A Framework of Macroeconomic Drivers of Foreign Divestment in African Countries

By

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DECLARATION

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A FRAMEWORK OF MACROECONOMIC DRIVERS OF FOREIGN DIVESTMENT IN AFRICAN COUNTRIES

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ABSTRACT

The act of foreign divestment (FD) is an inescapable decision undertaken by multinational enterprises (MNEs). However, the consequences of macroeconomic variables on FD are yet to be thoroughly examined. Furthermore, despite FD being a widespread phenomenon within the international business domain, there is scant literature on the topic, particularly in Africa. The study therefore aims to develop the framework of the macroeconomic drivers of FD in African countries using annual data from 2000-2020. Owing to the dynamic nature and behaviour of macroeconomic variables susceptible to endogeneity and multicollinearity problems, a variety of econometric techniques were employed. These include the 2-step generalized method of moments (GMM), Autoregressive Distributed Lag (ARDL), and Pairwise Dumitrescu Hurlin Granger Panel Causality Tests. Furthermore, the fixed effect, random effect, pooled effect, and feasible generalised least squares (FGLS) were utilised for robustness and comparison purposes. To be specific, this study sought to identify the key FD drivers and subsequently develop an FD framework in African countries.

The empirical evidence revealed that economic growth, natural resources, exchange rate, unemployment, trade openness, human capital development, inflation, political instability, and financial development were identified as the key FD drivers in African countries. Financial development and political instability were found to have a positive but insignificant impact on FD. On the other hand, economic growth, natural resources, exchange rate, unemployment, trade openness, human capital development, and inflation were found to have a negative and significant influence on FD.

Following the identification of the key drivers of FD in African countries, the short and long-run co-integration relationship between FD, financial development (FIN), and economic growth was explored. Using the ARDL method, a positive and significant long-run relationship between FD and financial development was revealed. Interestingly, a negative and significant long-run relationship between economic growth and FD was found. It was also found that there was an inverse relationship between FD and FIN in the short run, whereas short-term economic growth results displayed a positive and significant relationship with FD. On the existence of a unidirectional or associated causation between FD and economic growth in the African continent, no evidence of such an association could be established. Notwithstanding

this finding, there was a bidirectional causal relationship between FD and FIN. Considering the above results, a framework to mitigate FD was developed, thus signifying the contribution of the study. Policymakers in African countries should focus on implementing policies that promote economic growth, trade openness, HCD, and reduced unemployment to curb FD outflows. Additionally, based on the study's findings, policymakers in African countries should prioritise implementing policies aimed at promoting economic diversification, enhancing trade openness, investing in human capital development, and fostering a stable exchange rate regime to mitigate foreign divestment outflows effectively. Lastly, it is recommended that the adoption of good governance practices to improve government effectiveness in FD management remain a priority of every government in Africa.

Keywords: Autoregressive Distributed Lag (ARDL), Foreign divestment, financial development, economic growth, good governance, 2-step generalised method of moments (GMM), Macroeconomic variables

DEDICATION

This thesis is dedicated to the memory of my late father, Kwena Frank Maduane. His unwavering support, encouragement, and belief in the power of education have shaped me into the person I am today. His memory continues to inspire my pursuit of knowledge and my dedication to excellence.

I also dedicate this work to my mother, Mmatsatsi Elizabeth Maduane, whose love, strength, and guidance have been a constant source of motivation throughout my academic journey. Her sacrifices and belief in my abilities have been instrumental in my achievements. I am grateful for the opportunity to continue making them proud. Therefore, this thesis stands as a tribute to both my parents, acknowledging the values they instilled in me through the years.

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LIST OF ACRONYMS

ADF	Augmented Dickey-Fuller
AEG	Augmented Engle-Granger
AIC	Akaike Information Criteria
ARDL	Autoregressive Distributed Lag
CPI	Consumer price index
ECT	Error-correction term
EXCH	Exchange rates
FGLS	Feasible Generalised Least Squares
FD	Foreign Divestment
FDD	Foreign Direct Divestment
FDI	Foreign Direct investment
FIN	Financial Development
FE	Fixed effects
FMOLS	Fully Modified Ordinary Least Squares
GDP	Gross Domestic Product
GMM	Generalised Methods of Moments
GROWTH	Economic Growth
HC	Homogenous causality
HNC	Homogenous non-causality
HCD	Human capital development
HDI	Human development index
IBV	The institution-based view
ICT	Information and communication technology
INFL	Inflation
IMF	International monetary fund
IPS	Im, Pesaran, and Shin
LAC	Latin America and Caribbean region
LCU	Local currency units
LLC	Levin, Lin and Chu
MENA	Middle East and North Africa
MNE	Multinational enterprise

NAT	Natural resources
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
PINST	Political instability
2SLS	Two-stage least squares
PP	Phillips-Perron
PINS	Political instability
PE	Pooled effects
RBV	Resource-based view
S-GMM	System-Generalised Moment of Methods
SIC	Schwarz Information Criteria
SME	Small and medium-sized enterprise
SSA	Sub-Saharan Africa
TOPEN	Trade openness
UNEMPL	Unemployment
UECM	Unrestricted Error Correction Model
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program
US	United States
VAR	Vector autoregression
VECM	Vector Error Correction Model
WLS	Weighted Least Squares

CHAPTER 1: ORIENTATION

1.1 INTRODUCTION

Multinational enterprises (MNEs) operate in foreign markets for a variety of reasons, with the main objective of maximising value for the shareholders. Other reasons may relate to an endeavour to expand markets for their products or to increase efficiencies (Madura & Fox, 2014). This means that they want to ensure that wherever their products are being produced in terms of geographical location, is cost-effective. The investment made by these MNEs can be in the form of building, buying, or expanding their business operations in those host countries. Foreign direct investment (FDI) as a form of investment is a pertinent element for developing countries, particularly for African countries as most of these countries have amongst others, low economic growth, high unemployment, and a high poverty rate with low domestic savings. Adams (2009) noted that FDI facilitates the development of the host country's economy.

However, in the same manner, that these MNEs invest in foreign markets through FDI, they can also decide to downsize, sell as well as close some of their subsidiaries. This move by MNEs has brought forth an important phenomenon in recent years called foreign divestment (FD) also known as divestiture (Ketkar, 2006). FD is defined as the disposal of an asset by MNEs through various forms such as sales of affiliates, downsizing, exchange and closure (Kolev, 2016). Divestment has steadily been on the increase in the global economy and thus requires attention from policymakers because of the impact it has, not only on the MNEs but also on the economies of the host countries in which the MNEs operate. This situation is even dire especially on the African continent given the fact that most of the countries are battling high rates of poverty, low economic growth rates and generally rely on FDI for economic development.

Steenhuis and de Bruijn (2009) made a distinction between two (2) forms of divestments: voluntary and involuntary divestments which are nationalisations and expropriations by organisations. The authors further carved up voluntary divestments into proactive divestments, which are based on changes that are expected to occur as well as reactive divestments, which are based on changes that have already occurred. In addition, Yadav

and Iqbal (2020) concurred with this distinction made and noted voluntary divestment as being more common than involuntary one.

It is also pertinent to look at the motives or drivers of divestment as there are various reasons why MNEs would decide to disinvest from countries they initially invested in. According to Borga, Flores and Sztajerowska (2020), businesses divest for the following reasons: unsatisfactory performance of the subsidiary, changes in technologies, diversification following acquisitions and mergers to comply with the requirements of competition authorities. Borga *et al.* (2020) stressed that these MNEs can also divest for ethical, political, and socio-economic reasons or in the case of major political development, adverse economic reasons or financial crisis.

This study, therefore, identifies the drivers of foreign divestment in 35 selected African countries using the data from the period ranging from 2000 until 2020. The data was collected during this period because data for all proxies used in the study were available for many African countries during this period. The 20-year timeframe also meets the GMM condition that the number of countries (N) should be more than the number of years (T) (Baltagi, 2021). The estimation period was selected partially due to the recurring feature of FD flows during these years in those countries. The study further seeks to assess how and to what extent foreign divestment, financial development, and economic growth co-integrate in the short and long term in developing African countries. The study is anchored in the drivers of FD.

Following the orientation to the study, the rest of the chapter is organised as follows: first, the introduction, as well as the background and context of the study, are discussed to provide a general summary of the study in sections 1.1 and 1.2 respectively. The problem statement is articulated in section 1.3, followed by the research questions as well as the objectives guiding the study in sections 1.4 and 1.5 respectively. Section 1.6 outlines the study's expected contribution. The limitations in section 1.7. and delimitations in section 1.8. The operational definitions of the variables are outlined in section 1.9. Section 1.10 presents an overview of the thesis' remaining chapters; section 1.11 gives the chapter summary. The following section discusses the study's background and context.

1.2 BACKGROUND TO AND CONTEXT OF THE STUDY

In recent years, the phenomenon of FD has gained increased attention owing to a growing frequency of divestments in both absolute numbers and volume (Borga *et al.* 2020). However, there have been some years in which the number of FD cases has surpassed the number of acquisitions, such as during the 2008 global financial crisis and subsequent recessionary periods. The years 2008, 2011, and 2013 were particularly associated with the prevalence of FD activities, with 30-50% of all deals resulting in divestments. National-level empirical studies suggest that roughly one-fifth of internationally located subsidiaries are divested on average, samples from US and Swedish MNEs support this claim (Berry, 2013). Figure 1.1 depicts the extent of global FDI outflows.

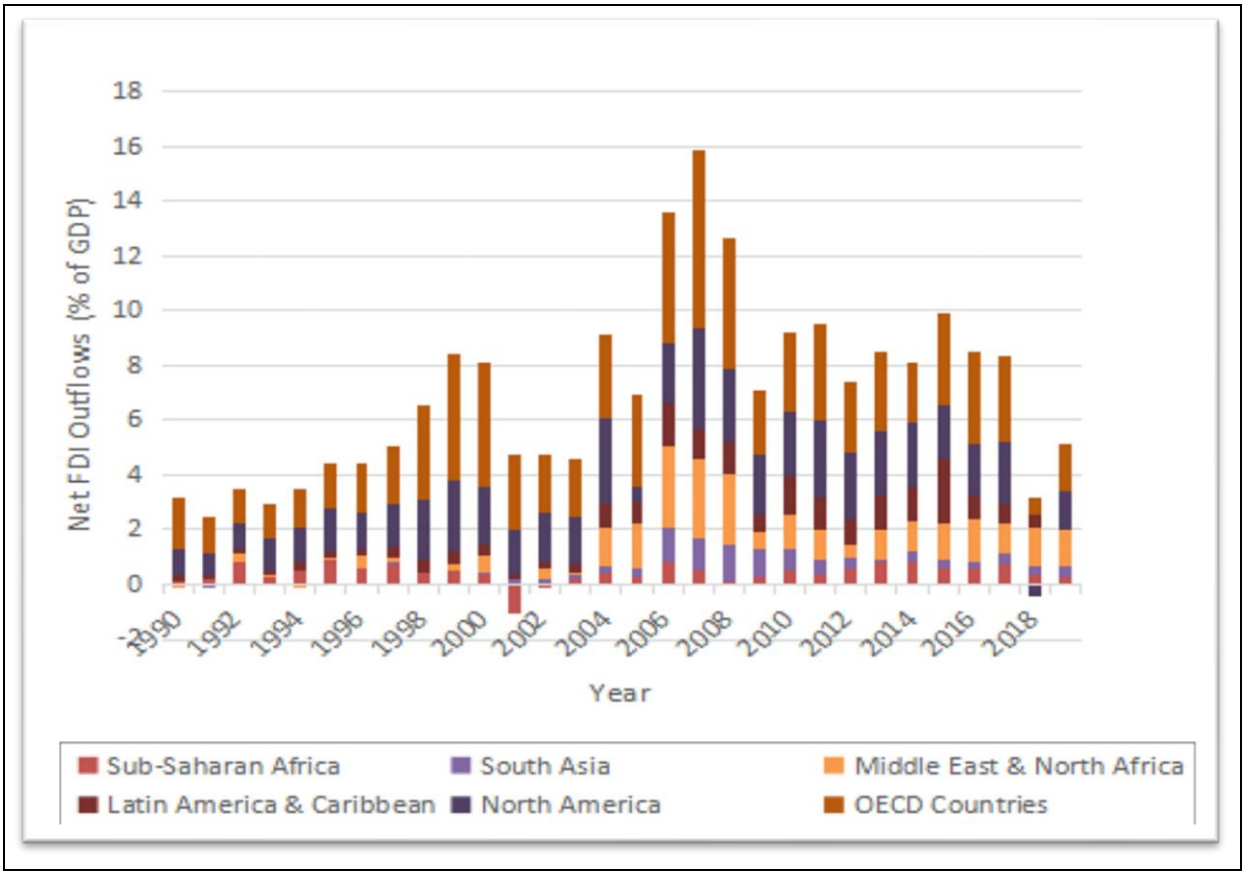

Figure 1.1: Global FDI outflows

Source: *The World Bank (2021)*

The global outflows of FDI experienced significant fluctuations between 1990 and 2020, as shown in Figure 1.1 (World Bank, 2021). In addition, the percentage of gross domestic

product (GDP) represented by global net outflows started at a low of 3.13% in 1990 but rose dramatically to 15.88% in 2007. Moreover, the outflows then fluctuated, ultimately declining to 5.17% in 2019, indicating a deceleration in FDI divestment worldwide. Despite the slowdown, the outflows since 2007 still exceed those of the preceding period. This trend in FDI outflows is shaped by a combination of country-specific and global economic factors.

On the other hand, the major economic regions across the globe exhibited similar patterns in the fluctuations of foreign direct investment (FDI) outflows, as illustrated in figure 1.1. Specifically, Sub-Saharan Africa (SSA) underwent a series of fluctuations, starting with a minimal outflow of 0.14% in 1990. Subsequently, figure 1.1 indicated an increase of 0.86% in 2006 but then decreased to 0.29% in 2019, indicating a deceleration in outflows over the past decade. Despite this slight decline, the outflows present a notable challenge to economic growth and poverty alleviation in SSA, widely acknowledged as the world's poorest region, with a greater need for FDI compared to other regions. Unfortunately, FDI has shown instability in SSA over the last thirty years. The situation in South Asia is equally discouraging, with the outflow rising from 0.01% in 1990 to 1.29% in 2008, followed by a decline to 0.37% in 2019. Despite the decrease, the FDI outflow raises concerns about employment and living standards in the region.

However, the MENA region exhibits a significantly larger outflow than SSA, with the percentage increasing from -0.01% in 1990 to a peak of 2.98% in 2006 before dropping to 1.3% in 2019, following the trend of other regions. In contrast, the Latin America and Caribbean (LAC) region witnessed a distinct pattern, seeing an increase in outflows from 0.17% in 1990 to a peak of 2.36% in 2015, followed by a decline to 0.06% in 2019. This decline occurred over a relatively short period compared to other regions. In North America and Organization for Economic Co-operation and Development (OECD) countries, the outflows are notably higher than those observed in other regions.

Furthermore, in North America, the outflow surged from 1.01% in 1990 to a record high of 3.7% in 2007, maintaining relative stability until 2017 and then decreasing to 1.4% in 2019. Similarly, outflows in OECD countries rose from 1.81% in 1990 to a peak of 6.51% in 2007, remaining steady until 2017 and then dropping to 1.95% in 2019. These two

regions represented the largest share of global FDI outflows, signifying substantial divestment over the past three decades. The analysis underscores the persistent trend of FDI across all global economic regions, with Sub-Saharan Africa (SSA) and other areas consistently experiencing FDI divestment over the last twenty (20) years, potentially posing challenges to long-term economic growth.

Additionally, SSA region has been experiencing persistent foreign direct divestment, and the situation may worsen in the post COVID-19 era. Conversely, Borga *et al.* (2020) highlighted that numerous MNEs have expressed their intention to divest from developing countries, citing economic uncertainties as the primary motivation. This divestment might encompass the liquidation of subsidiaries to avoid accumulating substantial corporate debt and facing financial distress. According to a survey by Ernst and Young (2019), 85% of American firms surveyed expressed their intent to divest certain foreign operations within the next two years. Similarly, approximately 82% of firms in the Asia-Pacific region and about 84% of surveyed companies in Europe and the Middle East also declared their intention to divest.

Conversely, on average, 84% of surveyed firms, as reported by Ernst and Young (2019), are contemplating divesting a portion of their foreign operations within the next two years, underscoring the repercussions of sustained FDI divestment. SSA countries must take decisive measures to address this trend. However, efforts to sustain high levels of FDI in the region have been insufficient, as its global share of FDI flow remains at a mere 5%. Moreover, the economic uncertainties stemming from the post-COVID-19 era may further discourage FDI in the foreseeable future. This anticipation is supported by the world investment reports from the United Nations Conference on Trade and Development (UNCTAD), indicating a 10% decline in FDI in Africa in 2019, a 15% decrease in 2020, and a projected drop of 25%–40% in the years to come.

On the other hand, internationalisation has led to the emergence of not only FDI, which is defined by the International Monetary Fund [IMF] (1993) as capital transferred from one country to another with the investor having a substantial impact or control over the management of an enterprise in the host country, however, also to another occurrence that has become increasingly significant in the contemporary global economy known as

FD. FD can be thought of as the reduction of equity, which the MNE holds in its foreign subsidiary to maximise the parent company's value (Arte & Larimo, 2019). Some scholars have alluded to the fact that FD with certain qualifications, can be seen as the opposite of FDI by multinational enterprises (Boddewyn, 1983; Chen & Wu, 1996).

Moreover, there has been a steady rise in understanding reasons for divestment, especially in developing countries. FD in the form of downsizing, pulling out of a market, and moving to lower commitment modes of operations are common occurrences. Approximately 25% to 45% of all FDI projects are impacted by them. (UNCTAD, 2009:8). This demonstrates that the number of MNE divestments has expanded over the years. In support of this statement, Chung, Lee, Beamish, Southam, and Nam (2013) noted that for every two (2) subsidiaries that are established abroad, one is disinvested. This comes as some MNEs not only divest because of poor financial performance, but they use divestment as part of their business strategy during mergers and acquisitions (M&A). In the case of a merger, two (2) organisations would be combined in terms of management and operations to form a new legal entity. An acquisition, on the other hand, entails the transfer of assets as well as control of management and operations from one company to another (Peng & Meyer, 2019).

