

**The Impact of Mineral Resources on Foreign Direct Investment in the  
Southern African Development Community: A Panel Data Analysis**

Kudzai Kudziyamira Nyangoni

Student Number: 531193

Research report submitted in accordance with the requirements for the  
degree of Master of Management of Finance and Investments

**FACULTY OF COMMERCE LAW & MANAGEMENT**

**SUPERVISOR:** Dr. Euphemia Godspower-Akpomiemie

# TABLE OF CONTENTS

## Contents

|                                                       |             |
|-------------------------------------------------------|-------------|
| <b>Abstract .....</b>                                 | <b>iv</b>   |
| <b>Declaration.....</b>                               | <b>v</b>    |
| <b>Acknowledgements .....</b>                         | <b>vi</b>   |
| <b>List of Figures .....</b>                          | <b>vii</b>  |
| <b>List of Tables.....</b>                            | <b>viii</b> |
| <b>CHAPTER ONE: INTRODUCTION AND BACKGROUND .....</b> | <b>1</b>    |
| <b>1.1 Introduction.....</b>                          | <b>1</b>    |
| <b>1.2 Background of Study .....</b>                  | <b>2</b>    |
| <b>1.3 Research Problem .....</b>                     | <b>5</b>    |
| <b>1.4 Research Objective .....</b>                   | <b>6</b>    |
| <b>1.5 Research Questions and Hypotheses.....</b>     | <b>6</b>    |
| <b>1.6 Ethical Considerations .....</b>               | <b>7</b>    |
| <b>1.7 Scope and Limitations .....</b>                | <b>7</b>    |
| <b>1.7.1 Scope.....</b>                               | <b>7</b>    |
| <b>1.7.2 Limitations.....</b>                         | <b>7</b>    |
| <b>1.8 Structure of the research report.....</b>      | <b>7</b>    |
| <b>1.9 Significance of Study.....</b>                 | <b>8</b>    |
| <b>1.10 Chapter Summary .....</b>                     | <b>8</b>    |
| <b>CHAPTER TWO: LITERATURE REVIEW.....</b>            | <b>9</b>    |
| <b>2.1 Introduction.....</b>                          | <b>9</b>    |
| <b>2.2 Theoretical Framework.....</b>                 | <b>9</b>    |
| <b>2.3 Theoretical Works Guiding the Study .....</b>  | <b>9</b>    |
| <b>2.3.1 Product Lifecycle (PLC) Theory .....</b>     | <b>10</b>   |
| <b>2.3.2 Knickerbocker's Theory of FDI .....</b>      | <b>11</b>   |

|                                                                 |    |
|-----------------------------------------------------------------|----|
| 2.3.3 Internalization theory of FDI.....                        | 11 |
| 2.3.4 Theories of Capital Market and Portfolio Investments..... | 12 |
| 2.3.5 FDI Fitness Theory .....                                  | 12 |
| 2.4 Review of Literature .....                                  | 13 |
| 2.4.1 Foreign Direct Investment .....                           | 14 |
| 2.4.2. SADC Region.....                                         | 14 |
| 2.4.3. Overview of SADC Member Countries .....                  | 15 |
| 2.4.4. Factors that affect FDI flows in the SADC region .....   | 28 |
| 2.4.4.1 Governance .....                                        | 28 |
| 2.4.4.2 Infrastructure .....                                    | 29 |
| 2.4.4.3 Natural Resource endowment (mineral resources) .....    | 29 |
| 2.4.4.4 Gross Domestic Product (GDP) .....                      | 30 |
| 2.4.4.5 Exchange Rates .....                                    | 30 |
| 2.4.4.6 Consumer Price Index - Inflation (CPI) .....            | 31 |
| 2.4.4.7 Exports .....                                           | 31 |
| 2.4.4.8 Trade openness.....                                     | 31 |
| 2.4.4.9 Taxes.....                                              | 32 |
| 2.5 Chapter Summary .....                                       | 32 |
| CHAPTER THREE: RESEARCH METHODOLOGY .....                       | 33 |
| 3.1 Introduction.....                                           | 33 |
| 3.2 Research Philosophy .....                                   | 33 |
| 3.3 Research Method .....                                       | 33 |
| 3.4 Sampling Strategy .....                                     | 34 |
| 3.5 Data Collection .....                                       | 35 |
| 3.6 Data Analysis and model specifications .....                | 35 |
| 3.7. Model fitness test.....                                    | 37 |

|                                                                              |           |
|------------------------------------------------------------------------------|-----------|
| <b>3.8 Chapter Summary .....</b>                                             | <b>37</b> |
| <b>CHAPTER FOUR: PRESENTATION AND INTEPRETATION OF RESULTS.....</b>          | <b>38</b> |
| <b>4.1: Descriptive statistics .....</b>                                     | <b>38</b> |
| <b>4.1.1: Summary statistics.....</b>                                        | <b>38</b> |
| <b>4.1.2: Correlation matrix analysis .....</b>                              | <b>39</b> |
| <b>4.2: GMM analysis of effect of Mineral resource endowment on FDI.....</b> | <b>40</b> |
| <b>4.2.1: Effects of mineral resources endowment (MRent) on FDI .....</b>    | <b>42</b> |
| <b>4.2.2: Effects of mineral resources endowment (MXEP) on FDI .....</b>     | <b>42</b> |
| <b>4.2.3: Effects of governance infrastructures on FDI.....</b>              | <b>42</b> |
| <b>4.2.4: Effects of other macroeconomic factors on FDI .....</b>            | <b>42</b> |
| <b>CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS .....</b>                    | <b>44</b> |
| <b>5.1 Introduction.....</b>                                                 | <b>44</b> |
| <b>5.2 Conclusion .....</b>                                                  | <b>44</b> |
| <b>5.3. Recommendations .....</b>                                            | <b>45</b> |
| <b>REFERENCES.....</b>                                                       | <b>47</b> |

## **Abstract**

This study analyses the impact of mineral resources on Foreign Direct Investment (FDI) flows to the Southern African Development Community (SADC) region. Absence of studies linking FDI to mineral resource endowment prompted this study. Therefore, the purpose of this study is firstly, to establish whether mineral resource endowment influences foreign direct investment flows to the SADC region and secondly, to establish the extent to which government institutions improve the impact of mineral resource endowment on FDI flows to the SADC region. The study employs use of generalized methods of moments (GMM) estimation technique to test the impact on FDI of various factors identified by existing literature as having effect on FDI flows.

The study suggests that in addition to natural resource endowment, other factors included in the model do influence the movement of FDI. The level of political and legal instability experienced in the SADC region negatively affects FDI inflows. This result infers that SADC member countries should review their legal and political infrastructures so as to attract FDI into their countries. High Inflation rates in SADC region also negatively affect FDI flows to the region. Therefore, in addition to political and legal instability, economic instability in SADC member countries may also deter foreign investors from investing in SADC region. The results also show that trade openness and GDP growth have significant effect on FDI flows into the region. Other than mineral resource endowment, all other factors are within the control of SADC state governments. Instituting the right policies can go a long way in creating the right environment to attract FDI flows to the SADC region. The results of the study may not be applicable to SADC member countries only. Therefore, a research with a larger sample of African countries might reveal more interesting features.

**Keywords:** Foreign Direct Investment; Southern African Development Community

## Declaration

I, Kudzai Kudziyamira Nyangoni, do declare that this research study, **“The Impact of Mineral Resources on Foreign Direct Investment in the Southern African Development Community: A Panel Data Analysis”** is my original work. All sources used or quoted have been acknowledged and referenced accordingly. I also acknowledge that this work has not been submitted before to any other university for degree study purposes.



.....  
**Signature: K.K. Nyangoni**

## **Acknowledgements**

The successful completion of this research report would not have been possible without the support and guidance of my supervisor, Dr. Euphemia Godspower-Akpomiemie. Her firm and yet caring nature inspired me to apply myself diligently and deliver this work within the prescribed tight submission deadline.

I wish to acknowledge the following distinguished members of the Wits Business School academic staff who presided over the review of my research proposal and gave me insightful nuggets on how to conduct the research & compile a successful report; Prof Kalu Ojah, Prof Odongo Kodongo and Dr Blessing Mudavanhu. Their learned wisdom set me on the course and kept me focused through to the end.

I remain indebted to Venus, my wife and confidante of 23 years, my sons Taffy and Taps whose belief in me keeps me going. Their unconditional love and support gave me purpose to keep going even when the challenges seemed insurmountable.

Lastly and importantly, I give thanks to God Almighty by whose grace I am alive today. My inspiration and help comes from Him. Without Him, I am nothing. His word continues to shine upon my path in my life journey. To God be all the glory.

## List of Figures

|                                                                                   |    |
|-----------------------------------------------------------------------------------|----|
| Figure 2.1 Institutional FDI Fitness Pyramid.....                                 | 13 |
| Figure 2.2 Time trend of Gross Domestic Product (GDP) growth rate by country..... | 15 |
| Figure 2.3 Time trend of Foreign Direct Investment (FDI) by country.....          | 16 |
| Figure 2.4 Time trend of Mineral resource endowment (MRent) by country.....       | 17 |
| Figure 2.5 Time trend of Political governance (GVP) by country.....               | 17 |
| Figure 2.6 Time trend of Legal governance (GVL) by country.....                   | 18 |

## List of Tables

|                                                                  |    |
|------------------------------------------------------------------|----|
| Table 1.1 Mineral Resources in SADC.....                         | 5  |
| Table 3.1 Variables of interest and sources.....                 | 35 |
| Table 4.1 Summary statistics.....                                | 38 |
| Table 4.2 Correlation matrix of study variables.....             | 40 |
| Table 4.3 GMM Analysis: Effects of mineral resources on FDI..... | 41 |

## CHAPTER ONE: INTRODUCTION AND BACKGROUND

### 1.1 Introduction

Foreign Direct Investment (FDI) is investment made by foreign entities or individuals (referred to as foreign investors) in target foreign countries through either set-up of business operations from scratch, or through acquisition of business assets in those target countries. Investors undertake FDI in foreign countries to exploit various business opportunities, which include; access to key raw materials, access to markets for goods and services produced elsewhere, access to technologies and capabilities required to compete in global markets, access to capital markets and so forth. FDI often involves investing significant capital for a long term, hence necessitating the need for the investor to have controlling ownership over the investment and operations.

According to (Butler, 2013; Kahn, 2013), the mining sector has been instrumental in attracting foreign investors. As a result, foreign investment continues to provide developmental finance spurring economic development in the Southern African Development Community (SADC) region. The SADC region, formed in 1980, is a bloc of 15 states; South Africa, Lesotho, Swaziland (now called Eswatini), Botswana, Namibia, Angola, Democratic Republic of Congo (DRC), Zimbabwe, Zambia, Malawi, Tanzania, Mozambique, Madagascar, Mauritius and Seychelles. In 1992, the regional bloc was transformed from a mere coordinating conference for the affairs of member countries to a formidable development community of states (Mahonye & Mandishara, 2015). According to the United Nations Conference on Trade and Development 2015 report<sup>1</sup>, SADC accounted for 37 percent of Africa's Gross Domestic Product (GDP) from 2003 to 2012.

SADC strives for regional economic integration and advocates for removal of trade barriers to advance economic growth and promote security and peace among member states (Anyawu & Yameogo, 2015). Since 1992, SADC has developed policies and

---

<sup>1</sup> See [https://unctad.org/en/PublicationsLibrary/webdiaeia2015d5\\_en.pdf](https://unctad.org/en/PublicationsLibrary/webdiaeia2015d5_en.pdf): Global Investment Trends Monitor Report 2015. Number 21 (UNCTAD/DIAE/2015/5

strategies that foster regional cooperation for sustained economic growth through foreign investment flows as well as trade among member countries. The author acknowledges that SADC member countries have different levels of economic, social and technological development. Countries like Malawi and Zimbabwe are counted among the least developed and impoverished countries, whereas countries like Seychelles and South Africa are more advanced middle-income economies (Anyawu & Yameogo, 2015).

In order to understand how mineral resources endowment impacts FDI flows to the SADC region, this research deployed panel data analysis on the 15 SADC countries from 2010-2018, a period of 9 years. This is a period that the SADC secretariat, backed by member countries, pursued an aggressive socio-economic agenda by deepening economic and social integration through political reforms, good governance, peace and security and greater intra-regional cooperation. Exports from SADC countries to major world markets in the European Union (EU) and Asia Pacific began to recover in this period after the economic crisis of 2008 / 2009. During this period, the transformation work done on SADC as an organisation by its economic, social and political organs made socio-economic data for the region was readily available. The data was key to this research report.

## 1.2 Background of Study

The SADC region is highly endowed with abundant and diverse minerals resources that have triggered investment flows to the region for the extraction of minerals which are then shipped overseas to support industrial growth in developing economies in Asia. However, the global financial crisis of 2008 / 2009 saw commodity prices fall, revenue from mineral sales plummet and socio-economic conditions deteriorate, resulting in increasing calls for nationalisation of mines and emergence of populist policy interventions by governments in some countries like South Africa, Tanzania, Zimbabwe, DRC and others (Butler, 2013). These crises, coupled with high unemployment levels, rising poverty and inequality, institutionalised corruption, the scourge of HIV and AIDS, unstable exchange rates, government control of mineral exports, lack of trade openness, rising inflation and low economic growth per capita are key impediments to FDI and development of SADC economies.

The abundance of mineral resources in the SADC region should be a catalyst for attracting FDI flows, which will in turn culminate in economic growth resulting in poverty and unemployment reduction (Mahonye & Mandishara, 2015). However, abundance of minerals in SADC countries has not reduced poverty and unemployment or increased economic growth as expected. Olowu, Ijeoma and Masu (2016) state that countries with rich mineral deposits have greater opportunities for economic development. However, some of the opportunities have been misused, resulting in under-development. According to Iimi (2007), the economies of resource-abundant countries have not grown as rapidly as was expected, due to what has come to be called the “resource curse.” Some mineral-dependent nations are counted among the poorest and worst performing economies in the world (Roderick, 2002), compared to countries that are less dependent on minerals such as Singapore.

According to the United Nations Economic Commission for Africa, Southern Africa Office 2017 report<sup>2</sup>, SADC member states have collaborated effectively in standardising investment laws, mineral rights and mining policies for mineral extraction as well as harnessing and sharing technical knowledge in the sector. Compared to international practice, governance, corporate social responsibility and community inclusiveness are areas that need significant improvement. Sikuka (2012) states that the scramble for mineral resources causes problems in resource-rich countries instead of creating prosperity. Sikuka (2012) argues that foreign investors control large stakes of the mining sector in Africa and profit immensely from resource exploitation while paying low taxes to host countries. Profit externalisation results in underdevelopment of host countries and disadvantaging of the citizens of the SADC region and the rising resource nationalism and resentment towards foreign mining companies. The Tanzanian government has had a long battle with Acacia Mining over under-declared mining output and exports, which are alleged to have prejudiced the Tanzanian fiscus of its share of taxes. The conflict remains unresolved at the time of writing this report.

