumption: The study assumes the availability and reliability of relevant data on Inflows of foreign direct investment, economic statistics, and other variables used in the study. It assumes that data from reliable sources, including government agencies, central banks, and international organizations, accurately reflects and represents the Zimbabwean economy.

5. Rational Investor Behavior Assumption: The dissertation assumes that foreign Logic dictates that investors base their choices on their evaluation of risk and yield. It proposes that investors consider various factors, such as market potential, political stability, legal framework, infrastructure, and the overall business environment when deciding to invest in Zimbabwe.

6. Homogeneity of FDI Effects Assumption: The study assumes that the effects of FDI on economic growth are relatively consistent across sectors and regions within Zimbabwe. It makes the argument that geographical differences and sector-specific traits have little bearing on how FDI affects economic growth.

7. Absence of Reverse Causality Assumption: The dissertation assumes that the connection between economic development and FDI is unidirectional, with Foreign Direct Investment influencing fiscal expansion and not the other way around. It suggests that changes in economic growth during the study period do not significantly affect FDI inflows.

1.1.7 Delimitations of the Study

i. Time Delimitation:

The years 2000–2023 will be the study's primary emphasis. This period of time was chosen for a number of reasons. First, the implementation of the land reform program and the ensuing economic slump in 2000 brought about a dramatic change in Zimbabwe's political and economic environment. This time frame is especially important for comprehending how FDI contributed to the nation's economic expansion and recovery. Second, from the early 2000s onward, data dependability and availability have usually improved, enabling a more thorough examination. Lastly, restricting the analysis to the last 23 years guarantees that the conclusions are up-to-date and applicable to Zimbabwe's present economic situation.

ii. Conceptual Delimitation:

The link between FDI and economic growth in Zimbabwe will be the main focus of the study. This study will confine its focus to the direct and indirect impacts of foreign

direct investment (FDI) on GDP growth, even if other variables like domestic investment, trade openness, and political stability may also have an impact on economic growth. This conceptual delimitation is justified by the fact that foreign direct investment (FDI) is widely acknowledged as a vital source of technology transfer and money that is required to further economic growth in developing nations such as Zimbabwe.

iii. Geographic Delimitation:

The research will be limited to Zimbabwe, a Southern African landlocked nation. The rationale behind this geographic delimitation stems from Zimbabwe's distinct economic and political issues, which have had a substantial influence on the country's capacity to draw in and profit from foreign direct investment. The study's emphasis on Zimbabwe allows it to offer comprehensive insights into the dynamics unique to that nation and the policy implications of the FDI-growth relationship.

iv. Methodological Delimitation:

The study will investigate the connection between foreign direct investment (FDI) and economic growth in Zimbabwe using quantitative research methodologies, notably econometric analysis. The quantitative focus enables the discovery of statistical links and the evaluation of the amount and importance of the impacts, even when qualitative techniques could offer additional insights. The availability of pertinent secondary data and the requirement for empirical rigor in answering the research question serve as the foundation for this methodological delimitation.

1.1.8 Limitations

i. Data availability and quality: Incomplete or inaccurate data can compromise the analysis's dependability and the capacity to reach solid results. On the other hand, the study can be conducted by utilizing a variety of data sources, cross-referencing data, and applying rigorous data methodologies.

ii. Endogeneity and reverse causation: Since economic growth and FDI inflows are frequently correlated, there may be problems with endogeneity and reverse causality. It is difficult to prove that FDI and economic growth are causally related. However, to address endogeneity and more strongly prove causality, the investigation can be finished by utilizing econometric approaches like instrumental variable analysis or panel data methods.

iii. Heterogeneity of FDI - investments made through FDI can take many different forms, including portfolio investments. It is difficult to generalize results due to the variability of FDI inflows, which can have a variety of consequences on economic growth. Nonetheless, the research can be finished by breaking down FDI data according to type and examining how each type affects economic growth differently.

iv. External factors and the global context - Several external factors, including international trade policies, financial market dynamics, and general economic conditions, can have an impact on Zimbabwe's economic growth. Ignoring these outside influences could restrict our ability to comprehend how specifically FDI affects economic growth. On the other hand, to account for the effects of the global economy, the research can include pertinent external factors in their analysis.

1.1.9 Definition of Terms

Economic growth – is used to describe the gradual expansion of a nation's economy. The gross domestic product (GDP), or the entire amount of goods and services produced within an economy, is commonly used to gauge the size of that economy. (Australian Reserve Bank, 2024).

FDI – According to OECD, (1996). An investment involving a long-term relationship and reflecting a persistent interest and control by a resident entity in one economy (a foreign direct investor or parent enterprise) in an enterprise located in an economy other than the foreign direct investor's (FDI enterprise or affiliate enterprise or foreign affiliate) is defined as a foreign direct investment (FDI).

1.2.0 Summary

The chapter begins with an outline of the research issue, emphasizing the significance of foreign domestic investment (FDI) and its possible impact on Zimbabwe's economic growth. The research problem is identified, with a focus on understanding the unique consequences of FDI on the country's economic development. The research objectives and research questions are offered, to investigate the connection between GDP growth and FDI in Zimbabwe as well as identify processes by which foreign direct investment affects growth. The research's significance is examined, including its potential contributions to academic understanding, policy-making, and economic development in Zimbabwe. Overall, Chapter 1 sets the context and research objectives for the dissertation. This chapter sets the stage for the next chapters, which will present and discuss the empirical analysis and findings.

CHAPTER II:

