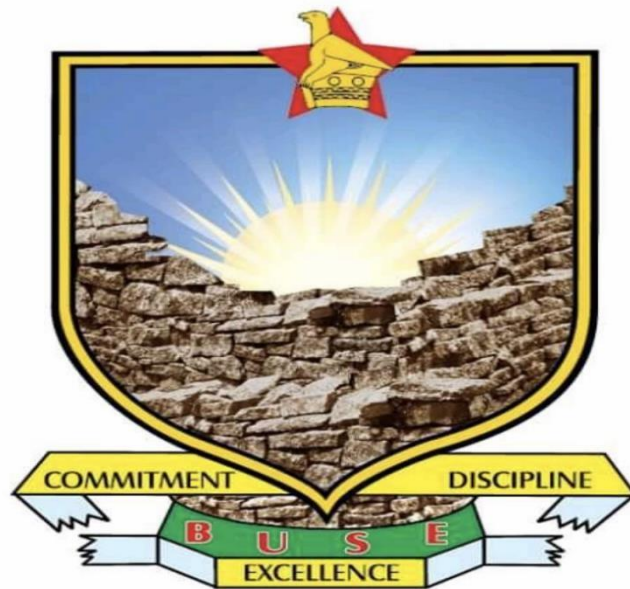**BINDURA UNIVERSITY OF SCIENCE EDUCATION**

FACULTY OF COMMERCE

DEPARTMENT OF ECONOMICS

THE IMPACT OF FOREIGN DIRECT INVESTMENT (FDI) ON ECONOMIC GROWTH IN DEVELOPING COUNTRIES (ZIMBABWE) (1993-2022)

SUBMITTED BY SAMKELISO E ARIZONA

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

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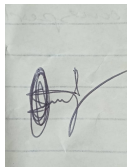
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DEDICATION

This study is dedicated to , my mother, who instilled in me a deep passion for education and made sacrifices to ensure that I have access to it. Moreover, I dedicate this work to my close family and friends whose unwavering support played an instrumental role in my academic journey.

ABSTRACT

This study focused on the impact of FDI on economic growth in Zimbabwe from 1993 to 2022, using the Ordinary Least Squares (OLS) method. Secondary data was used to estimate the regression model. The independent variables used were FDI, inflation and external debt. After estimation, results showed that FDI and inflation are statistically significant in explaining their effects on economic growth. External debt was found to be statistically insignificant and negatively affecting economic growth in Zimbabwe. After establishing that FDI is of paramount importance in promoting economic growth, the study went on to recommend that the government implements policies that improve the flow of FDI into the country, for instance, ensuring that there is political stability as this will attract more foreign investors into the country. Also, GDP would probably be enhanced by embracing and incorporating additional measures that would facilitate an increase in the country's output such as increasing capacity in the mining industry and the agricultural sector as well.

ACKNOWLEDGEMENTS

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LIST OF ACRONYMS

ADF   Augmented Dick-Fuller

ADI   Africa Development Indicators

BLUE   Best Linear Unbiased Estimator

DW   Durbin Watson

FDI   Foreign Direct Investment

GDP   Gross Domestic Product

HDI   Human Development Index

IMF   International Monetary Fund

OLS Ordinary Least Squares

RBZ Reserve Bank of Zimbabwe

UNCTAD United Nations Conference on Trade and Development

WB   World Bank

WDI World Development Indicators

WGI World Government Indicators

ZIMSTAT Zimbabwe National Statistics Agency

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This dissertation examines the impact of Foreign Direct Investment (FDI) on Zimbabwe's economic development. While FDI is widely recognized as a crucial driver of growth, particularly in emerging economies, Zimbabwe's recent economic struggles, stemming from poor government policies and political instability, have raised questions about its effectiveness.

The dissertation will explore the relationship between FDI and key economic indicators in Zimbabwe, including:

*   **Economic Growth:** Analyzing the extent to which FDI contributes to overall economic growth and whether it has a significant impact on key sectors.

*   **Regional Disparities:** Investigating whether FDI is distributed evenly across the country or concentrated in specific regions, potentially exacerbating existing economic inequalities.

*   **Government Policies:** Examining the role of government policies in attracting and facilitating FDI, and evaluating the effectiveness of these policies in promoting sustainable economic development.

The dissertation will draw upon existing research and data to assess the impact of FDI on Zimbabwe, ultimately aiming to provide insights into how to maximize its potential for economic growth and development while addressing potential challenges. The analysis will be framed within the context of broader trends in SubSaharan Africa, where the need for increased investment is critical for achieving sustainable economic growth.

1.1 Background of the study

Zimbabwe, like many other developing countries, has actively sought to attract FDI as a means to stimulate economic growth, enhance technology transfer, and create employment opportunities. FDI inflows have the potential to contribute to capital formation, improve productivity, and foster innovation. However, there is a need to critically examine the impact of FDI on Zimbabwe's economy, considering its unique characteristics, challenges, and policy frameworks. This study will provide valuable insights into the relationship between FDI and economic development, thereby informing policymakers and stakeholders in Zimbabwe and other developing countries.

Foreign direct investment (FDI) has been a cornerstone of economic development strategies for many developing countries. It is widely recognized as a vital driver of output growth and job creation (Kayonga, 2008). However, the landscape of crossborder capital flows into developing nations underwent a significant shift during the last decade of the 20th century. As highlighted by the World Development Report (2000), the importance of net capital inflows diminished, while portfolio flows gained a stronger foothold.

Foreign direct investment (FDI) can significantly boost a host country's competitiveness by driving productivity gains and attracting further capital on advantageous terms. This influx of investment can also foster the development of services that act as strategic inputs, expanding trade volumes and upgrading production through innovation. Furthermore, FDI has the potential to reshape a country's comparative advantages and enhance its competitiveness by facilitating technology transfer.

Zimbabwe, a developing nation, heavily relies on foreign investment, with South Africa being the largest source, followed by Asian and Western nations. These investments span various sectors, including agriculture, mining, tourism, and manufacturing. To attract more investment, particularly from Asia, Zimbabwe has implemented a "Look East" policy.

The World Bank acknowledges FDI as a vital catalyst for economic growth. FDI inflows provide critical capital, introduce foreign currency, and generate tax revenue.

Furthermore, FDI can:

* **Stimulate domestic investment:** Through co-financing and collaboration.

* **Transfer technology and expertise:** Enhancing local capabilities.

* **Foster competition:** Boosting efficiency and innovation.
* **Create modern employment:** Generating new job opportunities.

* **Enhance global market access:** Facilitating exports and international trade.

The International Monetary Fund defines FDI as an investment where a foreign entity holds at least 10% ownership or voting power in a company. While FDI holds immense potential for economic growth, its flow is influenced by a complex web of economic, political, and social factors.

Research by Chingarande et al. (2012) highlights the persistent low levels of FDI in Zimbabwe, contributing to sluggish economic growth and stagnant living standards. The Reserve Bank of Zimbabwe's Monetary Policy Statement (2010) points to high lending rates, indicating liquidity challenges that may deter investors.

This dissertation aims to delve into the impact of FDI on Zimbabwe's economic growth and development, considering the country's stagnant economic growth over the past two decades and the challenges posed by high lending rates and limited FDI inflows.

1.2 Research problem

While foreign direct investment (FDI) has flowed into Zimbabwe, its impact on economic growth remains inconclusive. Despite some FDI inflows, the country has experienced slow growth, suggesting that other factors, such as inconsistent policies and perceived political risks, have exerted a more significant influence on the economy.

These factors appear to have negatively impacted FDI inflows during the period under review, leading investors to prioritize investments in other countries within the region. Consequently, the extent to which FDI has been the primary driver of Zimbabwe's economic development and growth, particularly in recent years, remains unclear.

In view of these considerations, this research aims to examine the impact of FDI on economic growth and development in Zimbabwe. The slow growth despite FDI inflows indicates that other factors, such as policy uncertainty and political risks, may have had a more substantial influence on the Zimbabwean economy during the period under study.