---

<sup>2</sup> United Nations Economic Commission for Africa-Southern Africa. (2017). Economic Report on Africa 2017. <https://www.uneca.org/publications/economic-report-africa-2017>

Table 1.1 shows the minerals produced by SADC countries. Mauritius has vast arable land, while the Seychelles produces fish, copra and cinnamon trees. Mining is an industry of strategic importance to SADC. According to the SADC report on harmonization of mining policies in 2012<sup>3</sup>, about 50 percent of the platinum, diamonds and gold originate from SADC and that 7 SADC countries supply the bulk of diamonds produced in the world. In addition, 35 percent of gold and 21 percent of cobalt also originate from the region. The mineral resources illustrated in Table 1.1 contribute significantly to the gross national incomes and employment in SADC member states. All SADC member states rely on mineral exports to generate foreign exchange earnings that are then deployed to fund socio-economic infrastructures.

---

<sup>3</sup> Southern African Development Community. (2012). Harmonization of Mining Policies, Standards, Legislative and Regulatory Frameworks in Southern Africa.  
<https://www.sadc.int/files/8813/5825/8305/Mining- Harmonisation Study.pdf>

Table 1.1 Mineral resources in SADC

| <b>MINERAL RESOURCES</b> |                                                                        |
|--------------------------|------------------------------------------------------------------------|
| <b>COUNTRIES</b>         | <b>RESOURCES</b>                                                       |
| ANGOLA                   | <b>Petroleum</b> , <b>Diamond</b> , Iron Ore, Phosphate, Gold          |
| BOTSWANA                 | <b>Diamonds</b> , Copper, Nickel, Salt, Silver, Iron Ore               |
| D.R CONGO                | <b>Industrial &amp; Gem Diamond</b> , <b>Petroleum</b> , Hydropower    |
| LESOTHO                  | <b>Diamond</b>                                                         |
| MADAGASCAR               | Semi precious stones, Graphite, Hydropower, Bauxite                    |
| MALAWI                   | Limestone, Hydropower, Uranium, Coal, Bauxite                          |
| MAURITIUS                | Arable land, Fish                                                      |
| MOZAMBIQUE               | Coal, Titanium, <b>Natural Gas</b> , Hydropower, Tantalum, Graphite    |
| NAMIBIA                  | <b>Diamonds</b> , Copper, Uranium, Gold, Suspected Oil, Coal, Iron Ore |
| SEYCHELLES               | Fish, Copra, Cinnamon Trees                                            |
| SOUTH AFRICA             | <b>Gem Diamond</b> , Gold, <b>Natural Gas</b> , Manganese, Tin         |
| SWAZILAND                | Small Gold & <b>Diamond</b> deposits, Asbestos, Hydropower             |
| TANZANIA                 | <b>Diamond</b> , Gemstones, Gold, <b>Natural Gas</b> , Nickel          |
| ZAMBIA                   | Copper, Cobalt, Nickel, Gold, Emeralds, Hydropower                     |
| ZIMBABWE                 | Platinum group metals, Gold, Asbestos, Coal                            |

Source: World Bank (2015)

### 1.3 Research Problem

The rising demand for minerals in developing economies that include China, India and other Asian countries has resulted in FDI flows into the mining sector, with significant sources of FDI being predominantly in high-income western nations (Awolusi, 2017). The scramble for Africa's mineral resources has often created problems instead of prosperity. Large portions of profits generated from mining are externalised by large foreign-owned companies, which are accused of under-declaring taxes (Sikuka, 2012).

Foreign investment flows into mineral-rich countries have become a huge source of development finance. Researchers have carried out studies to establish the relationships between mining and growth in GDP, but none have focused specifically on the relationship between mineral resource endowment and FDI flows into SADC countries. Pandya and Sisombat (2017) carried out research on the impact of FDI on economic growth on the Australian economy and found that FDI inflows contribute to growth in GDP, exports as well as employment. Mining contributes 7 percent to Australia's GDP and investment in mining and quarrying has resulted in large amounts of FDI flows. Mugowo (2017), Bara and Le Roux (2017), Mahembe (2014) and Olowu, Ijeoma and Masu (2016) have all carried out research on impact of FDI flows on GDP growth in SADC countries and found that FDI flows into SADC are not the only factor that have influence on economic development, but also institutional factors such as

political stability, governance, economic policy and others. The difference between the studies by other researchers and this one is that this study specifically focuses on the influence that mineral resource endowment has on FDI flows into SADC countries as a primary focus and also considers how government institutions also influence FDI flows into SADC countries.

According to UNCTAD (2008) and Mahembe and Odhiambo (2013), SADC countries such as Botswana, Madagascar, Mauritius, Mozambique, South Africa, Tanzania and Zambia that implemented economic reform programs to attract more foreign investments, benefitted from FDI flow increases. However, it has not been established whether the FDI flows can be linked to mineral resource endowment in these SADC member countries. The researcher was therefore motivated to research why this is so with the objective to understand the impact of mineral resources on FDI flows to mineral-rich countries.

## 1.4 Research Objective

The objective of this research project is to investigate the impact of mineral resources on FDI flows to the SADC region by analysing a panel dataset from 2010 to 2018. The study also aims to find out if government institutional issues such as political stability, governance and economic policies in SADC member countries have effect on FDI flows into these countries.

## 1.5 Research Questions and Hypotheses

To achieve the objective mentioned above, the following questions will be addressed.

- After exploitation of mineral resources in the SADC region for many years, does mineral resource-endowment impact foreign direct investment?
- To what extent do government institutions (legal and political) improve the impact of mineral resource-endowment on foreign direct investment?

### Hypotheses

H1: Mineral resource-endowment influences foreign direct investment in the SADC region.

H2: Government institutions influence foreign direct investment in the SADC region.

## 1.6 Ethical Considerations

The researcher commits to observe and exercise strict ethical conduct when conducting research in order to mitigate any potential challenges. This research uses secondary data, without contact with humans or animals; thus, there was no need to consider privacy and confidentiality or getting consent to perform the study.

## 1.7 Scope and Limitations

A research study should demarcate its boundaries and make sure that they are clearly defined to prevent scope creep (Creswell, 2012).

### 1.7.1 Scope

The study analysed panel datasets of 15 SADC member states that are endowed with mineral resources for the period of nine years, from 2010 to 2018, focusing on how FDI flow into SADC is impacted by mineral resource-endowment. The 9-year period selected for the study provided sufficient data to carry out the quantitative analysis required by this research report.

### 1.7.2 Limitations

This study is limited to the SADC region and the period from 2010 to 2018, and the research findings may not be generalised to the rest of the African continent or to periods lying outside of that defined for this study.

## 1.8 Structure of the research report

The research study consists of five chapters. The first chapter covers introduction to the research study, background to the study, the research problem, research objective, research question, scope and of the study and the significance of the study. The second chapter gives a detailed review of theoretical frameworks and general understanding of FDI and related research concepts. The third chapter provides a detailed methodology deployed in determining the impact of mineral resources on FDI. The fourth chapter presents the research findings and the fifth and final chapter give the conclusion and recommendations.

## 1.9 Significance of Study

The intent of the study would be to benefit a number of stakeholders who have direct interest in the mining sector. These stakeholders include investors, political leaders, mining houses and government bureaucrats who all have to understand factors that directly influence the flow of FDI into the mineral sector and the extent thereof. The study should provide guidance in terms of what policy directions are necessary for SADC governments to focus on in order to maximise the flow of foreign investment to their countries. Investors should understand how to navigate the socio-politico and economic issues in the countries they choose to invest.

## 1.10 Chapter Summary

This chapter outlines the background to the study and the problem statement and the motivation to carry out this research project, followed by the research questions, objectives and hypotheses. The next chapter discusses various theoretical frameworks that guide this study as well as the research concepts.

## CHAPTER TWO: LITERATURE REVIEW

### 2.1 Introduction

This chapter discusses theoretical frameworks underpinning this research as well as review the literature of key determinants that play a significant role in influencing flow of foreign investment into the SADC region. The chapter also gives an overview of the SADC region and its 15 member countries.

### 2.2 Theoretical Framework

A theoretical framework is a guide that explains the theory of a research study and why the research problem exists (Grant & Osanloo 2014). According to Ravitch and Carl (2016), it assists researchers to situate and contextualize theories that are applicable to the study. The theoretical framework also provides guidance on the type of data to be gathered for a selected study and gives meaning to research findings (Lester, 2005).

In this study, the meaning, nature and challenges associated with resource-rich economies that have not experienced economic development despite massive FDI, cannot be expressed or explained by words only. Mathematical or statistical tests are required to explain those meanings, nature and challenges to enable users of the research output to act in well-informed and effective ways.

### 2.3 Theoretical Works Guiding the Study

Several theories have been developed to give insight into FDI. There is no one theory that fits the different forms of FDI or investment undertaken by a particular foreign-based corporation in any country or region. Some theories relating and relevant to FDI explored in this research include the Product Lifecycle Theory by Vernon (1966); the theory of Exchange Rates on Imperfect Capital Markets by Itagaki (1981) and Cushman (1985); Internationalisation Theory (Buckley & Casson, 1976); The Electric Paradigm of Dunning (1973) and The Theory of Institutional FDI Fitness (Wilhelms, 1998).

### 2.3.1 Product Lifecycle (PLC) Theory

This theory seeks to give insights into patterns of international business and international growth of businesses. In addition, the theory argues that “a trade cycle emerges where a product is produced by a parent firm, then by its foreign subsidiaries followed by anywhere in the world where costs are at their lowest possible rate” (Morgan & Katsikeas, 1997:2). From the perspective of the theory, technological innovation, evolution and market expansion are key predictions of international trade. This supports the argument by Morgan and Katsikeas (1997:2) that “technology is a key factor in creating and developing new products, while market size and structure are influential in determining the extent and type of international trade.”

International organisations are inclined to enter and establish in foreign countries with resources required to initiate the production value chain. The Product Life Cycle theory has four phases. In phase 1 (Introduction phase), a country or major producer might enjoy monopoly status in a new innovative product. In phase 2 (Growth phase), foreign production of the product is initiated. Foreign demand for the innovative product may emerge from developed countries that can afford relatively high prices. In phase 3 (Maturity phase), competitors may emerge, cannibalising the market share of the developed country until it loses its competitive advantage from technology and innovation, resulting in production collapsing until it finally stops. In order to sustain earnings, mass production of the standardised product is then relocated to low cost developing countries with lower labour costs, which manufacture and export to developed countries. Developed countries then focus on innovation and development of new products. In phase 4 (Decline phase) the market is satisfied with the existing product and demand starts to wane until there is no demand for the existing product. New products entering the market may cause this decline as consumers shift their consumption to new products.

SADC countries extract raw materials and minerals and export some to foreign countries for processing. The exporter of the raw materials then imports the finished products into the country at much higher prices. An example is De Beers, a subsidiary of Anglo American, which mines diamonds at its mines in South Africa and Botswana and exports rough diamonds to Europe, Asia, and America where the rough diamonds are cut, polished and manufactured into jewellery. This process demonstrates that

most of the processing takes place outside of the SADC region due to shortage of technical skills and capacity to beneficiate the raw minerals.

### 2.3.2 Knickerbocker's Theory of FDI

Knickerbocker (1973) established that a limited number of organisations operating in an oligopolistic environment have a tendency to imitate the behaviour of peer organisations. For example, if one firm does something to its price or value chain, the other organisations are quick to follow. Knickerbocker argues that the same imitative behaviour characterises FDI and that organisations will constantly monitor the actions of competitors in order to follow suite as a way of defending their interests. FDI flows reflect strategic rivalry between firms in the global marketplace. Knickerbocker's theory explains why some FDI takes place, and why it is preferred over licensing or exporting.

### 2.3.3 Internalization theory of FDI

This theory is also known as Market Imperfections theory and gives insight into why organisations may prefer a strategy of investing directly in a country as a means of establishing itself in a foreign market instead of a licensing strategy as a means of establishing itself.

Firms engaging in innovation might develop new technologies, processes or products. However, transferring innovations to other unrelated organisations might be too costly and difficult. As a result, many organisations may opt to internationalise by acquiring organisations either upstream or downstream of its value chain in order to control either the supply side or market side. The Internalisation theory is premised on three views; first view that organisations exist to earn extraordinarily high profits in markets that have little to no competition. The second view is that when markets in intermediate products lack perfect competition, organisations have opportunity to bypass them and create new internal markets in other countries. The last view assumes that existence of international markets opens opportunities for multinational organisations to invest in those markets, resulting in flow of FDI to foreign countries, which are part of the value chain.

#### 2.3.4 Theories of Capital Market and Portfolio Investments

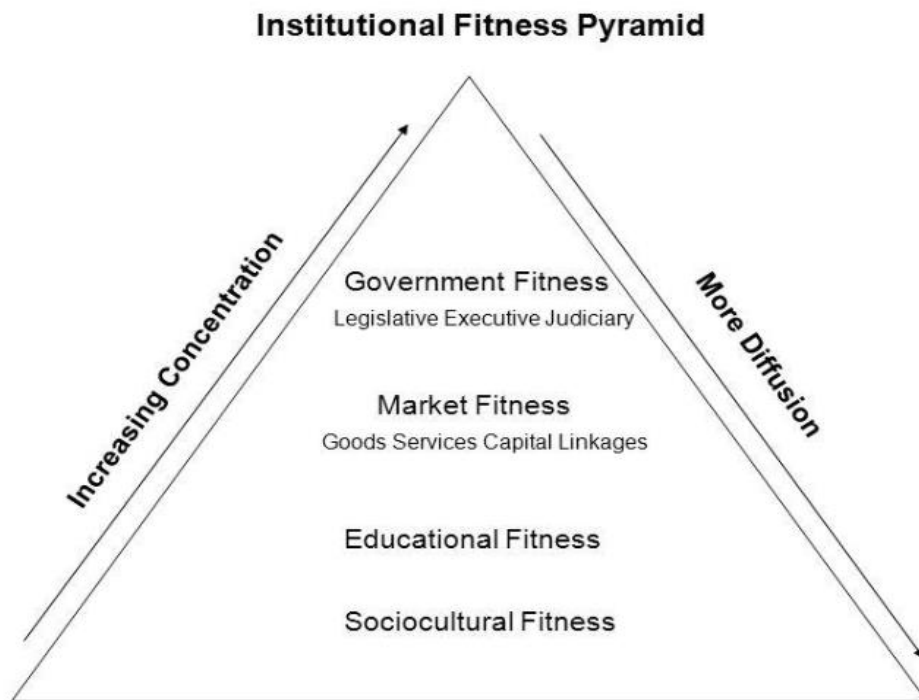
According to Dinkar and Choudhury (2014), these theories were originally used to explain how FDI was initiated. Capital tends to flow to regions where highest returns are gained provided risks and uncertainties were low in those regions. Hymer (1976) states that direct investment does not include portfolio investment since ownership is a prerequisite for direct investment, whereas portfolio investment is short term and does not require ownership and control. Hymer (1976) goes on to say that, an investor will likely lend money to a foreign organisation if the organisation can guarantee a higher return to the investor. This situation does not require the investor to take any controlling stake in the organisation they are lending capital to, but rather extract a return from their investment.

#### 2.3.5 FDI Fitness Theory

Wilhelms (1998) who authored this theory contends that countries with high Institutional Fitness experience, in other words, countries with well-established, transparent, credible, reliable and predictable governance institutions free from political and legal manipulation, are more likely to attract higher FDI flows than those with low Institutional Fitness experience. Reports gathered in many SADC Member States indicate high levels of corruption, ineptitude, unreliable and less transparent governance institutions and processes and lack of human resource skills (Anyawu & Yameogo, 2015).