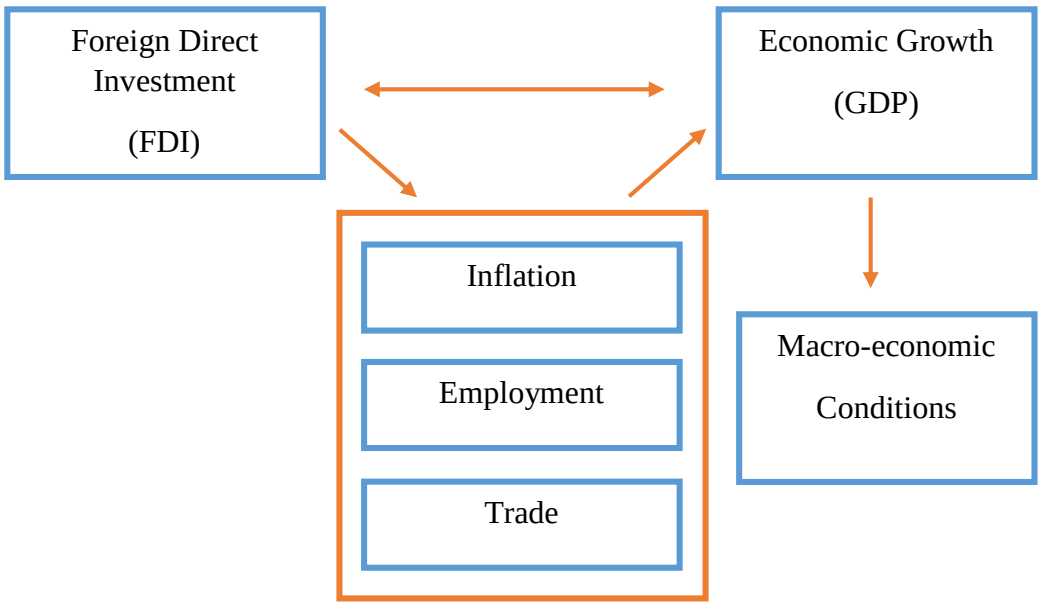
LITERATURE REVIEW

2.0 INTRODUCTION

Foreign direct investment (FDI) has been identified as a critical driver of economic growth and development in numerous countries. Zimbabwe, like many other emerging countries, has attempted to attract international domestic investment to boost its economy, increase productivity, and create long-term economic progress. Understanding how FDI affects economic growth in Zimbabwe is critical for policymakers, scholars, and investors looking to make the most of the benefits of foreign investment. This literature review's objective is to provide an overview of the existing research on the impact of foreign domestic investment on Zimbabwean economic growth. By examining factual data and theoretical frameworks particular to the Zimbabwean environment, we hope to uncover the primary channels via which FDI affects economic growth, as well as the factors that influence the amount and direction of these effects.

2.1 Conceptual Framework

Figure 2.1 The Effects of FDI on Economic Growth



The conceptual framework's main ideas and their proposed linkages are depicted in the figure above. The impacts of foreign direct investment (FDI) on Zimbabwe's GDP-measured economic growth are the main topic of discussion. The paradigm also takes into account the several indirect pathways—such as trade, inflation, and employment—through which foreign direct investment (FDI) may impact economic growth.

The possibility for a reciprocal link, where economic growth may potentially draw in more FDI inflows, is shown by the bidirectional arrow connecting FDI and growth. The paradigm also recognizes that the link between foreign direct investment and economic development is shaped by larger macroeconomic variables.

In order to examine the intricate and varied link between foreign direct investment (FDI) and economic growth in Zimbabwe, while taking into consideration pertinent contextual elements, this conceptual framework will direct the study design, data collecting, and analysis.

2.2 Theoretical Review

2.2.1 Solow Growth Model

The research may offer a thorough theoretical and empirical analysis of the intricate link between foreign direct investment (FDI) and economic growth in the context of Zimbabwe by merging the conceptual framework and the Solow Growth model (Gumpert, 2024). (Solow R, 1956) Founded the Neoclassical theory, an enhancement of the Harrod-Domar model (Harod, 1939, 1948; Domar, 1946, 1947) in the Keynesian framework that emphasizes labor, capital, and technology as the three economic variables that propel the economy progress of a country. The model assumes a closed economy without foreign commerce, making growth exogenous. Assumptions made by the Solow-Swan model include decreasing marginal returns on capital and continuous scale returns. The Swan-Solow model fails to account for technology advancements and wealth disparities across nations due to its restricted assumptions. Even though there isn't a clear connection between growth and investment made directly abroad, FDI's influence concerning financial development remains largely dependent on our comprehension of the role of local capital.

Concluding, in 1956, Solow proposed the neoclassical growth hypothesis. Increasing a country's capital stock leads to higher production and output growth rates. Foreign direct investment increases both physical and financial capital in the economy. This will lead to higher economic growth rates..

2.2.2 Endogenous Growth

Endogenous growth theory maintains that economic growth is primarily the result of internal forces, rather than external ones ((Liberto, 2023). This growth theory identifies economies of scale and technical advances as key drivers of economic expansion. Grossman and Helpman (1991) and Romer (1990) proposed the idea of endogenous growth to clarify how FDI affects the increase of the economy. Those models focus on proceeding with technology breakthroughs as the primary driver of economic growth. The primary goal is to generate and share knowledge. Developing nations' economic progress relies on their capacity to adopt and implement innovations, emphasizing the importance of human capital accumulation. FDI is seen as a key factor in technology transfer, as poor nations are unable to accelerate technological developments alone. (Zhou & Wu, 2024).

2.2.3 Internalisation

Coase established the idea, which was later modified by researchers similar to Hennart (1982), Hymer (1976), and Buckley and Casson (1976). According to Casson and Buckley, global expert corporations are established to gain a competitive edge in producing goods and services. According to Hymer, A strategic choice to make overseas direct investment is made at the corporate degree, not an investment choice made on the market capital. He continued by saying that when investments are made overseas, certain multinational corporations have to deal with some adjustment charges. With respect to Drori, et al., (2024), the study can offer a more thorough knowledge of the incentives, processes, and contextual variables that influence the link between FDI and economic growth in Zimbabwe by including the Internalization Theory in the conceptual framework. This theoretical viewpoint enhances the Solow Growth Model and the larger conceptual framework, resulting in a more thorough and sophisticated examination of the study goals.

2.3 Empirical Literature

2.3.1 The impact of FDI on Zimbabwe's Economic growth

Numerous discussions have occurred in the empirical research on the potential stimulating effects of foreign direct investment (FDI) on export performance and economic growth, particularly in developing nations (Epor, et al., 2024). Mixed results were obtained. Both Cabral (1995) and Black and Pain (1994) assert that FDI has a favorable effect on the expansion of exports. Practical data indicates differential impacts of foreign direct investment (FDI) on economic growth, including positive, marginal, negative, and neutral.

2.3.2 The short-term and long-term effects of FDI on economic growth.

(Ulueze, et al., 2024) examined "Foreign Direct Investment and Economic Growth in BRICS A Panel Data Analysis of Economies." He concentrated on co-integration combined with panel-level causality analysis, which revealed a long-term link between FDI and economic growth in the BRICS.

Bakari (2017) also examined the relationship between domestic investment and Malaysia's economic progress. Annual Statistics for the Years 1960–2015 were examined using Granger-Causality testing, correlation analysis, and Johansen co-integration analysis of the Vector Error Correction Model. The study discovered that exports, foreign direct investment, and labor all possess a positive long-term influence on economic expansion, however, there isn't any immediate correlation between economic growth and domestic investment.