Additionally, the divestment comes as MNE's reaction to the geopolitical shift and uncertainties, the economic instability of developing countries, issues of governance, regulatory and socio-economic environment as well as adverse financial and economic conditions. These predicaments have made many host countries rethink and reform their FDI retention policies to encourage more FDI as a source of capital inflows. In addition, developing countries need to make efforts to attract foreign investments in the form of giving incentives for example, income tax holiday subsidies to foreign companies, import duty exemptions, market preferences, infrastructures and to an extent monopoly rights, failing which divestment in the form of business closures or liquidation by foreign organisations becomes a viable option. It is vital to determine the causes of divestment as it can have dire consequences for both the host country's economy and foreign investors if not managed properly, that is employment rate, technology transfer and economic growth. In addition, divestment could weaken economic transformation and industrialisation (Konara & Ganotakis, 2020; Belderbos & Zou, 2006; McDermott, 2010).

Furthermore, various authors have defined emerging markets however there seems to be no consensus on its precise definition. Hooke (2001) defined emerging markets as countries with a per capita income of less than US$9,000 per annum. He further added that all countries that are referred to as the third world, developing or low-income fit in this definition. In addition, the MSCI Index Research (2014) asserted that an emerging market is classified as a market that has certain characteristics of a developed market however it does not meet all its requirements. This definition is consistent with Mazzi (2013:101) who defined emerging markets in the following two (2) ways: Firstly, these countries are developed yet they are still far from obtaining the status of being called developed countries. Secondly, these are countries that are sufficiently developed to have at minimum, the primary financial markets. The IMF's World Economic Outlook (2021) lacked a clear definition of an emerging market however, it classified emerging markets or developing economies according to the following criteria: a country's income level, its GDP per capita in nominal US dollars; the country's population, the size of its economy; its portion of exports in international trade as well as the country's financial market integration.

Conversely, some of the African countries fit into these definitions of emerging economies and can be considered as developing since these countries have been going through certain economic and political structural changes from the 1960s onwards with their economic performance being perceived as being more developed than many South-East and East Asia countries, these include countries such as Botswana, Mauritius and South Africa (Bittencourt, van Eyden & Seleteng, 2014). The United Nations Development Program (UNDP, 2021) utilises the human development index (HDI) to determine the state of development of a country, and the following African countries were identified as most developed: Seychelles, Mauritius, Algeria, Tunisia, Botswana, Libya and Gabon. Being developing countries, many share a common economic problem of not having enough national savings to finance their investments hence many have depended on foreign capital in the forms of direct and indirect investments mainly from international investors (Demirhan & Masca, 2008). However, in recent years, most of these countries have steadily seen an increase in foreign divestment by multinational enterprises.

Additionally, it could seem obvious that foreign divestment would occur in countries with relatively unstable economic conditions, that give less support and incentives to foreign investors, have political instability, offer non-flexible regulations, and have very little potential of developing their markets. However, there is still little and scattershot evidence to support these arguments and therefore calls for additional studies to shed more light on these arguments (Bartels, Kratzsch, & Eicher, 2008; Borga, Ibarlucea-Flores & Sztajerowska, 2020). More still, given the turbulence of the economic and political situations in developing countries, the increasing globalisation, industrialisation, and adverse economic conditions, it could be misleading to think that the drivers of foreign divestments in the 1980s, 1990s, and early 2000s are still currently pronounced or relevant hence the need to conduct this research. All this calls for in-depth analysis and revisiting of factors that drive FD in African countries, hence the need for this study.

The current study is necessary because of the ongoing and growing trend of foreign divestment in African countries, which is influenced by the changing economic and geopolitical situation. The volatile character of foreign divestment, intensified by economic instabilities, political uncertainties, and regulatory problems, presents substantial risks to the economic expansion, employment, and poverty reduction endeavours in Africa. Current empirical data indicates that the reasons that used to drive divestiture in the past may not be completely relevant anymore. Therefore, it is necessary to do a modern analysis of the macroeconomic factors that influence divestment decisions. This study seeks to address the existing knowledge vacuum by delivering a detailed comprehension of the present factors that influence foreign divestment. As a result, this study provides valuable insights for policymakers to build measures that promote the retention of foreign investments and encourage sustainable economic development in African countries.

1.3 PROBLEM STATEMENT

The subject of drivers of FDI has been researched extensively and received a lot of attention from researchers. Although research has been done on the drivers of FD over the years, the literature is not exhaustive. Borga *et al*. (2020) noted that studies on drivers of FD by MNEs are vital, yet scant as compared to those on FDI. Furthermore, factors influencing FD in the context of developing countries, have not received as much

attention. Existing studies have also not assessed how FD affects developing countries' socio-economic status; this is crucial as most of these countries have a high poverty rate, unemployment and they generally rely on FDI.

The cumulative body of literature and data in developing countries, particularly African countries, is inadequate and limited. Additionally, the topic is far less pursued in developing countries than in developed countries (Nyuur & Debrah, 2014). The slowly emerging economies in Africa have different contexts from other developing countries, for example, China and India, and they are more different to other developed countries; this has resulted in the scant understanding of foreign divestment in these contexts. This further confirms that MNE divestment decisions in developing countries remain poorly understood and under-investigated (Yadav & Iqbal, 2020; Edo & NNadozie, 2022).

Existing studies on this topic primarily focused on firm-level factors rather than country-level factors in developed countries, and not in developing countries or emerging economies. African countries, in particular, were overlooked; see Belderbos, Michiel, Sleuwaegen and Wu (2021) who focused on Japanese manufacturing subsidiaries established in 57 countries from 1990 to 2004; Konara and Ganotakis (2020) focused on foreign subsidiaries in Spain from 2008-2015; Borga, Ibarlucea-Flores and Sztajerowska (2020) studied selected OECD and G20 countries between 2007-2014; Changyuan, Chunxiao and Hongyong (2020) examined divestment of Japanese (MNEs) from China for the period 1995 to 2016; Żak's (2018) study assessed divestment in Poland in the years 2011-2016; Wan, Chen and Yiu (2015); Berry (2013) focused on a panel of US. MNEs' divestment decisions from 1989 to 2004; Berry's (2010) study focused on the divestment of 190 US. companies over 20 years from 1981–2000; Belderbos and Zou (2006) focused on Japanese electronics firms' foreign divestment as well as relocation in nine (9) of the East Asian countries from 1995 to 2003.

Various motives have been put forth as reasons why MNEs divest from host countries, for example, studies by Berry (2013); Blake and Moschieri (2017); and Berry (2010), point out that MNEs divest in response to changes in the market conditions. The need to free up limited resources for opportunities elsewhere has also been identified as being responsible for FD. Issues related to the drivers of foreign divestment, especially in

developing countries are multidimensional since foreign investors also have various reasons why they decide to disinvest in a particular country. Furthermore, as much as there is assumed homogeneity of the economic factors in developing countries, other factors like political, environmental, and adverse economic conditions are heterogeneous, and many studies have paid little or no attention to them. Another limitation of most existing studies is that they adopted a one-country setting and not a cross-country setting, therefore, cannot analyse relocation decisions or FD as part of an international network strategy of MNEs.

From the above discussion, the problem identified is that most of the studies failed to identify the key macroeconomic drivers of foreign divestment, in particular in Africa. Additionally, it is evident from the above discussion that there is no study that was able to assess how and to what extent foreign divestment, financial development, and economic growth co-integrate in the short and long term in African countries. Moreover, the problem identified is that studies ignored to determine the causal relationship between foreign divestment, financial development, and economic growth in African countries. Furthermore, this study identified the problem that there is no comprehensive framework that can give guidance on MNE divestment decisions and explain how these differ from MNE investment decisions. This study aims to address these gaps by investigating the framework of Macroeconomic Drivers of Foreign Divestment in African Countries, contributing both to scholarly discourse and practical policymaking. Building on this background, the following research questions are probed, which precede the research objectives.

1.4 RESEARCH QUESTIONS

The following research questions are addressed in this study:

1. What are the key macroeconomic drivers of FD in African countries?
2. To what extent does foreign divestment, financial development and economic growth co-integrate in the short term and long term in African countries?
3. How is the causal relationship between foreign divestment, financial development, and economic growth in African countries?
4. What framework can be developed to mitigate foreign divestment?

1.5 RESEARCH OBJECTIVES

To answer the research questions the study sets out to achieve the following research objectives:

1. To identify the key macroeconomic drivers of foreign divestment in African countries.
2. To assess how and to what extent foreign divestment, financial development, and economic growth co-integrate in the short and long term in African countries.
3. To determine the causal relationship between foreign divestment, financial development, and economic growth in African countries.
4. To develop a framework to mitigate foreign divestment.

1.6 SIGNIFICANCE OF THE STUDY

The contribution this study is expected to make can be explained as follows: To develop A comprehensive framework based on the drivers of FD that can be used to inform policymakers, the current government, academics, and various institutions in Africa was developed. Furthermore, this framework will aid governments on how to mitigate FD risks and related policy issues. Although studies have been undertaken to investigate the drivers of FD, no study has yet focused on the key drivers of FD to determine the extent to which it affects macroeconomic variables in developing economies, more exclusively in African countries as a bloc on this subject matter. Earlier studies focused mainly on developed countries with little emphasis being given to developing countries, African countries in particular.

Furthermore, the study will not only contribute to the FD literature in the context of African countries but also expand the literature on divestment drivers from a firm-level study to the macroeconomic or country level by examining its impact on the country's economy. The findings of the study are also likely to enhance current studies on this topic that have only focused on the drivers of FD at the firm level or industry level and not at the country level. As a result, this study aims to fill this gap in the literature. Additionally, this study utilises econometric modelling to assess the likelihood of divestment. Furthermore, these techniques can analyse and quantify economic relationships, tackle statistical issues specific to economic data, and develop well-informed predictions (Baltagi, 2021). The

exclusive emphasis on developing countries, in particular, African countries will fill in the knowledge gap. The study also determines if similar results are obtained when a different group of countries with economies and financial markets at different stages are examined.

Most empirical studies done on this topic so far focused on a one-country setting, which makes it difficult to generalise results for all developing countries. This study employs a cross-country analysis and not a one-country setting. The results contribute to a better understanding of this phenomenon and its drivers. The researcher, therefore, believes that this study has a significant impact on better understanding the drivers of foreign divestment, the extent to which FD affects macroeconomic variables in African countries and how to mitigate this risk. To encourage growth, survival and sustainability of investment by MNEs in African countries. Additionally, the developed framework takes into account political, policy, and economic variables and examines how these factors impact FD on a continental scale. The framework will guide policymakers in fostering a favourable environment that encourages FDI in host countries. Finally, the current study provides a platform and avenues for future academic research on the FD topic and international business literature.

Finally, the significance of this study lies in its response to critical gaps within existing research on foreign divestment, particularly in African contexts. Previous studies have faltered in identifying the key macroeconomic drivers behind divestment in the region, neglecting to assess the co-integration of foreign divestment, financial development, and economic growth from both short and long-term perspectives. Additionally, the causal relationship between these factors has been overlooked. Moreover, there's a lack of comprehensive frameworks guiding multinational enterprises (MNEs) in divestment decisions, distinct from investment decisions. By looking into the framework of Macroeconomic Drivers of Foreign Divestment in African Countries, this study not only enriches scholarly discourse but also offers practical insights essential for policymaking in the region.

1.7 LIMITATIONS

Limitations can be defined as occurrences and matters that the researcher had no control over during the research process (Theofanidis & Fountouki, 2018:156). As the study

focuses on emerging countries in particular African countries, many potential limitations may arise. The usefulness of the research results in ascertaining the drivers of FD is limited to those specific African countries, hence the findings of the study cannot be generalised. Only in emerging economies with similar characteristics can the results be referred to. Furthermore, the possibility of omissions and errors with the data collected cannot be overlooked. It is possible that data for those developing African economies and the years specified might not be available. To circumvent these constraints of shortage of secondary data, countries with the unavailability of data were excluded from the sample and the period of study was shortened. A pre-data collection assessment was done to check the veracity and availability of data.

1.8 DELIMITATIONS

According to Theofanidis and Fountouki (2018:156), delimitations are those boundaries that the authors consciously impose on themselves throughout the study. The first delimitation is geographic, the researcher intentionally focused on African economies. This is because Africa being a heterogeneous continent, encompasses middle, low and very low-income countries, which results in differences in the patterns and impacts of FD in each of these countries. This research is limited to twenty years 2000 – 2020, the choice of this period was dictated by the availability of data. This is the period when data for all proxies utilised in the study were available in a large number of African countries. In addition, the estimation period of 20 years in each country was done to meet the GMM condition, which states that the number of countries (N) should be more than the number of years (T) (Baltagi, 2021). The estimation period was selected partially due to the recurring feature of FD flows during these years in those countries.

1.9 OPERATIONAL DEFINITIONS OF THE VARIABLES

The following definitions are important for the study.

Acquisitions

According to Peng and Meyer (2019), an acquisition entails the transfer of assets, as well as control of management and operations from one company to another. An acquisition occurs when a company acquires the assets of another. To attain full control of the target company, the acquiring entity must acquire a minimum of 51% of its stock. Typically, this

involves two companies of varying sizes, where a financially robust entity acquires a smaller, comparatively weaker one. The decision for an acquisition does not necessarily need to be mutual (Junni & Teerikangas, 2019).

Emerging markets

A study by Hooke (2001) noted that emerging markets are those markets that comprise countries that have a per capita income of less than US$9,000 per annum. He further added that all countries that are referred to as the third world, developing or low-income fit in this definition. Peng and Meyer (2019) refer to emerging markets as those countries with developing or transitioning economies that exhibit rapid industrialization, growing GDP, increasing foreign investment, and rising standards of living. They further noted that these countries would have only formed institutional frameworks in recent years to enable international trade and investment.

Foreign Divestment (FD)

Schmid and Morschett (2020) defined divestment as the sale or liquidation of a foreign subsidiary by the parent organisation. This was supported by Pattnaik and Lee (2014) who mentioned that divestment of foreign associates is a vital strategic decision undertaken by MNEs to reverse their long-term commitment to overseas markets.

Foreign Direct Investment (FDI)

IMF (1993) defined FDI as an investment that reflects the goal of a resident entity in one country obtaining a long-term interest in an organisation based in another country. The resident entity referred to as the foreign or direct investor in this definition holds an equity capital stake of at least 10 percent of the ordinary shares in an incorporated enterprise (Bartels, Kratzsch, & Eicher, 2008). According to Coy and Kathryn (2014), FDI is a type of international investment in which the direct investor not only gains substantial control in the management of an organisation based in a foreign country but also bears responsibility for marketing the entity’s products as well as services.

Mergers

Peng and Meyer (2019) defined a merger, as a combination of management and operations of two organisations to form a new legal entity. This assertion is corroborated

by Hassan, Ghauri, and Mayrhofer (2018), who observed that a merger takes place when two or more distinct businesses come together to establish a new enterprise. The newly merged entity usually adopts a fresh identity, management structure, and ownership composition comprising personnel from both merging companies. As merging entities pool their resources to pursue specific advantages, even if it entails diminishing their individual influence, the choice to merge is invariably a mutually agreed upon decision.

Multinational Enterprises (MNEs)

According to Peng and Meyer (2019), an MNE also referred to as a multinational corporation is an organisation that engages in foreign direct investments and operates in multiple foreign markets.

Subsidiary

According to Peng and Meyer (2019), a subsidiary also known as an affiliate is a firm that belongs to another firm, referred to as the parent organisation. The parent organisation holds the controlling interest in the subsidiary.

1.10 OUTLINE OF THE CHAPTERS

To attain the objectives of this study, the thesis will be arranged into the following six chapters:

Chapter 1: Orientation

This chapter introduces the study by providing the introduction, background, and context of the study. This is followed by the problem statement, research questions, objectives, significant contribution, limitations, delimitations, operational definitions of variables, chapter summary and outline of chapters in the entire thesis.

Chapter 2: Literature Review - Theoretical Foundations on Foreign Divestment

This chapter provides a literature review relating to the main theoretical views regarding the drivers of FD upon which this study is based and ends with a conceptual framework that guided the study.

Chapter 3: Literature Review – Empirical Foundations on Foreign Divestment

Chapter 3 offers a comprehensive examination of the existing literature on the key empirical views regarding FD from the perspective of developing countries.

Chapter 4: Research Methodology

This chapter details the methodological procedures applied in the study. It also states and justifies the variables selected, the sample of developing countries in Africa. Estimation techniques are clearly stated and the motivation for the selection of each method is given. In addition, ethical considerations are presented.

Chapter 5: Data analysis, synthesis of results and development of the FD framework

This chapter outlines the procedures employed for data analysis and the subsequent findings. The main research findings are also discussed through interpretation of the results. Lastly, the developed framework to mitigate FD in African countries is presented and discussed.

Chapter 6: Summary, conclusions and recommendations for future research

The last chapter provides a summary of the research findings and discusses the contributions of the study. It highlights recommendations to the policymakers and governments of emerging markets. The remainder of this chapter discusses the study's limitations as well as suggestions for future research.