Karau and Mburu (2016) state that FDI inflows are not necessarily in proportion to the mineral endowment in a country, but rather the strength and reliability of the country's institutions. Some mineral-disadvantaged economies are capable of drawing relatively large FDI inflows compared to those that are mineral-advantaged, because these disadvantaged countries develop favourable institutional frameworks, policies and laws (Wilhelms, 1998). Karau and Mburu (2016) highlight that disadvantaged countries attract better FDI because of their ability to integrate a country's socio culture fitness, educational fitness, market fitness, and government fitness (refer figure 2.1 below).

Figure 2.1: Institutional FDI Fitness Pyramid



*Source: Wilhelms (1998)*

Countries with sound macro- economic policies, effective implementation capacity and a considerable degree of openness are capable of attracting FDI. If the institutional frameworks in a particular country are weak or ineffective, foreign investors may not be attracted to that country. However, if the frameworks are effective, positive and significant FDI inflows are realised (Karau & Mburu, 2016). In line with FDI Fitness theory, a country's policies should be adjustable to align with expectations of investors.

## 2.4 Review of Literature

Paré, Trudel, Jaana, and Kitsiou (2015) state that literature reviews are critical for establishing the body of knowledge existing from previous studies of the topic being researched. Reviewing literature allows a researcher to look at the views expressed by other researchers that might be closely related or inform the current study Literature reviews help the researcher to gather useful information from other studies with can then be synthesized with the current research study (Ngulube et al., 2014). Therefore, this study reviews some of the concepts and key determinants that significantly influence the impact of mineral resources on FDI flows into the SADC.

#### 2.4.1 Foreign Direct Investment

This is described as a type of investment made into a particular a foreign country by an investor from another country seeking long-term association and return from that country's business opportunities. FDI does not include loan capital advanced by foreign commercial banks or portfolio investment provided by foreign brokers of stocks and bonds. It is a direct investment in an organisation accompanied by the investor exerting management control over the operations of the organisation Fu (2000, pp.95-96). Providers of FDI are normally multi-national enterprises (MNE) located in foreign countries where decisions are made on subsidiary companies in many different locations all over the globe (Hayter, 1997). Mugowo (2017) posits that the prominence of globalisation and trade integration, among other factors, are the driving force behind rapid increase and steady flows of FDI to international destinations. In the study (Nnadozie & Osili, 2004) there is more likelihood that local and foreign investors may be attracted to a country where there is more existing investment in mining on the premise that favourable conditions already exist in that country.

#### 2.4.2. SADC Region

Butler (2013) and Pelinescu (2015) state that the SADC region has abundant mineral resources that include diamonds, iron, gold, nickel, manganese, cobalt, platinum, coal, asbestos, chrome, vanadium, diamonds and many other minerals. However, the SADC region's rate of economic growth and development does not reflect a region that has abundant mineral wealth. Compounding the challenges confronting the SADC region are external global economic shocks, growing calls for the state to repossess mines from foreign mining houses, falling commodity prices, labour unrest, political instability and police brutality (Butler, 2013). For example, the toxic political instability in Zimbabwe has resulted in economic meltdown. There is less than 10 percent of productivity in mining, manufacturing and other key sectors in Zimbabwe due to political instability and poor investor sentiment towards the country. The political and economic environments in Zimbabwe have ripple effects on the rest of the SADC region resulting in migration of economic refugees to other countries.

Literature asserts that the abundance of mineral resources has not been a solution for addressing high unemployment, crime or increased economic growth for the region

(Olowu, Ijeoma & Masu, 2016). Instead, the SADC region has been a springboard for economic development for rich countries. Some resource-rich economies have failed to accelerate growth because of poor governance, political instability, unstable macro-economic factors, thereby discouraging would-be investors from investing in the SADC region (Weeks, 2015).

### 2.4.3. Overview of SADC Member Countries

This section shows trend analysis of key variables for the study, i.e. GDP growth, FDI, mineral resource endowment (MRent) and governance (Political and legal) and explanations given under each country.