2.3.3 The magnitude and Significance of the relationship between FDI and economic growth

Numerous factual investigations discovered a beneficial impact of foreign direct investment on GDP expansion (Dagume, et al., 2024). In addition to theoretical issues, earlier research's actual outcomes were varied. (Jugurnath, 2016) Investigate the impact of foreign direct investment on economic growth in SSA for a panel of 32 countries during the period of 2008-2014. Their GMM result shows FDI has a positive and significant effect on economic growth.

Research suggests that the impact of foreign direct investment (FDI) on economic growth is linked to human capital levels (Abdalla, 2013; Sukar, 2007; Borensztein, 1998).

Trivin and Sala (2014) researched "Openness, Investment, and Growth in Sub-Saharan Africa". They estimated the dynamic growth model using panel data (1980-2009) using OLS regression and the GMM technique. They examined the theories of unconditional and conditional convergence. The outcomes demonstrated that FDI as well as globalization, or openness to commerce, had a significant influence upon economic growth over the preceding three decades.

2.4 Research gap

The available research on the link between Zimbabwe's economic growth and foreign direct investment (FDI) is sparse, more so inconclusive. While some revisions consume indicated the favorable association amongst Investment and Economic Growth in Zimbabwe, others have found no meaningful influence or even a negative correlation. Furthermore, the majority of previous research concentrates on the aggregate-level link, ignoring the possible variability in the FDI-growth nexus across different sectors or forms of FDI.

More in-depth, sector-level study is required to understand how various FDI types (such as looking for resources, analyzing the market, and pursuing efficiency) affect Zimbabwean economic growth. Furthermore, the present research has not sufficiently investigated the potential processes and channels by which FDI influences growth, such as technology transfers, productivity spillovers, and human capital development.

This dissertation seeks to fill these gaps by providing a complete, multidimensional analysis of the FDI-growth connection in Zimbabwe, utilizing the most recent available data and sophisticated econometric methodologies. The research will look at how FDI affects growth in certain sectors, as well as the underlying reasons and mechanisms that drive the FDI-growth nexus in Zimbabwe.

2.5 Conclusion

The available research on the link between foreign direct investment (FDI) and economic growth in Zimbabwe is sparse and inconclusive. While some research discovered a favorable correlation, others found no significant influence or possibly a negative effect. A

significant study gap is the absence of in-depth, sector-level analysis to understand how various types of foreign direct investment (FDI), such as market, resource, and efficiency seeking affect Zimbabwean economic growth. Existing research has also failed to thoroughly investigate the possible processes and transmission channels via which FDI might affect growth, such as technology transfers, productivity spillovers, and human capital development. To fill these deficiencies, this dissertation will conduct a thorough, multidimensional examination of the FDI-growth link in Zimbabwe. The research will take advantage of the most recent available information from the World Bank and advanced econometric approaches to assess the sector-specific FDI's effects on economic development, as well as the underlying causes and channels that drive this connection in Zimbabwe. The findings of this study are intended to give significant insights to policymakers and contribute to a better understanding of the FDI-led development hypothesis in emerging economies such as Zimbabwe.

CHAPTER III

Methodology

3.1 Introduction

In this chapter, we will look at the approach used to investigate how foreign direct investment (FDI) affects economic growth in Zimbabwe. The methodology is critical in any research study since it defines the methodical strategy that researchers take to collect relevant data, analyze it, and reach significant findings. This chapter will provide a comprehensive overview of the research design, data collection methods, sample selection, and data analysis techniques employed in this study. Several countries have closely examined the relationship between foreign direct investment and economic development. This research used several econometric approaches, including regression, the ARDL methodology (Ibrahiem, 2015), and VECM (Srinivasan, 2011).

3.2 Research Design

In the context of the dissertation topic, it will explain how a quantitative research design is used, which entails collecting and analyzing numerical data to establish statistical relationships between FDI and economic growth in Zimbabwe. The causality technique of Dumitrescu and Hurlin Granger has proven to be the most effective in identifying the causal link's direction. It’s especially helpful for estimating a heterogeneous, cross-sectionally dependent model. When Granger's causality test is used on panel data, it performs noticeably better since there are more degrees of freedom and less collinearity between the explanatory variables with more observations. Consequently, it is emphasized that this study can provide a few additional details about other causality studies ((Bakirtas T, 2018) (Fahimi A, 2018).

3.3 Research Instruments

The research equipment section covers the tools and procedures employed to obtain primary data. In the context of the dissertation subject, it might relate to surveys and interviews with government officials, industry experts, and representatives from international corporations operating in Zimbabwe. These tools will give suitable information about the unique dynamics of FDI and its influence on economic growth.

3.4 Data collection procedures

This section discusses the exact data-gathering methodologies employed in the research project. It highlights the application of data from the World Bank, a recognized international agency that provides extensive and dependable economic statistics. We shall use the World Bank statistics to collect pertinent information on FDI inflows, economic indicators, and other variables required for the research. To fulfill the purpose of the research, which is to ascertain which way Foreign Direct Investment and Economic Development are causally related, the factual technique employed is described in several steps. Unit root testing was first employed to determine stationary variables, and then use the wavelet coherence method to investigate the variables' time-frequency dependency, finally, to identify the dynamic link between the chosen variables, a panel Granger causality: GDP per capita progress and FDI net inflows.

3.5 Data presentation and analysis procedures

The World Bank's data collection will be utilized in the study. We'll use descriptive statistics to summarize and display details regarding FDI inflows and economic growth signs, as well as additional significant factors. Econometric approaches, for instance, regression analysis, will become accustomed to evaluating the link between FDI and economic growth while accounting for other variables that may impact the relationship.

3.6 DIAGNOSTIC TESTS

3.6.1 Unit root testing

The panel unit root tests were employed to determine the stationary properties of the variables, as well as to avoid erroneous analysis and to ensure that data were not integrated in the I (1) in the first order. Late research suggests that unit root testing using a panel

surpasses unit root tests based on time series (Mravak, 2023). The study uses Hadri 2000 and Levina A. (2002) unit root tests to investigate the regressors' stationarity. We use the enhanced Dicky Fuller Test (ADF), developed by Phillips (1988) and Dickey (1979), as two-unit root tests for robustness. The alternative ($H1$) of stationarity is evaluated against the null hypothesis ($I0$) of non-stationarity in both cases. When the probability value is less than 0.05, $H0$ is usually discarded.