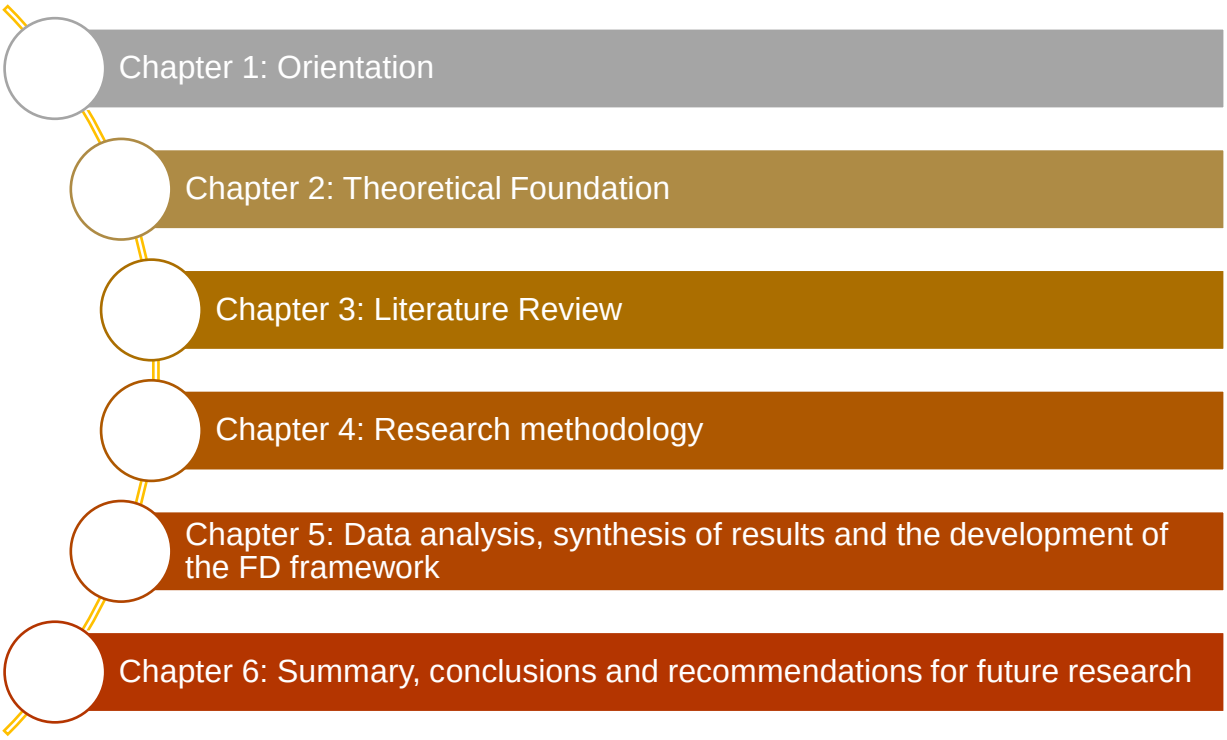

Figure 1.2: The general diagrammatical layout of the thesis

Source: *Author's design*

1.11 CHAPTER SUMMARY

The purpose of this chapter was to introduce the study by outlining the introduction, background, and context. The problem statement was clearly articulated. Furthermore, the research questions and research objectives were also specified. Significant contributions, limitations, delimitations as well as operational definitions of variables were also discussed. The chapter concluded by giving a general summary of the remaining chapters in the thesis. The following chapter will provide a review of the relevant literature focusing on both theoretical and empirical literature on the main concepts of FD.

CHAPTER 2: LITERATURE REVIEW - THEORETICAL FOUNDATIONS ON FOREIGN DIVESTMENT

2.1 INTRODUCTION

The purpose of this chapter is to discuss the theoretical underpinnings of the drivers of FD. Furthermore, it attempts to bring forth the history behind the theories of FD that the researcher can build onto, essential blocks backing FD in developing economies. The theories will serve as a guideline for comprehending the issues to be investigated by this study. The discussion of the theories and their connection to FD will be explored. This section proceeds as follows: The first section 2.2 defines FDI, FPI and FD. Section 2.3 explains the forms of FD. Section 2.4 presents the motives of FD. Section 2.5 discusses the relevant FD theories for this study. Gaps in the existing FD frameworks were identified and discussed, to further develop a conceptual FD framework in the African context in section 2.6. Finally, the last section 2.7 presents the chapter conclusion.

2.2 FOREIGN DIRECT INVESTMENT, FOREIGN PORTFOLIO INVESTMENT AND FOREIGN DIVESTMENT DEFINITIONS

2.2.1 Foreign Direct Investment Definition

Foreign Direct Investment (FDI) refers to the ownership or exertion of influence over 10 percent or more of a venture's voting securities, or an equivalent interest in an independent corporation (Almfraji & Almsafir, 2014). Almafraji and Almasafir (2014) further stressed that non-liquid assets are more closely aligned with Foreign Direct Investment (FDI).

2.2.2 Foreign Portfolio Investment Definition

Foreign Portfolio Investment (FPI) involves purchasing securities, such as stocks and bonds, in foreign companies without gaining significant control or influence over their management (Garg & Dua, 2014). According to Garg and Dua (2014) liquid assets are commonly associated with Foreign Portfolio Investment (FPI) where investors purchase securities in foreign companies without acquiring significant control over their operations.

2.2.3 Foreign Divestment Definition

Few studies have defined FD, however, a formal definition of FD as a phenomenon of international business was given by Borga, Ibarlucea-Flores and Sztajerowska (2020) as a change in the organisation's ownership as well as business portfolio structure involving the partial or complete sale of an asset or a business unit. In this definition, it is clear that in as much as there can be FDI inflows made by foreign investors into the host country, the opposite is also true where MNEs can also sell, downscale and cease their operations.

McDermott (2010) stressed that under specific conditions, FD can be viewed as the inverse process of FDI. In addition, when the benefits associated with location or internationalisation diminish for multinational enterprises, the lack of exit barriers may justify the need for divestments. FD can further be defined as a forced or voluntary reduction of scale or capacity of activities by MNEs or the units of direct investment enterprises in the host country through discontinuing a portion of these activities or divesting from them (Nowara, 2013; Katarzyna, 2018). They further postulated that transformation in the activities and/or ownership of foreign subsidiaries leads to FD of an organisation. In addition, Kolev, (2016) stated that FDs can take the form of bankruptcy which then leads to liquidation, a sell-off or spin-off and finally a complete carve-out of an MNE's ownership in a foreign subsidiary.

2.3 FORMS OF FOREIGN DIVESTMENT

There are three forms of divestments: spin-offs; sell-offs and split-ups. Spin-offs happen with the asset ownership rights distribution to the business's owners, leading to a new legally independent organisation. Other forms of divestment include sell-offs which include the conversion of asset ownership for securities cash and/or cash. Lastly, split-ups encompass the creation of a new class of stock for each of the organisation's operational subsidiaries that are divesting. Moreover, with this arrangement, current shareholders should be paid a dividend for each new class of stock, and then finally the organisation that is divesting is closed (DePamphilis, 2003; Bergh, 2015).

2.4 MOTIVES FOR FOREIGN DIVESTMENT

In the same manner that MNEs build, buy and expand their business operations abroad, they can also downsize, sell as well as close some of their foreign operations. It is important to clarify the motives for FD to explain differences in FD outflows from various host countries. There are numerous motives both at the firm and country level why MNEs would decide to disinvest from countries they initially invested in, these include non-performance by the foreign subsidiary. The weak financial performance of the subsidiary is seen as one of the strongest relevant factors explaining MNE divestments that most studies have focused on (Berry, 2013). However, Berry (2013) has also noted that MNEs do not only divest when they are dealing with weak or poor firm performance and that divestment should not necessarily be viewed as a failure but as a strategic move.

These MNEs and their managers may consider several additional factors, which can include a response to better opportunities for the MNE's resources in other geographic markets, acquisitions, misguided policies, and unfavourable market conditions in the host country (Schmid & Morschett, 2020; Berry, 2013), corporate diversification strategies, political reasons (Soule, Swaminathan & Tihanyi, 2014), weak business climate as well as the need for the MNE to focus on core activities (Garcia-Bolivar, 2020; Berry, 2010; Weston, 1989; Markides,1995; Hamilton & Chow, 1993). The magnitude of the subsidiary, the extent of diversification within the economic group of the parent company, geographical scope as well as the internationalisation of its network of associates were also identified as influential factors in MNE divestment decisions (Borga *et al*. 2020; Soule *et al*. 2014; OECD, 2015b).

2.5 RELEVANT FOREIGN DIVESTMENT THEORIES FOR THE STUDY

This section looks at relevant FD theories that are pertinent to this study. Individual theories will be looked at to see how they can be utilised in relation to FD decisions or the divestment of a business unit by the MNE. The choice of the relevancy of theories is informed by its ability to better understand and predict MNE’s decision-making in terms of divestment. Furthermore, the selected theories should assist management as well as researchers to better understand the divestment strategies that the MNE is utilising (Brown & Panibratov, 2016).

On the other hand, the literature on drivers of FD is not as fully developed as compared to the rich theoretical literature on FDIs. Researchers in the field of international business have explored FD utilising various theoretical frameworks see Dunning's (1973, 1980 eclectic paradigm), Boddewyn's (1983) reverse FDI theory, product life cycle theory by Vernon's (1966), Barney's (1991) Resource-based view, Institution-based view, North (1990), transaction cost theory, Williamson (1979, 1986) and real options theory, Myers (1977). However, the origins of this phenomenon are to date not fully understood. More still, there is still no consensus on any superior or more comprehensive theory for FD.

According to Dunning's (1980) eclectic paradigm theory, three conditions or advantages influence FDI. The theory suggests that MNEs establish subsidiaries abroad when they have those three advantages: firstly, competitive advantages; when there are advantages to be gained by exploiting competitive advantages outside the home-country market or when it is more cost-effective to internalise those advantages within the organisation than to sell them to external, independent parties (McDermott, 2010). Lastly, the MNEs should be able to make a profit using the ownership advantages after the first and second requirements have been satisfied rather than exporting goods to foreign markets (Matekenya & Moyo, 2023). By examining how the macro-economic drivers influence the decision-making process of MNEs regarding foreign divestment, this study contributes to a deeper understanding of the eclectic paradigm theory's applicability in the African context, particularly in explaining the complexities of FD dynamics, financial development, and economic growth interactions. Boddewyn (1983), observed that the eclectic theory lends itself well to the development of a proto-theory of FD and utilised Dunning's eclectic framework of FDI to develop a theory on FD by reversing the above-mentioned conditions. Boddewyn (1983) alluded to the fact that FD will occur when at least one of those three advantages or preconditions proposed by Dunning (1980) ceases to exist or is not satisfied. Boddewyn's theory of FD is known as the "reverse theory" of the eclectic paradigm or divestment theory.

Boddewyn's (1983) divestiture theory observed numerous drivers for the divestment of resources including financial distress, lack of cultural fit as well as lack of strategic fit. It is therefore imperative to examine if the subsidiaries being divested were performing well. In the case where the performance or financial problems are indicated, then divestiture

theory would explain the decisions by MNEs to disinvest. However, in cases where there are no financial problems or performance issues, divestiture theory will not be able to explain why these resources would be divested (Rivet, 2018). Hence the need to combine FD theory with other theoretical perspectives to better understand this phenomenon. In addition, the divestiture theory further posited that subsidiaries that have a competitive advantage over their rivals are least likely to be divested, however, this theory did not provide details on which resources or capabilities are considered more vital for the retention of the subsidiary by the MNE. Furthermore, by grounding this study in this theory, we aimed to provide a comprehensive understanding of the macroeconomic drivers influencing divestment decisions in African countries. Additionally, the Divestiture Theory provides a structured approach to analysing the complexities of foreign divestment, facilitating the development of effective mitigation strategies to address its potential negative impacts on economic growth and stability in the region.

This study addresses the limitation of the divestment theory through the inclusion of the resource-based view theory (RBV). Through this theory, more light was shed on which capabilities and resources are significant and which ones do not permit a subsidiary to generate a competitive advantage. Furthermore, it will highlight those capabilities and resources that play no role in whether an MNE should divest a particular subsidiary or not (Konara & Ganotakis, 2020). This makes the RBV theory relevant to this study.

The Resource-Based View (RBV) theory, initially introduced by Wernerfelt (1984) and subsequently refined by Barney (1991), posits that competitive advantage is inherently tied to the resources and capabilities of the organisation. These resources are classified into three categories: physical, human, and organisational. According to (Wernerfelt, 1984; Conner, 1991; Peteraf, 1993), the RBV theory provides a basis to assess or analyse the strategic fit of the organisation's financial and non-financial resources. Furthermore, this theory suggests that for these resources or capabilities to provide a competitive advantage and to protect foreign subsidiaries from divestment, these resources or capabilities should be rare, value-creating, inimitable as well as non-substitutable (Barney, 1991; Dhanaraj & Beamish, 2009; Hébert, Very & Beamish, 2005).

Barney (1991) observed and critiqued the predecessors of the RBV hypothesis for making an implicit assumption that these resources and capabilities are stable or sustainable, that they can be maintained over extended periods, or at least over periods for which strategic analysis and planning are conducted. Due to the current dynamic environment, advancements in technology both within and beyond borders, as well as the lowering and elimination of international trade barriers, this has become unrealistic and unattainable. This was supported by Konara and Ganotakis (2020), who observed that unforeseen shifts in an organisation's economic structure can make the capabilities or resources crucial for maintaining a competitive advantage obsolete. Furthermore, alterations in the external environment may diminish the rarity or value of organisation-specific capabilities over time. Consequently, the initial ownership advantages that the MNE possessed at the time of foreign investment may change after a certain period. Such alterations or depletion in ownership advantages can be a catalyst for divestments. From the above RBV theory discussion, it is evident that in the context of our study on the macroeconomic drivers of foreign divestment in African countries, RBV theory provides a lens through which to understand how multinational enterprises (MNEs) leverage their resources and capabilities when making divestment decisions. However, the RBV theory reveals a gap in its application to our study's conceptual framework: while RBV emphasises the internal resources and capabilities of firms, our study focuses on external macroeconomic factors influencing divestment decisions, suggesting the need for a more integrative approach that bridges internal and external perspectives to fully capture the dynamics of foreign divestment in African countries.

The institution-based view (IBV) theory developed by North (1990) complements the RBV by highlighting the influence of external institutions and regulatory environments on MNEs decisions to withdraw from foreign markets. Furthermore, integrating both perspectives in the current study provides a more comprehensive understanding of the intricate elements that drive FD. IBV emphasises the significance of a set of formal and informal institutions to have balanced economic growth. According to Arte and Larimo (2019), formal institutions are legal structures that govern a country's political, economic, and administrative environments. The authors went on to state that investors prefer economies with a robust formal institutional framework. This aligns with the perspective

of Porter and van der Linde (1995), who highlighted that governments, through the enforcement of stringent environmental regulations, can promote increased innovation, leading to more efficient production. This underscores the pivotal role of formal institutions in shaping the contemporary economy. In contrast, informal institutions constitute a collection of unspoken and unwritten customs, beliefs, traditions, norms, and human habits. Many of these norms and conventions are deeply embedded in the culture. Consequently, informal institutions vary significantly from one country to another and from region to region. According to the IBV, institutions provide information on what drives the organisation's performance around the world. In FD literature, this theory is used to observe the impact of uncertainties in the environment of a foreign country, concerning the divestment of subsidiaries (Arte & Larimo, 2019).

Numerous studies have debated that a changing and unstable institutional environment of the host country is risky for foreign operations (Benito, 1997; Chung & Beamish, 2005; Dai, Eden & Beamish, 2013; Soule *et al.* 2014; Arte & Larimo, 2019). Dai *et al.* (2013) note that investments made in countries that have domestic conflicts and are politically unstable are susceptible to location-specific risks. The economies of those countries are subject to sudden changes, and are prone to abrupt changes, potentially elevating the probability of FD (Benito, 1997). On the contrary, Chung and Beamish (2005), proposed that in the post-crisis phase, governments of the host countries change their foreign direct investment-related policies to attract foreign investment, which has an indirect favourable effect on existing subsidiaries' survival.

While this study focuses on the macroeconomic drivers of foreign divestment in African countries, IBV theory is applicable because it emphasises how institutions like legal systems, regulatory frameworks, and political stability influence MNEs' decisions to divest. To fully comprehend the dynamics of foreign divestment in African countries, it is necessary to incorporate institutional factors more explicitly into the analysis. The IBV emphasises the importance of institutions. However, this study mainly focuses on broader macroeconomic factors that influence divestment decisions.

The real options theory provides some light on how subsidiaries can add value to the organisation under situations of uncertainties about future international markets, policy

conditions as well as costs in the host countries (Belderbos & Zou, 2009). This theory is utilised as a risk management tool that is based on uncertainty and includes the alternative of implementing or not implementing an option. Musshoff *et al*. (2013) agree that real options models can assist the MNE with the estimation of actual disinvestment decisions better than using the traditional investment theory. As pointed out in their research on real options and how it affects multinational enterprise decision-making. Driouchi and Bennett (2011) conclude that real options offer far greater outcomes for MNEs when utilised properly. Damaraju (2008) noted that in line with the main assumption of real options theory that states that organisations will not use their option. To be precise, MNEs will not divest under high uncertainty and instead will hold on to it. This theory applies to this study as it suggests that not all subsidiaries in unfavourable market conditions or those subsidiaries with deteriorating performance will be divested. Furthermore, the theory highlights that there is value in waiting before the MNE can make decisions on exiting foreign markets as the market environment can cause the divested subsidiary to yield higher value.

Moreover, this study selected the real option theory because it offers insights into how MNEs view divestment as a strategic option, allowing them to exercise flexibility in response to uncertain economic environments. While the theory emphasises the importance of flexibility in investment decisions, this study primarily focuses on identifying and analysing the macroeconomic determinants influencing divestment decisions. This highlights the need to integrate a more understanding of flexibility and strategic decision-making into this study's conceptual framework to comprehensively capture the dynamics of foreign divestment in African countries.

2.6 FOREIGN DIVESTMENT CONCEPTUAL FRAMEWORK

This section explores the existing FD frameworks and identified gaps, to further develop a conceptual FD framework in the African context. Brown and Panibratov (2016) developed an FD framework which included the real options, bounded rationality, and prospect theories. In their preferred theories, Brown and Panibratov (2016) ignored the eclectic paradigm, divestiture, and the institutional-based view.