Figure 2.2: Time trend of Gross Domestic Product (GDP) growth rate by country

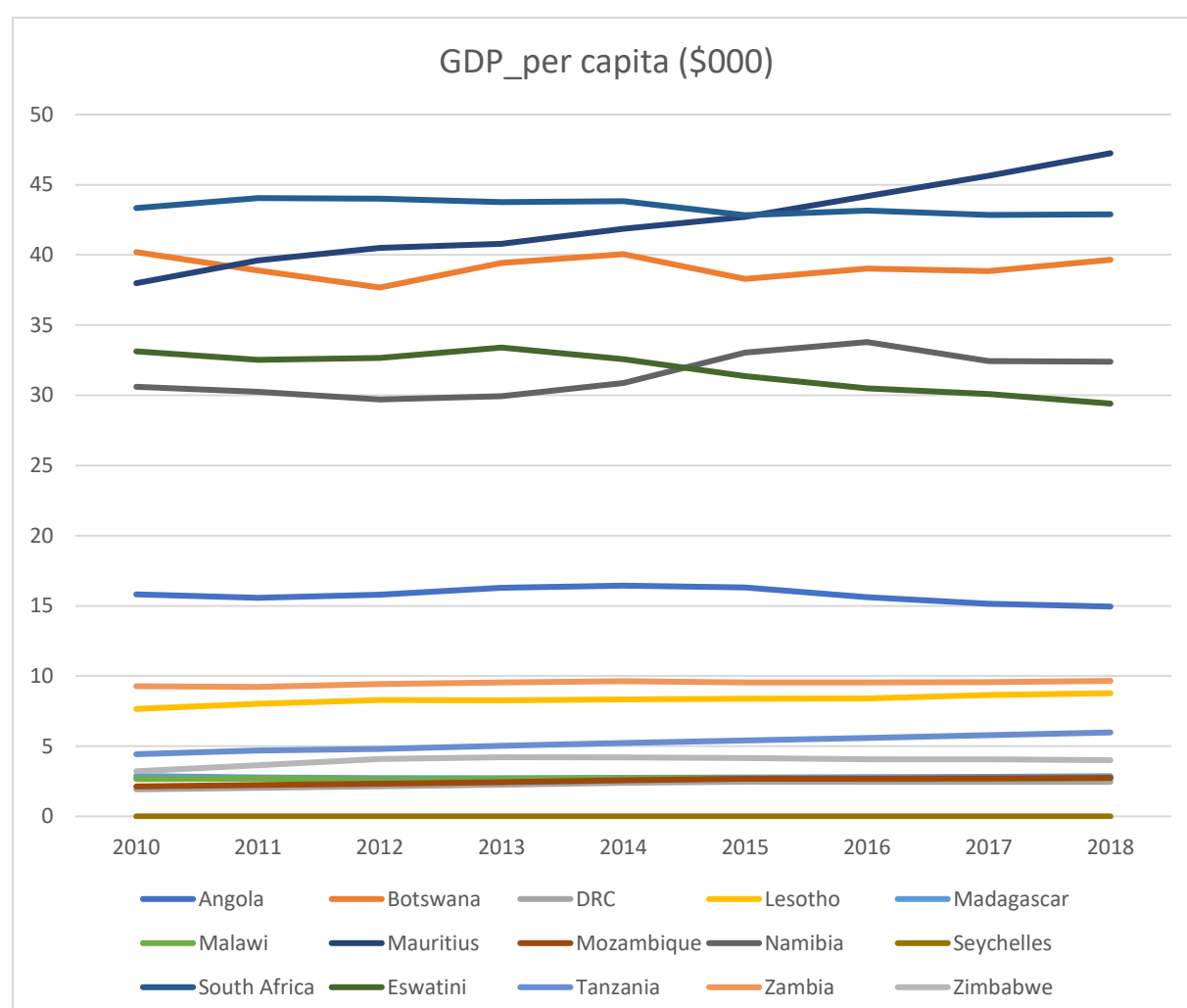


Figure 2.3: Time trend of Foreign Direct Investment (FDI) by country

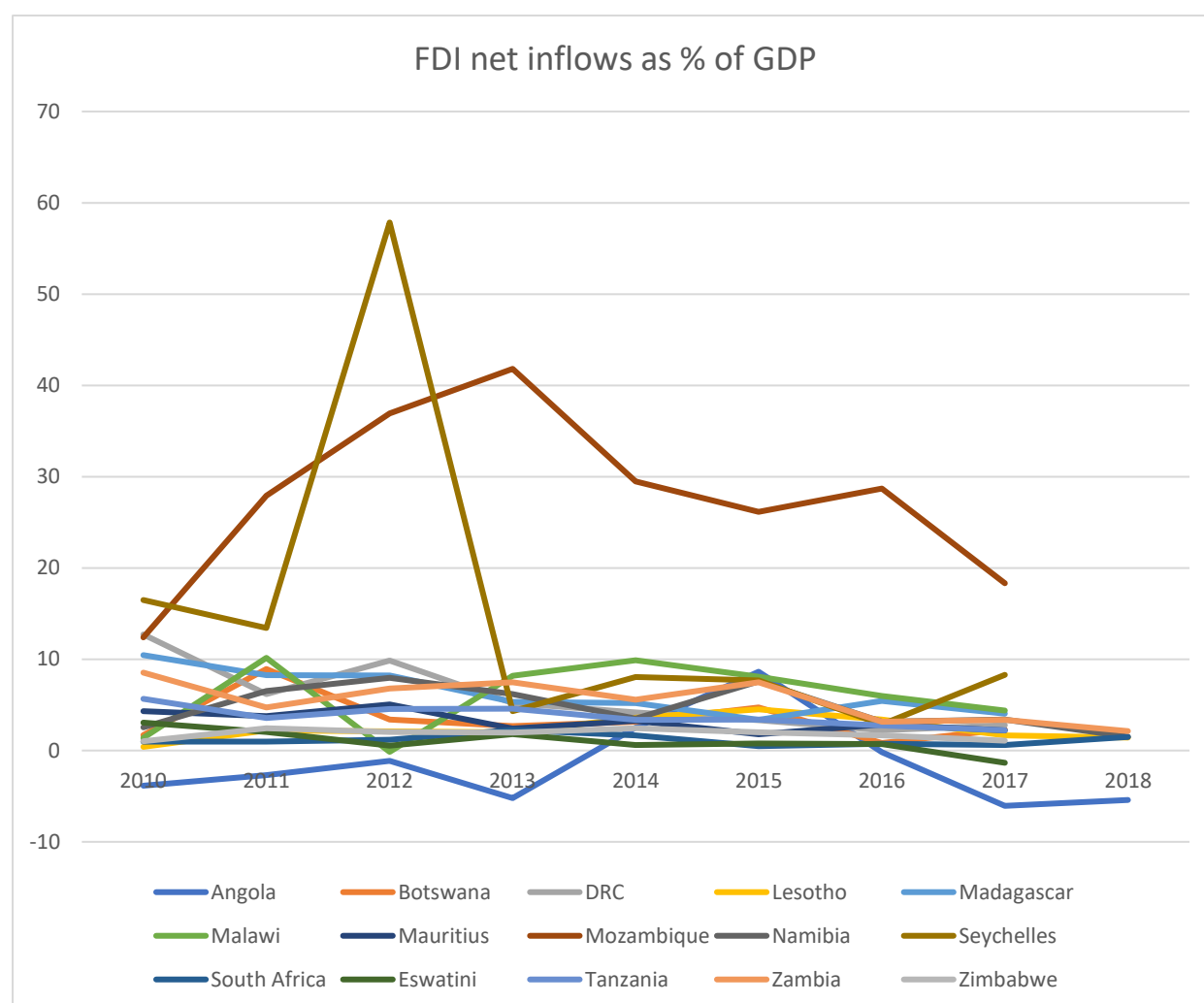


Figure 2.4: Time trend of mineral resource endowment (MRent) by country

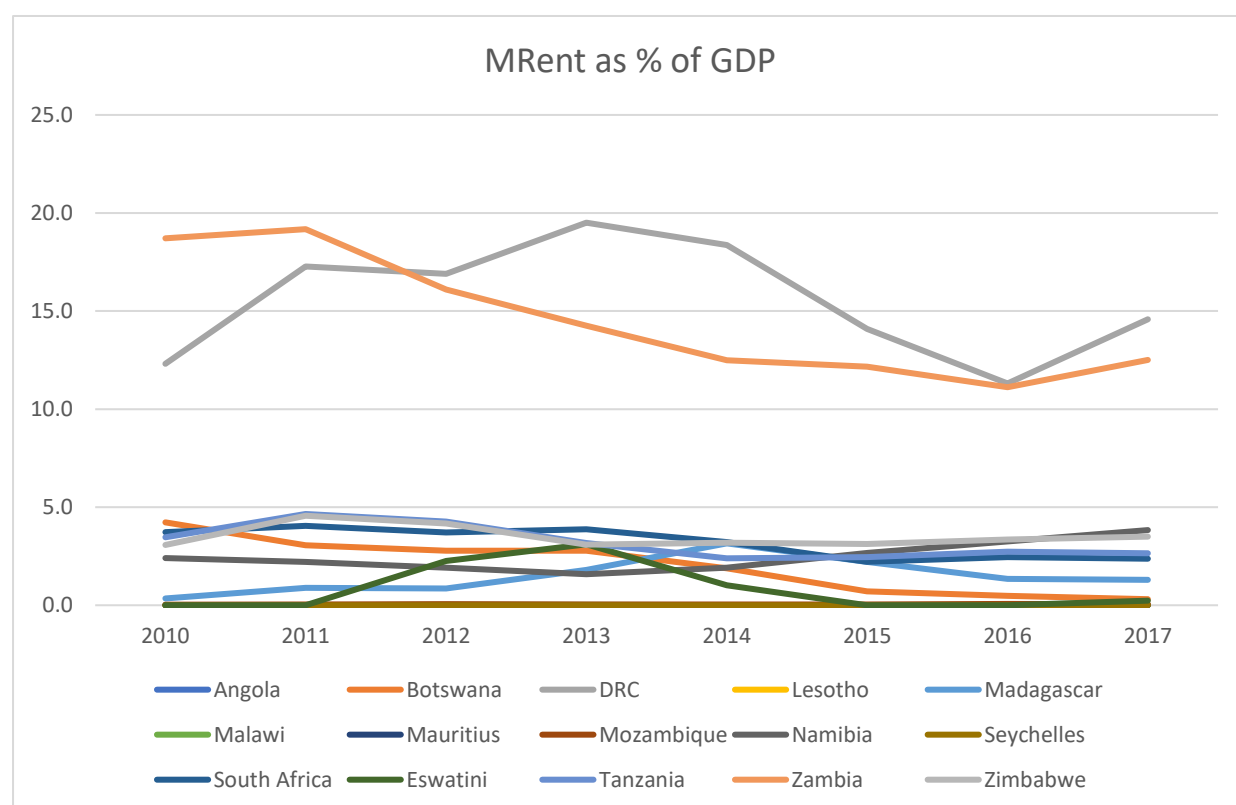


Figure 2.5: Time trend of political governance (GVP) by country

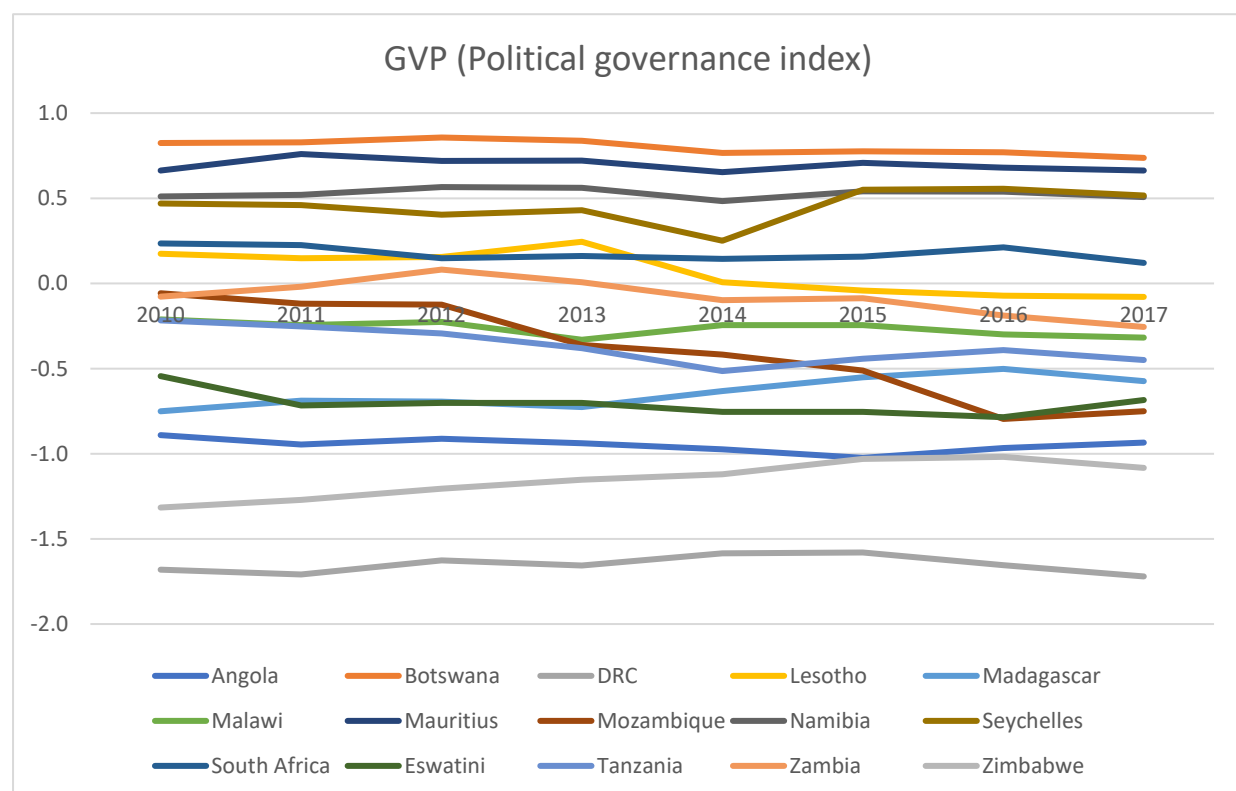
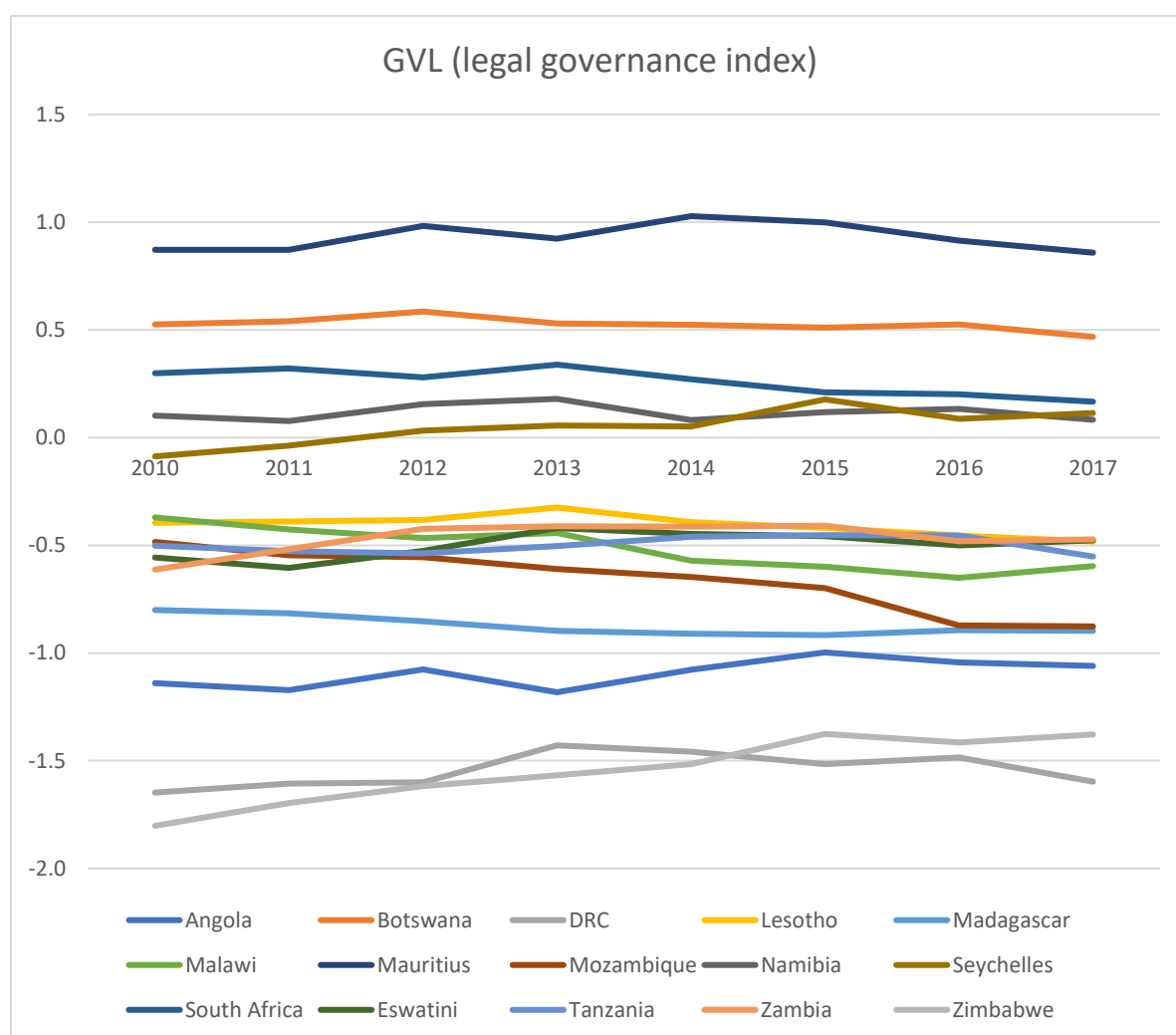


Figure 2.6: Time trend of legal governance (GVL) by country



### a) Angola

In 2002, Angola emerged from a gruelling and brutal civil war that had ravaged the country for 27 years. Angola is an exporter of crude oil and diamonds and hardwood. Its pursuit of open market policies post-war, buttressed by political stability and sound monetary policy has led to increased economic activity and improvements in flows of FDI and loan capital into the oil sector (Mouzinho, 2016). These macro-economic policies strengthened Angola's position as a recipient of FDI inflows and saw its oil production become the second largest in Africa, to Nigeria. Between 2013 and 2017, FDI flows into Angola were boosted by increased investment by China. Angola is the largest African exporter of oil to China. The government continues to implement market-friendly economic and development strategies to diversify its economy and accelerate development of manufacturing sector. Even though Angola passed Nigeria as the largest oil producer in Africa, it still reels from the "Dutch disease" and ineffective

diversification of the economy and political maladministration based on a well-entrenched patronage system (Aguilar, 2003). The current political leadership that succeeded President Eduardo dos Santos is trying to reform governance but is constantly frustrated by benefactors of state corruption. This is the reason why the country's perception on governance remains poor and a possible inhibitor of much-needed FDI, to spur economic growth.

Despite subscribing to SADC initiatives of socio-economic development agenda, Angola has not fully committed to the region's economic agenda. The country has not entered the SADC Free Trade area; thus, has created its own investment policies outside the auspices of SADC Protocol on Finance and Trade [FTP] (Mouzinho, 2016). The country is still to establish a conducive regulatory environment that provides guarantees and protection for foreign investors (Mouzinho, 2016).

## **b) Botswana**

Botswana lies to the north-west of South Africa. Having historically been among the lowest-tier economies in Africa. Botswana has reformed its economy and improved its per capita income from US\$15,839 in 2015 to USD 16 990 in 2017 (Mugowo, 2017). The success of Botswana is credited to sound economic policies and prudent use of its diamond revenue. Botswana is the only country in Africa that has succeeded in holding uncontested elections throughout its independence history. Its leadership recognised as far back as 2005 that having abundant diamonds without political stability and economic vision, they could not deliver Botswana's economic growth (Barclay, 2009). This explains the high score for Botswana's governance as shown in Figure 2.5 and Figure 2.6.

In 2011, Botswana received its highest FDI inflows from De Beers of investment in diamond processing infrastructure. However, its GDP plummeted due to poor diamond exports because of low market prices. According to UNCTAD report of 2018<sup>4</sup>, Botswana's GDP was US\$14.4 billion in 2018. FDI flows to Botswana increased from

---

<sup>4</sup> United Nations Conference on Trade and Development Global Investment Trends Monitor Report <https://unctad.org/en/PublicationsLibrary/>

US\$ 177 million in 2017 to US\$ 229 million in 2018. Diamond mining is the largest conduit of FDI flows to Botswana, with revenues from diamond exports providing anchor to the Botswana fiscus. Botswana has also managed to diversify its economy, with a lot of focus going into the service economy.

**c) Democratic Republic of Congo [DRC]**

Located north of Zambia, DRC boasts vast mineral resources. Though ranked among the highly indebted poor countries, the DRC has implemented sound macro-economic policies to create an enabling environment for economic development and growth to take place. Between 60-80 percent of FDI stock is represented in mining. Foster & Benitez (2011) assert that political instability; poor public infrastructures (road & telecommunication) and continued armed insurgencies in some parts of the country continue to spook investors, who often have to invest heavily in private security to secure their mines.

Garrett and Lintzer (2010) lamented that lack of political reforms, poor governance (as shown in Figures 2.5 and 2.6 ) due to interference by the political elite in pursuit of narrow personal interests, high country risk and poor economic policies all hamper the ability of the Katanga mineral region to deliver the economic growth it is capable of. Despite its poor governance, mineral extraction activities remained quite high in the period as shown in Figure 2.4 due to high global demand for copper cobalt and gold mined in the DRC.

From the UNCTAD 2018 report, well in excess of US\$5.0 billion is required to rebuild dilapidating infrastructure as well as build new one. Bureaucratic inefficiencies and poor state capacity remains huge concerns (Foster & Benitez, 2011).

**d) Lesotho**

Lesotho, a country completely enclosed within the boundaries of South Africa and heavily dependent on it for its economic fortunes has its economy based on livestock production, mining and manufacturing. About 60 percent of its exports are to South Africa, while 90 percent of its imports come from South Africa (Hassan & Ojo, 2002). The South African Reserve Bank controls the currency of Lesotho, along with the currencies of Eswatini and Namibia. According to Malefane and Odhiambo (2016), Lesotho's growth policy has been shaped by the need to pursue export-growth led by

the private sector. The Lesotho administration has therefore gone on to implement liberal policies targeted at attracting FDI and expanding export activities beyond export of manufactured goods.

From UNCTAD 2018 report, Lesotho's FDI inflows were below US\$4 million between 1980 and 1988 because the effects of the apartheid systems prevented investors from coming into the country. Since the IMF stabilisation programme of 1988, FDI inflows increased and reached US\$21 million towards the end of 1988 and have further increased to US\$126 million in 2015. However, compared to other SADC countries, Lesotho receives the lowest FDI due to challenges, such as a high wage bill, that impede the country from attracting FDI (Mugowo, 2017).

#### **e) Madagascar**

Madagascar is an island state categorised among the highly indebted poor countries. Since mid-1980s, the Malagasy government has been pursuing economic growth through economic and financial liberalisation (Cadot & Nasir, 2001). Export Processing Zones (EPZs) were established to promote exports, resulting in growth averaging 4.1 percent of GDP from 1995 to 2000. In spite of growth of manufactured exports, the Malagasy economic growth was centred on transportation, construction and non-tradable sectors, with manufacturing still low. As a result, Madagascar embarked on a five-year economic development strategy, Madagascar Action Plan) to stimulate its economy (Ravelosoa et.al, 2015).

However, FDI flows continued falling over the period under study due to low investment activity, dropping to US\$907 million in 2011, and its lowest level of US\$ 612 million in 2018. The GDP also fell sharply due to lower economic activity. Madagascar is ranked negative in its governance due to political instability that continues for protracted periods, spooking investor confidence. However, according to UNCTAD 2018 report, Madagascar's hostile weather conditions, political turmoil, lack of property rights and failure to invest in technology and innovation has hampered FDI flows to Madagascar. The highest FDI ever recorded in Madagascar was US\$1.2 billion in 2008.

#### **f) Malawi**

Also ranked among the highly-indebted poor countries, the economy of Malawi is predominantly agro-based. Export of tea, coffee, sugar and tobacco account for 28 percent of its GDP while service contributes 33percent. Manufacturing and mining sectors contribute 10 percent and 2 percent respectively as reported in UNCTAD, 2016<sup>5</sup> report. Despite restructuring and privatising the economy to lure FDI, concerns remain that other dominant SADC countries with large mineral deposits continue to overshadow Malawi and stifle its efforts to attract FDI to itself due to its land-locked location, poor infrastructure and occasional political instability (Kazembe & Namizinga, 2007). FDI flows to Malawi reached the highest level of US\$ 599 in 2014, up from US\$ 446 million in 2013. Ever since then, the FDI flow has been shrinking to a low of US\$102 million in 2018 according to the UNCTAD 2018 report. The most pressing constraint to economic growth in Malawi remains the regime of exchange rate management and the fact that 50percent of revenue inflows are from donor funds which cannot be relied on due to donor conditions that must be met (Lea & Hanmer, 2009).

#### **g) Mauritius**

Mauritius, like Madagascar is an island country. Unlike Madagascar, it is ranked among the upper middle-income countries. It has a successful manufacturing sector, a well-developed export-processing zone supported by sound macroeconomic policies which serve to cushion it from external shocks (Frankel, 2012). Mauritius has a very small mining sector which is very insignificant compared to other SADC countries. The country maintains a consistent growth rate of around 5.5 percent and manages to weather external economic shocks from time to time (Zafar, 2011). Mauritius scores high in governance due to its sound socio-politico and legal environments which are attractive to investors as shown in Figure 2.5 and Figure 2.6.

The UNCTAD 2016 and 2018 reports indicate that its per capita income jumped from US\$1 000 (1982) to US\$22 570 (2018) owing to its sound economic policies. In 2018, FDI flows to Mauritius reached nearly US\$ 372 million and decreased

---

<sup>5</sup> United Nations Conference on Trade and Development Global Investment Trends Monitor Report <https://unctad.org/en/PublicationsLibrary/>

compared to the previous year, USD 443 million in 2017. Mauritius has to address policies related to approval of foreign investment if it is to make further inroads in attracting more FDI. Its Non-citizens (Property Restriction) Act restricts property rights by foreign investors.