3.6.2 Co-integration test – ARDL-bounds testing procedure

We use the most current version of the ARDL-bounds testing method to find out if FDI and real GDP per capita co-integrate. It simultaneously gives short-run and long-run estimations (Sunge & Makamba, 2020) and performs the co-integration test utilizing the Boundary-testing technique. When computing the dependent variable, the ARDL typically accounts for the delays of the independent (q) and dependent (p) variables. The ARDL model used in this work is described as follows by Pesaran, Shin, and Smith (1999):

$$\mathrm{Yt} = \alpha_{oi} + \sum_{i=1}^{p} \delta_{\mathrm{i}} \mathrm{Y}_{\mathrm{t-i}} + \sum_{i=1}^{q} \beta_{\mathrm{i}} \mathrm{X}_{\mathrm{t-i}} + \mu_{\mathrm{t}} \ldots\ldots\ldots (1)$$

Y is dependent, and X is a $kx1$ vector containing the explanation factors, β being an $kx1$ vector constraint, δj the scalar vector, μ the term that is stochastic whereas t is the time. Equation (1) states that, aside from the clarifying factors, Y also based on delays of the two reliant (p) and self-sufficient (q) factors.

$$\mathrm{Y} = \mathrm{Af}(K_D, K_F, \mathrm{HC}, \mathrm{TO}, \mathrm{INF}, K_F * \mathrm{TO}) \ldots\ldots\ldots (2)$$

Where; $FDI.TO$= Interaction term between FDI and TO.

Y is Output

A is an exogenous state

K_D is a domestic financial resource

K_F is a Foreign Investment Stock (FDI)

HC is Human Capital

TO is trade openness

$$\Delta y_t = \phi(y_{t-1} + \theta' x_t) + \sum_{i=1}^{p-1} \delta_i^* \Delta y_{t-i} + \sum_{i=0}^{q-1} \beta_i^* x_{t-1} + \mu_t \quad \ldots\ldots\ldots (3)$$

Where $\theta = -[\frac{\beta}{\phi}]$. Where θ equals - [β/ϕ]. It assesses the long-term elasticity of x_t on y_t. The symbol Δ is the operator for the first difference. The expression ϕ refers to the speed of adjustment or error correction. It explains how quickly x_t long-term equilibrium follows tremors inx_t (Makamba & Sunge, 2020). A significant negative θ indicates long-term convergence and stability in the connection. The Independent and independent variables' short-term parameters are represented through subscriptive delayed modifications, β_j^* also δ_j^*. Putting the theoretical specification into words (2) With ARDL models in Eq. (3) and using natural logarithms produces:

$$\Delta IgGDP_t = \alpha_{01} + \phi\,(\beta_1 IgGDP_{t-1} + \beta_2 IgFDI_{t-1} + \beta_3\, IgTO_{t-1} + \beta_4 IgHC_{t-1} + \beta_5 IgINF_{t-1}) + \sum_{i=1}^{q} \delta_{1i}\, \Delta IgGDP_{t-i} + \sum_{i=1}^{q} \delta_{2i}\, \Delta IgFDI_{t-i} + \sum_{i=1}^{q} \delta_{3i}\, \Delta IgTO_{t-i} + \sum_{i=1}^{q} \delta_{4i}\, \Delta IgHC_{t-i} + \sum_{i=1}^{q} \delta_{5i}\, \Delta IgINF_{t-i} \ldots\ldots\ldots (4)$$

Under the following hypothesis, the bound, a strategy for testing is used for co-integration of different factors in Eq. (3):

$$H0: \beta_{1i} = \beta_{2i} = \beta_{3i} = \beta_{4i} = \beta_{5i} = 0, (\text{No Cointegration})\ H1: \beta_{1i} \neq \beta_{2i} \neq \beta_{1i} i \neq \beta 4i \neq \beta 5i \neq 0, (\text{Cointegration})$$

Pesaran, Shin, and Smith (2001) state that the estimated F-statistic is compared to the upper and lower bounds, or the first and second critical values, respectively. Should the F-statistic value be greater than the upper critical bounds, the null hypothesis (H_0) is rejected. If the F-statistic is less than the lower boundary number, it cannot be rejected. Should the F-statistic fall between the lower and upper limits, the co-integration test yields no results. In this circumstance, the Johansen co-integration test might be used to clarify the situation. Alternatively, Brown, Durbin, and Evans (1975) suggest utilizing cumulative sum recursive residuals (CUSUM) to check the co-integration space's consistency.

3.7 Conclusion

An overview of the technique employed in this study to look into how FDI affects economic growth in Zimbabwe is given in this chapter. The techniques for sample selection, data analysis, research design, and data collecting have all been explained; these provide the framework for the actual findings and conclusions that will be presented in the upcoming chapters.

Overall, because they include important aspects of research methodology such as the design of the study and data gathering techniques, research instruments and methods for data analysis, the subheadings in this chapter are relevant to the dissertation topic. The scientific and comprehensive approach to analyzing the impact of FDI on Zimbabwe's economic growth is ensured by these sections.

CHAPTER IV

Data Presentation and Discussion

4.1 Introduction

The data gathered for the investigation of how foreign direct investment affects Zimbabwe's economic expansion is presented and discussed in this chapter. The World Bank served as the main resource of information for the gathering of data procedure. The presentation analysis uses E-views 10 to go deeper into the data and examine possible causes and consequences of the trends that were noticed. The goal is to set the stage for the analysis and study conclusions that will be given in the following chapters. Given that Table 8a is indexed, the lag 1 AIC should be employed in the analysis.

4.2 Data Presentation Process

4.2.1 Table 1a

Table 1a Results of OLS regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	-0.570348	0.145575	-3.917897	0.0173
FDI	6.413471	2.096726	3.058803	0.0377
EMPLOYMENT	-8.187756	1.415740	-5.783376	0.0044
INFLATION	-0.045548	0.004698	-9.694712	0.0006
INFLATION(-1)	-0.014299	0.006258	-2.284962	0.0843
TRADE	0.091734	0.093306	0.983148	0.3812
TRADE(-1)	0.594733	0.092490	6.430262	0.0030
C	462.3487	84.20499	5.490752	0.0054

R-squared: 0.989309

4.2.2 Table 2a

Table 2a Results of Co-Integration

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.457134	16.03247	15.49471	0.0415
At most 1	0.141491	3.203723	3.841466	0.0735

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.457134	12.82875	14.26460	0.0832
At most 1	0.141491	3.203723	3.841466	0.0735

4.2.3 Table 3a

Table 3a Granger causality test

Null Hypothesis:	Obs	F-Statistic	Prob.
FDI does not Granger Cause GDP	22	0.13209	0.7203
GDP does not Granger Cause FDI		5.61938	0.0285

4.2.4 Table 4a

Table 4a Correlation matrix

		Correlation
GDP	EMPLOYMENT	0.278052
GDP	FDI	0.199691
GDP	INFLATION	0.810196
GDP	TRADE	-0.604974