Furthermore, Brown and Panibratov (2016) disregarded the eclectic paradigm theory which explicitly considers the broader context of international business decisions, such as the institutional and regulatory environment. In addition, the eclectic paradigm emphasises a holistic understanding of international business that goes beyond just investment decisions, incorporating aspects like market access, resource availability, and strategic positioning. Aligned with Brown and Panibratov (2016), Arte and Larimo (2019) also developed a framework for FD looking at both internal and external factors. However, their framework failed to demonstrate how to implement the practicality of FD policies. Moreover, Arte and Larimo (2019) did not consider governance issues. Therefore, the current study seeks to close this gap by developing a comprehensive framework that acknowledges policymakers on governance issues, and how these affect macroeconomic drivers.

Mariotti, Marzano and Piscitello (2023) developed a FD framework focusing on firm-level factors where relational commitment, performance threshold, escalation commitment, and sunk costs were used as key variables. In contrast, the current study employed country-level macroeconomic variables such as economic growth, inflation, trade openness, human capital development, unemployment, financial development, exchange rates, natural resources, and political instability to provide a broader perspective. Similar to Arte and Larimo (2019), Schmid and Morschett (2020) formulated an FD framework exploring firm-level and country-level drivers of FD. Their framework did not include the reverse eclectic paradigm theory of Boddewyn (1983), which provides the theoretical foundation for understanding the reasons by businesses to withdraw from international markets. Additionally, Schmid and Morschett (2020) did not consider governance issues in their framework. The current study developed a broad FD framework that seeks to advise policymakers on governance-related issues to close that gap. Figure 2.1 is the FD conceptual framework employed in this study.

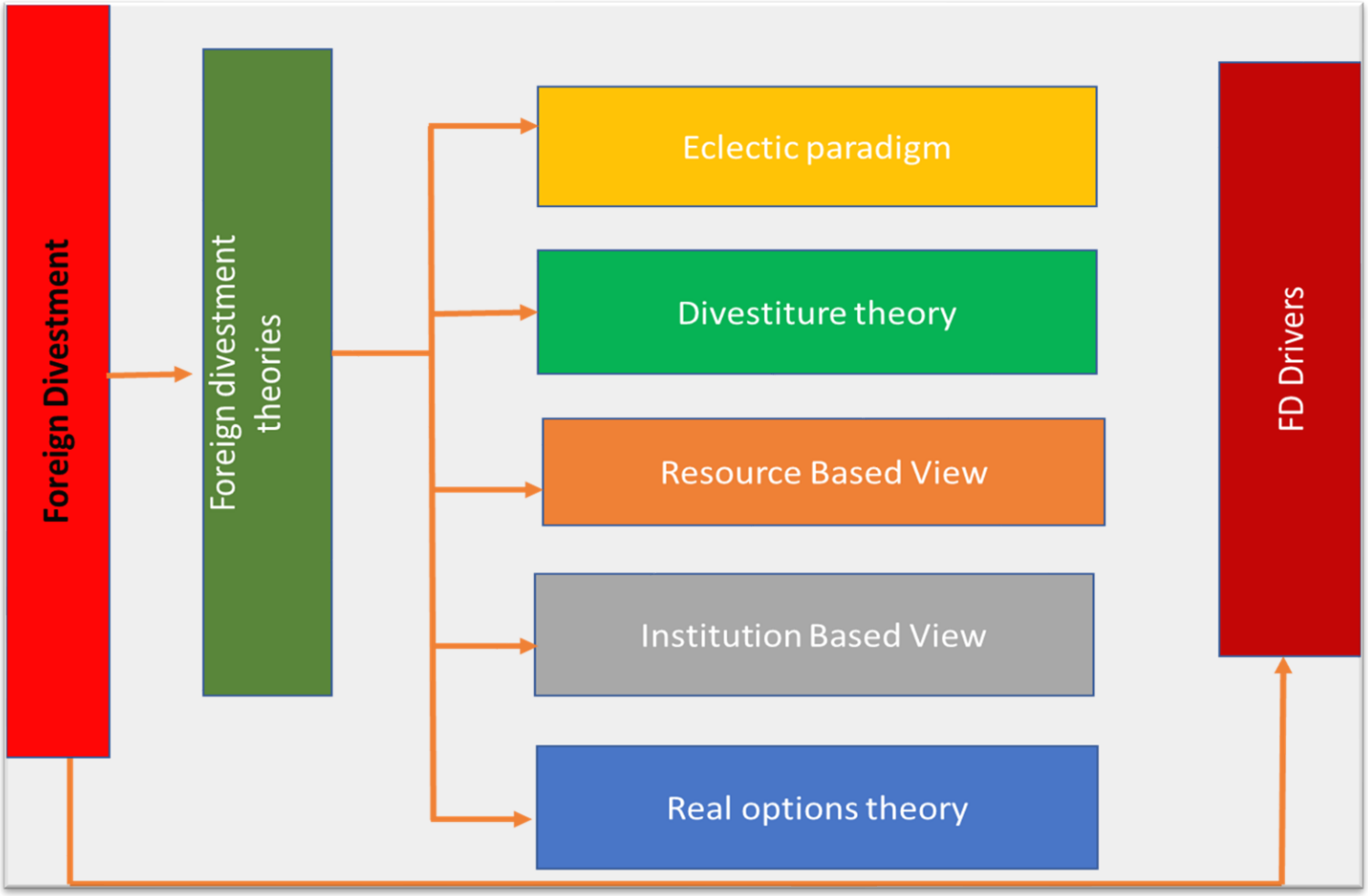

Figure 2.1: Conceptual FOREIGN DIVESTMENT framework

Source: *Owner's conception*

Figure 2.1 illustrates the FD conceptual framework which builds on various theoretical frameworks such as Boddewyn's (1983) reverse eclectic paradigm theory, Dunning's 1973 eclectic paradigm, Barney's (1991) Resource-based view, Institution-based view, North (1990), and Real options theory, Myers (1977). In addition, the conceptual framework includes the provision of FD drivers which are identified based on empirical literature.

Considering the above discussion, it is clear that the existing frameworks on FD have shortcomings in the inclusion of various theories, governance pillars, and all of them are based in countries outside Africa. This study bridged the gap by developing a more inclusive FD framework.

2.7 CHAPTER SUMMARY

Each of the theories reviewed in this chapter has a significant role in the divestment decision of businesses. These theories provided a theoretical foundation for this research as it identifies the drivers of FD in African countries. Furthermore, it is noted that most of the earlier theories and conceptual frameworks were centred mainly outside Africa hence this study aims to fill the gap in the literature by focusing on an African context. The following chapter will look at the empirical review of literature.

CHAPTER 3: LITERATURE REVIEW - EMPIRICAL FOUNDATIONS ON FOREIGN DIVESTMENT

3.1 INTRODUCTION

In line with the research objectives, outlined in chapter 1, the current chapter reviews empirical literature from previous studies in an attempt to explain the key drivers of FD in African countries. The aim was to review extant empirical studies aligned to the topic of interest to identify existing gaps in line with the objectives of the study with this prelude in mind, the rest of the chapter is structured as follows: Section 3.2 provides a discussion on the empirical review of literature relating to studies outside Africa to provide a broader context. Section 3.3 follows with the review of empirical literature from the perspective of the African continent and the aim was to give insights into particular opportunities and challenges that may influence foreign divestment decisions in this specific region. The concluding section 3.4 provides a chapter summary.

3.2 FOREIGN DIVESTMENT: EMERICAL PERSPECTIVE ON STUDIES OUTSIDE AFRICA

The empirical studies on the drivers of FD provide evidence of the reasons for FD or outflows from a specific host country. The section starts with empirical studies on the drivers of FD globally and then moves on to those studies done in African countries.

Although research on FD has continued to grow and occurs frequently in MNEs, it remains limited (McDermott, 2010). Debates in the extant literature on FD suggest that divestment will materialise when there is incongruency between original reasons for investment by MNEs and expected outcomes (Liu & Siler, 1996). More still, it can be noted that previous and recent studies show that there is a general agreement on the role played by these drivers of divestment though its consumption is more skewed to developed and transitional economies than developing countries.

Chen (2015) investigated the determinants and motives of outward FDI in China using a fixed effect model with data ranging from 2003 to 2012 with no other models to compare. Moreover, in that study, the focus was only on one country (China) which makes their results difficult to be used for another country. To address this shortcoming, the present

study, therefore, employed various models for comparison purposes and robustness. In addition, the study employed GMM with its ability to deal with endogeneity. Furthermore, Ali, Shan, Wang, and Amin (2018) using ARDL in China for the period 1982-2015 stressed that the relationship between outward FDI and economic growth is asymmetric, in contrast to the previous study that simply assumes a symmetric relationship. Ali *et al*. (2018) and Chen (2015) concurred that the primary drivers for Chinese organisations to either invest or divest are predominantly centered around market-seeking and efficiency-seeking motivations. Both studies highlighted that export-to-GDP ratio, economic development, and advanced technology play crucial and statistically significant roles in influencing outward FDI. Moreover, the study of Chen (2015) also revealed that import-to-GDP ratio, FDI inflows and provincial market size do not hold statistical significance as determinants.

Contrary, Berry (2013) investigated FD decisions of a comprehensive panel of USA MNEs from 1989 to 2004. Berry (2013) indicated that geographical market, as well as product characteristics, influence the MNE's divestment decisions and organisational performance on related and unrelated foreign subsidiaries. Moreover, Berry (2013) revealed that the USA MNEs will most likely divest their underperforming related subsidiaries which have unstable exchanges and policies, as well as low growth. This was supported by Lurkov and Benito (2020) who also examined the FD of firms in the USA. Berry (2013) and Lurkov and Benito (2020) further indicated that poor performance is an important forecaster of FD and that higher wages, salaries, as well as increased employee skills which necessitate the appropriate financial reward, may reduce product competitiveness and encourage investors to divest. Therefore, it is difficult to generalise the findings of their empirical studies. Hence the present study employed various econometric methods and theories to analyse the macroeconomic drivers of FD in Africa for the period 2000 to 2020. The shortcomings of Berry (2013) and Lurkov and Benito (2020) lie in their limited consideration of cultural and institutional differences across regions. Cultural variations and changing institutional frameworks in African countries could significantly influence multinational divestment decisions, which were not thoroughly explored in their studies. This oversight may undermine the applicability of

their findings to the African context, highlighting the importance of incorporating such factors in future research on foreign divestment in diverse regions.

Similar to Chen (2015), Li and Liu (2015) and Schmid (2021) examined the drivers of FDs by MNEs in China and Europe respectively. Li and Liu (2015) employed a logit regression analysis that adopted a dummy variable (FD) as a dependent variable with data covering the period between 1997 and 2008. Li and Liu's (2015) study found that profitability, market shares, productivity, and debts are the causes of FD of multinational companies in China. In addition, Schmid (2021) identified ten crucial elements that have a significant impact on the likelihood of divestment in foreign subsidiaries. Additionally, it draws attention to the fact that the effects of the remaining eight factors, which have been thoroughly examined in previous literature, frequently lack definitive answers. According to Li and Liu (2015) and Schmid (2021) profitability, debts, market shares, and productivity provide employment and promote the domestic economy. Li and Liu (2015) conclude that those variables played a vital role in the Chinese market by improving China’s speed of economic performance.

The weakness of Li and Liu’s (2015) study lies in their adoption of logit regression analysis. This technique lacks the ability to deal with the seriousness of the missing data of the years 2007 and 2008, and this is the era of the global financial crisis (recession). It is for this reason that the current study employed the GMM (with dummy variable) to deal with the shortcomings of the missing data during the global financial crisis and as of late, the Covid-19 pandemic between 2020 and 2021. In strengthening the methodological approach to offset missing data limitations, the current study tested the stability of cointegration and causality, hence there was no need to run the structural breaks.

Also in China, Wan, Chen and Yiu (2015) researched the nature of FD by companies at the international level through the development of a theoretical model. According to Wan, Chen and Yiu (2015) a company's image and individuality had a major impact on its worldwide divestment choice. Likewise, Shi and Zhu (2023) investigated the potential impact of FD and revealed that the rate of catching up with technology and the pace of technological transformation both significantly decline with increased FD. This suggests

that the withdrawal of foreign investment has a negative effect on a country’s innovation and technological advancement.

Moreover, Wan, Chen, and Yiu (2015) and Shi and Zhu (2023) ignored the potential lack of consideration for industry-specific dynamics. Therefore, foreign divestment effects can vary significantly across industries due to differences in technology dependence, market structure, and regulatory environments, which may not have been adequately addressed in their research. Failing to account for industry-specific degrees could lead to oversimplified conclusions that may not hold true across diverse sectors, necessitating further investigation into the sectoral impacts of foreign divestment.

On the other hand, employing a comprehensive and longitudinal data set of 13629 Belgian small and medium-sized enterprises (SMEs) between 1998 and 2010, Onkelinx, Manolova and Edelman (2016) investigated the impact of a company's FD from exports on its subsequent performance. Additionally, the study of Onkelinx, Manolova and Edelman (2016) confirmed that firms that rely on export earnings and have several market exits are badly impacted. Onkelinx *et al*. (2016) further observed that organisations that divest exporting had lower profitability, which continues to diminish after the divestment from international markets. This was supported by Merza and Alhussainan (2023) who noted weak profitability as one of the vital FD factors.

Onkelinx *et al*. (2016) as well as Merza and Alhussainan (2023) stressed that ineffective divestment, on the other hand, does not always result in an organisation's failure. Findings in the study of Onkelinx *et al*. (2016) and Merza and Alhussainan (2023) lack potential oversight of contextual factors such as regulatory environments and cultural differences. Foreign divestment decisions can be significantly influenced by the unique institutional frameworks and cultural dynamics of different regions, which may not have been adequately accounted for in their analyses. Failing to consider these contextual factors could limit the applicability of their findings to regions outside of the contexts they studied, emphasising the importance of exploring the broader socio-economic landscape in which foreign divestment decisions occur.

Employing a different method than that of Onkelinx *et al*. (2016) and Merza and Alhussainan (2023) in a different geographical area, Khaing (2016) investigated the

impact of FD on economic growth using the Autoregressive Distributed Lag (ARDL) in Myanmar covering the annual data ranging between 1990 and 2013. Khaing (2016) revealed a negative relationship between FD and economic growth in the short and long term in Myanmar using this ARDL approach. Moreover, the study found that human capital development (HCD) has a significant and negative impact on economic growth. Finally, the study of Khaing (2016) concludes that Myanmar performing poorly in terms of drawing FDI.

The study by Khaing (2016) like that of Onkelinx *et al*. (2016) and Merza and Alhussainan (2023) is only limited to one country (Myanmar) while the current study investigated the broad perspective of FD at a continental level (Africa). Aligned to Ali *et al*. (2018), the study by Khaing (2016) only investigated the cointegration between FD and economic growth and failed to present the causal relationship between FD and economic growth. Therefore, it is, for this reason, that this study seeks to close that gap by also investigating the causal relationship between FD, financial development, and economic growth particularly in Africa for the period 2000 until 2020.

Similar to Haug, Nguyen and Owen (2023), Zak (2018) examined the major determinants of foreign direct divestment (FDD) in the Poland region for the period 2011 to 2016. The study found political instability and geopolitical uncertainty to be the main drivers of FD. It should be noted that the period employed in the study of Zak (2018) is deemed short and can result in reporting false negative or positive results. For this reason, the current study analysed the macroeconomic drivers of FD in Africa for the period 2000 to 2020 to achieve a reliable and valid outcome. Like Haug *et al*. (2023), Zak's (2018) study is limited to Poland and cannot be generalised to contexts in Africa. Hence, this study seeks to close that gap by analysing the macroeconomic drivers of FD in Africa. Zak (2018) and Haug *et al*. (2023) focused on the trends of the determinants of FDD in Poland and totally ignored the econometric model specification. Hence, the current study seeks to close that gap by employing various economic models such as pooled effect, fixed effect, random effect, GMM, and feasible generalised least squares (FGLS).

Zak (2018) and Haug *et al*. (2023) ignored the impact of environmental, social, and governance (ESG) factors on foreign divestment decisions. Increasingly, investors are

considering ESG criteria in their decision-making processes, and failure to account for these factors could lead to incomplete assessments of the motivations behind foreign divestment. The current study benefits from exploring how ESG considerations influence the foreign divestment behavior of multinational enterprises, contributing to a more comprehensive understanding of foreign divestment dynamics.

In another study, focusing on Latvia and Poland, Zak (2018) investigated the analysis and assessment of foreign capital flows in the form of FDs and FDI using the critical analysis method. Zak (2018) highlights that in contemporary firms, the decision to invest, divest, and transfer funds in various international markets becomes a static part of management pragmatics. Zak (2018) revealed that poor financial performance, lack of further growth opportunities, and high political volatility are some of the major determinants of FD in Latvia and Poland. This study revealed that political instability, exchange rate, inflation, unemployment, HCD, economic growth, natural resources, and financial development are the key drivers of FD in Africa. In addition, the focus of Zak (2018) is on two countries while this study focuses on thirty-five countries in Africa.

Zak (2018) revealed that foreign flows (FDI and FD) among countries of the world economy in the past thirty years have increased dramatically. The study further found that the liberalisation of foreign flows is one of the reasons for the above-said increase. Zak (2018) and studies such as those of Haug *et al*. (2023), Khaing (2016), and Onkelinx *et al*. (2016), totally ignored the role of institutional factors in shaping foreign divestment decisions. Institutional frameworks, including legal systems, regulatory environments, and property rights protection, can significantly influence the attractiveness of investment destinations and the ease of conducting business. In contrast, this study will benefit from addressing this gap by incorporating foreign divestment framework into the analysis of foreign divestment in Africa, providing a more comprehensive understanding of the drivers behind divestment decisions and their implications for economic development in the region.