#### **h) Mozambique**

Mozambique is classified as a low-income nation, which like Angola, emerged from a civil war in 1992. Upon embracing economic reforms after the civil war, Mozambique's economy began to grow at a rate, averaging 7.5 percent until the GDP reached an estimated US\$14.8 billion in 2015. According to Peiris and Clément (2008), Mozambique is poised to grow its economy further given its relentless focus on post-conflict development and the need to meet the Millennium Development Goals (MDGs) set by the United Nations. Its post-conflict economic development model is premised on scaling up foreign aid, implementing appropriate macroeconomic policy mix, public finance reforms, access to international capital markets, reducing the cost of doing business and improving competitiveness and policy on natural resource use. Mozambique's mining industry is still small compared to other SADC countries. The sector is expected to grow as the country overcomes a number of institutional challenges to exploit vast deposits of high-quality thermal and coking coal, aluminium, graphite, iron ore, titanium, apatite, marble, bentonite, bauxite, kaolin, copper, gold, rubies, and tantalum. Figure 2.3 shows significant increases in FDI flows between 2010 and 2013 as investment went into expansion of its Liquefied Natural Gas sector.

Oil and gas exploration and extraction account for over 3.0 percent of FDI inflows to Mozambique. Though the country has tremendous potential, economic development suffers from lack of qualified workforce, poor state capacity and increased sovereign debt, high dependence on imports, poor financial markets and excessive focus on the extractive sector. These are priorities that the Mozambican government is working hard to address in order to realise its economic growth ambitions.

#### **i) Namibia**

Namibia, ranked among upper middle-income countries in Africa, has flourishing economic ties with South Africa and Germany, which enable high flows of FDI to the country. Since independence from South in 1990, Namibian pursues fiscal strategy

premised on economic growth and development. Its GDP growth rate has been relatively low, averaging just over 3.0 percent per annum. Namibia's economic growth is premised on developing financial markets and financial intermediaries (Sunde, 2013). This is required to fund a fast-growing industrialisation program. Namibia has also established a 200 mile expanse of exclusive economic zones (EEZ) along Walvis Bay to control fishery industry.

Namibia has a mixed economy with mineral extraction increasing in significance as shown in Figure 2.4. Its mining industry contributes over 32 percent to GDP and over 75 percent of export earnings. Namibian mines are mostly owned by South African mining houses, making the link between Namibian and South African capital markets very important. According to the UNCTAD 2018 report, FDI flows to Namibia dropped to USD 196 million in 2018 from USD 461 million recorded in 2017. Namibia continues to be a key member of the Southern African Customs Union (SACU) and derives full benefits from that membership in terms of economic linkages and growth.

#### **j) Seychelles**

Seychelles is an island with a middle-income economy. Even though it is highly indebted, it enjoys a high income per capita of US\$14,680 and grossed a gross domestic product US\$ 42.0 billion in 2015<sup>6</sup>. In 1997, Seychelles' economy grew by 15 percent but slowed down in the 2000s. Figure 2.3 shows a spike in FDI flows into Seychelles due to increased investment in the services sectors such as retailing, telecommunications, energy and tourism. According to the UNCTAD 2018 report, Seychelles recorded its highest ever FDI flow of US\$ 239 million in 2007. Since then, FDI gradually dropped to US\$192 million in 2017 and US\$124 million in 2018. Seychelles remains vulnerable to external shocks and adverse weather conditions that typically affect island countries. Hamori and Razafimahefa (2003) established from their research that trade openness is a key economic growth factor for island economies like that of Seychelles.

---

<sup>6</sup> World Bank. (2018). Madagascar foreign direct investment. Tcdata 360. <https://tcdata360.worldbank.org/>

## **k) South Africa**

South Africa is an upper middle-income country with a well-diversified economy. Figure 2.2 shows that South Africa has the highest GDP per capita in the SADC region. It is the largest economy in the SADC region and holds about 50 percent of the region's total gross domestic product. However, due to poor government management between 2009 and 2017, its economy has slowed from 1.3 percent GDP growth rate recorded in 2015 to 0.7 per cent in 2018.

Though South Africa's priority is to attract FDI (Matjekana & Masipa, 2015), the country has not been consistent in its economic policy framework to attract FDI. Lewis (2001) opines that there is a general perception in the country that the economy has underperformed in real terms since 1994 due to its failure to deliver sustainable jobs to the majority of the population. Poverty remains pervasive, with over 30 percent of the population on a state grant of one form or another to cushion them from the ravages of a poorly-performing economy.

South Africa's complex political governance system that depends on multi-stakeholder consensus on economic policies makes policy certainty a difficult reality. The ruling alliance which runs government does not always agree on key economic policies, making policy decision-making and implementation a distant possibility. Investors cite this impasse as one of major hindrances to investment in the country. As a result, FDI received by South Africa remains low in proportion to its GDP (Mahembe, 2014).

According to UNCTAD 2018 report, foreign direct investment into South Africa grew by 446 percent to \$7.1 billion in 2018. Unstable power supply, debt-stricken state-owned companies, volatile labour environment, lack of consensus among national stakeholder groups on how to unlock the economy, poor investor confidence will continue to drive FDI flows down.

## **l) Swaziland (Eswatini)**

Swaziland, renamed Eswatini in 2019, is a very small land-locked country whose economy thrives predominantly from sugar exports. Eswatini's gross domestic product and gross national income per capita were in 2015 estimated at US\$4.1 billion and US\$3,280 respectively according to UNCTAD 2016 report. Eswatini's economic

fortune, like that of Lesotho and Namibia relies on that of South Africa. The population growth rate of the country averages 2.9 percent per annum yet its GDP has been in continuous decline due to weak economic performance, low agricultural productivity, political instability and curtailment of civil liberties which is frowned upon by investors (Masuku & Dlamini, 2009). Eswatini's poor attraction of investors and FDI is also attributed to its poor trade-openness and poor economic infrastructure.

Eswatini's FDI inflows have been the lowest in the region. To lure FDI in the country, Eswatini's government established the Swaziland Investment Promotion Authority (SIPA). However, the costs of doing business, poor human rights records, lack of democracy and its landlocked location hampers FDI attraction. Figure 2.5 and Figure 2.6 show how poorly Eswatini ranks in terms of political and legal governance. Figure 2.4 shows very little mineral resource extraction activity due to its very small mining sector. Foreign Direct Investment in Swaziland averaged US\$1.32 Million from 2012 until 2019, reaching the highest level ever of US\$ 52.9 Million in 2018 (UNCTAD, 2019).

#### **m) Tanzania**

Tanzania is a low-income country, which for the past 15 years has enjoyed unprecedented economic stability. Its government embarked on economic restructuring to free the economy from tight regulatory controls that had hampered the economy for a long time (Kabelwa, 2006). Figure 2.5 and Figure 2.6 show such a poor perception on Tanzania's governance given a stranglehold on civil liberties which originated from its pro-communist political orientation during early independence days.

The Tanzanian economy was characterised by low output growth, low productivity efficiencies, low capacity utilisation, poor export performance due to a highly regulated economic environment, (Gabagambi, 2013). Following Tanzania's reforms in 1986, there has been a steady economic growth rate of 6 percent. Tanzania established an investments and promotion centre [IPC]; and launched the mining policy to regulate investments and activities in the mining sector. Figure 2.4 shows a rather low activity in mineral extraction in relation to GDP as a result of the government's firm control over the mining sector. The current president has tightened the grip on the mining sector after accusations that Acacia Mining was under-declaring taxes to government.

According to UNCTAD 2018 report, Tanzania achieved a GDP growth of 6.8 percent on the back of FDI flows which jumped significantly from about US\$417 million in 2006 to US\$ 1.10 billion in 2018. However, high-energy costs, unreliable supplies, and unstable government policy particularly relating to the mining sector, continue to hamper economic activity as shown by a rather muted mineral extraction activity compared to Zambia and DRC as shown in Figure 2.2.

#### **n) Zambia**

Zambia is a lower-middle income country whose economy has enjoyed some economic resurgence on the back of rising copper prices. Its economy enjoyed annual growth rate averaging 6.4 percent between 2010 and 2014 because of prudent monetary policies that ushered price stability in the market. In addition, foreign investment in manufacturing and mining sectors, upgrade of road and telecommunication infrastructure and rapid expansion in the private sector have all contributed to the country's growth.

A research conducted by Maliwa and Nyambe (2015) revealed that there was no positive effect on economic growth by FDI flows into Zambia. This could be explained by the failure of the Zambian government to meet other preconditions for FDI flows such as good governance, sound infrastructure and trade openness and so forth. Figure 2.5 and Figure 2.6 paint a bleak picture on Zambia's governance which is explained by political intolerance by the ruling party. This is deterioration from the gains made in the period from 1991 when the advent of multi-party democracy ushered political and economic reforms. However weak financial markets, unstable currency and weak government institutions made it difficult for the results of economic reforms to be sustained. The country then receded into economic deterioration resulting in a change of government in 2002 which then began to rebuild the economy. Ever since, buoyed by improving copper prices on the international market, investment began to flow into Zambia's copper mines. However, Figure 2.3 shows FDI inflows as a percentage of GDP continuing to fall from 2013 due to falling copper prices.

According to the UNCTAD 2018 report, the FDI flow to the country increased from just over US\$1.0 billion received in 2011 to US\$1.7 billion in 2015, compared to US\$1.3 billion received in 2007 before the global economic challenges of 2008 / 2009.

However deteriorating investor confidence, steep rises in cost of electricity and soaring sovereign debt levels and high fiscal deficit saw the FDI drop to US\$ 408 million in 2018. In addition, overdependence on mineral and commodity exports are major challenges to the economy that might not have interventions to hedge against in the event of adverse external shocks.

#### **o) Zimbabwe**

Zimbabwe has suffered protracted economic woes since late 2005 to the current dispensation. The country's uncompetitive policies and political instability continue to hamper the country's growth prospects. Since 1990, Zimbabwe's efforts to stimulate the economy failed to deliver the required growth, in spite of implementing a series of economic policies. The country still faces numerous challenges in attracting FDI as it continues to battle liquidity problems, crippling power shortages, poor infrastructure and political uncertainty. Sikwila (2015) established that FDI flows into Zimbabwe were linked to mineral resource-seeking. The trade openness, political stability, domestic investment, inflation were found to be statistically significant and explained the reason why despite the high resource endowment of the country, FDI flows remain low compared to other SADC countries as shown in Figure 2.3. Figure 2.5 shows a very poor perception on governance due to Zimbabwe's volatile political situation.

The country had an estimated GDP of US\$14.42 billion and GNI per capita of US\$860 in 2015. According to UNCTAD 2016 report. However, UCTAD 2018 report indicated that total FDI flow to the economy peaked at US\$745 million, up from US\$349million in 2017. The macro economic, social and political problems highlighted above continue to spook investors, denying Zimbabwe the much-needed FDI flows.

#### **2.4.4. Factors that affect FDI flows in the SADC region**

##### **2.4.4.1 Governance**

Over the past decade, SADC member states have had to grapple with governance and political legitimacy issues. SADC is confronted with governance challenges because the interests of those in control of the economy differ significantly from the interests of people or firms that supply the external finance (Okeahalam & Akinboade, 2003). Institutional factors such as unpredictability of laws, regulations and policies,

excessive regulatory burden, government instability and lack of capacity and commitment play a significant role in deterring FDI.

Then there is governance in organisations and the culture of enforcement of sound governance principles in organisations, both private and public. Without sound national corporate governance mechanisms in place, it would be difficult to create an environment in which the goals of all stakeholders were balanced (Cochran & Warwick, 1988). Effective corporate governance mechanisms enforce accountability among all stakeholders and protection of investor interests.

Corporate governance requires processes, systems, practices and procedures, rules and regulations, put in place and strictly adhered to (Oman, 2001). Functional and effective corporate governance provides shareholders with a level of assurance that the organisation is run in a manner that ensures creation of shareholder value whilst safeguarding stakeholder interests (Iimi, 2007).

#### 2.4.4.2 Infrastructure

Socio-economic and technological infrastructure is a prerequisite for FDI flow to SADC. Khadaroo and Seetanah (2007) concluded from their study that transport among other infrastructures, has a positive influence on FDI flow into Sub Saharan countries. Shah (2014) researched into the relationship between infrastructure and FDI flow in developing countries and found that there is a dynamic and mutual relationship between infrastructures, particularly telecommunications, with FDI flow into the country. Ali et al (2018) indicated that the higher the level of development of infrastructure, the higher the level of FDI flow attracted. Foreign investors prefer to invest in countries that have well-developed public infrastructure such as schools, healthcare centres, networks of roads and bridges, airports, water supply, power supply, telecommunication services and Internet access, public transport and other socio-economic infrastructures such as shopping centres, entertainment places. Poor infrastructure hampers trade and deters investment Hailu (2010).

#### 2.4.4.3 Natural Resource endowment (mineral resources)

Suleiman et al (2015) determined from their investigation of the determinants of FDI inflows for the Southern African Customs Union (SACU), that natural resource

endowment and trade openness are positive and important predictors of FDI flow to SACU. In the same vein, Vinesh et al (2014) also determined that natural resources have a similar effect on FDI flows to the Southern African Development Community. The results from the two studies above are aligned, since the SACU member countries are also member countries of SADC. Aregbesola (2014), Adelakun (2011) in their studies found that the share of mineral exports to total exports, which is used as a proxy for mineral endowment, is an important determinant of FDI flows into mining and contributor to economic growth of the country. Prior studies by Dupasquier and Osakwe (2003), Asiedu (2006) and Boschini et al (2007) also found that mineral resource endowment has a negative effect on economic growth for countries receiving FDI flows into mineral resources sector.

#### 2.4.4.4 Gross Domestic Product (GDP)

Vinesh et al (2014) concluded from their study that, gross domestic product is one of the most significant determinants of FDI in SADC. They determined that FDI inflows to Africa represent a small proportion of FDI flows to other regions of the world, Asia, Latin America and Europe and North America. Mahembe and Odhiambo (2016) established from their research that economic development drives FDI into SADC. SADC's economic activities are heavily dependent on flow of goods and investment between the region and other regions.

#### 2.4.4.5 Exchange Rates

The exchange rate between a country's currency and major currencies such as United States dollars, Euros and others has impact on the stability of a country's macro-economic environment (Buckley et al., 2007). A stable exchange rate creates a stable pricing environment and predictability in the value of imported and exported. A depreciated local currency increases the buying power of foreign denominated currencies, making it attractive for external investors to invest in the country. A stronger local currency has the opposite effect on investment. FDI is likely to flow to countries with stable exchange rate regimes. Jenkins and Thomas (2002) state that exchange rates, as part of economic policy of a country are a prerequisite of FDI attraction to the country. They further state that volatile exchange rates are indicators of an unstable macroeconomic environment.

#### 2.4.4.6 Consumer Price Index - Inflation (CPI)

Fourie and Mohr (1995) define inflation as percentage movement in the weighted average of prices of a basket of consumer goods and services for example, food, public transport, and other domestic service. Inflation is a proxy for a country's economic policy and a credible indicator of the effectiveness of such policy. Investors may be more inclined to invest in countries with stable policy frameworks, which provide greater certainty to management of the economy. Ali et al (2018) found inflation to have a negative correlation with FDI. Tsaurai (2018) also established that inflation negatively impacted FDI flows into the SADC region, but in a non-significant way.