1.3 Research Objectives

The primary objectives of this dissertation are as follows:

1.3.1 Examine different ways that FDI has impacted economic growth in Zimbabwe

This objective focuses on understanding the various channels through which FDI influences the economic growth of Zimbabwe. The analysis will consider factors such as investment inflows, employment generation, technology transfer, and productivity enhancement. By examining these dimensions, the study aims to provide a comprehensive assessment of the impact of FDI on Zimbabwe's economic performance.

1.3.2 Assess whether the benefits of FDI have been evenly distributed among different regions or groups of people

While FDI has the potential to generate positive outcomes, it is essential to evaluate whether these benefits have been evenly distributed among different regions and socioeconomic groups within Zimbabwe. This objective seeks to assess potential regional disparities or inequalities resulting from FDI inflows and to analyze the factors contributing to such disparities.

1.3.3 Discuss the role of government policies and regulations in attracting and managing FDI in Zimbabwe

Government policies and regulations play a significant role in attracting and managing FDI inflows. This objective aims to discuss the effectiveness of Zimbabwe's policies in attracting FDI and the regulatory environment governing FDI. The study will also explore the role of government institutions and initiatives in facilitating technology transfer, investment protection, and promoting sustainable development

1.4 Research Questions

To achieve the research objectives, the following research questions will be addressed:

1.   What are the different ways in which FDI has impacted economic growth in Zimbabwe?

2.   Have the benefits of FDI been evenly distributed among different regions or groups of people in Zimbabwe?

3.   What is the role of government policies and regulations in attracting and managing FDI in Zimbabwe?

1.5 Research Hypotheses

H0: There is a positive relationship between FDI and economic growth in Zimbabwe

H1: There is no positive relationship between FDI and economic growth in Zimbabwe.

1.6 Significance of the research

The research is intended to be of great value, and has the following significance

1.   Understanding the Specific Dynamics and Challenges in Zimbabwe: Analyzing the impact of FDI on Zimbabwe's economic growth and development provides a valuable lens through which to understand the country's unique socioeconomic and political landscape. By examining the effects of FDI within this specific context, we can identify the factors influencing FDI inflows and their subsequent consequences. This knowledge is crucial for policymakers and stakeholders in devising and implementing effective strategies to attract and sustain FDI in Zimbabwe.

2.   Contribution to the existing literature: the study contributes to the existing literature on FDI by examining its effect on economic development and distributional aspects in Zimbabwe. Although many studies have examined the general effects of FDI on developing countries, the particular situation of Zimbabwe provides valuable insights that may help in determining the wider implications of FDI in similar

situations. This report will broaden the knowledge base on FDI's role in developing countries by analyzing the facts and outcomes in Zimbabwe.

3 Policy guidance and recommendations: the findings of the study will provide policymakers and stakeholders with evidence-based insights and recommendations for implementing effective FDI policies and regulations in Zimbabwe. For maximizing the benefits of FDI inflows while minimizing potential negative consequences, it is

essential to assess the effectiveness of government policies and regulations in attracting and managing FDI. The report will provide insight into the policy choices that have worked well in attracting FDI and will highlight areas for improvement or modification to ensure sustainable and inclusive economic growth.

4.   Socio-economic growth and inclusive growth: for assessing the effect of FDI on socioeconomic growth and inclusive growth, it is vital to determine whether the benefits of FDI have been evenly distributed among different regions or groups of people. Understanding the distributional aspects of FDI in Zimbabwe can reveal potential imbalances and gaps that may arise from FDI inflows. This knowledge is critical for policymakers to devise strategies and plans that promote equitable distribution of FDI benefits, foster economic cohesion, and reduce poverty and inequality.

5.   Sustainable economic growth: sustainable economic growth is a vital goal for developing countries like Zimbabwe. The study will help determine whether FDI inflows in Zimbabwe are sustainable by examining the effect of FDI on economic growth. Understanding the long-term effects of FDI can help policymakers identify strategies to maximize the positive effects of FDI while simultaneously minimizing potential negative consequences, such as over reliance on foreign investments.

1.7 Assumptions
-The study will utilize reliable data sources.

-Adequate resources, both in terms of time and financial backing, will be made available to support the research.

-The methodology employed will be plausible and adhere to ethical standards.

-This research project will be conducted within the allotted timeframe.

1.8 Scope of the Study
This research will focus on Zimbabwe and examine the impact of foreign direct investment (FDI) on economic growth within the country during the period from 1993 to 2022

1.9 Limitations of the Study

-       The researcher may face time constraints, which will be addressed by negotiating a study leave from the employer.

-       The research will rely on secondary data, with only reliable sources being used to ensure the quality of the research outcome.

-       The research will require financial resources for printing and transport, which the researcher will cover using personal savings.

1.10 Definition of Terms

Economic Development: A process of societal and national advancement, typically improving the overall quality of life for the population (Nath, 2005).

Economic Growth: An increase in a country's real Gross Domestic Product, adjusted for inflation, over a specific time period. This represents a long-term expansion of the economy's productive capacity (Romer, 1986).

Foreign Direct Investment (FDI): An investment where a foreign entity establishes a subsidiary in another country or acquires a substantial controlling interest in a foreign firm (Gwenhamo, 2011).

Gross Domestic Product (GDP): A measure of the total value of final goods and services produced within a country during a given time period (Lucas, 1988).

Gross National Product (GNP): The total market value of all final goods and services produced in an economy during a specified time period (Lucas, 1988).

Investment: The monetary commitment or expenditure on real capital assets (Dunning, 2002).

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter provides a comprehensive review of relevant theoretical and empirical literature, establishing the necessary context for this study. The information presented will be drawn from a diverse range of sources, including:

* Peer-reviewed journal articles

* Reports from prominent monetary and economic institutions

* Scholarly research papers

* Academic publications accessible through online databases

This thorough review will lay the foundation for a deeper understanding of the research topic.

The goal of this literature review is to establish the theoretical foundation and empirical evidence that will guide the current research. The findings from this review will serve to further motivate and inform the researcher's investigation into the impact of foreign direct investment (FDI) on economic growth in Zimbabwe. By synthesizing the existing knowledge on this topic, the researcher will be able to identify gaps in the literature, understand the current state of the field, and position the present study within the broader academic discourse. This comprehensive literature review will provide a solid basis for the subsequent stages of the research process.

2.1 Theoretical Literature

Researchers have proposed numerous theories and models to explain the impact of foreign direct investment (FDI) on economic growth and development. These frameworks, including the neoclassical growth theory, endogenous growth theory, and the resource-based view, provide valuable insights into the mechanisms through which FDI can contribute to a nation's economic expansion.

2.1.1 Neoclassical Growth Theory

The traditional view of economic growth, known as neoclassical growth theory, suggests that FDI can stimulate economic expansion by increasing a country's capital resources and improving its productivity. This theory, based on the Solow model, argues that FDI inflows directly contribute to a larger physical capital stock, resulting in higher output and economic growth. Furthermore, FDI can introduce new technologies, skilled management practices, and access to international markets, all of which can enhance productivity and further drive economic growth.

The neoclassical growth model aims to explain long-term economic development in a market economy based on neoclassical economics principles. The primary emphasis is on capital accumulation and technological advancement as drivers of economic growth. Capital accumulation, subject to diminishing returns, is seen as increasing production and incomes in the long run. Countries with lower capital per worker have the potential for faster growth as the returns on additional capital are initially higher.

Technological progress, assumed to be exogenous, is another key determinant of growth in the neoclassical framework. It is seen as increasing productivity and output. The theory also shows that long-term growth rates are influenced by factors like savings, investment, and population growth.

Overall, the neoclassical growth theory provides a framework for evaluating how capital accumulation and technological change can influence economic development over time, shaping economic policies and insights into long-run economic success.