Also focusing on China like the studies of Chen (2013) and Wan, Chen and Yiu (2015), Mele and Quarto (2018) investigated the gravitational model for estimating the determinants of outward FDI using 900 observations. According to Mele and Quarto

(2018), to explain the trade and foreign capital flows, gravity models use the analogy of the attracting force. In addition, Mele and Quarto (2018) identified GDP, political risk, trade openness, and natural resources as the key determinants of outward FDI. On the contrary, this study identified natural resources, exchange rates, inflation, trade openness, unemployment, human capital development, economic growth, and financial development as the key FD determinants. Like in the study of Chen (2013) and Wan, Chen and Yiu (2015) it is also noted that the weakness of Mele and Quarto's (2018) study is the limited consideration of the specific contextual factors influencing foreign direct investment (FDI) outflows from China. The determinants of outward FDI can vary significantly based on the unique institutional, cultural, and geopolitical characteristics of China, which may not be fully captured in studies focusing solely on gravity models and broad macroeconomic indicators. The current study, with its focus on African countries, offers a unique perspective by examining the distinct macroeconomic drivers shaping foreign divestment decisions in the African context, filling a gap left by studies primarily centred on China. Moreover, the study by Mele and Quarto (2018) found that trade openness, political risk, and positively influence outward FDI while gross domestic product and natural resources are negatively related to outward FDI (OFD).

Taking a different view from the above reviews, Mohr, Batsakis, and Stone (2018) explained the effect of rapid globalisation on horizontal FD in the retail sector over the period of 2003 to 2012 using two-stage least squares (2SLS) in Austria. The study of Mohr *et al.* (2018) is limited to an industry level in Austria; therefore, the results cannot be used for country estimations and far worse for the continental level. This study is unique to the study of Mohr *et al.* (2018) because it analyses FD at a continental level and the findings can be generalised and used in another continent that has similar growth to Africa. Mohr *et al.* (2018) like Zak (2018) contribute to overcoming the relative dearth of theoretical explanations for divestment using only the Boddewyn theory. In contrast, this study incorporated several theories such as those of Dunning 1977 (eclectic paradigm), Myers 1977 (real option theory), Boddewyn 1983 (Foreign divestiture theory), Wernerfelt 1984 (RBV) and North 1990 (IBV theory).

In addition, the study of Mohr, Batsakis, and Stone (2018) focused only on the 2SLS method which may provide spurious results. However, this study used various methodologies such as GMM, FGLS, pooled effect, fixed effect, and random effect to come to its extensive conclusion. Moreover, Mohr *et al*. (2018)'s study like Zak (2018) ignored the use of Granger causality. Therefore, in the study of Mohr *et al.* (2018), one cannot know which variable caused which. Hence this study employed the Dumitrescu Hurlin causality test to determine the causality between FD, financial development, and economic growth in Africa. Finally, using 2SLS the study of Mohr *et al.* (2018) found that firm performance negatively impacts FD in the retail industry.

Also focusing on international retail FD like Mohr, Batsakis, and Stone (2018), Ciacaru and Cutan (2018) observed that poor internationalisation process, poor market performance, a change in strategy as well as a focus on the home market economy were the key reasons for international retail divestment. Further note, selling off is the most common type of divestment utilised by these firms. Similar to Chen (2013) and Wan, Chen and Yiu (2015) the study of Ciacaru and Cutan (2018) focused on a specific industry (retail) their findings cannot be used at a country level. This study is then unique in such a way that our results can be generalised and used in another country or continent with similar economic growth settings. The study of Ciacaru and Cutan (2018) like that of Mohr *et al.* (2018) and Zak (2018) based their findings on one theory, the theory of FD developed by Boddewyn in 1983. Hence this current study's findings are more valid and reliable as their results are based on various theories and various econometric methods.

Borga, Flores, and Sztajerowsaka (2020) examined the determinants of FD decisions of multinational enterprises using the cross-country firm-level perspective in 41 OECD and G20 countries for the period 2007 until 2014. The study of Borga *et al.* (2020) indicates that labour cost and foreign trade agreements influence the decision of FD. In addition, the study revealed that every five years, about a fifth of all foreign affiliates, are divested. Furthermore, the study of Borga *et al*. (2020) finds that there are only four key drivers of FD (trade openness, investment, tax agreements, and labour costs). In contrast, this study went further to find that there are nine key drivers of FD in Africa (trade openness,

natural resources, economic growth, political instability, exchange rate, financial development, inflation, human capital development, and unemployment).

Moreover, the study of Borga *et al.* (2020) like that of Onkelinx *et al.* (2016) focuses on the short span of years 2007 until 2014 while this study used the long period ranging from 2000 to 2020. The study of Borga *et al.* (2020), similar to that of Mohr *et al*. (2018) ignored the potential oversight of the heterogeneity within multinational enterprises (MNEs) and foreign affiliates. MNEs vary greatly in terms of size, industry, and strategic priorities, which can lead to diverse motivations and considerations when it comes to foreign divestment decisions. By focusing on the macroeconomic drivers of foreign divestment in African countries, the current study offers a unique perspective that captures the nuanced factors influencing divestment decisions across a diverse range of MNEs operating in the African context. Finally, Borga *et al*. (2020) conclude that there is merit in better understanding divestment of firm decisions and their factors such as differences in drivers that impact investment on MNEs and decisions of divestment.

Failing to consider the GMM method like Borga *et al.* (2020), Georgopoulos and Sogiakas's (2019) study examined the trend of FD risk focusing on a sample of 214 subsidiaries located in Greece using the survival analysis and logit regression models econometric techniques. The findings of their study revealed that the risk stabilisation of FD at the stage of deep integration is because of product differentiation investment and human capital rather than factor differentials such as tariffs and wage costs. Akin to the studies such as those of Chen (2013), Wan *et al*. (2015), and Mele and Quarto (2018), Georgopoulos and Sogiakas's (2019) study also had a shortcoming of focusing on one country (Greece). In addition, Georgopoulos and Sogiakas's (2019) research findings cannot be extrapolated as they were derived from a single country. Therefore, it was imperative to examine the macroeconomic variables associated with FD in Africa. Moreover, the results obtained from this current study can be applied to the entirety of Africa. Furthermore, their study overlooked the use of GMM, which is a well-established methodology for addressing missing data and producing reliable and accurate outcomes. Consequently, this study has employed GMM in its methodology to address the observed limitation.

Investigating the determinants of FD like Borga *et al.* (2020), Nguyen (2019) looked at the determinants of FD including data from 137 host economies and 169 source countries from 2004 to 2012. His study employed estimating techniques parametric and flexible parametric estimators to account for the sample selection issue in divestment data. In contrast to the estimating techniques parametric and flexible parametric employed by Nguyen (2019), Chen (2013), Wan *et al.* (2015), and Mele and Quarto (2018) which are unaccountable in the presence of data missing, this study employed various econometric methods such as pooled effect, fixed effect, random effect, GMM and FGLS. In this study, the OLS methods were employed for robustness and comparison purposes while the GMM was the focus as it can deal with omitted data and autocorrelation. Moreover, Nguyen's (2019) findings indicate that the GDP per capita, the source country's market size, the GDP growth of both host and source countries, distance as well as bilateral investment treaties discourage FD while having a shared language and currency enhances it. Furthermore, common religion, as well as political stability, showed a non-significant influence on the probability of divestment. The findings by Nguyen (2019), Ciacaru and Cutan (2018), Mohr *et al.* (2018), and Zak (2018) support Boddewyn's (1983a)'s FD theory.

Other studies that also did not consider the GMM like previously mentioned studies include Konara and Ganotakis (2020) who used the annual longitudinal dataset of 1672 foreign firms from 2008 to 2015. The aim was to investigate the divestment of foreign subsidiaries in Spain and their results revealed that foreign subsidiaries with better human capital and high levels of product innovation performance are less likely to divest. Similarly, Konara and Ganotakis (2020) extend Ciacaru and Cutan's (2018) study by focusing on the theory of Boddenwyn (1983). Therefore, the current study makes a methodological contribution by integrating several theories such as the FD theory, eclectic paradigm theory, the real option theory, IBV theory and real option theory to produce valid and reliable findings and to come to a conclusive comprehensive investigation. In addition, the study by Konara and Ganotakis (2020) as well as those studies by Chen (2013), Wan *et al.* (2015), and Mele and Quarto (2018) neglected the contextual factors specific to African countries that may influence foreign divestment decisions differently than in other regions. The current study, fills this gap by specifically examining the

macroeconomic drivers of foreign divestment within the African context, offering insights tailored to the unique challenges and opportunities present in African economies.

Furthermore, Konara and Ganotakis (2020) used the observation of 162 foreign firms to come to their conclusion, however, their observation is unable to deal with omitted data that occurred partially during 2008. Hence this study employed GMM with dummy analysis and the stability of ARDL and causality to deal with the global financial crisis (2007 to 2008) and the Covid-19 pandemic (2020). Finally, this study is unique to that of Konara and Ganotakis (2020) because it went further to determine the causal relationship between FD, financial development, and economic growth in Africa using the Dumitrescu Hurlin Granger causality test.

Itoh and Konno (2020) examined the determinants of FD behaviour using the combined approach of dictionary-based and correlational approach for the period 1996 until 2016 in Japan. Itoh and Konno (2020) showed that a change in business strategy had a significant impact on FD. However, their study like Konara and Ganotakis (2020) did not consider the Dumitrescu Hurlin Granger causality which aids in determining bidirectional, unidirectional, and non-causality between variables. Furthermore, the study of Itoh and Konno (2020) shares similar traits to previous studies by Konara and Ganotakis (2020), Chen (2013), Wan, *et al.* (2015), and Mele and Quarto (2018) as they were one-country dimensional hence their results cannot be generalised in other countries like Africa. It was therefore fit for the current study to perform an investigation that is based in Africa. Moreover, the study of Itoh and Konno (2020) investigated the factors of FD in Japan, however, their study failed to clearly outline the factors affecting FD in that country.

This study, therefore, identified inflation, natural resources, exchange rate, unemployment, economic growth, political instability, human capital development, trade openness, and financial development as the key factors of FD in Africa. The study of Itoh and Konno (2020) like Konara and Ganotakis (2020), Chen (2013), Wan, *et al.* (2015), and Mele and Quarto (2018) further neglected to use econometric model estimation while this study used GMM, pooled effects, random effects, FGLS, fixed effects, ARDL, and Dumitrescu Hurlin Granger causality test as the econometric model estimation. Furthermore, the study of Itoh and Konna (2020) also fell short of employing the pre-

diagnostic tests and the unit roots tests to test the stationarity. Their study's results might be biased as those above-mentioned tests were not utilised. Therefore, this study explores that gap and seeks to close it by using the pre-diagnostic tests and the unit root tests before using the data for the main analysis.

Ignoring pre-diagnostic tests and the unit root tests like Itoh and Konno (2020), Changyuan, Chunxiao and Hongyong (2020) used survival analysis to examine the factors that influence FD by Japanese affiliate organisations in China for the period 1995 to 2016. Changyuan, Chunxiao, and Hongyong, (2020) identified firm size, profitability, capital share, labour productivity, and export proportion as the key drivers behind FD in China. In contrast, this study identified inflation, exchange rate, unemployment, natural resources, human capital development, economic growth, trade openness, and political instability as the key drivers behind FD in Africa. In addition, Changyuan, Chunxiao and Hongyong, (2020) suggest that divestment is negatively associated with affiliate firm size, profitability, Japanese capital share, labour productivity as well as export proportion to Japan.

Like, Chen (2013); Wan *et al.* (2015), and Mele and Quarto (2018) the results of Changyuan *et al.* (2020) study can only be utilised in China as their study focused on that country. Whereas this study's results can be generalised and utilised in other countries with similar macroeconomic settings. Moreover, Changyuan *et al.* (2020) stressed that the likelihood of divestment increases with parent organisation size as well as the experience in the Chinese market, however, decreases with affiliate and parent firm business relatedness, market concentration and entry threshold. In addition, the size and profitability of an affiliate's firm and market competition, are the primary factors influencing withdrawal or dissolution. Finally, the study of Changyuan *et al.* (2020) is similar to studies such as those of Chen (2013) and Wan *et al.* (2015), Mele and Quarto (2018), Georgopoulos and Sogiakas (2019), and Konara and Ganotakis (2020) ignored environmental and sustainability factors in foreign divestment decisions. With increasing awareness of environmental concerns and corporate social responsibility, multinational enterprises may consider environmental sustainability and ethical practices when deciding to divest from foreign subsidiaries. The current study, is unique in its exploration

of how the foreign divestment framework intersect with macroeconomic factors to influence divestment decisions in African countries, offering valuable insights into the evolving landscape of foreign divestment.

Sergeevic (2021) explored the explanatory power of institutional and political factors in the process of FD by twenty (20) Russian MNEs, as well as their impact on the corresponding companies' post-divestment financial performance using panel data spanning from 2010 to 2019. In addition, the absence of the sanction in a host country, its membership in the same regional integration bloc as Russia, and a lower economic freedom distance between the countries were found to have a significantly positive effect on the survivability likelihood of foreign subsidiaries owned by Russian MNEs. Likewise, it was also established that the economic freedom distance, political stability distance, and sanctions all have a negative impact on Russian companies' post-divestment financial performance. Like the previous reviewed literature in this study, the limitation of Seergeevic's (2021) study is that it focused only on the parent-level financials of Russian MNEs and did not include subsidiary data. Like Changyuan *et al.* (2020), Sergeevic (2021) ignored the use of GMM. Furthermore, the study of Sergeevic (2021) also only focused on one country and overlooked developing countries in particular Africa. Therefore, like Berry (2013) it is difficult to generalise the findings of the empirical study of Sergeevic (2021). Hence this study employed various econometric methods and theories to analyse the macroeconomic drivers of FD in Africa for the period 2000 to 2020.

On the other hand, Nguyen, Larimo, and Ghauri (2022) examined the impacts of economic and political friction and understanding of FD in Finland covering the data ranging from 1970 to 2010 using survival analysis. Their study focused only on the impacts of economic and political friction in Finland. Since MNEs communicate different aspects of the institutional environments in the host countries, the study attempts to close the gap left by Nguyen *et al.* (2022) by introducing the financial development dimension. The study of Nguyen, Larimo, and Ghauri (2022) finds that economic friction yields a negative relationship with FD while political friction has a positive relationship with FD in Finland for the period 1970 to 2010.

Moreover, Nguyen *et al.* (2022) study like Itoh and Konno (2020), is limited to only survival analysis methodology, in contrast to this study which employed various methodologies such as the pooled effects, random effects, fixed effects, generalised method of moments (GMM), feasible generalised least squares (FGLS), cross country, and the Dumitriscu Hurlin granger causality test. Moreover, Nguyen *et al.* (2022) study like Changyuan *et al.* (2020) did not perform the unit roots tests to check for stationarity. It is also, for this reason, this study also performed the unit roots tests for stationarity. Nguyen *et al.* (2022) conclude that political friction results in more constraints on FD since the host governments often hold more power.

Focusing on Poland like Zak (2018), Salamaga (2022) investigated the FD risk factors during the COVID-19 pandemic. Salamaga (2022) used the conjoint analysis to analyse the risk factors in Poland. Market, cost, industry, law, and politics were found to be the risk factors in that study. In addition, the study by Salamaga (2022) found that irrespective of how the pandemic develops, FD in services bears the greatest risk. Like Ciacaru and Cutan (2018), Salamaga (2022) looked at microeconomic factors whereas this study analysed the macroeconomic drivers. The advantage of investigating the macroeconomic factors is that the findings can be used in another country with similar macroeconomic settings. The study of Salamaga (2022) like Chen (2013), Zak (2018), and Nguyen *et al.* (2022) focused on only one country (Poland) while this study is significant as the focus is on 35 countries with the data span from 2000 to 2020. The study of Salamaga (2022) focused only on Poland and for one year. The small sample is commonly known for its risk of reporting false negative and or positive findings. In contrast, this study focused on 35 African countries for 20 years. Therefore, this study's findings are preferred to that of Salamaga (2022) due to its larger sample. Moreover, Salamaga (2022) ignored the long-term economic implications of foreign divestment decisions. While focusing on risk factors during the COVID-19 pandemic is important, it may not fully capture the broader macroeconomic drivers that influence foreign divestment decisions over an extended period. The current study fills this gap by analysing macroeconomic factors spanning two decades, providing insights into the broader economic context shaping divestment decisions in African countries beyond short-term risk assessments.

Panibratov and Gaur (2022) studied the political determinants of FDs of Russian multinational enterprises (MNEs). Panibratov and Gaur (2022) stressed that both institutional factors and political factors massively influence an organisation's process of decision-making concerning investing or divesting under unforeseeable risky environments, basing this on previous research. They focused only on contributing to the ongoing literature review on FD. In contrast, this study is more advanced as it contributes to the literature body of knowledge, the methodology, and the framework contribution. Furthermore, to the like of Salamaga (2022), they employed a small sample of firms to assess the long-term effect of FDs in Russia. These findings may be biased and may contain a high risk of reporting false positive or negative results due to the small sample. Therefore, the current study addressed that gap by employing a large sample of thirty-five countries with datasets ranging from 2000 to 2020. Finally, Panibratov and Gaur (2022) in support of Seegevic (2021) stressed that political uncertainty and economic uncertainty are identified as the political FD determinants in Russia. These two variables are closely linked; therefore, their uncertainty can make attracting and retaining FDI challenging.

Like Changyuan *et al.* (2020) discounting GMM and using the Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) multiple regression analysis framework in Latin America and the Caribbean, Correa da Cunha, Singh, and Xie (2022) investigated the determinants of outward FDI with the data ranging from 2007 to 2016. TOPSIS, the method employed by Correa da Cunha *et al.* (2022) is commonly known for its failure to provide vivid data on the situation. Due to complications around the TOPSIS method, this study employed various methods for its main data analysis such as the GMM which is known for its ability to deal with biasness, FGLS, pooled effect, fixed effect, and random effect to come to the conclusiveness and quality investigation. The study of Correa da Cunha *et al.* (2022) such as that of Zak (2018) concentrated on two countries (Latin and Caribbean) outside Africa, hence their findings cannot be generalised and used in Africa.

Therefore, this study sees that gap in the literature and attempts to close it by thoroughly analysing the macroeconomic determinants of FD in Africa for the period ranging from

2000 to 2020. With a larger dataset than that of the study of Correa da Cunha *et al.* (2022), this study's findings are more reliable and valid. In addition, the authors revealed that quality infrastructure and macroeconomic performance yield a positive relationship with outward FDI from 2007 to 2016.