#### 2.4.4.7 Exports

Investors all over the world are seeking investment opportunities in businesses that are export-oriented. Countries that have introduced export-friendly policies and incentives may be able to attract FDI. Research has revealed strong positive correlation between FDI and exports. Countries that have built strong and sustainable export-oriented economies have the capacity to attract high FDI inflows (Ahmed, Cheng & Messinis, 2007). According to (Zhang, 2005), multinational companies have greater export potential than local companies as they have access to their home countries and other global markets and also have the skills, technology and global contacts that they can leverage to the benefit of their business.

#### 2.4.4.8 Trade openness

This refers to a country's ability to allow free flow of goods and capital into and out of the country through removal of restrictive controls on the movement of goods and capital. Therefore, the extent to which an economy is open can be a powerful instrument to attract FDI. Vinesh et al. (2014) found in their research that trade openness among other factors is a significant determinant of FDI for SADC. If the economic, legal and infrastructure frameworks in a particular country are weak or ineffective, foreign investors are driven away, but if the frameworks are effective, positive and significant FDI inflows are realised (Karau & Mburu, 2016). Moyo and Khobai (2018) state that one of the objectives of SADC is to promote trade openness between member states and foreign investors. Trade openness boosts economic

growth, particularly where government institutions are of high quality and are accountable for their actions.

#### 2.4.4.9 Taxes

A variation in tax rates and tax policies indicates increased tax competition as countries seek to create conducive conditions for FDI (Fourie & Mohr, 1995). On the other hand, improved harmonisation in taxes and policies is an indication of reduced tax competition. Taxation gives the state the capacity to fund public infrastructure and social programmes that benefit business and the civic society. Currently SADC member states collect and administer their own taxes. Governments can use tax as a powerful instrument to attract FDI by extending special tax incentives, such as tax holidays, preferential tax rates or tax rebates for investing in specified sectors.

SADC member states may attract FDI as a bloc by harmonising their tax policies and practice and offering standard tax package that will enable mining investors to invest in multiple SADC companies like Glencore has done, where it has operations in South Africa, Zambia and DRC. This makes it possible for Glencore mines to build synergies across its operations in multiple countries, transfer skills and technology as well as share best practice across multi-country operations. For example, Glencore mines copper ore in the DRC, ships it to Kitwe Zambia for processing at its smelter at Mufulira. Mooij and Ederveen (2001) posit that effect of taxes on FDI can vary substantially. It depends on the type of tax, the way FDI activities are measured and treatment of tax in both the host and parent countries.

## 2.5 Chapter Summary

This chapter explored various FDI theories and models underpinning this research. The theories include Production Life Cycle, Knickerbocker's FDI theory, Theory of Exchange Rates on Imperfect Capital Markets, Internationalisation Theory and the Theory of Institutional FDI Fitness. The chapter also discussed the research concepts, including exploration of the SADC region, FDI, and the factors potentially influence flows of foreign direct investment into the SADC region. The following chapter covers research methodology and its related topics.

## CHAPTER THREE: RESEARCH METHODOLOGY

### 3.1 Introduction

The preceding chapter focused on literature that informed FDI in the SADC region. This chapter discusses the research design and methodology used in the study to collect, analyse and interpret data, as well as the research philosophy adopted in the research.

### 3.2 Research Philosophy

Research philosophy is a set of common beliefs and agreements shared between scientists on how problems should be understood and addressed (Kuhn, 1962). There are five types; pragmatism, critical realism, interpretivism, postmodernism and positivism (Saunders et al., 2009). The first four philosophies are abstract and humanistic in nature and are based on thinking and making qualitative judgements. In contrast, a positivist philosophy uses the premise that only factual knowledge gained through observation, including measurements can be trusted. The role of the researcher in a positivist philosophy is confined to data collection and objective interpretation of the data. Therefore, this study used a positivist philosophy by which data collected was analysed through statistical computations (De Vos, Strydom, Fouche & Delport, 2011).

### 3.3 Research Method

For the purpose of this study, quantitative research method is adopted for analysing the effect of mineral resources on foreign direct investment (FDI) inflows to mineral resource-endowed countries in SADC. The study applies detailed descriptive statistics, summary statics and correlation analysis to fully understand the behaviour of the variables of interest, before deploying the analytical technique used in analysing the variables.

This study uses a panel regression analysis on 15 SADC countries for the period 2010-2018 to establish the relationship between FDI inflows and the relevant independent variables, as well as some control variables identified in the literature review. Data is analysed using generalised method of moments (GMM) regression technique, a time

dynamic analytical technique. A time dynamic technique (GMM) is adopted due to the time varying behaviour of FDI and other economic and country specific variables relevant to this study.

GMM considers heterogeneity as well as determines possible causation between variables. GMM accounts for heteroscedasticity and applies approaches that naturally cater for both estimation and sampling errors, accommodates unbalanced panels and multiple endogenous variables (Doornik et al., 2002; Hansen, 2007; Roodman, 2009a, 2009b). GMM estimations generate efficient and reliable and efficient estimator relative to other regression techniques (Baum, Schaffer, & Stillman, 2003, 2007; Siddiqui & Ahmed, 2013). Due to the presence of heteroscedasticity and serial correlation, which are major concerns in panel data analysis, two-step GMM estimation is required, based on that, this study applies two-step GMM estimator throughout the regression analysis.

### 3.4 Sampling Strategy

To study FDI inflows in mineral resource-rich countries in the SADC region, non-probability purposive sampling is used to select the 15 SADC member countries under review. A non-probability purposive sampling technique is usually applied because the research wants to balance the need for efficient data sample and data availability. Therefore, purposive sampling method is deployed in this research to ensure reliable research findings.

The countries included in this study are Angola, Botswana, DRC, Eswatini (Formerly Swaziland), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe. The sample period spans from 2010 to 2018, a period immediately after the world economic crisis of 2008 in which investors began to invest in economic opportunities such as mineral extraction. The SADC secretariat had put in place a number of economic and social enhancement programs to position SADC to attract FDI as a region after the recent global financial crisis. Therefore, this study examined the extent of FDI flows into these countries subsequent to the enactment of some of the FDI enhancement programs after the most recent global financial crisis.

### 3.5 Data Collection

Economic data for the period 2010-2018 was collected from the African Development Bank Governance databases as well databases of the World Bank namely World Development Indices (WDI), Worldwide Governance Indicators (WGI) developed by Kaufmann, Kraay & Zoido-Lobaton (1999).

Table 3.1: Variables of interest and sources

| Variable | Measurement                                                                                                        | Source                      |
|----------|--------------------------------------------------------------------------------------------------------------------|-----------------------------|
| FDI      | Foreign direct investment net inflows (as a percentage of GDP)                                                     | World Development Indicator |
| MRent    | Mineral Resource endowment as a percentage of GDP                                                                  | African Development Bank    |
| MEXP     | Share of ore & mineral exports to total exports                                                                    | World Development Indicator |
| IDEV     | Infrastructure development Index                                                                                   | African Development Bank    |
| Trd_Open | Trade openness as a percentage of GDP, to measure how attractive a country is to FDI                               | World Development Indicator |
| GDP_Gr   | GDP growth rate as a measure of economic development                                                               | World Development Indicator |
| CPI      | Consumer price index used a measure of inflation and proxy for the effectiveness of a government's economic policy | World Development Indicator |
| GVP      | Aggregate governance index –Political                                                                              | World Governance Indicator  |
| GVL      | Aggregate governance index –Legal                                                                                  | World Governance Indicator  |

Note: Table 3.1 shows the measurement of variables used in the study and the source of the data used.

IDEV is a weighted average of nine indicators of infrastructure covering four key components: electricity, transport, information and communications technology (ICT), and water and sanitation.

GVP is an average of the three political infrastructures of the six governance variables developed by Kaufmann, Kraay & Zoido-Lobaton (1999). The three political infrastructures include; Voice & Accountability, Political Stability & Absence of violence / terrorism, and Control of corruption.

GVL is an average of the three legal infrastructures of the six governance variables, they include; Government effectiveness, Regulatory quality, and Rule of Law

GVP and GVL reflect the political and governance of the sampled countries, which could have effect on the flow of FDI into those countries.

### 3.6 Data Analysis and model specifications

The process of analysing data entails cleaning, coding and logical reasoning on raw facts to produce meaning (Bogdan & Biklen, 2003). Descriptive analysis is conducted

on the data and summary statistics used to summarize statistical information about the data.

Building on previous studies in literature on traditional neo-classical growth models (Sachs and Warner, 1995), this study modifies the economic growth model developed by Mahonye and Mandishara (2015) to analyse the impact on FDI flows from a modified set of independent variables that include; GDP growth, mineral resource endowments, real growth of mining, share of mineral exports to total exports, inflation, Exchange rate, infrastructural development, trade openness and governance (political and legal frameworks). The model was estimated using Generalized Method of Moments (GMM) approach. This objectives of this study are to firstly; determine the impact of mineral resources on FDI flow into SADC region and secondly, determine how governance institutions enhance the influence of mineral resources on FDI. Mineral resources is measured in terms of mineral endowment as a percentage of GDP (MRent) or Mineral exports as a percentage of total exports (MEXP). Governance is represented by political and legal indices, GVP and GVL which are defined below. The model is specified in such a way that these 4 variables are controlled during regression. The Independent variables GDP growth, Inflation and trade openness do not need to be controlled.

Therefore, the following panel model specifications are specified for the different scenarios needed to test the influence of predictor variables on FDI:

$$FDI_{it} = \alpha_i + \beta_1 MRent_{it} + \beta_2 GDP\_Gr_{it} + \beta_3 CPI_{it} + \beta_4 Trd\_Open_{it} + \beta_5 GVP_{it} + \beta_6 IDEV_{it} + e_{it} \dots (1)$$

$$FDI_{it} = \alpha_i + \beta_1 MRent_{it} + \beta_2 GDP\_Gr_{it} + \beta_3 CPI_{it} + \beta_4 Trd\_Open_{it} + \beta_5 GVL_{it} + \beta_6 IDEV_{it} + e_{it} \dots (2)$$

$$FDI_{it} = \alpha_i + \beta_1 MEXP_{it} + \beta_2 GDP\_Gr_{it} + \beta_3 CPI_{it} + \beta_4 Trd\_Open_{it} + \beta_5 GVP_{it} + \beta_6 IDEV_{it} + e_{it} \dots (3)$$

$$FDI_{it} = \alpha_i + \beta_1 MEXP_{it} + \beta_2 GDP\_Gr_{it} + \beta_3 CPI_{it} + \beta_4 Trd\_Open_{it} + \beta_5 GVL_{it} + \beta_6 IDEV_{it} + e_{it} \dots (4)$$

Where:

FDI = Foreign direct investment (Inflows)

MRent = Mineral resources endowment as a percentage of GDP

MEXP = mineral exports to total exports

GDP\_Gr = GDP growth rate

CPI = Consumer price index inflation rate

Trd\_Open = Trade openness as a percentage of GDP

GVP = Political Governance

GVL = Legal Governance

i = represents the country (i=1, 2...15)

t = represents time in year (t = 2010, 2011...2018)

$\alpha_i$  = is an intercept, and

$\epsilon_{it}$  = is the error term.

MRent and MEXP measure the resource endowment differently; therefore, we would like to find out if the different measures of resource endowment affect FDI inflows differently. Thereby, making us to run different models for the two variables to determine their independent effects on FDI. In addition, to find the differential effects of political and legal governance on FDI, we also run different models for the two variables. However, the two variables are highly correlated and cannot be included in the same model (see Table 4.2),

### 3.7. Model fitness test

To check and correct for the presence of autocorrelation and fitness of the model in the analysis, the post estimation technique of Arellano-Bond tests AR (1) and AR (2) were used. The AR models, especially AR2 are useful for determining the existence of autocorrelation in panel data analysis, according to Arellano & Bond (1991). To check for over identification of the GMM model, the Sagan test is applied. The P-Values for both Sagan test and AR1 are not significant in all the models, indicating that the models are fit and have no autocorrelation, respectively.

### 3.8 Chapter Summary

This chapter discussed the research design and methodology deployed in the study. The generalised method of moments (GMM) regression technique was used as the empirical statistical estimation technique on Stata (version 16) software. Four econometric models were developed using FDI as the dependent variable and the following as explanatory variables; share of mineral exports, mineral resource endowment, infrastructure development, trade openness, GDP growth rate, consumer price index, and governance indices based on legal and political dimensions. The next chapter details presentation and interpretation of results.

## CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF RESULTS

This chapter details descriptive statistics, as well as, the regression results from generalized method of moments (GMM) models specified in chapter 3.

### 4.1: Descriptive statistics

#### 4.1.1: Summary statistics

Table 4.1 contains the summary statistics of variables under study. Inflation, trade openness, Infrastructure development and mineral exports have very high standard deviations, signifying the large extent to which their values spread away from their mean values. This is an indication of the huge disparities that exist between countries in the same geographic region. The SADC secretariat still has a lot of work to do to narrow the gaps between member states in these variables that are crucial for attracting FDI to the region. However, FDI, mineral endowment, GDP growth rate and political and legal governance have significantly lower standard deviations signifying that they are close to their mean values. The mean for the two governance variables, (GVP and GVL) are negative. This signifies that the majority of states in SADC face perceptions of poor governance. This is in line with revelations in Figure 2.5 and Figure 2.6 in section 2.4.3 in which only South Africa, Namibia, Botswana and Seychelles have positive perceptions on both their political and legal governance infrastructures.

Table 4.1 Summary statistics of study variables

| Variable | Obs | Mean      | Std. Dev. | Min       | Max      |
|----------|-----|-----------|-----------|-----------|----------|
| FDI      | 125 | 5.610605  | 8.604234  | -6.057209 | 57.83755 |
| MRent    | 135 | 2.779939  | 4.830091  | 0         | 19.50502 |
| MEXP     | 117 | 19.43579  | 21.78205  | 0         | 85.97306 |
| IDEV     | 135 | 29.16219  | 24.6866   | 4.83      | 94.32366 |
| Trd_Open | 128 | 91.41864  | 36.47595  | 32.23894  | 216.4832 |
| GDP_Gr   | 135 | 4.159009  | 3.220147  | -3.1      | 19.67532 |
| CPI      | 122 | 136.548   | 47.97352  | 100       | 382.5008 |
| GVP      | 120 | -.2319166 | .6959907  | -1.720703 | .8568905 |
| GVL      | 120 | -.4144205 | .6881821  | -1.801942 | 1.027915 |

Note: Table 4.1 displays summary statistics for all countries. The variables are defined in Table 4.1

#### 4.1.2: Correlation matrix analysis

Table 4.2 gives the correlations between the variables under study. The correlations between the variables range from insignificant (below 0.2) to moderate relationships (below 0.7). According to the rule of thumb by Krehbiel (2004), the correlation coefficient that indicates a strong positive linear correlation is at least 0.7. Therefore, all variables with correlation coefficients below 0.7 are deemed moderately correlated and acceptable for use in the model. However, there is a very high correlation between political governance (GVP) and legal governance (GVL). Therefore, these two variables will be added to a model at intervals. This will also give us the room to identify the differential effect of legal and political governance on FDI. Apart from these two governance indicators, every other variable exhibits low correlation among each other. The generally-low coefficients of correlation signify the absence of collinearity, a very important pre-condition for the reliability of the model to produce credible results.