2.1.2 Endogenous Growth Theory

The endogenous growth theory emphasizes the crucial role of knowledge accumulation and technological advancement in driving economic development. According to this perspective, FDI can have long-term positive effects on growth by boosting knowledge transfer and technology transfer from overseas investors to domestic companies, resulting in increased productivity and innovation.

The endogenous growth theorists, such as Romer, emphasize the importance of investing in human capital, as a well-trained and educated labor force is believed to promote efficiency in production, and is thus a critical ingredient for economic growth. Theorists, such as Lucas, have posited that FDI contributes to economic growth by facilitating the transfer of technology, which subsequently enhances the host country's human capital through training opportunities.

Based on this understanding, economists advocate for government policies that foster human capital development and technological advancement. They argue that a workforce with higher education and skills can more readily adopt and utilize new technologies, leading to greater productivity. A strong human capital base, characterized by a skilled workforce, is considered a key factor in attracting investment and enhancing a country's competitiveness.

In contrast to the neoclassical growth theory's emphasis on capital accumulation, the endogenous growth framework highlights the central role of knowledge, technology, and human capital as drivers of long-term economic development, with FDI playing a key part in facilitating these processes.

2.1.3 Resource Based View

The resource-based approach emphasizes the importance of natural resources and capabilities in attracting FDI and supporting economic development. Due to their resource endowments, developing countries rich in natural resources, such as Zimbabwe, are often attracting FDI. FDI inflows in resource-rich industries can contribute to economic growth by increasing investment, employment creation, and export revenues (Sachs & warner, 1997).

2.2 Benefits of FDI to the economy

Foreign direct investment (FDI) can benefit both the host and home countries, according to various scholars. For host developing countries, Alfaro (2003) highlights FDI as a source of valuable technology, know-how, and direct capital funding. Multinational corporations (MNCs) play a crucial role in developing economies, possessing the financial resources to invest in large-scale projects that local investors may struggle to undertake.

FDI provides developing countries with access to significant capital, essential for economic development. As Jones (2006) notes, MNCs can supplement domestic savings, contribute to capital formation in capital-scarce nations, and stimulate

domestic investment. Furthermore, certain projects may benefit from foreign supervision, as FDI brings robust ownership and independent management, potentially reducing government interference, a common challenge in developing countries.

Former UN Secretary-General Kofi Annan highlighted the significant potential of FDI for developing economies, stating that it can create jobs, boost productivity, enhance exports, and facilitate technology transfer – all essential factors for sustained economic growth.

In essence, the passage highlights that FDI can provide developing host countries with much-needed capital, technology, know-how, and management expertise, which can ultimately contribute to their economic development.

2.3 Empirical Literature

Given the different theoretical perspectives discussed earlier, it is important to examine the observations and conclusions made by various researchers on the relationship between foreign direct investment (FDI) and economic growth.

The relationship between FDI and economic growth has been extensively debated by researchers, leading to numerous empirical studies across diverse economies. These studies aim to provide a more nuanced understanding of the complex interplay between these two variables, moving beyond the generalized claims of theoretical frameworks. Researchers have conducted detailed investigations to uncover the specific mechanisms and conditions under which FDI can either contribute to or hinder economic growth in different country contexts.

These empirical studies have examined a range of factors, such as the absorptive capacity of the host economy, the technological gap between foreign and domestic firms, the degree of competition, the sectoral composition of FDI, and the macroeconomic and institutional environment, among others. By delving into the empirical evidence, the literature aims to offer a more contextualized and evidencebased understanding of the FDI-growth nexus, providing policymakers with insights to formulate more targeted and effective policies to harness the benefits of foreign direct investment.

2.3.1 The impact of FDI on economic growth and development

The existing research on foreign direct investment (FDI) and economic growth paints a complex picture, with studies exploring the relationship in various countries and contexts.

For example , Jacob et al. (2012) conducted a study in Nigeria covering the period 1970-2008, using single and simultaneous equation methods. They found a positive, bi-directional relationship between FDI and economic growth, suggesting that policies promoting FDI can contribute to economic development.

Moyo (2013) conducted a study using multiple regression analysis to examine the impact of FDI on economic development in Zimbabwe. The findings indicated a significant positive relationship between FDI and Zimbabwe's economic development, although the study period (2009-2012) differs from the current research. These findings support the notion that FDI can act as a catalyst for economic growth and development in host countries.

However, the empirical evidence is not unequivocal. Some studies have found no long-term relationship between FDI and economic development. For example, Lean (2008) investigated the manufacturing sector in Malaysia over 1980-2005 and found no long-term link between FDI and economic development, suggesting that factors such as inflation and unemployment may be more influential.

Similarly, Adam (2009b) and Alexiou and Tsaliki (2007) argued that increased FDI inflows may not necessarily translate into proportional economic growth, due to potential crowding-out effects on domestic investment and negative knowledge spillovers. Furthermore, Won and Hsiao (2008) found a bi-directional relationship between FDI and economic development, with the long-run impact of FDI dependent on other variables such as exports.

Yao and Wei (2007) also highlight that while evidence supports positive FDI spillovers, the causal relationship is not definitively established. They emphasize the importance of factors like market size, infrastructure, political and economic stability, and free trade zones in driving economic growth. In conclusion, the empirical literature offers a nuanced and context-dependent understanding of the relationship between FDI and growth, underscoring the need for policymakers to carefully consider the specific conditions and mechanisms at play within their respective economies.

In summary, the existing empirical literature on the relationship between foreign direct investment (FDI) and economic development in Zimbabwe presents a nuanced picture. The majority of studies, such as those by Jacob et al. (2012) and Moyo (2013), have found a positive, bi-directional relationship between FDI and economic growth in Zimbabwe and other developing countries. This suggests that policies aimed at attracting and promoting FDI can contribute to economic development through job creation, technological advancement, and industry growth.
However, the evidence is not unequivocal. Some studies, like those by Lean (2008) and Adam (2009b), have found that increased FDI inflows do not necessarily translate into proportional economic growth, due to potential crowding-out effects on domestic investment and negative knowledge spillovers.

Additionally, the distribution of FDI benefits within Zimbabwe appears to be uneven, raising questions about inclusion and the need for the government to ensure a fair distribution of FDI impacts. The existing literature also highlights the importance of factors such as political and economic stability, as well as the role of free trade zones, in determining FDI flows and their distributional outcomes.

Given these nuanced findings, your proposed research will make a valuable contribution by investigating the specific factors that influence the distribution of FDI benefits in Zimbabwe, and by evaluating the effectiveness of government policies and regulations in attracting and managing FDI. This will lead to a more comprehensive understanding of the relationship between FDI, economic development, distribution, and the role of government in Zimbabwe.

2.4 Summary

This chapter provided a thorough review of the existing empirical literature on the relationship between foreign direct investment (FDI) and economic development in Zimbabwe. The key findings are:

1.   The literature reveals a mixed picture, with the majority of studies finding a positive, bi-directional relationship between FDI inflows and economic growth in Zimbabwe and other developing countries. These studies suggest that FDI contributes to economic development through channels like job creation, technological advancement, and industry growth.

2.   However, not all the evidence is conclusive, as some studies have found that increased FDI does not always translate into proportional economic gains, due to potential crowding-out effects on domestic investment and negative knowledge spillovers.

3.   An important finding from the literature is that the distribution of FDI benefits within Zimbabwe appears to be uneven, raising concerns about inclusion and the need for government intervention to ensure a more equitable distribution of FDI impacts.

4.   The literature also highlights the important role of factors like political and economic stability, as well as free trade zones, in determining FDI flows and their distributional outcomes.

Following the insights gleaned from the literature review, this chapter will detail the methodology employed in this study. The research aims to quantify the impact of FDI on economic growth and development in Zimbabwe, with a particular focus on the distribution of benefits and the influence of government policies.