4.2.5 Table 5a

Table 5a Unit root test in Levels results

Intermediate ADF test results GROUP01

Series	Prob.	Lag	Max Lag	Obs
FDI	0.1802	0	4	22
GDP	0.1129	0	4	22

4.2.5 Table 6a

Table 6a Unit root test results in First difference

Intermediate ADF test results D(GROUP01)

Series	Prob.	Lag	Max Lag	Obs
D(FDI)	0.0000	0	4	21
D(GDP)	0.0006	0	4	21

4.2.7 Table 7a

Table 7a Results of GMM approach

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-329.0075	644.0654	-0.510829	0.6252
EMPLOYMENT	4.925123	10.52405	0.467987	0.6540
INFLATION	0.074241	0.177661	0.417884	0.6886
FDI	-3.947560	31.89589	-0.123764	0.9050
TRADE	0.524361	0.438354	1.196206	0.2706

4.2.8 Table 8a

Table 8a Lag order criterion

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-85.98856	NA	36.10365	9.261954	9.361368	9.278778
1	-78.16038	13.18430*	24.25352*	8.858987*	9.157231*	8.909462*
2	-77.03847	1.653337	33.50021	9.161945	9.659018	9.246069
3	-76.38826	0.821318	49.97363	9.514554	10.21046	9.632328
4	-72.21272	4.395307	53.77581	9.496076	10.39081	9.647500

4.3 Presentation Analysis (tables, figs), interpretation and discussion

4.3.1 Presentation Analysis on Objective 1

Table 1a presents the OLS Regression tests, there is a positive impact of FDI on GDP. Also, the t-statistic is less than 3 so there is an insignificant impact of the independent variable on the dependent.

Model 1

$$GDP = 462.348 + 6.413\text{FDI} - 8.188\text{EMP} - 0.046\text{INF} + 0.092\text{TR} + \text{Et}$$
$$(84.20499)\quad (2.096726)\quad (1.415740)\quad (0.004698)\quad (0.093306)$$

The value of R^2 is 0.989309, meaning 98.93% of changes in Zimbabwe's GDP are explained by several factors in the model that is $GDP = f\{FDI;\ EMP;\ INF;\ TR;\ Et\}$. The remaining 1.07% can be attributed to random variables. Multicollinearity, which is determined by the data's tolerance, is the primary issue with the model; a VIF of 5 or 10 and above, or a tolerance of less than 0.20 or 0.10 suggests a multicollinearity issue (Herawati, et al., 2024).

Tolerance = $1 - R^2 = 1 - 0.989309 = 0.010691$

VIF (Variance Inflation Factor) = 1 divided by tolerance

$= 1/ (1 - R^2) = 1/ 0.010691 = 0.935366$

This demonstrates how multicollinearity predominates in the information. After determining that there was multicollinearity, I chose to solve the issue by doing nothing

(Khatti, Grover, Kim, Mawuntu, & & Prk, 2024). It is here that the OLS estimators' BLUE characteristic becomes relevant (Asaleh, A, Liu, & Sun, 2024). The DW statistic, 3.088006, is higher than the adjusted R^2 value of 0.989309, indicating that it is above both the R^2 value and the adjusted R^2. This demonstrates that the regression is real. The statistical significance of the exogenous factors and their impact on Zimbabwe's GDP is demonstrated by the F-statistic of 52.87636 and the probability of 0.000884 (zero).

In addition, concerning Table 1a, other variables could impact GDP as exploited below:

If we increase FDI with 1% it will increase GDP by 6.41% (Positive impact). If we increase employment with 1% it will decrease GDP by 8.18% (Negative impact). If we increase inflation with 1% it will decrease GDP by 0.04% (Negative impact). If we increase trade with 1% it will increase GDP by 0.09% (Positive impact).

4.3.2 Presentation Analysis on Objective 2

Table 2a indicates the Co-integration tests.

Maximum Eigen Value: Probability is 0.0832 at none, thus we fail to reject null hypothesis after 5% level. The probability is 0.0735 at most 1, we also fail to reject null hypothesis after 5% level. As observed, there was indeed co-integration in this model. Meaning they exhibit a long-run relationship.

Trace: Probability is 0.0425. None is indexed, it will give a likelihood of rejection. Reject null at 5% level. The probability is 0.0735. Fail to reject null hypothesis after 5% level. Reject at the 5% level.

As reflected in Table 3a, the probability is 0.7203 which is more than 5%, accept Ho meaning FDI does not granger cause GDP. The probability is 0.0285 which is less than 5% reject H1 meaning GDP does granger cause FDI.

4.3.3 Presentation Analysis on Objective 3

As illustrated by Table 4a, GDP has a favorable relationship with trade, FDI, and employment, according to data taken from E-views 10. Nonetheless, there’s a clear undesirable co-movement flanked by the inflation rate also, the GDP. The association matrix shows the degree of the relationship. There’s a positive weak relationship amongst economic growth and foreign direct investment. The correlation coefficient values are

0.199691. In the same way that GDP will rise proportionately in response to increases in FDI, GDP will fall proportionately in response to losses in FDI.

There's a positive weak correlation between economic growth and Employment. The value of the correlation coefficient is 0.278052. When employment increases, there will be a proportionate rise in the growth of domestic product.

There is a very strong positive correlation between GDP and trade. 0.790368 is the correlation coefficient. In other words, trade and GDP are moving in the same direction. This demonstrates the beneficial effect trade has on the GDP of the nation. The country's national income will rise in proportion to a proportionate increase in trade.

GDP and inflation have a significant negative association. The correlation value is -0.604974. This demonstrates that the primary threat to the economy is inflation. Inflation will cause the GDP to decline by more than a proportionate amount.

Overall, there has been some correlation between the factors and the dependent variable; in fact, some of the variables have a very high or negative correlation. This demonstrates how the independent variables affect the explanatory variable's behavior at any given time. Agreeing with Appendix E, table 5a, the value is 0.1802 which is greater than 0.05 meaning the FDI variable is not statistically significant. The value is 0.1129 which is greater than 0.05 meaning the GDP variable is not statistically significant.

In respect to Table 6a above, the value is less than 0.05 which shows that the FDI and GDP rates are significantly at 1st differences. D stands for the first difference

According to Appendix G, table 7a tests for significance, Employment, inflation, and trade favorably enhance economic growth. Greater employment resolve drives economic growth. Greater employment and trade will drive higher economic growth. FDI hurts economic growth. This indicates that inferior quality of Foreign Direct Investment can negatively affect economic growth.

4.4 Data collection procedures

This study used a multi-pronged method to collect data regarding the effects of The impact of foreign direct investment (FDI) on economic expansion in Zimbabwe. To obtain the required data, the ensuing protocols were utilized, which comprised:

1. Secondary Information Gathering

- Thorough analysis of published works, papers, and scholarly journals about economic growth and foreign direct investment in Zimbabwe.
- Compilation of World Bank information.