One would expect FDI and resource endowment measure to be significantly correlated as they trend along from our trend analysis results, but that is not the case as we notice from the correlation matrix (Table 4.2). However, correlation analyses are not the best models to make final informed decision on the effects of mineral endowment on FDI. The estimation models in the next section will provide a more reliable estimation.

Table 4.2: Correlation matrix of study variables

|          | FDI                 | MRent               | MEXP                | IDEV                | Trd_Open            | GDP_Gr              | CPI                 | GVP                | GVL             |
|----------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|-----------------|
| FDI      | 1.0000<br>-----     |                     |                     |                     |                     |                     |                     |                    |                 |
| MRent    | -0.0492<br>(0.5857) | 1.0000<br>-----     |                     |                     |                     |                     |                     |                    |                 |
| MEXP     | 0.1307<br>(0.1657)  | 0.3565<br>(0.0001)  | 1.0000<br>-----     |                     |                     |                     |                     |                    |                 |
| IDEV     | -0.0176<br>(0.8458) | -0.2360<br>(0.0059) | -0.2376<br>(0.0099) | 1.0000<br>-----     |                     |                     |                     |                    |                 |
| Trd_Open | 0.3582<br>(0.0001)  | -0.2780<br>(0.0015) | -0.3006<br>(0.0010) | 0.4949<br>(0.0000)  | 1.0000<br>-----     |                     |                     |                    |                 |
| GDP_Gr   | 0.1516<br>(0.0914)  | 0.0934<br>(0.2813)  | 0.2353<br>(0.0106)  | -0.0899<br>(0.3000) | 0.1110<br>(0.2122)  | 1.0000<br>-----     |                     |                    |                 |
| CPI      | -0.1496<br>(0.1089) | -0.1534<br>(0.0917) | -0.0851<br>(0.3856) | -0.1680<br>(0.0643) | -0.2716<br>(0.0032) | -0.2742<br>(0.0022) | 1.0000<br>-----     |                    |                 |
| GVP      | 0.0550<br>(0.5510)  | -0.3645<br>(0.0000) | -0.0113<br>(0.9054) | 0.6025<br>(0.0000)  | 0.4404<br>(0.0000)  | 0.0142<br>(0.8780)  | -0.1190<br>(0.2135) | 1.0000<br>-----    |                 |
| GVL      | -0.0136<br>(0.8824) | -0.3495<br>(0.0001) | -0.1449<br>(0.1257) | 0.6715<br>(0.0000)  | 0.3578<br>(0.0001)  | -0.1039<br>(0.2586) | -0.1143<br>(0.2324) | 0.9369<br>(0.0000) | 1.0000<br>----- |

Note: Table 4.2 displays correlation matrix of all variables, p-values are in parentheses.

## 4.2: GMM analysis of effect of Mineral resource endowment on FDI

Table 4.3 presents Panel GMM analysis of various variables on FDI, with keen interest on mineral resource endowment (MRent and MEXP), as well as the two governance variables and controlling for some other macro-economic variables. Mineral resource endowment as a percentage of GDP (MRent) and mineral exports as percentage of total exports (MEXP) may act as proxies of mineral resource endowment. For efficient reporting, the Arellano-Bond tests for autocorrelation and the Sargan (J-test) for overidentifying restrictions are also presented in the table.

Table 4.3: GMM Analysis: Effects of Mineral Resources on FDI

|                  | Panel A                 |                      |                           | Panel B                |                      |
|------------------|-------------------------|----------------------|---------------------------|------------------------|----------------------|
|                  | Effects of MRent on FDI |                      |                           | Effects of MEXP on FDI |                      |
| Variables/Models | Model 1                 | Model 2              | Model 3                   | Model 1                | Model 2              |
| Dependent        | FDI                     | FDI                  | FDI                       | FDI                    | FDI                  |
| Independent      |                         |                      |                           |                        |                      |
| LagFDI           | -0.229**<br>(0.108)     | -0.138***<br>(0.012) | -0.270***<br>(0.103)      | -0.074<br>(0.050)      | -0.136***<br>(0.015) |
| MRent            | 0.781*<br>(0.468)       | 0.793*<br>(0.487)    |                           |                        |                      |
| LagMRent         |                         |                      | 0.772**<br>(0.342)        |                        |                      |
| MEXP             |                         |                      |                           | 0.019<br>(0.066)       | 0.002<br>(0.048)     |
| IDEV             | -0.078<br>(0.079)       | -0.075<br>(0.081)    | -0.084<br>(0.084)         | -0.238***<br>(0.054)   | -0.083<br>(0.103)    |
| Trd_Open         | 0.154***<br>(0.059)     | 0.153***<br>(0.051)  | 0.156***<br>(0.059)       | 0.262***<br>(0.046)    | 0.110<br>(0.083)     |
| GDP_Gr           | -0.389***<br>(0.145)    | -0.413**<br>(0.184)  | -0.385***<br>(0.146)      | -0.561***<br>(0.154)   | -0.180<br>(0.272)    |
| CPI              | -0.043***<br>(0.012)    | -0.053***<br>(0.014) | -0.045***<br>(0.011)      | -0.010<br>(0.034)      | -0.038*<br>(0.028)   |
| GVP              | -14.923***<br>(3.747)   |                      | -<br>14.556***<br>(3.881) | -16.030***<br>(3.911)  |                      |
| GVL              |                         | -11.697**<br>(5.690) |                           |                        | -12.016**<br>(6.087) |
| Constant         | -2.883<br>(5.656)       | -4.487<br>(5.230)    | -3.195<br>(5.332)         | -10.019<br>(8.401)     | 0.902<br>(9.190)     |
| Observations     | 96                      | 96                   | 96                        | 90                     | 90                   |
| Country ID       | 14                      | 14                   | 14                        | 14                     | 14                   |
| AR1              | 0.3339                  | 0.2338               | 0.3922                    | 0.1850                 | 0.2379               |
| AR2              | 0.2335                  | 0.2705               | 0.1950                    | 0.3611                 | 0.4000               |
| Sagan Test       | 5.477397                | 6.268383             | 4.342652                  | 8.208732               | 4.84829              |
| Sagan P. value   | 1.0000                  | 1.0000               | 1.0000                    | 0.9997                 | 1.0000               |

Table 4.3 displays result of GMM panel effects of mineral resource abundance on FDI, as well as other variables of interest. \*, \*\*, \*\*\*, denote significance at 10%, 5% and 1% respectively.

#### 4.2.1: Effects of mineral resources endowment (MRent) on FDI

In Table 4.3, panel A presents results of effects of MRent on FDI. Models 1 and 2 show that mineral resource endowment (MRent) as a measure of mineral resources, has positive effect on FDI flows to SADC member-countries between 2010 and 2018. The different models are carried out to estimate the differential effects of MRent on FDI when legal and political governance are considered differently. Our results show that MRent has the same effect with coefficient of 0.79 percent, at 10 percent significance level in the same model. This means that a percentage change in mineral resources (MRent), with either political or legal governance increases FDI by 0.78 percent. For further checks, we decide to lag MRent at first level, the result shown under model 3 remains the same but at 5 percent significance level. This means that mineral resources (MRent) of previous year might have more effect on FDI of the current year.

#### 4.2.2: Effects of mineral resources endowment (MXEP) on FDI

From Table 4.3, panel B, we find that mineral exports (MXEP) as a measure of mineral resources also has positive effect on FDI, though not statistically significant. This confirms that different measures of mineral resource endowment can affect FDI of different countries differently. This could be attributed to different economic and governance policies applied in different countries.

#### 4.2.3: Effects of governance infrastructures on FDI

From Table 4.3, we find that both political and legal governance of SADC member countries negatively affect FDI inflow in those countries. Coefficients for both political (GVP) and legal (GVL) variables are significantly large and negative at 1 and 5 percent levels of significance. One unit change in either GVP or GVL produces such movements in FDI of magnitudes between 12 and 16 times. This means investors are likely to be highly sensitive to political and governance developments in the region given the historical and in some countries current political instability. This result infers that SADC member countries should review their legal and political infrastructures so as to create confidence in investors that their investment in the SADC region is secure.

#### 4.2.4: Effects of other macroeconomic factors on FDI

From model results in Table 4.3, trade openness is another factor that is found to have strong effect on FDI flows into SADC countries. Trade openness is statistically and

significantly affecting FDI inflows at 1 percent significant level. Most interestingly, this effect is positive, meaning that a percentage change in trade openness increases FDI inflows by between 0.15 percent and 0.26 percent. The factor becomes insignificant only when legal infrastructure is estimated with MEXP on FDI, but still remaining positive.

Another interesting finding is that increase in inflation (CPI) in SADC member countries negatively and significantly affects FDI inflows into the countries. This means that the economic instability in SADC member countries expels foreign investors who are interested in investing in SADC. This might not be applicable to only SADC member countries, therefore, a research with a larger African sample might reveal more interesting features.

Table 4.3 also reveals a significantly negative influence on FDI at significance levels of 1 percent and 5 percent. A 1 percent change in GDP growth rate would produce small negative movements in FDI ranging between 0.4 to 0.6 percent. One would expect GDP growth to positively-affect FDI inflow, but clearly, it is not so. It could be inferred that GDP growth of SADC member countries has not reached such level that can positively attract FDI into the countries.

Table 4.3 shows similar findings with respect to infrastructure development (IDEV) in which it has a small negative influence on FDI flows into SADC that is not statistically significant. This could reflect the fact that FDI investment in SADC countries is rent-seeking, with investors' decision-making not significantly-influenced by the state of infrastructure in the SADC region.

## CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

### 5.1 Introduction

This study set out to investigate the impact of mineral resources on FDI flows into the SADC region using panel data analysis. We also sought to understand the extent to which government institutions could improve the impact of mineral resource endowment on FDI flows into the SADC region.

A review of literature on FDI revealed some factors that have influence on movement of FDI flows. These factors were regressed on FDI to determine their statistical effects on FDI inflows in SADC member countries. The factors include ; mineral exports (MEXP), GDP, Mineral resource endowment (MRent), inflation (CPI), infrastructure development (IDEV), governance due to political stability (GVP), and governance due to legal stability (GVL). These factors, constituting the independent variables, were then tested econometrically using GMM regression model to determine their relationship with FDI, as well as the extent to which they influence the behaviour of FDI.

### 5.2 Conclusion

The model results presented in section 4.0 above show that there are clear relationships between the variables tested in the models and FDI, albeit at different magnitudes and levels of statistical significance as already explained in section 4.2 above. We can conclude that indeed, natural resource endowment does have impact on flow of FDI into the SADC region. The two measures of natural resource endowment used in this analysis (MRent and MEXP) both positively affect FDI inflows into the SADC region, with MRent yielding more positive effect at statistically significant levels. We also found that mineral resource endowment of previous year positively affects current year FDI inflows into SADC region.

The study also sought to establish whether government institutions could improve the impact of mineral resource endowment on FDI flows into the SADC region. Governments give policy directions on economic matters which directly affect economic growth (GDP), consumer price stability (Inflation), export performance

(MEXP) and governance (political and legal stability). The study has revealed that in these factors do influence the movement of FDI in different ways, some more strongly than others. The level of political and legal instability experience in SADC region, strongly affect FDI inflows. This result infers that SADC member countries should review their legal and political infrastructures so as to attract build investor confidence that could result in attracting even higher FDI flows into the SADC countries.

Inflation rate in SADC region also negatively affects FDI inflow. Therefore, in addition to political and legal instability, economic instability in SADC member countries discourages foreign investment.

Furthermore, with the negative effect of GDP growth on FDI flows into the SADC region, it could be inferred that GDP growth of SADC member countries has not reached a level that can positively attract FDI into the countries. The study also shows that infrastructure development (IDEV) in SADC member countries negatively affects FDI inflow, though the effects are not statistically significant.

The findings of this research addressed the research's first objective and research question, that mineral endowment do affect FDI inflows into SADC region. Also the second research objective and question was equally addressed, that legal and political infrastructures of SADC region do affect FDI inflows. All these effects are indeed substantial as they are all statistically significant. Therefore we conclude that mineral endowment and governance infrastructure of SADC member states affect the level of FDI inflows into the region.

### 5.3. Recommendations

The existence or occurrence of minerals in any country is an act of nature, which falls outside the control of any government. However, SADC governments do have control over some institutional socio, economic and political policies which have direct impact on variables under study, such as, exchange rate, infrastructure development, mineral exports, GDP growth, political governance and legal governance, which are all vital enablers of foreign direct investment flows. The author therefore recommends the following: The secretariat, bureaucrats and political principals of SADC countries should increase focus on improving socio, politico and economic policies of the SADC

region, particularly political and legal governance in order to increase the attractiveness of the region as a destination for foreign direct investment.

Secondly, legal governance is key to economic development and attraction of FDI as shown by its significance in the result. Therefore, SADC governments should endeavour to foster legal reforms in order to provide investors with a sense of security for their investment, which often runs into billions of dollars over the life of mines.

Thirdly, while mineral endowment is an important factor in attracting FDI flows, investors in the mineral sectors should find the SADC region as an attractive investment destination. The SADC secretariat has harmonised trade and political policies across member countries in the last decade to present the region as one integrated investment bloc to the investor community. This enables mining investors seeking to operate across a number of neighbouring countries in the region to exploit economies of scale particularly by constructing mineral processing infrastructure that can serve a number of mines in the region. It also becomes easier for investors to engage with the countries as a bloc rather than with individual countries.

Finally, the findings of this study are only limited to the SADC region. A wider scope of study covering a larger geographic area of Africa, for example, the Sub-Saharan Africa region and a longer period under study could deliver more robust and more useful results. Therefore, the findings may not necessarily be representative of other regions in Africa or elsewhere in the world. Similar studies may have to be carried out separately for these regions to determine whether the same or more factors have similar impact on FDI flows.

## REFERENCES

- Adelakun, O.J. (2011). Human capital development and economic growth in Nigeria, *European Journal of Business and Management*, 3 (9), pp 29-38.
- Aguilar, R. (2003). Angola's Incomplete Transition'. *From Conflict to Recovery in Africa*. pp. 125-40.
- Ahmed, A., Cheng, E., & Messinis, G. (2007). Causal links between exports, FDI and Output. Evidence from Sub-Saharan African countries. *Working paper 35, Victoria University, Centre for Strategic Economic Studies*.
- Ali, K. H., Faki, S. M., & Suleiman, S. H. (2018). Determinants of foreign direct investment Inflows in the Southern African Development Community (SADC) Member Countries. *International Journal of Science and Business*, 2(4), pp. 616-623.
- Aregbesola, A.R. (2014). Foreign direct investment and institutional adequacy: New Granger causality evidence from African countries". *South African Journal of Economic and Management Sciences*, 17(5), pp 557-568
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *Review of Economic Studies*. 58 (2), pp. 277.
- Asiedu, E. (2006). Foreign direct investment in Africa: The role of natural resources, market size, government policy, institutions and political instability. *World Economy*, 29, pp 63-77.
- Awolusi, O.D. (2017). Foreign direct investment and economic growth in Africa: A comparative analysis. *International Journal of Sustainable Economy*, 9(3), pp.183-198.
- Bara, A., & Le Roux, P. (2017). International financial centres, global finance and financial development in the Southern Africa Development Community (SADC). *Journal of Economics and International Finance*, 9(7), pp. 68-79.
- Barclay, C. A. (2009). Factors that contributed to the economic success of Botswana (Doctoral dissertation, School for International Studies-Simon Fraser University).
- Baum, C. F., Schaffer, M. E., & Stillman, S. (2003). Instrumental variables and GMM: Estimation and testing. *Stata Journal*, 3(1), pp. 1-31.
- Baum, C. F., Schaffer, M. E., & Stillman, S. (2007). Enhanced routines for instrumental variables/GMM estimation and testing. *Stata Journal*, 7(4), pp. 465-506.
- Bogdan, R. C., & Biklen, S. K. (2003). Qualitative research for education: An introduction to theories and methods. 4<sup>th</sup> ed. *Boston, MA: Pearson*

Boschini, A. D., Pettersson, J. & Roine, J. (2007). Resource Curse or Not: A Question of Appropriability. *Scandinavian Journal of Economics*, 25(3), pp. (109-135).