Similar to Panibratov and Gaur (2022), Subramaniam, Loganathan, and Masron (2023) analysed the relationship between food security and political instability in determining FD for 60 developing countries in the period 2011 to 2020. Additionally, the authors employed GMM to identify the key determinants of FD and to achieve reliable and accurate outcomes. Food security, political instability, economic growth, human capital development, and trade openness were found to be the key FD drivers in that study. In contrast, the current study employed more macroeconomic drivers such as inflation, exchange rate, financial development, unemployment, natural resources human capital development, trade openness, economic growth, and political instability to achieve reliability and accurate findings. Adding these drivers to the current study enhanced it by providing a more comprehensive understanding of the variables affecting this phenomenon.

Moreover, the study of Subramaniam *et al.* (2023) in contrast to studies such as those of Chen (2013), Changyuan *et al.* (2020), and Correa da Cunha *et al.* (2022) focused on only the GMM to analyse the macroeconomic drivers behind FD in 60 developing countries. Whereas the current study employed a variety of methods such as pooled effect, random effect, fixed effect, GMM, and feasible generalised least squares (FGLS) to come to a comprehensive conclusion. Furthermore, Subramaniam *et al.* (2023) only aim to examine how the food security level explains the relationship between political instability and FD. This study using ARDL and Dumitrescu Hurlin causality test went further to examine the relationship between FD, financial development, and economic growth and to determine the causality between the said variables.

Subramaniam *et al.* (2023) found that there is an inverse relationship between political instability and FD on food security. In addition, their study revealed that economic growth, human capital development, and trade openness yield a negative relationship with FD. In

conclusion, the study of Subramaniam *et al.* (2023) study concludes that political instability's effect on FD tends to be lower in countries with better food security levels.

Using sample selection methods for panel data, Nguyen (2022) investigated the determinants of both the probability and volume of FDD between countries. The study covered 137 host countries and 169 source countries spanning from 2004 to 2012. The findings show that a bilateral investment treaty, as well as market size and GDP growth in both host and source countries, discourage divestment. Sharing a common currency, on the other hand, has a positive impact on divestment. The limitation of the study of Nguyen (2022) like that of Correa da Cunha, Singh, and Xie (2022) study was the lack of the dynamic nature of foreign divestment decisions over time. While these studies provide valuable insights into the determinants of divestment, they may not fully capture how these determinants evolve and interact with changing economic conditions and geopolitical factors. The current study addresses this gap by analysing divestment decisions over a span of two decades, allowing for a comprehensive understanding of how macroeconomic drivers influence divestment trends in African countries over time.

Like Nguyen (2022) who totally ignored GMM, Djokoto, Hysa, and Mansi (2023) examined the impact of outward and inward FDI on domestic investment in 23 Eastern European countries from 1991 to 2019 utilising the autoregressive distributed lags model (ARDL). The results of the study of Djokoto *et al.* (2023) showed that both outward and inward FDI, as well as the corresponding divestments, crowd out domestic investment. In addition, the impact of outward FDI and its divestment crowds out domestic investment more than inward FDI and its divestment (Djokoto *et al.* 2023). Their study like that of Chen (2013) and Salamaga (2022) studies was limited to only Eastern European countries and other economic and geographical blocs such as African countries were not included. Their results cannot therefore be generalised to other contexts. The current study fills this gap by focusing on African countries, contributing valuable and unique insights from these emerging markets.

Haug *et al.* (2023) investigated if the drivers of FDI have a reverse and symmetric effect on FD in New Zealand for the period covering 2005 to 2018. This was done through OLS. This technique is commonly known for its inability to address omitted data. Haug *et al.*

(2023) revealed that source country GDP and distance had statistically significant impacts on FDI and FD in New Zealand during that period of investigation. It is on this basis that the current study employed the GMM method to deal with omitted data and strengthen the reliability of the results. Similar to the previous literature review in this study, the study of Haug, Nguyen, and Owen (2023) is based in New Zealand and their results cannot be generalised to Africa. In terms of theoretical limitations, the number of studies under review were limited to either one or two theories (Haug *et al.* 2023; Mohr *et al.* 2018; Zak, 2018). To address this gap, the current study employed a multi-theoretical framework in line with Hussain *et al.* (2018).

The other limitation observed in the literature is on studies not focusing on the causality of the drivers behind FDI and FD. Examples of such studies include Haug *et al.* (2023) as well as Itoh and Konno (2020), hence the use of Dumitrescu Hurlin Granger causality in the current study to address this gap. In conclusion, recent empirical work on the drivers of FD in Africa is also available although scant. Furthermore, only a few of these studies utilised quantitative analysis. The shortcomings of the study of Haug *et al.* (2023) is the oversight of the broader economic and geopolitical factors that may influence foreign divestment decisions beyond the scope of their analysis. While the study focus on specific drivers such as source country GDP and distance, they may not fully capture the multifaceted nature of divestment decisions, which can be influenced by factors such as political stability, currency fluctuations, and regional economic integration. The current study addresses this gap by examining a comprehensive set of macroeconomic drivers over a broader geographic scope, providing a more holistic understanding of the factors shaping foreign divestment in African countries. The next section will look at existing African studies on this topic.

3.3 FOREIGN DIVESTMENT: LITERATURE REVIEW ON THE AFRICAN CONTEXT

Looking at recent empirical research that examined the FD drivers in emerging markets particularly in Africa, Djokoto, Gidiglo, Srofenyoh, Agyei-Henaku, Prah, and Arthur (2022) analysed the impact of FD in the Agricultural development in Ghana using a cross-sectional data of 159 observations. The study of Djokoto *et al.* (2022) stressed the

implications of the high unemployment rate, profit, exchange rate, and the inverse effect on general agricultural development results from FD in Ghana. The study of Djokoto *et al.* (2022) employed OLS to investigate the presence of FD in agricultural development in Ghana for those 159 observations. The shortcoming of OLS is that it is commonly known for its inability to deal with biasness.

Hence this study employed OLS for robustness and comparison purposes while the focus is on the GMM estimation technique which is known for its ability to deal with endogeneity and biasness. Moreover, the study of Djokoto *et al.* (2022) is narrowly focused on one country (Ghana) while the study focuses on Africa as a whole. Therefore, the results of Djokoto *et al.* (2022) cannot be generalised and used in other countries. Furthermore, the study of Djokoto *et al.* (2022) did not cater for the causality, hence this study employed the Dumitrescu Hurlin Granger causality to investigate the causal relationship between FD, financial development and economic growth. In conclusion, Djokoto, Gidiglo, Srofenyoh, Agyei-Henaku, Prah, and Arthur (2022) find that there is an inverse relationship between FD and overall agricultural development in Ghana.

Also, in Ghana and totally ignoring GMM like Djokoto, Gidiglo, Srofenyoh, Agyei-Henaku, Prah, and Arthur (2022), Djokoto (2021) investigated the drivers of agricultural FD with the data covering 1991 to 2017. The study of Djokoto (2021) identified the factors of FD as market size, exchange rate, political regime, level of development, trade openness, gross domestic per capita, and inflation. This study employed inflation, natural resources, exchange rate, unemployment, economic growth, political instability, human capital development, trade openness, and financial development as the key factors of FD in Africa. Moreover, Djokoto (2021) neglected the broader economic and institutional factors that may influence foreign divestment decisions. While Djokoto (2021) focuses on specific factors such as market size, exchange rate, and political regime characteristics, they may overlook other important determinants such as regulatory environment, investment incentives, and institutional quality. The current study addresses this gap by examining a comprehensive set of macroeconomic drivers, including institutional factors, thereby providing a more holistic understanding of the forces shaping foreign divestment in African countries.

Djokoto (2021) found that market size, exchange rate political regime characteristics and transitions, and the development level negatively impact agricultural FD while trade openness and access to land resources were found not to determine FD.

In another study focusing on Ghana, Nyuur and Debrah (2014) utilised a questionnaire survey to sample 92 foreign firms located and actively operating in Ghana to investigate the factors that can influence foreign firms' strategic disinvestment decisions. Nyuur and Debrah (2014) found that the business environment of host countries influences foreign firms' subsequent strategic decisions. Furthermore, favourable government regulations, good infrastructure as well as low-cost factors are significant in influencing expansion decisions made by foreign organisations. Unfavourable business environment factors, on the other hand, will encourage strategic divestment. The weakness of Nyuur and Debrah's (2014) like that of Djokoto (2021) and Djokoto *et al.* (2022) study is the lack of consideration for industry-specific factors that may influence foreign divestment decisions. While Nyuur and Debrah (2014) focus on general business environment factors, they may not fully account for industry-specific challenges and opportunities that can affect divestment decisions. The current study fills this gap by examining a broader range of macroeconomic drivers that are relevant across industries, providing insights into the overall economic context shaping foreign divestment in African countries beyond industry-specific considerations

Yadav and Iqbal (2020) investigated the foreign direct divestment (FDD) of developed and developing countries. Yadav and Iqbal (2020) identified economic downturn, increased operating expenses, the crisis in the sector, high political volatility, significant cultural differences, and strong concentration in an industry as the key FD determinants in developing and developed countries. In addition, Yadav and Iqbal (2020) supported Nyuur and Debrah (2014) in stressing that FD has become a strategic shift for organisations to meet the prospects of the various shareholders. In contrast to the study of Djokoto *et al.* (2021), the study of Yadav and Iqbal (2020) identified the key determinants of FDs but failed to investigate their impact on FD in developing and developed countries. The current study closed that gap by employing the generalised method of moments to identify the impacts of the key FD determinants in Africa.

Furthermore, the study of Yadav and Iqbal (2020) did not cater for or provide the findings of their study. In contrast, this study seeks to provide findings on the impact and the relationship of the key FD determinants in Africa. Moreover, Yadav and Iqbal (2020) like Haug *et al.* (2023) in Poland did not employ any econometric model specification to answer their research question. Hence the current study employed various econometric model specifications to answer the research questions stated in chapter one. Finally, there was no selection of data period in the study of Yadav and Iqbal (2020). However, this study employed a dataset ranging from 2000 to 2020. With no sample size in the study of Yadav and Iqbal (2020), there is a high risk of reporting false findings. The current study then employed a large sample size to control the risk of reporting false findings.

On the other hand, using data ranging from 1991 until 2019 in South Africa, Matekenya and Moyo (2023) examined the relationship between FD, economic growth and development. In contrast to the study of Djokoto *et al.* (2023), the study of Matekenya and Moyo (2023) employed the non-linear autoregressive distributed lag (NARDL) method to investigate the impact on FD, economic growth and development. The NARDL method employed by the study is commonly known for its inability to capture accurate findings when using fewer assumptions whereas the ARDL model is commonly known for its ability to capture the accurate results whether fewer or more assumptions are employed. Matekenya and Moyo (2023) like Djokoto *et al.* (2023) study has a shortcoming as it is limited to one method (NARDL), in contrast to this study which focuses on a variety of methods such as the ARDL, GMM, FGLS, pooled effects, random effects, fixed effects, Dumitrescu Hurlin Granger causality test, and the cross-section dependency. Like Djokoto (2021) and Djokoto *et al.* (2022), the focus of the study of Matekenya and Moyo (2023) is only on one country which makes it difficult to generalise those results on another country. Hence the study saw that gap and seeks to close it by investigating the impact of FD on macroeconomic variables in African countries.

Furthermore, Matekenya and Moyo (2023) focused only on the cointegration relationship of FD, economic growth and development in South Africa. This study went further to investigate the causal relationship between FD, financial development, and economic growth in Africa. Moreover, in the study of Matekenya and Moya (2023), it is not clear

which development are they referring to, while the current study is clear on the cointegration between FD, financial development, and economic growth. Matekenya and Moyo (2023) using NARDL for the period 1991 to 2019 found that FDs are detrimental to both economic growth and development. The study of Matekenya and Moyo (2023) concludes that the negative impacts of FDs outweigh the positive impacts of inflows of FDI.

In another study, Ross (2015) investigated the Chinese outward FDI in eight African countries for the period 2003 to 2012. In contrast, the current study investigates the FD macroeconomic variable in thirty-five African countries for the period 2000 to 2020. Therefore, this study sample is larger than the study of Ross (2015). The current study selected a larger sample size to control the risk of documenting inaccurate results. In addition, to investigate the Chinese outward FDI in eight African countries, Ross (2015) employed three-panel models (pooled effects, random effect, and fixed effect) and totally ignored GMM like the studies of Matekenya and Moyo (2023), Yadav and Iqbal (2020), and Djokoto (2021). The panel models used by Ross (2015) are commonly known for their inability to deal with the endogeneity problems. The current study then employed four panel models (pooled effect, random effect, fixed effect, and FGLS) for only robustness and comparison purposes.

Therefore, the current study employed the generalised method of moments (GMM). GMM is known for its ability to deal with endogeneity problem. Moreover, Ross (2015) is limited to Chinese outward FDI in only eight African countries, which may not represent the diversity of FD dynamics across the entire African continent. In contrast, the current study covers a broader scope by investigating FD macroeconomic variables in thirty-five African countries, providing a more comprehensive understanding of FD determinants across the region. Additionally, while Ross (2015) identified certain factors like market size and infrastructure as key determinants of outward FDI, the current study extends the analysis to include a wider range of macroeconomic factors such as exchange rates, human capital development, and political instability, contributing to a more nuanced understanding of FD drivers in Africa. Furthermore, Ross (2015) reveals that factors such as natural resources and infrastructure drive outward FDI in Africa.

Edo and Nnadozie (2023), utilising the vector error-correction model investigated the reasons for FD in Sub-Saharan Africa, particularly institutional and macroeconomic conditions with data from 1980 to 2020. The model's estimation results of their study show that macroeconomic performance and institutional quality are the primary drivers of divestment. The findings of the study of Edo and Nnadozie (2023), however, contradict the neoclassical theory employed by Matekenya and Moyo (2023), which emphasises investment return as the primary factor influencing investment. Furthermore, the study of Edo and Nnadozie (2023) is limited to only one method, the vector error correction model and also ignored GMM like Ross (2015). In addition, Edo and Nnadozie (2023) made a fallacy to conclude that cointegrating correlations establish causality. Hence the current study seeks to rectify that fallacy and close the gap by employing the Dumitrescu Hurlin Causality test to determine the causality between FD, FIN, and economic growth in Africa during the period of investigation.

Moreover, like Ross (2015) the study of Edo and Nnadozie (2023) ignored the Generalised Methods of Moment (GMM) which is known for its ability to deal with endogeneity. To address this shortcoming, the current study employed the GMM estimation technique. Furthermore, Edo and Nnadozie (2023) focused on the macroeconomic drivers of FD at the regional level (Sub-Saharan Africa). Therefore, there was a need to do a thorough investigation of the macroeconomic drivers of FD at a continental level. Hence the study analysed those macroeconomic drivers of FD in Africa. Finally, the study of Edo and Nnadozie (2023) concludes that macroeconomic performance drives FD in SSA.

Ralarala and Makwala (2022) investigated foreign direct divestment in selected Sub-Saharan African countries utilising annual data from 1998 to 2018. Ralarala and Makwala's (2022) study assumed that the determinants of FDI are the same as those for FD but with a different sign. Hence Ralarala and Makwala's (2022) study reviewed FDI empirical literature. Moreover, like Djokoto *et al.* (2023) the panel ARDL was used to establish the long and short-run relationship among variables that are likely to influence FD and FDI. Hence the current study is unique as it has employed more econometric

methods (ARDL, Dumetrescu Hurlin granger, GMM, FGLS, pooled effect, random effect, and fixed effect) to come to a comprehensive conclusion.

Furthermore, Ralarala and Makwala (2022) revealed that urbanisation and lending rates have a negative and significant effect on FDI. Moreover, their results also show that real GDP per capita has an insignificant impact on FDI. Lastly, the study of Ralarala and Makwala (2022) found that trade openness had a significant positive influence on FDI. More still, Ralarala and Makwala (2022) favoured policies that increase FDI by lowering the cost of borrowing because an increase in interest rates results in FD.

In conclusion, the study of Ralarala and Makwala (2022) stressed that trade openness was found to make a country accessible on the global market, hence assisting in reducing the presence of FD in the selected countries, policies that aid foreign trade such as trade liberalisation, exporting complex products, switching production capabilities away from raw materials and to more sophisticated products and services, free trade agreements, reducing reliance on the primary sector we recommended. Lastly, Ralarala and Makwala (2022) revealed that urbanisation was found to deter FDI, countries should therefore invest in infrastructure and minimise poverty in rural areas to transform them into urban areas and thus reduce urbanisation.

Unlike previous studies, the goal of this study is to determine those factors that drive FD, as well as assess the extent to which FD affects macroeconomic variables in developing economies. Additionally, the few studies that have so far looked at this topic, focused on a particular industry, also based on one country or region setting in developed countries and overlooked developing countries, Africa in particular. It is also difficult to generalise the findings of the empirical studies that have been done. The preceding discussions on FD emphasise the importance of further investigating the status of FD in African countries, further motivating for this study to be conducted. These African economies will possibly present results that differ from those of other developed countries.

3.4 CHAPTER SUMMARY

This chapter provided a detailed analysis of empirical studies conducted on the critical concepts under investigation. The previous chapter established the theoretical foundation

of these concepts, which were supported by an examination of existing empirical studies. Most of the research in the empirical literature utilised the eclectic paradigm and FD theory to explain the macroeconomic drivers of FD. However, most of the empirical studies examined employed the error-correction reaction model and time series, resulting in ambiguous and inaccurate findings. No empirical study utilised various econometric methods. Therefore, this study aims to fill this gap and add to the analysis of the macroeconomic drivers of FD.