2. Validation of data

- To guarantee consistency and dependability, the data collected from various sources was compared and cross-checked.

3. Preparing and cleansing data

- Transformed the information into a uniform format that could be examined For several months, the data collection process was conducted. Key variables include FDI net inflows, GDP growth rates, trade rates, inflation (consumer prices), and employment (to population ratio, 15+, total) (modeled ILO estimates) are included in the final dataset, which spans the years 2000 to 2023.

4.5 Conclusion

The presentation of the study's findings was the main focus of the chapter's conclusion. This chapter followed the method that was outlined. The results of the study and suggestions for lawmakers are provided within the upcoming chapter.

CHAPTER V

Summary, Conclusions, and Recommendations

5.1 Introduction

The main conclusions of the research on how foreign direct investment affects Zimbabwe's economic growth are outlined in this chapter. Therefore, the goal is to present a thorough synthesis of the research findings, useful conclusions, and doable suggestions to help with decision-making and direct further research in this field.

5.2 Summaries

5.2.1 Summary of Objective 1: To determine the impact of FDI on Zimbabwe's Economic growth

The data presented in this research indicates that FDI and GDP have a sizable positive correlation. GDP would rise in response to an increase in FDI. Therefore, a rise of 1% in FDI leads to an increase of 6.41% in GDP.

5.2.2 Summary of Objective 2: To examine the short-term and long-term effects of FDI on economic growth

The Co-integration Maximum Eigen Value indicates a relationship between the series and their linear combination. That is, in the long run, the series would converge with time, even in the event of short-term shocks that could impact the movement of the individual series. However, the co-integration trace shows the series are not jointly integrated, which means they do not show a long-term link. In this instance, only the short-run model should include estimation. Regarding the short-run Granger causality, GDP influences FDI, i.e., GDP does not cause FDI.

5.2.3 Summary of Objective 3: To assess the magnitude and significance of the relationship between FDI and economic growth

The correlation matrix, which shows a weak but positive association between FDI and economic development, demonstrates the size of this relationship. On the other hand, GDP and inflation are detrimental. Both GDP and FDI are not statistically significant at the unit root level. The first difference indicates that GDP and FDI are both statistically significant. FDI hinders economic growth in GMM.

5.3 Conclusions

5.3.1 Conclusions on Objective 1

That's why I think foreign direct investment (FDI) is the reason why Zimbabwe's GDP has increased. A rise in FDI will inevitably impact other important economic drivers, as it entails the construction of factories, the establishment of production lines, and the development of managerial talent and expertise.

5.3.2 Conclusions on Objective 2

In the short run, GDP and FDI tend to have a positive relationship. When a country's GDP is growing, it generally indicates a strong and expanding economy, which can attract more foreign investment. Investors are often more willing to invest in countries with higher GDP growth as it suggests a favorable business environment.

5.3.3 Conclusions on Objective 3

The significance of the positive relationship between FDI and GDP has been extensively studied and supported by empirical evidence. Many studies have found the reality that the influx of investing abroad directly has a noteworthy statistic and beneficial impact towards GDP of host economies, especially in developing financial systems. However, inflation is an enemy of the economy.

The magnitude of the impact can vary depending on factors such as the level of economic development, the absorptive capacity of the host country, the sectorial composition of FDI, and the quality of institutions and infrastructure. However, the consensus in the literature is that FDI plays a crucial role in driving economic growth and development, and the relationship between FDI and GDP is generally considered to be positive and significant.

5.4 Recommendations

5.4.1 Recommendations on Objective 1

Zimbabwe should aim to entice FDI, or foreign direct investment to fulfill its growth goals. The state is capable of attracting foreign direct investment (FDI) by cultivating a favorable political and socioeconomic climate, which will instill the necessary trust in investors.

5.4.2 Recommendations on Objective 2

The Reserve Bank and the Ministry of Finance should work together to attempt and regulate the lending rates of microfinance and financial institutions. Limiting the maximum interest rate This is chargeable will lower the capital cost, making money more accessible and ultimately leading to an increase in GDP (national income).

5.4.3 Recommendations on Objective 3

The government ought to put laws into place that limit inflation. Out of all the variables, inflation has been shown to have the biggest detrimental effect. Inflation control measures will stabilize the economy and lessen economic volatility.

5.5 Conclusion

In summary, the study finds that foreign direct investment (FDI) has contributed significantly to Zimbabwe's economic growth. However, a number of macroeconomic obstacles have prevented FDI from realizing its full potential. By addressing these issues and putting complementary policies in place, Zimbabwe can increase its ability to use FDI for long-term, sustainable economic growth.

REFERENCES

Agrawal, G., 2015. Foreign Direct Investment and Economic Growth in BRICS Economies: A Panel Data Analysis. *Journal of Economics, Business and Management,*, III(4).

Anfofum, A., 2013. Estimating the Impact of Foreign Direct Investment in Nigeria. *International Journal of Humanities and Social Science,* 3(17).

Asaleh, M., A, S. A.-R., Liu, R. & Sun, Q., 2024. Nature of property rights and motivation for blue growth: An empirical evidence from the fisheries industry. In: *In natural resources forum (Vol. 48, No. 1).* Oxford, UK: Blackwell Publishing Ltd, pp. 184-210.

Ayanwale, A., 2007. FDI and Economic Growth: Evidences from Nigeria. . *Africa Economic Research Consortium, Nairobi, Research Paper,* p. 165.

Bakirtas T, A. A., 2018. The relationship between energy consumption, urbanization, and economic growth in new emerging-market countries. *Energy,* pp. 110-21.

C.Kudakwashe & S.Regret, 2021. AJER. *African Journal of Economic Review,* IX(5), p. 150.

DeMello, L., 1997. Foreign Direct Investment in Developing Countries and Growth: A Selective Survey. *The Journal of Development Studies,* I(34), pp. 115-135.

Digital Millenium, 2024. *LinkedIn.* [Online] Available at: https://www.linkedin.com/advice/0/how-does-foreign-direct-investment-impact-economic-growth#:~:text=for%20developing%20countries.-,1%20FDI%20and%20growth%20channels,productivity%20of%20the%20host%20country

Fahimi A, A. S. S. M. A. A., 2018. Testing the role of tourism and human capital development in economic growth. A panel causality study of micro states. *Tourism Management Perspectives,* p. 62–70.

Gwenhamo, 2011. Foreign direct investment in Zimbabwe: the role of institutional and macroeconomic factors. *South African Journal of Economics,* 79(3), pp. 211-223.