Buckley, P. J., & Casson, M. C. (1976). The future of the multinational enterprise. *London: Macmillan*.

Buckley, P. J., Clegg, J., & Wang, C. (2007). Is the relationship between inward FDI and spillover effects linear? An empirical examination of the case of China. *Journal of International Business Studies*, 38(3), pp. 447- 459.

Butler, A. (2013). Resource nationalism and the African National Congress, *The Journal of the Southern African Institute of Mining and Metallurgy*, 113(1), pp. 11-20.

Cadot, O., & Nasir, J. (2001). Incentives and obstacles to growth: Lessons from manufacturing case studies in Madagascar. *Regional Program on Enterprise Development Paper*, pp117.

Cochran, P.L., & Wartick, S.L. (1988). Corporate governance: A review of the literature. *Financial Executives Research Foundation, Morristown, New Jersey*.

Creswell, J.W. (2012). Educational research: Planning, conducting and evaluating quantitative and qualitative research. 4<sup>th</sup> Ed. *Boston, MA. Pearson*.

Cushman, D.O. (1985). Real exchange rate risk, expectations, and the Level of direct investment. *Review of Economics and Statistics*, 67(2), pp. 297-308.

De Mooij, R.A., & S. Ederveen (2001). Taxation and Foreign direct investment: A synthesis of empirical research. *CPB, Discussion Paper, No. 3*.

De Vos, AS; Strydom, H.; Fouché, CB & Delport. (2011). Mixed method research. *CSL Research at grassroots: For the social sciences and human services professions. 4th ed. Pretoria: Van Schaik*.

Dinkar, N., & Choudhury, R.N. (2014). A selective review of foreign direct investment Theories. *ArtNeT Working Paper Series.143*

Doornik, J. A., Arellano, M., & Bond, S. (2002). Panel data estimation using DPD for Ox. *Nuffield College, Oxford*, 23.

Dunning, J. H. (1973).The determinants of international production. *Oxford Economic Papers* 25.

Dupasquier, C., Osakwe, P.N. (2003). Performance, promotion, and prospects for foreign investment in Africa: National, regional, and international responsibilities. Paper Prepared for the Eminent Persons Meeting on Promotion of Investment in Africa, Tokyo, February 2003.

Foster, V., & Benitez, D. A. (2011). The Democratic Republic of Congo's infrastructure: A continental perspective. Policy research working paper 5602. *The World Bank, Africa Region, Sustainable Development Department*.

Fourie, L., & Mohr, P. (1995). Economics for South African Students: *University of South Africa. JL van Schkaik Publishers, Pretoria*, pp.580-607.

Frankel, J.A. (2012). The natural resource curse: A Survey of diagnoses and some prescriptions. *HKS Faculty Research Working Paper Series RWP12-014, John F. Kennedy School of Government, Harvard University*.

Fu, J. (2002). Institutions and investments: Foreign direct investment in China during an era of Reform. *Bibliovault OAI Repository, the University of Chicago Press*.

Gabagambi, D. M. (2013). Tanzania's growth experience following economic reforms: Comparative perspectives with Vietnam. *International Journal of Humanities and Social Science*, 3(9), pp. 97-106.

Garrett, N., & Lintzer, M. (2010). Can Katanga's mining sector drive growth and development in the DRC?. *Journal of Eastern African Studies*, 4(3), pp.400-424.

Grant, C., & Osanloo, A. (2014). Understanding selecting and integrating a theoretical framework in dissertation research. Creating the Blueprint for 'House'. *Administrative Issues Journal. Connecting Education, Practice and Research*, pp. 12-22.

Hailu, Z.A. (2010). Demand side factors affecting the inflow of foreign direct investment to African Countries: Does capital market matter? *International Journal of Business and Management*, 5(5), pp.104-116.

Hamori, S., & Razafimahefa, I. F. (2003). Trade and Growth Relationship: Some Evidence from Comoros, Madagascar, Mauritius and Seychelles.

Hansen, L. P. (2007). Generalized method of moments estimation. The New Palgrave Dictionary of Economics, edited by Stephen Durlauf, & Lawrence Blume. *Macmillan, forthcoming*.

Hassan, F.M., & Ojo, O. (2002). Lesotho, Development in a Challenging Environment. *A Joint World Bank – Africa Development Bank Evaluation*.

Hayter, R. (1997). The dynamics of industrial location: The factory, the firm and the production system. *Wiley, New York*.

Hymer, S. (1976). The International Operations of National Firms. *MIT Press: Cambridge, MA*.

limi, A. (2007). Escaping from the resource curse: Evidence from Botswana and the rest of the world. *IMF Staff Papers Vol. 54, No. 4, International Monetary Fund*.

Itagaki, T. (1981). The Theory of Multinational Firm under Exchange Rate Uncertainty. *Canadian Journal of Economics* 14, pp. 276-297.

Jenkins, C., & Thomas, L. (2002). *Foreign direct investment in Southern Africa: Determinants, characteristics and implications for economic growth and poverty alleviation*. CSAE, University of Oxford.

Kabelwa, G. (2006). The development of potential of surging capital flows. *Global Development Finance. World Bank*.

Kahn, M. (2013). Natural resources, nationalism, and nationalization. *The Journal of The Southern African Institute of Mining and Metallurgy*, 113(1), pp. 3-9

Karau, N.J., & Mburu, T.K. (2016). Institutional, governance and economic factors influencing foreign direct investment inflows in East Africa: *Journal of Economics and Development Studies* September 2016, Vol. 4, No. 3, pp.87-98.

Kaufmann, D., Kraay, A., & Zoido-Lobaton, P. (1999). Aggregating governance indicators. (Vol. 2195): *World Bank Publications*.

Kazembe, P. & Namizinga, N. (2007). The Impact of Foreign Direct Investment on Development: Policy Challenges for Malawi, Lilongwe: *Government of Malawi, Ministry of Industry, Trade and Private Sector Development*.

Khadaroo, A. J., & Seetanah, B. (2007, November). Transport infrastructure and FDI: lessons from Sub Saharan African economies. In *African Economic Conference (AEC)* (Vol. 13, No. 3, pp. 15-17.

Knickerbocker, F. T. (1973). Oligopolistic reaction and multinational enterprise. *The International Executive*, 15(2), 7-9.

Krehbiel, T.C. (2004). Correlation coefficient rule of thumb. *Decision Sciences Journal of Innovative Education*, 2, pp. 97-100.

Kuhn, T.S. (1962). The Structure of Scientific Revolutions. 7th edition, *University of Chicago Press, MLA*.

Lea, N., & Hanmer, L. (2009). Constraints to growth in Malawi. The World Bank.

Lester, F. (2005). On the Theoretical, conceptual, and philosophical foundations for research in mathematics education. *ZDM*, 37(6), pp. 457-467.

Lewis, J. D. (2001). Policies to promote growth and employment in South Africa. World Bank, Southern Africa Department, pp. 24

Mahembe, E. (2014). Foreign direct investment inflows and economic growth in SADC Countries: A Panel Data Approach. *University of South Africa, Pretoria*.

Mahembe, E., & Odhiambo, N. M. (2013). The dynamics of foreign direct investment in SADC countries: experiences from five middle-income economies. *Problems and Perspectives in Management*, (11, Issue. 4), pp. 35-45.

Mahembe, E. E., & Odhiambo, N. M. (2016). Does foreign direct investment cause economic growth? A dynamic panel data analysis for SADC countries. *International Journal of Emerging Markets*.

Mahonye, N., & Mandishara, L. (2015). Mechanism between mining sector and economic growth in Zimbabwe, Is It a Resource Curse? *Economic Research Southern Africa (ERSA) working paper 499*.

Malefane, M. R., & Odhiambo, N. (2016). The role of international trade in Lesotho's economic growth: a review. *Acta Universitatis Danubius. Œconomica*, 2(5).

Maliwa, E., & Nyambe, J. M. (2015). Investigating the impact of FDI on economic growth in Zambia. *European Journal of Business, Economics and Accountancy*, 3(3).

Masuku, M. B., & Dlamini, T. S. (2009). Determinants of foreign direct investment inflows in Swaziland. *Journal of Development and Agricultural economics*, 1(5), pp. 177-184.

Matjekana, K. S. M. & Masipa, T. S. (2015). Does foreign direct investment and exports translate to economic growth and job creation in South Africa? s.l.: ESSA.

Mbulawa, S. (2015). Effect of macroeconomic variables on economic growth in Botswana. *Journal of Economics and Sustainable Development*, Vol. 6, Issue 4.

Morgan, R.E., & Katsikeas, C.S., 1997. Theories of international trade, foreign direct investment and firm internationalization: a critique. *Management Decision*, 35(1), pp.68-78.

Mouzinho, Â. (2016). Understanding the Angolan FDI Regulatory Landscape. *SAIIA Occasional Paper No 238 (October 2016)*.

Moyo, C., Kolisi, N., & Khobai, H. (2018). The Relationship between trade openness and economic growth: The case of Ghana and Nigeria. *Munich Personal RePEc Archive Working Paper No. 81317*.

Mugowo, O. (2017). Foreign Direct Investment and Economic Growth in SADC Countries. A Panel Data Analysis. *University of Venda, South Africa*.

Ndikumana, L., & Boyce, J.K. (2003). Public Debts and Private Assets: Explaining Capital Flight from Sub-Saharan African Countries. *World Development*, 31(1), pp.107-130.

Ngulube, P., Mathipa, E.R., & Gumbo, M.T. (2014). Theoretical and conceptual frameworks in the social sciences. Addressing research challenges: making headway for developing researchers, pp.43-66.

Nnadozie, E., Osili, U.O. (2004). U.S. Foreign direct investment in Africa and its determinants. *UNECA Workshop of Financial Systems and Mobilization in Africa*, 2 Nov 2004

Okeahalam, C., & Akinboade O.A. (2003). A Review of corporate governance in Africa: Literature, issues and challenges. *Global corporate governance forum* (15 June 2013).

Olowu, A., Ijeoma, E., & Masu, R. (2016). Mining and Industrialization in African Economies: Implications of Public Policy and Entrepreneurship. Research archive annual forum working paper.

<https://www.tips.org.za/research-archive/annual-forum->

Oman, C. (2001). Corporate governance and national development. *OECD Development Centre Working Papers*, No. 180, *OECD Publishing, Paris*.

Pandya, V., & Sisombat, S. (2017). Impacts of Foreign Direct Investment on Economic Growth: Empirical Evidence from Australian Economy. *International Journal of Economics and Finance*. 9. 121. 10.5539/ijef.v9n5, pp.121.

Paré G., Trudel M.C., Jaana M., & Kitsiou S. (2015). Synthesizing information systems knowledge: A typology of literature reviews. *Information & management*. 52(2), pp.183–199.

Peiris, S. J., & Clément, M. J. A. (2008). Post-stabilization economics in Sub-Saharan Africa: lessons from Mozambique. *International Monetary Fund*.

Pelinescu, E. (2015). The impact of human capital on economic growth. *Procedia Economics and Finance*, 22(1), pp.184-190.

Ravelosoa, J.R., Ravelomanantsoa, P.J., Rajaonera, I., & Rakotomanana, F. (2015). Country paper for Madagascar on labour market, Economic situation and development Policy. *Swiss programme for research on global issues for development. R4D working paper 2015/03*.

Ravitch, S. M. & Carl, N. M. (2016). Qualitative Research: Bridging the conceptual, theoretical and methodological. *Los Angeles, U.S.A.: SAGE Publications, Inc.*

Roderick, G. E. (2002). Mining and Economic Sustainability: National Economies and Local Communities. Project of the International Institute for Environment and Development (IIED). *Division of Economics and Business, Colorado School of Mines, US*.

Roodman, D. (2009a). How to do xtabond2: An introduction to difference and system GMM in Stata. *Stata Journal*, 9(1), pp. 86.

Roodman, D. (2009b). A note on the theme of too many instruments. *Oxford Bulletin of Economics and Statistics*, 71(1), pp. 135-158.

Sachs, D. J. & Warner, M. W. (1995). Natural Resource Abundance and Economic Growth. NBER Working Paper Series No. 5398. *National Bureau of Economic Research*.

Saunders, M.; Lewis, P., & Thornhill, A. (2009). Research Methods for Business Students. Pearson Education Limited, 5th Ed.

Shah, M. H. (2014). The significance of infrastructure for FDI inflow in developing countries. *Journal of Life Economics*, 1(2). pp. 1-16.

Siddiqui, D. A., & Ahmed, Q. M. (2013). The effect of institutions on economic growth: A global analysis based on GMM dynamic panel estimation. *Structural Change and Economic Dynamics*, 24, pp. 18-33.

Sikuka, K. (2012). Natural resources can propel Southern Africa's growth. *Southern Africa Research and Documentation Centre. SANF 12 Number 37*.

Sikwila, M. N. (2015). Foreign direct investment: does it matter? A case for Zimbabwe. *Research in business and economics journal*, 11(2), pp. 34-52.

Suleiman, N., Kaliappan, S., & Ismail, N (2015). Determinants of foreign direct investment. Empirical evidence from SACU countries. *International journal of economics and Management Vol. 9 No. 1*, pp. 1-24.

Sunde, T. (2013). Financial development and economic growth: Empirical evidence from Namibia (1990Q1-2011Q4).

Tsaurai, K. (2018). Investigating the impact of inflation on foreign direct investment in Southern Africa. *Acta Universitatis Danubius Œconomica*, 14(4), pp. 597-611.

UNCTAD. (2008). Export performance following trade liberalization: some patterns and policy perspectives. New York and Geneva: United Nations.

Vernon, R. (1966). International investments and international trade in the production cycle. *The Quarterly Journal of Economics*, MIT Press.

Vinesh, S. R., Boopendra. S., & Hemraze, D. (2014). Determinants of foreign direct investment in SADC: an empirical analysis. *The Business & Management Review*, Volume 4 Number 4.

Weeks, J. (2015). Macroeconomic Impact of Capital Flight in Sub Saharan Africa. *Oxford University Press, Oxford*, pp. 238-60

Wilhelms, K. (1998). Institutional FDI fitness: determinants of foreign direct investment to emerging economies. (PhD Thesis). *Fletcher School of Law and Diplomacy, Medford*.

Zafar, A. (2011). Mauritius: An Economic Success Story. Yes, Africa Can: Success Stories from a Dynamic Continent. Edited by Chuhan-Pole, P. and M. Angwalo. *World Bank Group: Washington D.C.*

Zhang, K. H. (2005, June). How does FDI affect a host country's export performance? The case of China. *In International conference of WTO, China and the Asian Economies*, pp. 25-26.