CHAPTER 3

RESEARCHERS METHODOLOGY

3.0 Introduction

This chapter outlines the study's research design and the methodology adopted to address the stated research objectives. As per the definitions provided by Kothari (2004) and Dawson (2002), the research methodology encompasses not only the specific methods and techniques used, but also the underlying logic and rationale behind the chosen approach. The chapter explains that a multiple linear regression model was selected as the primary analytical framework to investigate the effect of foreign direct investment (FDI) and other relevant factors on economic development in Zimbabwe. This statistical modeling technique allows for the quantitative assessment of the relationships between the dependent variable (economic development) and the independent variables (FDI and other factors). By detailing the research methodology, the chapter provides a clear framework for how the study will be conducted, the data sources and variables that will be utilized, and the analytical procedures that will be followed. This ensures that the research findings can be properly evaluated and understood, not only by the researcher but also by the readers and other interested parties. The comprehensive description of the methodology lays the groundwork for the subsequent data collection, analysis, and interpretation that will be presented in the following chapters, ultimately contributing to a robust and transparent research process.

3.1 Research Philosophy

This research utilizes a quantitative, descriptive approach to analyze the relationship between foreign direct investment (FDI) and Zimbabwe's economic development. This approach, rooted in the positivist paradigm, is well-suited for measuring and quantifying economic phenomena, such as FDI inflows and their impact on key economic variables.

The study leverages the strengths of quantitative methods, which allow for precise measurement, statistical analysis, and comparisons between groups or variables. This approach is particularly relevant for examining the relationship between FDI and economic growth (GDP), enabling the researchers to quantify the impact of FDI on Zimbabwe's economic development.

By employing statistical modeling techniques, such as multiple linear regression, the study aims to objectively measure and describe the economic relationships under investigation. This data-driven approach provides a rigorous and numerical assessment of the impact of FDI on Zimbabwe's economic growth and development, offering insights that may not be readily apparent through qualitative methods.

3.2 Research Design

This study will adopt a quantitative-descriptive research design as the fundamental framework to carry out the investigation. The quantitative approach was chosen as the primary research methodology, aligning with the objective of numerically measuring and describing the relationships between the variables of interest.

To conduct the quantitative analysis, the researchers will utilize the E-Views economic software package to perform regression modeling on the data. This statistical software tool will enable the researchers to regress the data and estimate the econometric models necessary for evaluating the impact of foreign direct investment (FDI) on economic development in Zimbabwe.

The study period for this research will span from 1993 to 2022, covering over three decades of economic data. This timeframe was selected to provide a comprehensive and up-to-date analysis of the dynamics between FDI inflows and economic growth in Zimbabwe during this period.

This study will use a quantitative-descriptive research design and E-Views software to analyze the relationship between foreign direct investment (FDI) and Zimbabwe's economic development. This approach allows for a systematic and data-driven investigation of the impact of FDI, enabling the researchers to quantify the effects and address their research objectives.

3.3 Theoretical Model

This study employs a multiple regression model to examine the relationship between foreign direct investment (FDI) and economic growth in Zimbabwe. This model is based on the work of Barua (2013), whose study investigated the effects of FDI inflows on the Indian economy using a similar quantitative, regression-based approach. Barua's (2013) model, which serves as the foundation for the current study, utilized multiple regression analysis to specify the relationship between the dependent variable (economic growth) and the independent variables, including FDI and other relevant factors. By building upon the established research design and modeling framework used by Barua (2013), the researchers in this study aim to leverage a proven quantitative methodology to investigate the impact of FDI on Zimbabwe's economic growth. The adoption of this well-tested model provides a solid foundation for the current analysis and allows for comparisons and insights that can be drawn from the existing literature.

The specifics of the multiple regression model, including the variable definitions and the mathematical equation, will be presented in the following sections to provide a clear and transparent overview of the analytical approach being employed in this study.

$$Y = \beta_0 + \beta_1 FDI + \beta_2 GCF + \beta_3 MER + \varepsilon$$

Where:

* **Y:** Represents economic growth (dependent variable).

* **FDI:** Represents foreign direct investment inflows as a share of GDP (independent variable).

* **GCF:** Represents gross capital formation as a share of GDP (independent variable).

* **MER:** Represents merchandise trade as a share of GDP (independent variable).

* **ε:** Represents the error term, accounting for any unexplained variation in Y.

3.4 Model Specification

This study employs multiple linear regression to analyze the impact of foreign direct investment (FDI) and other macroeconomic factors on Zimbabwe's economic development. The selection of independent variables for inclusion in the regression model is crucial, as outlined by Gujarati and Porter (2009). The researchers aim to determine the influence of factors such as FDI, inflation, external debt, and other relevant macroeconomic variables on economic development, which is treated as the dependent variable in the model.

The selection of independent variables for the regression model is based on a thorough review of existing literature and the researchers' understanding of the factors influencing economic growth in Zimbabwe. This process, guided by the principles outlined by Gujarati and Porter (2009), ensures that the model incorporates the most relevant determinants of economic development in the context of this study. The specific multiple linear regression equation used in this research is presented as an example, providing a clear and transparent illustration of the analytical framework employed to investigate the impact of FDI and other macroeconomic variables on Zimbabwe's economic growth.

By adopting this well-established multiple regression methodology, the researchers aim to provide a rigorous, data-driven analysis that can contribute to a better understanding of the dynamics between FDI, macroeconomic factors, and economic development in Zimbabwe.

$$GDP = +FDI + fl + ExD + \varepsilon \text{ Where:}$$

- GDPpc represents the Gross Domestic Product per capita

- FDI denotes the Foreign Direct Investment

- fl is the inflation rate

- ExD is the external debt

- D is the distance between two capital cities

- e is the error term

The study's regression model posits that Gross Domestic Product per capita (GDPpc) is influenced by Foreign Direct Investment (FDI), inflation rate (fl), external debt (ExD), and the distance between two capital cities (D), with an error term (e) accounting for unexplained variation.

To address the issue of different units of measurement among the independent variables (e.g., dollars and percentages), the researchers applied a natural logarithm transformation to all variables. This standardization technique, as described by Weisberg (2005), allows for a more meaningful comparison and analysis of the relationships between variables. The transformed model is presented below:

$$In\text{GDP} = + In\text{FDI} + Infl + In\text{ExD} + \varepsilon$$

This study hypothesizes that foreign direct investment (FDI) has a significant impact on economic growth. The coefficient of FDI in the regression model will determine the direction and magnitude of this impact. Additionally, the coefficients of other independent variables, such as inflation, external debt, and distance between capital cities, will shed light on their respective influences on economic growth in Zimbabwe.

3.5 Justification of the variables in the model

The model aims to understand how economic growth, measured by GDP, is affected by various factors. These factors, known as independent variables, are hypothesized to influence the dependent variable, GDP.

1. Foreign Direct Investment (FDI)

2. Inflation rate

3. Employment levels

4. External debt

The model seeks to examine how changes in these independent variables - FDI, inflation, employment, and external debt - impact the dependent variable of economic growth, as measured by GDP.

3.5.1 Gross Domestic Product

The dependent variable, or the determinant, of this empirical analysis is the gross domestic product (GDP). GDP is a measure of the total output produced within the country's boundaries over a given time period, typically a year. Building on the findings of previous research, such as the study by Cevis et al. (2007), this study expects to find a positive correlation between foreign direct investment (FDI) and GDP. The rationale is that increased economic development, as reflected by a rising GDP, leads to higher incomes and a larger, more competitive domestic market. This, in turn, is expected to attract more FDI inflows, as investors seek to capitalize on the growing economic opportunities.

Conversely, the study also hypothesizes that the inflow of FDI will contribute to an increase in economic activity and overall GDP in the host country. This two-way, positive relationship between FDI and GDP forms the central focus of the investigation. By analyzing the degree to which FDI affects GDP, the researchers aim to provide empirical evidence on the nature and strength of this relationship in the context of Zimbabwe's economy. This analysis will contribute to a better understanding of the dynamic interplay between foreign investment and economic growth in the country. The use of GDP as the dependent variable, along with the expected positive correlation between FDI and GDP, forms the foundation for the econometric modeling and analysis to be conducted in this study.