In African countries, there has been limited research on the macroeconomic factors driving FD. The importance of conducting empirical tests to determine significant FD variables in the African setting has been emphasised. Previous empirical research focused on the African continent has revealed divergent, diversified, and mixed findings and conclusions on a standard list of FD factors. The conclusions on FD drivers in Africa have depended on the technique used, the timeline of data collected, and the economies studied. Therefore, this study seeks to bridge the knowledge gap and contribute to the discussion of the macroeconomic factors driving FD in Africa. The next chapter outlines the research methodology adopted to achieve the main objectives of the study.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 INTRODUCTION

The preceding chapter presented a review of the empirical literature. This chapter presents and discusses the methodology applied to achieve the study's objectives outlined in chapter one. It covers the research design, approach, paradigm and strategy, the sampling techniques to be used as well as methods of collecting and analysing data in this study. Furthermore, the proposed empirical models were specified, as were the applicable econometric estimation techniques and diagnostic tests. The chapter concludes with a summary.

The rest of this chapter is structured as follows. Section 4.2 explains the research design for the study; section 4.3 discusses the research paradigm followed by the discussion of the research strategy in section 4.4. Section 4.5 justifies the population and sampling procedures meanwhile section 4.6 details the data collection processes and procedures followed. In section 4.7, data analysis procedures are discussed, followed by a discussion of the variables used and the priori expectations in section 4.8. Section 4.9 focuses on the model specification of the FD function, whereas section 4.10 discusses and justifies the various econometric methods employed in the panel data model. Section 4.11 discusses the estimation techniques and testing of the link between the variable - FD, FIN, and economic growth; Section 4.12 deals with the testing of Granger Causality between the variables. Section 4.13 discusses the dynamic generalised methods of moments (GMM), followed by a discussion of reliability and validity issues (robustness checks) in section 4.14. The last two sections respectively focus on ethical considerations and concluding remarks of the chapter.

Figure 4.1 illustrates the representation of the methodological procedures and approaches employed in this study. These include the main philosophy, research approaches, strategy, and methods (data collection and analysis procedures) that depict how the study was designed.

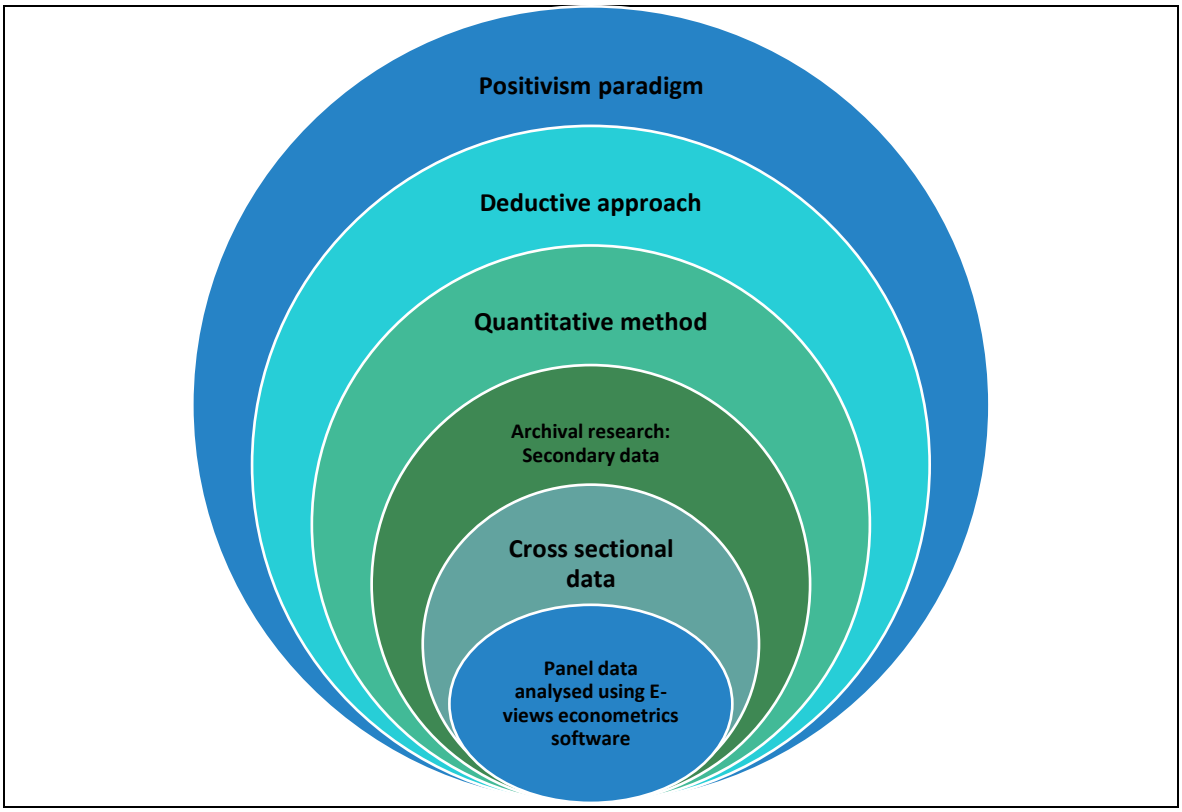

Figure 4.1: Diagrammatic representation of the methodology chapter

Source: *Adapted from Saunders, Lewis, and Thornhill's (2019) research onion*

4.2 RESEARCH DESIGN

This study employed a quantitative research design. It is the most suited method to address the objectives as outlined in chapter one. Quantitative research involves the use of descriptive and inferential statistical operations to analyse numerical data. Quantitative research design offers advantages in measuring variables and establishing correlations, but also presents limitations and challenges, especially in measurement validity and reliability. Therefore, inaccurate measurement tools can lead to internal validity issues and inconsistent results across different contexts. Additionally, large datasets and statistical analyses may not capture contextual factors influencing foreign divestment in specific African countries. Hence to address these challenges and limitations the study employed rigid testing of measurement tools that is crucial for robustness and accuracy. As part of inferential statistics, the quantitative design intends to establish, confirm, or validate the correlation between two or more variables and offer the advantage of

generalising results based on the specified theory (Apuke, 2017:41; Leedy & Ormrod, 2014:98). This view was supported by Ivankova (2015) who noted that quantitative research design measures variables, provides numerical data, and compares both groups and individuals. In addition, it tests the links between or among variables. The literature review for this study was performed to attain relevant knowledge and information about how other scholars in the same area of speciality have analysed the drivers of FD to come up with informed evidence. A comparative analysis between the countries, selected for this study, was done to see whether the drivers of FD in one country correspond with the other countries. In addition, it assessed the extent to which macroeconomic variables affect FD.

4.3 RESEARCH PARADIGM

A research paradigm is the researcher's fundamental values, assumptions, as well as beliefs about the world (Wahyuni, 2012). These beliefs guide the researcher while the research is being carried out, and the researcher bases his/her philosophical assumptions on them. The proposed study was guided by positivism as its primary paradigm as its objective is to identify the drivers of FD in African countries and assess any pattern in their occurrence. Furthermore, the positivist philosophy was acquired for this study as it sought to investigate the relationship between the dependent and independent variables. The positivist views the world as operating by laws of cause and effect that can be understood when we utilise a scientific approach to research (Leedy & Omrod, 2014).

Creswell (2009) explains that a quantitative study's methodology is based on the assumption of an empiricist paradigm. It is based on the confirmation of evidence. In this study, the sample includes selected FD variables for selected countries and years that are empirically verifiable and supporting theories or hypotheses. Park, Konge and Artino (2020) hold similar view that positivism employs the hypothetico-deductive method which is defined as the scientific technique of testing ideas by establishing hypotheses, drawing findings, and evaluating these findings to test a priori hypotheses, which are frequently stated quantitatively, by establishing functional relationships between causal and explanatory factors (independent variables) as well as the outcomes (dependent variables).

Saunders *et al.* (2019), mention that a positivist researcher should conduct research as objectively as possible. This is a realistic position, given the nature of the data that the researcher will be collecting for the study is measurable and quantifiable and lends itself to statistical analysis. To further support the positivism philosophy, this study remains neutral and external to the data collection process because there is little that can be done to change the substance of the data collected and to prevent influencing the results. On the other hand, Saunders *et al.* (2019) stressed that paradigms, such as interpretivism or constructivism emphasise subjective experiences and the meanings individuals give to social processes. Therefore, these paradigms would not be appropriate for this research because they are of a qualitative research nature. In addition, these paradigms place emphasis on qualitative data and a comprehensive understanding of contextual factors, which may not provide the empirical generalisability required to effectively achieve the research objectives of this study.

4.4 RESEARCH STRATEGY

Wahyuni (2012) notes that a research strategy is a comprehensive plan that details how and where the data for the study will be collected. For this study, archival secondary data was collected from available databases covering FD variables (World Bank database). Das, Jain and Mishra (2018) define archival data as data that are collected and stored before the start of the research for later use. Census data, court proceedings, patent office records, credit histories, and educational records are examples of archival data. Organisational archives may include corporate annual reports, personnel files, and survey responses completed at various times. Das *et al.* (2018) further mentioned that the primary benefits of archival data are that they are accessible and cost-efficient for the researcher and is particularly suited to certain research questions or types of variables that cannot be ethically manipulated or cannot be studied due to logistical constraints. Archival data is frequently longitudinal, which is easier to collect when using secondary research methods.

4.5 POPULATION AND SAMPLING

This section discusses the target population and sampling, and the sampling method and size.

4.5.1 Target population

A population encompasses the total collection of elements that the researcher wishes to make some inferences (Blumberg, Cooper & Schindler, 2014). The population of this study consisted of a representation of countries from all five (5) African regions in line with the United Nations (2022) classification. These are Northern Africa, Eastern Africa, Middle Africa, Southern Africa, and Western Africa.

4.5.2 Sampling method and size

Purposive sampling was utilised to select the sample frame for this study. According to Bhardwaj (2019), judgemental sampling also known as purposive sampling can be used when there is a need to filter the samples selected by other sampling methods; this sampling method is preferred because it is dependent on the researcher's knowledge and experience. Maxwell (2012); and Taherdoost (2016) further added that judgmental sampling is a strategy in which specific settings, people, or events are purposefully selected to provide vital information that cannot be obtained through other means. It is when a researcher includes participants or cases in the sample because they believe they are significant enough to include.

Purposive sampling, while useful for targeting specific settings, can introduce selection bias due to the researcher's subjective judgment. To mitigate this, a sample of 35 developing economies in Africa was chosen from each of the five (5) African regions. The sampled countries include Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Democratic Republic of Congo, Egypt, Eswatini, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Ivory Coast, Kenya, Madagascar, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, The Republic of Congo, Togo, Tunisia, Uganda, and Zambia. These countries were selected based on their economic size (GDP ranking) and previous foreign investment activities as these activities maximise the potential of MNE's engagements with these countries. Furthermore, there is a great deal of evidence from empirical studies that shows that the drivers of FD in African countries had not received sufficient attention, hence the need to demarcate this study to this geographical area. Since FDI and FD are dependent on an active stock market, the sample frame also

includes African countries that have listed stock exchanges. Countries with active stock markets enable the easier collection of data as they are regulated and standardised; this allows for reliability and validity. The sample frame includes African countries that have macroeconomic data for the variables applicable to this study.

4.6 DATA COLLECTION

This research is empirical and it relied on annual secondary data to quantitatively analyse the relationship between the variables. Annual data was chosen because it offset averaging (temporal aggregation of data), which was found to distort econometric results (Ericsson, Irons & Tryon, 2001). The data was collected for the period 2000 to 2020, and the choice of this period was dictated by the availability of data. This is the period when data for all proxies utilised in the study were available in a large number of African countries. In addition, the estimation period of 20 years in each country was done to meet the GMM condition, which states that the number of countries (N) should be more than the number of years (T) (Baltagi, 2021). The estimation period was selected partially due to the recurring feature of FD flows during these years in those countries. Mouton (2011) states that there are two (2) ways to use secondary data, namely numeric data constituting secondary data analysis and statistical modelling; on the other hand, textual data can be analysed with content analysis, discourse analysis, textual criticism, and historical studies.

Secondary data for FD variables was collected from the World Bank database: World Development Indicators. World Bank database provides free access to a wealth of systemised information on each country's key indicators as well as macroeconomic components. All data values are in US dollars year-on-year exchange rates basis. The utilisation of these sources ensured the data’s reliability and validity since they are credible and provide financial information for countries worldwide. These databases are also easily accessible and verifiable (Tsaurai, 2017). Only existing financial and economic data that was collected by the World Bank database and available to the public was analysed. The data was not produced specifically for this study hence it is classified as secondary data. Countries that do not have data for the key variables for this study were excluded, to avoid the issue of missing secondary data.

4.7 DATA ANALYSIS

Panel data was used for this study and were analysed using E-views econometrics software. Panel data is a type of longitudinal data, or data collected at different points in time (Salkind, 2010). Panel data is appropriate to describe a change over time by estimating causal models. Panel data methodology permits longitudinal or cross-sectional analysis of data for several entities over a period of time. Panel data allow users to pool observations from different entities over multiple time periods, resulting in greater variability and fewer chances of collinearity among the variables, as well as an increase in the number of degrees of freedom, which makes it more efficient than other methods such as time-series analysis. In addition, when groups are combined into a single time series, estimation biases can occur. Panel data can help to reduce these biases (Baltagi, 2021).

Panel data analysis has been shown to provide a variety of estimation benefits. Panel data, for example, assumes that the subjects under study are heterogeneous. As a result, cross-sectional studies as well as time series do not account for heterogeneity and risk producing biased results (Hsiao, 2005). These biases are accommodated in panel estimates, particularly with the introduction of the orthogonal deviation technique (Raj & Baltagi, 2012; Baltagi, 2021; Salkind, 2010).

This data analysis section is divided into three parts: pre-estimation diagnostics, diagnostic tests, and a discussion of the estimation technique(s) used in this study. The following pre-estimation diagnostics were performed to understand the characteristics of the data before using them for main data analysis: descriptive statistics, and correlation analysis. Furthermore, unit-root tests were also performed. The goal was to determine whether there is a multi-collinearity issue (correlation analysis), whether there are extreme values in the data (trend analysis of mean values and descriptive statistics), and whether the data follow a normal distribution (descriptive statistics). These issues (extreme values, multi-collinearity, and data that do not follow a normal distribution) needed to be resolved before proceeding with the main data analysis to enhance the quality of the findings (Hair, Black, Babin & Anderson, 2014).

Following pre-estimation diagnostics, the next stage, according to Tsaurai and Odhiambo (2013) is to conduct unit-root testing to determine whether the data is stable. The panel unit-root tests used in this study are Im, Pesaran and Shin (2003), Levin, Lin and Chu (2002), Fisher-Phillip Peron test (Choi, 2003), and Fisher-Augmented Dick Fuller test (Madala & Wu, 1999). If the data is unstable or non-stationary, the null hypothesis that the tests have a unit root is not rejected. Furthermore, once the data is found to be stationary at the first difference, the next econometric procedure is to determine whether there is a long-run relationship between the variables being investigated (Tsaurai & Odhiambo, 2013).

The Kao (1999) approach is employed in this study to determine whether the variables under consideration are co-integrated. In other words, to check if they are characterised by a long-run relationship. The existence of a long-run relationship between the variables being studied is a prerequisite that must be met before conducting the main data analysis (Tsaurai, 2017a.) The next step is to check for endogeneity (if any of the explanatory variables used were correlated with the error term). The Hausman (1978) method was utilised for the endogeneity tests.

4.8 VARIABLES USED IN THIS RESEARCH AND PRIORI EXPECTATIONS

This section discusses different key FD variables mostly identified in the literature as well as the priori expectations, namely economic growth, trade openness, inflation, human capital development, unemployment, financial development, exchange rates, natural resources, and political instability. These factors are significant in assessing FD in African countries because they collectively affect the overall business environment, which affects the profitability, risks, and attractiveness of foreign investments in this continent.

Furthermore, the specified model in several econometric models may be incomplete without the inclusion of explanatory variables, particularly in estimations focusing on the drivers of FD. According to Wooldridge (2012), control variables are used to supplement the explanatory power of the main descriptive factors in the econometric model. These variables were carefully chosen to ensure the model's resistance to autocorrelation. These sets of variables are introduced into the panel series in econometric estimations to validate the behaviour of the dependent variable.

4.8.1 Political instability

Political instability reduces the flow of investments in most African countries (Musibau, Mahmood & Hammed, 2017). This view resonates with Afolabi and Bakar (2016) who noted that political instability is characterised by a level of uncertainty and poses a significant threat to foreign investors. Khan and Akbar (2013) added that economic uncertainty in the host country is directly related to political instability, which in turn has a negative impact on foreign investors' decisions. Political instability adds an additional layer of uncertainty to economic activity, disrupting production and reducing the incentives for foreign investors to continue investing in a country (Bitar, Hamadeh & Khoueiri, 2020). Political instability is expected to have either a positive or negative impact on FD.

4.8.2 Human Capital Development (HCD)

Konara and Ganotakis (2020) observed that foreign subsidiaries with high product innovation, organisational performance, and quality human capital are less likely to be divested. Georgopoulos and Sogiakas (2019) found that increasing human capital intensity will reduce divestment risk, and vice versa. This study expects human capital to have a positive or negative effect on FD.

4.8.3 Natural Resources

This study employs the total natural resources rent as a proportion of GDP to measure the natural resources variable. The abundance of natural resources in the host country makes trade operations more likely than FDI, as noted by Baniak, Cukrowski, and Herczynski (2005). Contrary to the eclectic paradigm theory discussed in chapter two, Wahid, Sawkut, and Seetanah (2009) proposed that economies with abundant natural resources tend to attract more FDI whereas countries with fewer natural resources discourage it. The eclectic paradigm posits that natural resources are considered a geographical advantage, and therefore, theoretically, natural resources could have a favourable or adverse effect on FD (Kamal, Ullah, Zheng, & Zheng, 2019). In the African continent, FDI has primarily focused on economies with abundant natural resources, particularly oil (Onyeiwu & Shrestha, 2004). Natural resources are expected to have a positive or negative influence on FD.

4.8.4 Unemployment

Belderbos and Zou (2006) noted that divestment has a negative impact on employment in host countries. This was supported by Khaing (2016) who mentioned that when multinational enterprises withdraw from the host country, it means that the corporations will close their factories and withdraw their investments. This could have the greatest impact on local employment, particularly in countries where capital is scarce but labour is plentiful. In line with theoretical predictions, unemployment is expected to positively influence FD.