Herawati, N. et al., 2024. Poison Ridge regression for Multicollinearity Data: Case Study of the Number of Maternal Deaths in Lampung Province, Indonesia. *International Journal of Innovative research in Science, Engineering and Technology (IJIRSET),* pp. 1-8.

Ibrahiem, D. M., 2015. . Renewable Electricity Consumption, Foreign Direct Investment and Economic Growth in Egypt: An ARDL Approach. *Procedia Economics and Finance,* pp. 313-23.

Iqbal, M., 2010. *Casuality relationship between Foreign direct investment and economic growth in Pakistan,* s.l.: s.n.

Jugurnath, B. C. N. &. F. S., 2016. Foreign Direct Investment economic growth in Sub-Saharan Africa: An empirical study. *Theoretical Economics Letters,* I(6), pp. 798-807.

Khatti, J. et al., 2024. Prediction of ultimate bearing capacity of shallow foundations on cohesionless soil using hybri Istm and rvm approache: An extended investigation of multicollinearity. *Computers and Geotechnics*, p. 105912.

Liberto, D., 2023. *Investopedia.* [Online] Available at: https://www.investopedia.com/terms/e/endogenousgrowththeory.asp [Accessed 7 September 2023].

Makova, T., 2010. Foreign direct investment and economic growth in Zimbabwe: An ARDL bounds test approach. *A Journal of the Southern Bureau of Strategic Studies Trust,* 1(1).

Maliwa. E, N., 2015. Investigating the Impact of FDI on Economic Growth in Zambia. *European journal of business, economics and accountancy,* 13(3).

Moyo, T., 2013. The Impact of Foreign Direct Investment on Economic Growth: The Case of Zimbabwe (2009 - 2012). *International Journal of Economics, Finance and Management Sciences,* 1(6), pp. 323-329.

Mravak, I., 2023. *ResearchGate.* [Online] Available at: https://doi.org/10.17535/crorr.2023.0011 [Accessed 19 December 2023].

Musharavati, E. M., 2017. *Foreign direct investment and economic growth nexus in Zimbabwe: A cointegration approach. Department of Economics,* Istanbul, Turkey: Istanbul Medeniyet University.

Obwona, M., 2001. *Determinants of FDI and Their Impact on Economic Growth in Uganda. African Development Review,* UK: Blackwell Publishers Oxford.

OECD, 1996. Detailed Benchmark Definition of Foreign Direct Investment. *OECD,* Volume III.

Pradhan, R. T. K. N., 2012. Growth, foreign investment and trade-openness interactions in ten OECD countries: A panel-VAR approach. *International Journal of Banking Accounting and Finance,* Volume 4, pp. 273-293.

Reserve Bank of Australia, 2024. *Reserve Bank of Australia.* [Online] Available at: ba.gov.au/education/resources/explainers/economic-growth.html

Reserve Bank of Zimbabwe, 1997. Monthly Economic Bulletin. May, pp. 5-7.

Sala, H. &. T. P., 2014. Openness, Investment and Growth in Sub-Saharan Africa. *Journal of African Economies,* p. 1–33.

Solow R, S., 1956. A contribution to the theory of Economic Growth. *The Quarterly Journal of Economics,* I(70), pp. 65-94.

Srinivasan P, K. M. I. P., 2011. An empirical investigation of foreign direct investment and economic growth in SAARC nations. *Journal of Asia Business Studies,* pp. 232-48.

The World Bank Group, 2023. *Foreign direct investment, net inflows (% of GDP) - Zimbabwe,* s.l.: International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Bebt Statistics, and , World Bank and OECD GDP estimates.

The World Bank, 2024. *The World Bank.* [Online] Available at: https://www.worldbank.org/en/country/zimbabwe/overview [Accessed 25 September 2023].

UNCTAD, 2004. GOVERNMENT OF THE REPUBLIC OF ZIMBABWE. *SUPPORT TO NEPAD-CAADP IMPLEMENTATION*, 1(7), pp. 8-20.

UNCTAD, 2011. *World Investment Report 2011: Non-equity modes of international production and development*, New York, Geneva: United Nations.

UNCTAD, 2023. *World Investment Report: Investing in Sustainable Energy for all*, Geneva: United Nations.

APPENDICIES

Raw Data

	YEAR	TRADE____...	INFLATION_...	GDP_GRO...	FDI_NET_I...	EMPLOYME...
2000	2000	74.06741	NA	-3.059190	0.346788	62.021
2001	2001	67.89787	NA	1.439615	0.056069	62.219
2002	2002	66.80735	NA	-8.894024	0.408381	62.355
2003	2003	70.45199	NA	-16.99507	0.066346	62.458
2004	2004	76.03961	NA	-5.807538	0.149855	62.649
2005	2005	76.04371	NA	-5.711084	1.786206	62.458
2006	2006	82.82065	NA	-3.461495	0.734768	62.325
2007	2007	84.17290	NA	-3.653327	1.301978	62.140
2008	2008	109.5216	NA	-17.66895	1.168557	61.856
2009	2009	61.77844	NA	12.01956	1.086305	61.853
2010	2010	83.12419	3.022670	21.45206	1.018022	61.968
2011	2011	89.46653	3.466130	14.62021	2.441511	62.136
2012	2012	74.16253	3.725327	15.74488	2.044131	62.436
2013	2013	58.65649	1.634950	3.196731	1.954060	62.569
2014	2014	54.67162	-0.197785	1.484543	2.425173	62.739
2015	2015	56.74881	-2.430968	2.023650	1.999687	62.356
2016	2016	51.21902	-1.543670	0.900955	1.669274	62.058
2017	2017	50.02971	0.893962	4.080264	1.746885	61.752
2018	2018	54.55027	10.61887	5.009867	2.101721	61.414
2019	2019	55.79596	255.3050	-6.332446	1.142806	60.941
2020	2020	47.31337	557.2018	-7.816951	0.699034	59.456
2021	2021	50.84713	98.54611	8.468017	0.881174	59.161
2022	2022	64.95664	104.7052	6.522375	1.247870	59.666
2023	2023	NA	NA	NA	NA	59.909

APPENDIX

Appendix A

Table 1: Results of OLS regression

Dependent Variable: GDP

Method: ARDL

Date: 06/01/24 Time: 16:04

Sample (adjusted): 2011 2022

Included observations: 12 after adjustments

Maximum dependent lags: 1 (Automatic selection)

Model selection method: Akaike info criterion (AIC)