3.5.2 Foreign Direct Investment

This study focuses on the impact of foreign direct investment (FDI) on economic growth. FDI, defined as investments made by companies or individuals in businesses or assets located in another country, is gaining significant importance in the global economy, as noted by Graham and Spaulding. The study examines two key aspects of FDI: its connection to economic development and the factors that influence the flow of FDI into a country.

The first part of the study will focus on the positive effects of FDI on the host country's economic development, as suggested by the existing literature. The second part will delve into the determinants of FDI, exploring the factors that drive and

influence foreign direct investment flows. Drawing on the theoretical framework established by Dunning (2002), the study acknowledges that there is less disagreement about the fundamental theories of FDI. These theories aim to explain why and how FDI occurs, as well as the underlying determinants that shape the crossborder investment decisions. A key concept highlighted in the FDI theories is the role of market imperfections, which have traditionally been emphasized as a driving force behind foreign direct investment. This theoretical foundation will guide the researchers in their examination of the factors that influence FDI inflows and their subsequent impact on economic development in Zimbabwe.

3.5.3 Inflation

This study investigates the relationship between inflation and foreign direct investment (FDI), drawing upon previous research by Akinboade (2006) and Cevis et al. (2007). Akinboade (2006) argues that inflation serves as a barometer of a country's economic stability. Fluctuations or instability in inflation rates can deter foreign investors from investing in a country. Building on this, Cevis et al. (2007) further elaborate that countries with lower inflation rates tend to attract more FDI than those with higher inflation levels. This suggests that a stable and predictable economic environment, characterized by low inflation, is crucial for attracting foreign investment.

The rationale behind this relationship is that low and stable inflation rates are seen as a sign of a healthy and predictable economic environment, which is attractive to foreign investors. High inflation, on the other hand, can introduce uncertainties and risks that make the investment climate less favorable for FDI.

Based on existing research, inflation plays a crucial role in a country's ability to attract foreign direct investment (FDI). Countries with lower and more stable inflation rates are generally more successful in attracting FDI inflows. This study will incorporate this understanding of the inflation-FDI relationship to analyze the dynamics between macroeconomic factors, such as inflation, and the flow of FDI into Zimbabwe's economy.

3.5.4 External Debt

External debt, a major component of public debt, can be a tool for promoting economic development. International organizations like the IMF and World Bank provide access to external debt, acting as a source of capital for countries to finance various development initiatives and inject funds into their economies.

3.6 Estimation Method

This study employed the Ordinary Least Squares (OLS) regression method to analyze the impact of foreign direct investment (FDI) and other factors on economic growth, measured by GDP. OLS is a widely recognized and reliable estimation technique, known for producing the Best Linear Unbiased Estimates (BLUE) under standard linear regression model assumptions.

OLS minimizes the sum of squared errors and maximizes the coefficient of determination, making it a suitable method for examining relationships between economic variables. By using OLS, the study aims to quantify the influence of FDI, inflation, employment, and external debt on economic growth.

3.7 Diagnostic Checking

Before constructing the econometric model, the validity of the data must be tested through various diagnostic checks. These tests are crucial to ensure the OLS estimators are unbiased and consistent.

The diagnostic procedures include:

1.   **Stationarity Test:** The Augmented Dickey-Fuller (ADF) test is used to determine if the time series data is stationary, as non-stationarity can lead to spurious relationships.

2.   **Multicollinearity Test:** The correlation matrix is examined to detect any high correlations between the explanatory variables, which can affect the significance of the variables.

3.   **Normality Test**: The normality of the error terms is tested, as non-normality can bias the confidence interval estimation and hypothesis testing.

4.   **Heteroskedasticity Test:** The Breusch-Pagan test is employed to detect the presence of heteroskedasticity, which can lead to biased standard errors and inefficient estimates.

5.   **Autocorrelation Test:** The Durbin-Watson test is used to identify any serial correlation in the residuals, which can affect the validity of the statistical inferences.

6.   **Goodness of Fit Test:** The coefficient of determination (R-squared) is used to assess the overall fit of the regression model.

These diagnostic checks help ensure the reliability and robustness of the econometric analysis conducted in the study.

3.8 Data source and limitations

This study relied on secondary data from reputable sources, including academic journals and organizations like the World Bank, IMF, and UNCTAD, to conduct a thorough literature review and data analysis. These sources provided valuable country-specific statistics, particularly from the World Development Indicators (WDI), Worldwide Governance Indicators (WGI), and Africa Development Indicators (ADI).

However, the study acknowledges limitations in using secondary data for international comparisons. While countries may have similar GDP per capita, income distribution can vary greatly. Comparing countries can be challenging due to differences in working hours needed to generate a specific income level. Furthermore, inflated

GDP estimates may require broader measures of economic well-being, and fluctuations in exchange rates can affect the purchasing power reflected in GDP figures.

To address these issues, the study suggested recalculating GDP numbers in terms of purchasing power parity. The analysis also highlighted challenges in accurately valuing public services, such as defense and transport infrastructure, as well as merit services like healthcare and education. The presence of a large informal economy can further complicate GDP-based comparisons.

Furthermore, the study cautioned that FDI statistics can be arduous to compile and may be misleading due to the phenomenon of "round-tripping," where companies transfer funds to themselves through a proxy country to take advantage of more generous tax regimes or other incentives. This can significantly inflate FDI statistics without generating any net capital flows.

In conclusion, the study acknowledged the limitations and potential pitfalls of using secondary data sources for international comparisons, emphasizing the need for more comprehensive and nuanced approaches to accurately assess economic and development indicators across countries.

3.9 Summary

This chapter establishes the foundation for the research by outlining the methodology employed. It details the research approach, including the use of multiple regression models, and thoroughly discusses various methodological considerations. The chapter also presents the mathematical and econometric models used in the study, complete with their associated equations, which serve as the analytical framework.

The next chapter will shift focus to the analysis and interpretation of both qualitative and quantitative data gathered during the research. This will involve a comprehensive examination of the findings, drawing insights from both data sources.

In essence, this chapter provides a clear understanding of the research methodology, while the following chapter will delve into the analysis and interpretation of the collected data, ultimately contributing to the study's overall findings.

CHAPTER 4

PRESENTATION, ANALYSIS AND DISCUSSION OF RESULTS

4.0 Introduction

This chapter delves into the core of the research, presenting the collected data, the statistical analysis performed, and the resulting findings. The researcher employed the E-views 10 econometric software to conduct the analysis, generating quantitative results that are presented in tables and supplemented with detailed written descriptions. The chapter offers a comprehensive view of the research, combining the raw data with the researcher's interpretation to provide a clear understanding of the findings. This approach lays the groundwork for the final conclusions and recommendations that will be discussed in subsequent chapters.

4.1 Descriptive statistics

This section focuses on the fundamental characteristics of the data, providing a statistical snapshot of its properties. Measures like mean, median, minimum, maximum, and standard deviation are presented to reveal the central tendency, spread, and potential

outliers within the dataset. Table 1 summarizes these descriptive statistics for all variables used in the model, offering a concise overview of each variable's distribution. By examining these statistics, the researcher can gain insights into the data's nature and identify any potential outliers that might require further attention in the analysis. This thorough examination of the data's properties lays the foundation for a comprehensive understanding of the research findings, ensuring the reader has a clear picture of the data before moving on to more complex analyses.

Table 1: Descriptive statistics

	GDP	FDI	E*xDT*	INFL
Mean	942.5465	1.379689	1.89E+09	79.61135
Median	756.4909	1.55681	1.73E+09	3.466130
Maximum	2269.117	6.940053	3.98E+09	557.2018
Minimum	351.8391	6.940053	4.97E+08	-2.430968
Std.Dev	496.2278	0.056069	1.20E+09	161.7856
Skewness	0.803311	2.895161	0.426766	2.256495
Kurtosis	2.769375	13.82091	1.693845	7.024484
Jarque-Bera	3.293029	188.2749	3.043197	19.80526
Probability	0.192720	0.000000	0.218363	0.000050
Sum	28276.39	41.39057	5.67E+10	1034.948

Sum Sq. Dev	7141019.	45.92171	4.20E+19	314095.0
Observations	30	30	30	13

Source E-views 10

The analysis revealed that the standard deviations for GDP are relatively large compared to the standard deviations of the other variables, namely FDI, inflation, and external debt. This indicates a high degree of variability in the GDP data, while the other variables exhibit relatively lower variability.

Furthermore, the study found that the inflation variable appears to not be normally distributed. This is evidenced by the failure to reject the null hypothesis that the inflation variable is not normally distributed, suggesting a departure from a normal distribution.

In contrast, the relatively smaller standard deviations observed for FDI, inflation, and external debt imply a more consistent or less dispersed distribution of these variables compared to the GDP data, which exhibits greater fluctuations or variation.
Overall, the analysis highlights the heterogeneity in the statistical properties of the variables under investigation, with GDP displaying higher variability compared to the other explanatory variables, and inflation demonstrating a non-normal distribution pattern.

According to Crawshaw et al. (2011), skewness measures the degree of asymmetry in a distribution. The negative skewness observed across all the variables indicates a leftskewed distribution. The Jarque-Bera test, which checks for normality, reveals that GDP and external debt (ExDT) have low Jarque-Bera values below the p-value of 0.1.

This suggests that these two variables are not normally distributed.

However, it is important to note that for OLS (Ordinary Least Squares) regression, the crucial requirement is that the residuals of the variables follow a normal distribution, not necessarily the variables themselves. Therefore, the non-normal distribution of some of the variables is not a concern, as long as the residuals meet the normality assumption.

In summary, the analysis of the descriptive statistics and normality tests provides valuable insights into the characteristics of the data, which helps inform the subsequent modeling and interpretation of the research findings.

4.2 Model diagnostic tests

4.2.1 Stationarity test

To ensure the reliability of the analysis, the researcher addressed the potential issue of non-stationarity in the time series data. Non-stationary data, where the statistical properties change over time, can lead to misleading results. To assess stationarity, the researcher employed the Augmented Dickey-Fuller (ADF) test.

The ADF test evaluates the null hypothesis that the variable is non-stationary against the alternative hypothesis that it is stationary. If the absolute value of the ADF statistic exceeds the critical value, the variable is considered stationary. However, if the variable is found to be non-stationary, the researcher can transform the data by differencing it to achieve stationarity.

The results of the stationarity tests are presented in a table, providing insights into the statistical properties of the data and guiding the choice of appropriate modeling techniques. By ensuring stationarity, the researcher mitigates the risk of obtaining spurious results, common in time series analysis. This step is crucial for establishing the validity and reliability of the research findings.

Table 2: ADF Unit Root test results in Levels

Variables	Dickey Fuller tests	Critical value at 1%	Critical value at 5%	Critical value at 10%	Order of integration
GDP	-1.551991	-3.831511	-3.029970	-2.655194	Non-stationary
INFL	-2.812919*	-3.788030	-3.012363	-2.646119	I(0)
FDI	-3.005452***	-3.788030	-3.012363	-2.646119	I(0)
ExDT	2.883518*	-3.831511	-3.029970	-2.655194	I(0)

Source: Secondary data, 2018 Research

*** means stationary at 1%, ** stationary at 5%, * stationary at 10% and I( ) shows the order of integration.

The analysis revealed that inflation, foreign direct investment (FDI), and external debt were stationary at their original levels (integrated of order zero, I(0)). This means their statistical properties remained consistent over time. However, GDP and FDI, while

showing significance at the 10% level, were ultimately determined to be non-stationary. The researcher chose to err on the side of caution, recognizing that accepting a unit root test at a higher significance level increases the risk of a Type I error (incorrectly rejecting the null hypothesis).

Since not all variables were stationary at their original levels, the researcher proceeded with the analysis by applying the ADF test to the first differences of GDP (DGDPs). This transformation aimed to achieve stationarity in the data, allowing for reliable analysis. The results of this test are presented in the following table.

Table 3: ADF Unit Root test results in First Difference

Variables	Dickey Fuller tests	Critical value at 1%	Critical value at 5%	Critical value at 10%	Order of integration
DGDP	-8.353547	-3.689194	-2.971853	-2.625121	I(1)

Source: E-views 10 tests results

*** means stationary at 1%, ** stationary at 5%, * stationary at 10% and I( ) shows the order of integration.

The unit root test results show that the GDP variable became stationary after taking the first difference. This indicates that GDP is integrated of order one, or I(1).

The notation "D" denotes the first difference of the variable.

The results of the ADF test on the first differences of GDP (DGDPs) indicate that the null hypothesis of non-stationarity can be rejected at all significance levels (1%, 5%, and 10%). This means that the transformed variable (DGDPs) is now stationary, exhibiting consistent statistical properties over time.

By successfully addressing the non-stationarity issue through differencing, the researcher can proceed with the analysis without the risk of spurious relationships, which can arise from using non-stationary data. This step ensures the statistical rigor of the research, providing greater confidence in the validity and reliability of the findings.

4.2.2 Multicollinearity test
Table 4: Correlation Matrix

	GDP	E*x*DT	FDI	INFL
GDP	1.000000	0.565092	0.000420	0.039181
E*x*DT	0.565092	-0.475338	1.000000	-0.671522
FDI	0.000420	1.000000	-0.475338	0.508231
INFL	0.039181	0.508231	-0.671522	1.000000

Source E-views 10

The table above presents the correlation matrix for all the variables included in the model. Upon examination, it can be observed that all the correlation values are below the commonly used threshold of 0.8, with the highest correlation being 0.67.

This indicates that there is no strong correlation between the independent variables in the model. The absence of high correlations among the predictors suggests that the model does not suffer from the issue of multicollinearity. Multicollinearity occurs when the independent variables in a regression model are highly correlated with one another, which can lead to unstable and unreliable estimates. However, since the correlation values are well within the acceptable range, the researcher can proceed with the estimation without the concern of multicollinearity distorting the results.

The low correlation coefficients among the variables demonstrate that they are measuring distinct and independent aspects, which is a desirable property for the model.

This enhances the validity and robustness of the subsequent analysis and interpretations. Overall, the correlation analysis provides reassurance that the model is well-specified and that the estimation can continue without the risk of multicollinearity undermining the findings.

4.3 Regression results
The table below shows the estimated regression results.

Table 5 : Estimated Ordinary Least Squares regression results

Dependent variable: Economic growth (GDP)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	522.1695	106.5319	4.901531	0.0001
ExDT	-0.113566	-0.040217	2.823800	0.0291
FDI	3.548567	1.5130913	2.345244	0.0620
INFL	-0.012728	0.0056028	-2.717022	0.0141

R-squared   0.728550

Adjusted R-squared   0.718109

Durbin Watson   2.298349

F-statistic   69.78175

Prob(F-statistic)   0.000000

Significance of the model

The model's performance is evaluated through several key statistics. The R-squared value of 0.611964 indicates that approximately 61.20% of the variations in GDP are explained by the independent variables included in the model. This means that the model captures a substantial portion of the factors influencing GDP. The adjusted Rsquared, accounting for degrees of freedom, is 0.593958, suggesting that about 59.40% of the variations in GDP are explained by the model.

Furthermore, the F-statistic's p-value of 0.008139 is less than the 0.01 significance level. This indicates that the overall regression model is statistically significant at the 1% level, meaning the independent variables collectively have a significant impact on GDP. The low p-value provides strong evidence for the model's ability to explain the relationship between the variables.