Dynamic regressors (1 lag, automatic): FDI EMPLOYMENT INFLATION TRADE

Fixed regressors: C

Number of models evaluated: 16

Selected Model: ARDL(1, 0, 0, 1, 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
GDP(-1)	-0.570348	0.145575	-3.917897	0.0173
FDI	6.413471	2.096726	3.058803	0.0377
EMPLOYMENT	-8.187756	1.415740	-5.783376	0.0044
INFLATION	-0.045548	0.004698	-9.694712	0.0006
INFLATION(-1)	-0.014299	0.006258	-2.284962	0.0843
TRADE	0.091734	0.093306	0.983148	0.3812
TRADE(-1)	0.594733	0.092490	6.430262	0.0030
C	462.3487	84.20499	5.490752	0.0054

R-squared	0.989309	Mean dependent var	3.991841
Adjusted R-squared	0.970599	S.D. dependent var	7.038624
S.E. of regression	1.206897	Akaike info criterion	3.448703

Sum squared resid	5.826402	Schwarz criterion	3.771974
Log likelihood	-12.69222	Hannan-Quinn criter.	3.329017
F-statistic	52.87636	Durbin-Watson stat	3.088006
Prob(F-statistic)	0.000884		

*Note: p-values and any subsequent tests do not account for model selection.

Appendix B

Table 2: Results of Co-Integration test

Date: 05/24/24 Time: 13:54
Sample (adjusted): 2002 2022
Included observations: 21 after adjustments
Trend assumption: Linear deterministic trend
Series: FDI GDP
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.457134	16.03247	15.49471	0.0415
At most 1	0.141491	3.203723	3.841466	0.0735

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None	0.457134	12.82875	14.26460	0.0832
At most 1	0.141491	3.203723	3.841466	0.0735

Max-eigenvalue test indicates no cointegration at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

FDI	GDP
-1.586401	0.146962
1.083960	0.044763

Unrestricted Adjustment Coefficients (alpha):

D(FDI)	0.273236	-0.139378
D(GDP)	-4.417667	-2.745301

1 Cointegrating Equation(s): Log likelihood-88.48033

Normalized cointegrating coefficients (standard error in parentheses)

FDI	GDP
1.000000	-0.092639
	(0.01997)

Adjustment coefficients (standard error in parentheses)

D(FDI)	-0.433462
	(0.18289)

D(GDP)	7.008190
	(3.36399)

Appendix C

Table 3: Granger causality test

Pairwise Granger Causality Tests
Date: 05/24/24 Time: 14:02
Sample: 2000 2023
Lags: 1

Null Hypothesis:	Obs	F-Statistic	Prob.
FDI does not Granger Cause GDP	22	0.13209	0.7203
GDP does not Granger Cause FDI		5.61938	0.0285

Appendix D

Table 4: Correlation Matrix

Covariance Analysis: Ordinary
Date: 05/24/24 Time: 14:06
Sample: 2010 2022
Included observations: 13
Balanced sample (listwise missing value deletion)

		Correlation
EMPLOYME...	EMPLOYMENT	1.000000
FDI	EMPLOYMENT	0.790368
FDI	FDI	1.000000
GDP	EMPLOYMENT	0.278052
GDP	FDI	0.199691
GDP	GDP	1.000000
INFLATION	EMPLOYMENT	-0.675756
INFLATION	FDI	-0.671522
INFLATION	GDP	-0.604974
INFLATION	INFLATION	1.000000
TRADE	EMPLOYMENT	0.334185
TRADE	FDI	0.259726
TRADE	GDP	0.810196
TRADE	INFLATION	-0.358463
TRADE	TRADE	1.000000

Appendix E

Table 5: Results for Test of Unit Root in Levels

Null Hypothesis: Unit root (individual unit root process)

Series: FDI, GDP

Date: 05/24/24 Time: 13:45

Sample: 2000 2023

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on AIC: 0

Total (balanced) observations: 44

Cross-sections included: 2

Method	Statistic	Prob.**
ADF - Fisher Chi-square	7.78961	0.0996
ADF - Choi Z-stat	-1.50315	0.0664

** Probabilities for Fisher tests are computed using an asymptotic Chi

-square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results GROUP01

Series	Prob.	Lag	Max Lag	Obs
FDI	0.1802	0	4	22
GDP	0.1129	0	4	22

Appendix F

Table 6: Results of Unit root test in First differences

Null Hypothesis: Unit root (individual unit root process)

Series: FDI, GDP

Date: 05/24/24 Time: 13:53

Sample: 2000 2023

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on AIC: 0

Total (balanced) observations: 42

Cross-sections included: 2

Method	Statistic	Prob.**
ADF - Fisher Chi-square	35.8046	0.0000
ADF - Choi Z-stat	-5.13860	0.0000

** Probabilities for Fisher tests are computed using an asymptotic Chi

-square distribution. All other tests assume asymptotic normality.

Intermediate ADF test results D(GROUP01)

Series	Prob.	Lag	Max Lag	Obs
D(FDI)	0.0000	0	4	21
D(GDP)	0.0006	0	4	21

Appendix G

Table 7: Results of GMM Approach

Dependent Variable: GDP

Method: Generalized Method of Moments

Date: 05/28/24 Time: 21:11

Sample (adjusted): 2011 2022

Included observations: 12 after adjustments

Linear estimation with 1 weight update

Estimation weighting matrix: HAC (Bartlett kernel, Newey-West fixed

bandwidth = 3.0000)

Standard errors & covariance computed using estimation weighting matrix

Instrument specification: EMPLOYMENT(-1) INFLATION(-1) FDI(-1) TRADE(

-1)

Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-329.0075	644.0654	-0.510829	0.6252
EMPLOYMENT	4.925123	10.52405	0.467987	0.6540
INFLATION	0.074241	0.177661	0.417884	0.6886
FDI	-3.947560	31.89589	-0.123764	0.9050
TRADE	0.524361	0.438354	1.196206	0.2706

R-squared	-3.054660	Mean dependent var	3.991841
Adjusted R-squared	-5.371609	S.D. dependent var	7.038624
S.E. of regression	17.76693	Sum squared resid	2209.646
Durbin-Watson stat	1.799869	J-statistic	0.000000
Instrument rank	5		

4.2.7 Appendix H

Table 8: Lag order criterion

VAR Lag Order Selection Criteria

Endogenous variables: FDI GDP

Exogenous variables: C

Date: 06/01/24 Time: 14:08

Sample: 2000 2023

Included observations: 19

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-85.98856	NA	36.10365	9.261954	9.361368	9.278778
		13.18430	24.25352	8.858987	9.157231	8.909462
1	-78.16038	*	*	*	*	*
2	-77.03847	1.653337	33.50021	9.161945	9.659018	9.246069
3	-76.38826	0.821318	49.97363	9.514554	10.21046	9.632328
4	-72.21272	4.395307	53.77581	9.496076	10.39081	9.647500

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Turnitin Report