In summary, the high R-squared and adjusted R-squared values, coupled with the statistically significant F-statistic, suggest that the model is well-specified and effectively explains a substantial portion of the variation in GDP. This lends strong support to the reliability and robustness of the research findings.

Diagnostic test results

The following table shows the model diagnostic test results obtained

Table 6: Results of the model diagnostic test

	P-value	**Decision at 5%**
Autocorrelation	2.016024	No autocorrelation
Heteroskedasticity	0.0546*	No heteroskedasticity
Normality	0.7296	Errors are normally distributed

Source: Secondary data 2018 research.

* means significant at 10%, ** significant at 5% and *** significant at 1%

Heteroskedasticity:

The heteroskedasticity test yielded a p-value of 0.0546. While this indicates the presence of heteroskedasticity (non-constant variance of errors) at the 10% significance level, the model is considered homoscedastic (constant variance of errors) at the 1% and 5% significance levels. This suggests that the presence of heteroskedasticity is relatively minor and does not significantly compromise the reliability of the results.

The heteroskedasticity is likely attributed to outliers present in the Zimbabwean economic data, particularly in the period leading up to 2008. Despite this, the model's overall performance remains robust, indicating that the findings are reliable despite the minor heteroskedasticity observed at the 10% significance level.

Autocorrelation:

The Durbin-Watson (DW) statistic for the model is 2.016024, which is very close to the critical value of 2. This suggests that there is no significant evidence of autocorrelation in the model's errors. We fail to reject the null hypothesis of no autocorrelation, indicating that the model does not suffer from the issue of autocorrelated errors.

Normality of Errors:

The analysis revealed that the probability value of the normality test is 0.729259, which is greater than the 0.05 significance level. This indicates that the errors, or residuals, are normally distributed.

Given the normal distribution of the errors, the standard deviations of the residuals are considered reliable. This reliability allows the researcher to use the standard deviations for constructing confidence intervals and conducting hypothesis testing.

The normal distribution of the errors is a crucial assumption for the validity of the statistical inferences drawn from the analysis. With this assumption satisfied, the results and conclusions of the study can be considered trustworthy, as the researcher can rely on the standard deviations and associated statistical tests to draw robust and reliable conclusions.

In summary, the normality of the error terms ensures the reliability of the standard deviations of the residuals, enabling the use of confidence intervals and hypothesis testing to provide trustworthy and valid research findings.

4.4 Results Interpretation and Analysis:

The model reveals significant relationships between economic growth and several key macroeconomic variables:

*   **External Debt:** A statistically significant negative relationship exists between economic growth and external debt (p-value = 0.0291). A 1% increase in the log of external debt to GDP ratio is associated with a 0.11% decrease in economic growth. This highlights the detrimental impact of excessive debt accumulation on Zimbabwe's economic growth, leading to fiscal distress and hindering access to external financing.

*   **Inflation:**   Inflation also exhibits a statistically significant negative relationship with economic growth (p-value = 0.014). A 1% increase in inflation is associated with a 0.012% decrease in economic growth. This finding underscores the damaging effects of high and persistent inflation on Zimbabwe's economic performance, which can be attributed to economic mismanagement and weak institutions.

*   **Foreign Direct Investment (FDI):**   FDI demonstrates a statistically significant positive relationship with economic growth at the 10% level (p-value = 0.0620). A 1% increase in FDI is associated with a 3.548% increase in GDP. This confirms the positive and significant influence of FDI on Zimbabwe's economic growth, aligning with previous research findings.

4.5 Summary

This chapter has presented the data, analysis, and interpretation of the research findings. The next chapter will conclude the study, summarizing the key findings, drawing conclusions, and offering recommendations based on the research results.

1.   State the key conclusions drawn from the empirical results obtained and analyzed in the current chapter.

2.   Provide recommendations based on the research findings presented and discussed in the preceding chapter.

By addressing these two important aspects - conclusions and recommendations - the next chapter will serve to synthesize and summarize the entire study, bringing it to a comprehensive close. The conclusions will concisely encapsulate the main takeaways and insights gained from the data analysis and interpretation conducted in the current chapter. The recommendations, in turn, will outline potential actions, next steps, or areas for further exploration based on the empirical results obtained. Together, the conclusions and recommendations in the final chapter will mark the successful completion of the research study, providing a clear and well-rounded understanding of the study's findings and their implications.

CHAPTER 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter provides a summary of the overall research, drawing conclusions based on the results obtained, and putting forth recommendations stemming from the findings. Additionally, the chapter offers suggestions for future research building upon the current study.

5.1 Summary

This study aimed to investigate the impact of foreign direct investment (FDI) on Zimbabwe's economic development. Using ordinary least squares (OLS) regression and EViews 10 software, the study analyzed secondary data spanning from 1992 to 2022.

The analysis revealed a positive correlation between FDI and economic growth in Zimbabwe. The study found that FDI plays a significant role in determining GDP, particularly during periods of political and economic stability. The findings also indicated a moderately positive correlation between foreign investments and inflation.

The study concluded that while FDI has a positive impact on Zimbabwe's economic development, other economic factors also play a crucial role in influencing the flow of foreign investment. Understanding these factors is essential for promoting a sustainable and robust economic environment in Zimbabwe.

5.2 conclusion

This research study set out to examine the effect of foreign direct investment (FDI) on Zimbabwe's economic development. Adopting a cross-sectional research design, the study utilized a 30-year time series dataset spanning from 1992 to 2022, and employed the ordinary least squares (OLS) regression technique for the data analysis.

The key findings of the study indicate that FDI and the inflation rate are critical determinants of Zimbabwe's economic growth, as measured by its gross domestic product (GDP). These results provide a robust foundation for policymakers in Zimbabwe to formulate strategies aimed at enhancing the country's overall economic performance.

While the study emphasizes that focusing on strategies that contribute to higher GDP can be beneficial, it also underscores the importance for policymakers to concentrate on other avenues that impact FDI inflows, such as ensuring political stability. Additionally, the study examined the factors influencing FDI inflows, revealing that external debt is also a crucial element in attracting foreign direct investment. Consequently, the study recommends that policymakers prioritize clearing the country's external debt.

The final objective of the study was to propose practical FDI-oriented strategies. According to the findings, the government should invest heavily in technology to ensure that finished products have meaningful value addition. By producing and exporting world-standard products, the economy can realize more foreign currency, as technology is a critical pillar of industrialization.

In summary, this comprehensive study provides valuable insights and actionable recommendations for policymakers in Zimbabwe to enhance the country's economic development through strategic management of FDI and other complementary economic factors.

5.3 Recommendations

Based on the study's findings and its stated objectives, the following strategies are proposed to help increase GDP in Zimbabwe:

1.   Debt Reduction: The government should allocate a portion of the foreign currency earned through exports towards the repayment of external debt until it is fully cleared. This will help reduce the country's debt burden.

2.   Increase FDI Inflows: As FDI is a key driver of GDP, the government should revise its trade policies to create a more conducive environment for foreign investors. This will encourage higher levels of foreign direct investment in the country.

3 To promote economic growth, the Zimbabwean government should prioritize reducing inflation. This requires a combined approach of fiscal and monetary policies. The central bank could implement measures such as increasing interest rates to discourage borrowing and encourage savings. Additionally, providing incentives for exporters would help boost GDP by stimulating exports and generating foreign currency.

4. Ensure Political Stability: Maintaining political stability in the economy is crucial, as it will help create an environment that is attractive for investment and economic growth, ultimately contributing to higher GDP levels.

By implementing these strategies, policymakers in Zimbabwe can work towards increasing the country's GDP and improving the overall standard of living for its citizens.

5.4 Areas for further research

While this study provides valuable insights into the relationship between FDI and economic growth in Zimbabwe, further research is needed to deepen our understanding of these complex dynamics.

Future studies should consider:

*   **Expanding the scope of analysis:** Investigating the relationship between GDP and other key economic variables, such as unemployment, political stability, and trade openness, would provide a more comprehensive picture of Zimbabwe's economic landscape.

*   **Employing alternative estimation techniques:** Using methods like vector autoregression (VAR) or error correction models could offer additional perspectives and insights, particularly given the varying levels of stationarity observed in the data.

*   **Focusing on shorter study periods:** Analyzing data over shorter timeframes could provide a more nuanced understanding of the short-term dynamics at play between GDP and its determinants.

*   **Conducting a more nuanced analysis of FDI:** A critical and comprehensive study of the effects of FDI on different sectors of the Zimbabwean economy would provide a more accurate assessment of its impact on overall economic development.

By addressing these recommendations, future research can contribute to the development of more effective investment and economic policies, ultimately supporting Zimbabwe's economic growth and development.

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APPENDICES

Appendix 1: **Transformed data**

	EXDT	FDI	GDP	INFL
1993	600467965	0.425897783	608.0466105	
1994	496880422.4	0.502837235	634.5826172	
1995	685357890.1	1.655119106	646.8295598	
1996	801252275.3	0.945850735	765.1651241	
1997	977391456	1.583901352	750.6839091	
1998	769026841.1	6.940053217	554.3614836000001	
1999	748273763.4	0.860307485	585.3317992	
2000	569558355.4	0.346788445	565.2843897	
2001	574043069.3	0.05606882400000001	569.0032086	
2002	584655710.4	0.408381024	529.1868828000001	
2003	864469152.6	0.066345508	474.3022011	
2004	1060750978	0.149855352	477.399491	
2005	1114762247	1.786206014	470.7837614	
2006	1391909396	0.734767827	441.4987969	
2007	1815235638	1.301977507	425.0368417	
2008	1849606948	1.168556906	351.8391005	

2009	1646236701	1.086305042	762.2979603	
2010	1829515522	1.018021731	937.84034	3.022670025
2011	2071404630	2.441511459	1082.615773	3.466129728
2012	2437814587	2.044131278	1290.193957	3.725326661
2013	2747738822	1.954060076	1408.36781	1.634950415
2014	2639065226	2.425172602	1407.034291	-0.19778481
2015	3073100888	1.999687364	1410.329173	-2.430968424
2016	3141640533	1.669274353	1421.787791	-1.543669601
2017	3726551776	1.746884527	1192.107012	0.893962316
2018	3385363529	2.101721082	2269.177012	10.61886587
2019	3524456296	1.142805585	1421.868596	255.3049908
2020	3855717986	0.699033511	1372.696674	557.2018174
2021	3739610316	0.881174075	1773.920411	98.54610509
2022	3984081261	1.247870255	1676.821489	104.7051706

Appendix 2: Descriptive Stats

	GDP	FDI	EXDT	INFL
Mean	942.5465	1.379686	1.89E+09	79.61135
Median	756.4909	1.155681	1.73E+09	3.466130
Maximum	2269.177	6.940053	3.98E+09	557.2018
Minimum	351.8391	0.056069	4.97E+08	-2.430968
Std. Dev.	496.2278	1.258375	1.20E+09	161.7856
Skewness	0.803311	2.895161	0.426766	2.256495
Kurtosis	2.769375	13.82091	1.693845	7.024484
Jarque-Bera	3.293029	188.2749	3.043197	19.80526
Probability	0.192720	0.000000	0.218363	0.000050
Sum	28276.39	41.39057	5.67E+10	1034.948
Sum Sq. Dev.	7141019.	45.92171	4.20E+19	314095.0
Observations	30	30	30	13

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Appendix 3: Stationarity test at Level

Null Hypothesis: GDP has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.439228	0.8889
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP)
Method: Least Squares
Date: 06/05/24   Time: 20:03
Sample (adjusted): 1995 2022
Included observations: 28 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP(-1)	-0.051384	0.116987	-0.439228	0.6643
D(GDP(-1))	-0.428154	0.192727	-2.221560	0.0356
C	102.7485	117.7941	0.872272	0.3914

R-squared	0.216892	Mean dependent var	37.22282
Adjusted R-squared	0.154244	S.D. dependent var	298.6180
S.E. of regression	274.6241	Akaike info criterion	14.16964
Sum squared resid	1885459.	Schwarz criterion	14.31238
Log likelihood	-195.3750	Hannan-Quinn criter.	14.21328
F-statistic	3.462046	Durbin-Watson stat	2.258718
Prob(F-statistic)	0.047073		

Appendix 4: Stationarity test at Level :At first difference

Null Hypothesis: D(GDP) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=7)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.353547	0.0000
Test critical values:	1% level	-3.689194	
	5% level	-2.971853	
	10% level	-2.625121	

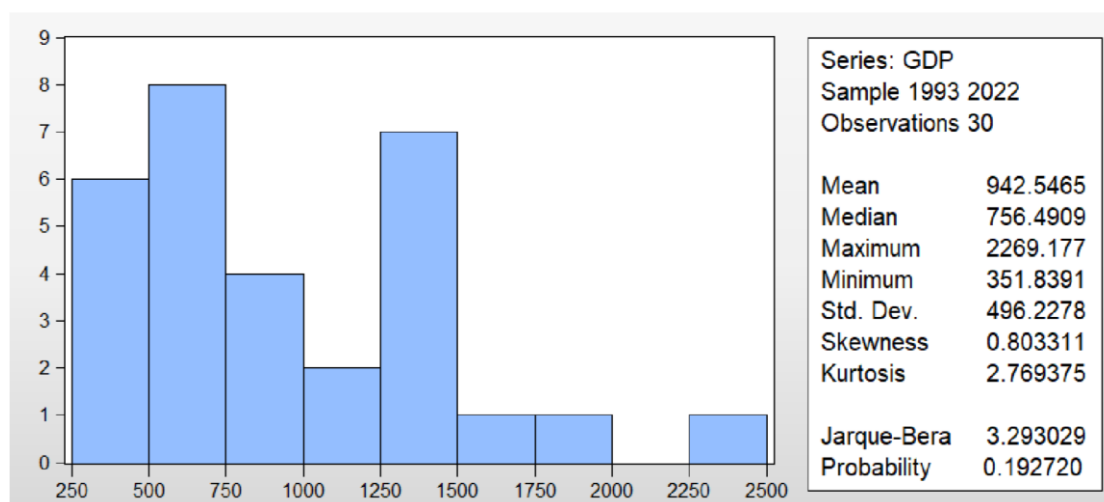*MacKinnon (1996) one-sided p-values.

```
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDP,2)
Method: Least Squares
Date: 06/05/24   Time: 19:56
Sample (adjusted): 1995 2022
Included observations: 28 after adjustments
```

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDP(-1))	-1.460955	0.174890	-8.353547	0.0000
C	56.41623	51.60361	1.093261	0.2843

R-squared	0.728550	Mean dependent var	-4.415533
Adjusted R-squared	0.718109	S.D. dependent var	509.1558
S.E. of regression	270.3281	Akaike info criterion	14.10590
Sum squared resid	1900009.	Schwarz criterion	14.20106
Log likelihood	-195.4826	Hannan-Quinn criter.	14.13499
F-statistic	69.78175	Durbin-Watson stat	2.298349
Prob(F-statistic)	0.000000		

Appendix 5: Multicolleanearity Test: Correlation Matrix

	GDP	ExDT	FDI	INFL
GDP	1.000000	0.565092	0.000420	0.039181
ExDT	0.565092	-0.475338	1.000000	-0.671522
FDI	0.000420	1.000000	-0.475338	0.508231
INFL	0.039181	0.508231	-0.671522	1.000000

Appendix 6: Normality test: Histogram


```
Series: GDP
Sample 1993 2022
Observations 30

Mean          942.5465
Median        756.4909
Maximum       2269.177
Minimum       351.8391
Std. Dev.     496.2278
Skewness      0.803311
Kurtosis      2.769375

Jarque-Bera   3.293029
Probability   0.192720
```

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