4.8.5 Financial development

The level of economic development is vital for international business because of its impact on purchasing power. Globerman and Shapiro (2003) found financial institution sophistication, stock market development, as well as adequate corporate governance mechanisms of the host country, to be important factors in attracting FDI, conversely, the difference in financial systems creates barriers to doing business in the host countries (Rios-Morales & Brennan, 2007). Financial development is expected to negatively or positively affect FD.

4.8.6 Economic growth

Benito (1997) found that countries with favourable economic conditions as well as market growth are appealing locations for business operations. Furthermore, the author noted that economic growth is inversely related to divestment decisions. Sun and Parikh (2001) noted that a lack of available infrastructure does not promote economic growth, thus encouraging FD. This study expects economic growth to have a negative or positive effect on FD.

4.8.7 Trade openness

A country that is less open to trade will discourage FDI inflow. Edo and Nnadozie (2023) found that trade openness of the economy, as well as excessive government controls, increase the probability of divestments, adding that investors prefer countries with open trade policies. Borga *et al.* (2020) demonstrated that trade openness influences the likelihood of firm divestment. Furthermore, the probability of divestment is found to be

increased by higher trade tariffs (Borga *et al.* 2020). A lack of international trade openness limits the importation and exportation of goods, resulting in negative financial consequences for the affiliate and forcing the MNE to divest the subsidiary (Benito, 1997; Tsang & Yip, 2007). This study expects trade openness to have a negative effect or discourage FD.

4.8.8 Inflation

Inflation control is critical to sound monetary policy. Uncertainty about inflation deters foreign investment (Udoh & Egwaikhide, 2008). This was supported by Omankhanlen (2011) who noted that high inflation rates raise uncertainty, which discourages long-term investment by MNEs in a particular country. Furthermore, Wadhwa and Reddy (2011) identified inflation as a potential risk to investors, discouraging foreign investors from investing in a particular country. Theoretical predictions are that inflation should have a positive impact on FD.

4.8.9 Exchange rate

Exchange rate fluctuations continue to be one of the most important decision-making factors in FD. As a result, countries with currencies that are likely to have a higher depreciation discourage foreign investors as this leads to a decline in their investments (Mughal & Akram, 2011). Borga *et al.* (2020) found that volatility in exchange rates instead of the exchange rate itself is what is important for divestment decisions, and that volatility incentivises MNEs to leave. Whenever there is a depreciation of the currency in the host country, there is a reduction in the foreign investor's return on investment. Djokoto (2021) established that FD is discouraged by exchange rate depreciation. However, there was no conclusive evidence of FD and inflation. Theoretical predictions are that exchange rates should have a positive or negative impact on FD.

A summary of the proxies used to measure all the variables and their sources of data is illustrated in Table 4.1.

Table 4.1: Variables, proxies, and data sources

Variable	Proxy used	Expected priori	Previous studies that used the same proxies	Source(s) of data
Financial development (FIN)	Domestic credit to the private sector by banks (% of GDP)	+/-	(Globerman & Shapiro,2003; Rios-Morales & Brennan, 2007)	World Development Indicators, International Financial Statistics, African Development Bank and Global Financial Indicators
Foreign divestment (FD)	Net FDI outflow (% of GDP)	-	Belderbos, Michiel, Sleuwaegen & Wu (2021; Konara & Ganotakis (2020); Borga, Ibarlucea-Flores & Sztajerowska (2020); Changyuan, Chunxiao & Hongyong (2020); Żak's (2018); Wan, Chen & Yiu (2015); Berry (2013); Belderbos and Zou (2006)	World Development Indicators
Inflation (INFL)	Consumer price index	+	(Berry,2013; Udoh & Egwaikhide,2008;Omankhanlen,2011;Wadhwa & Reddy, 2011)	World Development Indicators
Trade openness (TOPEN)	Total trade (% of GDP)	-	(Edo & Nnadozie, 2022; Borga, Flores & Sztajerowska, 2020; Benito,1997; Tsang & Yip, 2007)	World Development Indicators, Global Financial Indicators
Economic growth (GROWTH)	Advanced technology and GDP per capita	+/-	(Benito,1997; Sun & Parikh,2001)	World Development Indicators, Global Financial Indicators
Unemployment (UNEMPL)	Unemployment total % of total labour force (modelled ILO estimate)	+	(Belderbos & Zou,2006; Khaing, 2016)	World Development Indicators, Global Financial Indicators
Human capital development (HCD)	Individuals using the internet % of the population	+/-	(Konara & Ganotakis, 2020; Georgopoulos & Sogiakas, 2019)	World Development Indicators, Global Financial Indicators

Variable	Proxy used	Expected priori	Previous studies that used the same proxies	Source(s) of data
Exchange rates (EXCH)	Official exchange rates (ICU per US$ per average)	+/-	(Mughal & Akram, 2011; Borga, Flores & Sztajerowska, 2020; Djokoto, 2021)	World Development Indicators
Political instability (PINST)	Government effectiveness	+/-	(Musibau, Mahmood & Hammed, 2017; Afolabi & Bakar, 2016; Khan & Akbar, 2013; Bitar, Hamadeh & Khoueiri, 2020)	World Development Indicators
Natural Resources (NAT)	Total natural resources rent (% of GDP)	+/-	Onyeiwu and Shrestha (2004); Baniak, Cukrowski and Herczynski (2005); Wahid, Sawkut, and Seetanah (2009)	World Development Indicators

Source: *Author's compilation*

The dependent variable is the FD, measured by net FDI outflows as a percentage of GDP. The control variables include economic growth measured by GDP per capita, trade openness measured by total trade as a percentage of GDP, inflation will be measured by a CPI, human capital development measured by internet users per 100 people, unemployment measured by total percentage (%) of total labour force modelled ILO estimate (this includes numerous indicators that relate to employment structure and labour underutilisation, exchange rate measured by official exchange rates (ICU per US$ per average), political stability measured by the number of forced changes in the government of the country and financial development measured by domestic credit to the private sector by banks % of GDP).

4.9 GENERAL MODEL SPECIFICATION FOR THE STUDY

Equation 1 is the general model specification that shows an overview of the variables that will be used for this study; these variables were chosen based on the availability of data, economic size (GDP ranking) of the selected countries, and previous foreign investment activities. In addition, these variables were also selected based on an active stock market which includes African countries that have listed stock exchanges. Therefore, countries with active stock markets enable the easier collection of data as they are regulated and standardised. Therefore, this allows for reliability and validity:

FD=f (GROWTH, TOPEN, INFL, HCD, UNEMPL, FIN, EXCH, NAT, PINST) **(1)**

Where: FD represents foreign divestment, GROWTH represents economic growth, TOPEN represents trade openness, INFL represents inflation, HCD represents human capital development, UNEMPL represents unemployment, FIN represents financial development, EXCH represents exchange rates, NAT represents natural resources and PINST represents political instability, respectively.

In econometric terms, equation 1 is transformed into equation 2

$$FD_{i,t} = \beta_0 + \beta_1\ GROWTH_{i,t} + \beta_2\ TOPEN_{i,t} + \beta_3\ INFL_{i,t} + \beta_4\ HCD_{i,t} + \beta_5\ NAT_{i,t} + \beta_6\ UNEMPL_{i,t} + \beta_7\ FIN_{i,t} + \beta_8\ EXCH_{i,t} + \beta_9\ PINST_{i,t} + \mu + \varepsilon \quad \textbf{(2)}$$

Where the error term is represented by Ɛ. Subscripts t and i respectively represent time and country, respectively. The intercept term is denoted by β_0, which captures the common changes to all countries and μ is a proxy for time-invariant as well as unobserved country-specific effects (Tsaurai, 2018). The coefficients of explanatory variables being employed are represented by $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9$. This study included nine variables, namely economic growth, trade openness, inflation, human capital development, infrastructural development, unemployment, financial development, exchange rates and political instability.

4.10 VARIOUS ECONOMETRIC METHODS EMPLOYED IN THE PANEL DATA MODEL

This study used a variety of econometric approaches as suggested by the data behaviour. Furthermore, this study used Arellano and Bond's (1991) random effects, fixed effects, pooled OLS, dynamic GMM approach, and FGLS to incorporate the estimation's best fit.

Randomness in statistical models usually arises because of random sampling of units in data collection. The variation across the entities is generally assumed to be random and uncorrelated with the model's independent variables. In essence, if the differences between entities are likely to have a significant influence on the model output values for the dependent variable, then the random-effects model should be considered. Random effects occur when effects have different values for each unit sampled (Salkind, 2010). Random effects models are statistical models in which some parameters (effects) that define the model's systematic components exhibit random variation. These are classified into systematic and unsystematic components (Salkind, 2010). The Random-effects model has the advantage of yielding results that can be inferred beyond the sample size (Torres-Reyna, 2007).

If the investigation is limited to the impact of variables that change over time, the fixed-effects model is used. Fixed-effects models are a type of statistical model in which the values of independent variables are fixed or constant (Stock & Watson, 2008). The systematic effects in fixed-effects models are considered fixed or non-random. The model is used with the idea that the levels of independent variables are chosen by the

researcher, whose interest is the response of the dependent variable to the levels of independent variables used in the study (Salkind, 2010; Blundell & Bond, 1998). The fixed-effects model can be used in the model estimation process to account for unobserved heterogeneity (Torres-Reyna, 2007).

The most used type of regression for predicting the value of one dependent variable from two (2) or more independent variables is Ordinary Least Squares (OLS) linear regression. Furthermore, OLS is utilised to test the hypothesis of differences among factor-level means in repeated measures data. OLS has pertinent limitations and assumptions that can have a direct impact on the computation of F-tests as well as the estimation of means and standard errors on repeated measures of data. To mention one assumption, there are constant correlations for measurements within a subject, which in many cases may not be true (Ugrinowitsch, Fellingham & Ricard, 2004).

In this study, the dynamic GMM technique was used to identify and compare the FD drivers. The GMM is utilised in some dynamic panel models because it allows for flexible instrument specification (Torres-Reyna, 2007). The advantage of GMM over OLS is that it is better suited to dynamic models. In a panel setup, a lag-dependent variable is included as one of the explanatory variables in a dynamic model (Blundell & Bond, 1998). GMM provides a statistically convenient method for estimating non-linear dynamic models without requiring a complete specification of the data's probability distribution. The disadvantage of GMM is that the use of instruments causes issues such as the assumption that the panel members have homogenous slope coefficients under the model (Kelejian & Prucha, 1999). This GMM disadvantage is mitigated by performing cross sectional test in this study.

GMM does not account for a situation in which independent variables take longer to have a meaningful effect on the dependent variable. In addition, it strictly cannot be used where the total number of countries (N) is less than the total number of years (T). The dynamic GMM has numerous advantages, including the fact that it deals with the endogeneity issues common in the econometric relationships between variables. It encapsulates the dynamic properties of the dependent variable. Furthermore, it is appropriate even when the relationship between variables is non-linear (Kremer, Bick & Nautz, 2013).

The discussion above on the various panel data methods' strengths and weaknesses played an important role in influencing the estimation techniques used in this study. The pros of the dynamic GMM outweigh those of other estimation techniques that were utilised by previous researchers. Some of the shortcomings of cross-sectional estimation biases, such as omitted variable errors and misspecification of country-specific effects, are overcome by the dynamic GMM panel data estimation method. In addition, the dynamic GMM can deal with the endogeneity issue. The fact that FD can be influenced by its own lag is addressed by this method. This is evident that the dynamic GMM is a far-superior estimation technique and therefore enriches this study.

On the other hand, this study's analytical framework was derived from the literature review presented in chapter three. The review of theoretical and empirical literature in chapters two and three identified several potential drivers of FD, including but not limited to unemployment, trade openness, inflation, political instability, human capital development, natural resources, economic growth, and exchange rates. Based on the literature review, this study formulated an econometric model that summarised the FD drivers in accordance with the theoretical and empirical evidence.

The objective of this study was to examine the impact of macroeconomic drivers of FD in African countries during the period 2000 to 2020, using the empirical approach adopted by Edo and Nnadozi (2023). The study employed the following empirical model specifications to identify the drivers of FD:

$$\mathrm{FD_{it}} = \mathrm{b_0 FD_{it-1}} + \mathrm{b_1 FIN_{it}} + \mathrm{b_2 GROWTH_{it}} + \sum_{n=1}^{i} \beta \mathrm{X_{it}} + \varepsilon_{it} \quad \textbf{(3)}$$

Where,FD_{it} is the dependent variable measuring the outflow of FDI as a percentage of GDP, into country *i* for time *t*. FD_{it-1} represents the lag of FD. $GROWTH_{it}$ is economic growth. $\boldsymbol{\alpha_0}$ and $\boldsymbol{b_0}$ denote the constant term, while ε_{it} is a random error term. X_{it} denotes all other variables that explain the FD to our sample of African countries.

From the above discussion, it is noted that using OLS to estimate time-series and panel data is common, but it can be problematic due to endogeneity issues, as noted by Tsaurai (2017). Therefore, to ensure the reliability of the results and improve robustness, this study employed a dynamic GMM panel analysis. Therefore, the dynamic GMM method

assumes that past values of explanatory variables are uncorrelated with error terms, providing more accurate results. In addition, the dynamic GMM approach helps to address cross-sectional estimation biases, such as omitted errors, country-specific effects, endogeneity concerns and lagged-dependent regression variables that are often present in panel data regressions.

On the other hand, the study employed the autoregressive distributed-lag (ARDL) method to examine the potential correlations among FD, FIN, and economic growth. The ARDL cointegration technique is advantageous in dealing with variables of different orders, I(0), I(1), and provides robustness when a long-term link exists between the variables in a limited sample (Magwedere, 2019). According to Wehncke, Marozva, and Makoni (2023), the F-statistic (Wald-test) was used to measure the long-term relationship between the variables. In addition, one of the key benefits of the ARDL method is that it can recognise multiple cointegrating vectors (Wehncke *et al.* 2023).

According to Magwedere (2019), the ARDL cointegration technique eliminates the need to pre-test the unit root of the underlying series. Consequently, ARDL can detect the presence of serial correlation without prior knowledge of the non-stationary time-series data.

Finally, the ARDL technique not only enhances estimation validity but also improves the explanatory power of the model. Thus, in this study, the ARDL approach has been adopted to handle heteroskedasticity effectively. Unlike GMM regression equations, which rely on lagged values of explanatory variables, ARDL uses lagged values of different variables to compare them. This means that there will be no serial correlation between variables in differences and country-specific effects, despite the association between the levels of explanatory variables and country-specific impact (Wehncke *et al.* 2023).

4.11 ESTIMATION TECHNIQUES: TESTING THE RELATIONSHIPS BETWEEN FD, FIN AND ECONOMIC GROWTH IN AFRICA

The FD macroeconomic drivers in Africa were subjected to unit-root and serial tests in this study.

4.11.1 Unit root and serial correlation tests

Before examining the pairwise Granger causality, it is necessary to ensure that the macroeconomic variables are stationary. To achieve this, static tests for cointegration and regression analysis were conducted to determine the order of integrating variables. Pre-testing variables are not required for the preferred cointegration testing method according to Tsaurai (2017). Wehncke *et al.* (2023) stated that ARDL is only appropriate for analysing variables of order zero [I(0)] or order one [I(1)], and that unit-root tests provide insights into the adequacy of ARDL. Therefore, unit-root tests and ARDL are complementary to each other.

According to Nkoro and Uko (2016), the unit-root test is widely used to determine stationarity or non-stationarity, as most economic time-series data are considered nonstationary. However, the validity of this assumption still needs to be verified. Wehncke *et al.* (2023) noted that there are several alternative unit-root tests available, and the choice of which one to use depends on the power and size of the test. For this study, the most appropriate unit-root tests are the ADF, Phillips-Perron, LLC, and Im, Pesaran, and Shin unit-root tests.

In addition, Wehncke *et al.* (2023) explain that when additional lags of the first differentiated variable exist, the residual autocorrelation can be accounted for by the ADF test. To determine the optimal number of lagged difference terms in the ADF test, the Akaike Information Criteria (AIC) or Schwarz Information Criteria (SIC) can be used (Magwedere, 2019). To ensure that the error term is not serially correlated and obtain an unbiased estimate of δ, it is important to use AIC or SIC (Liew, 2004).

Moreover, the lagged terms' number is crucial in determining the causality direction. According to Tsaurai (2017), using Granger causality tests involves the introduction of lag length-sensitive data. The ADF test examines the null hypothesis that $\alpha i = 0$ and the

alternative hypothesis that αi<0. If the process has a unit root, then αi = 0, while if the process is stationary, αi<0 (Wehncke *et al.* 2023). Therefore, the number of lags must be carefully considered when conducting Granger-causality tests.

Furthermore, the Phillips-Perron (PP) test is a non-parametric statistical method used as an alternative to the ADF test to correct for serial correlation in the errors without including lagged differences. Additionally, the PP test is considered superior to the ADF test because it adjusts for serial correlation and heteroskedasticity in the test statistics (Magwedere, 2019). Hence, the PP test enhances the robustness of the covariance matrix estimator to serial correlation, and its test statistics are interpreted as Dickey-Fuller statistics. Moreover, the null hypothesis in the PP test is that the series has a unit root, while the alternative hypothesis is that the underlying variable is stationary. Wehncke *et al.* (2023) state that the PP test is similar to the ADF test, but the ADF test automatically adjusts for serial correlation in the residuals.

Wehncke *et al.* (2023) suggested that performing individual unit-root tests for each cross-section may be less informative than using the Levin, Lin, and Chu (LLC) panel data tests. The LLC test assumes the null hypothesis that each time-series data contains a unit root, as opposed to the alternative hypothesis that each time-series data is stationary. The LLC test is especially useful for datasets with N between 10 and 250, and T between 25 and 250, as it accommodates fixed effects, individual trends, and heterogeneous serially correlated errors (Wehncke *et al.* 2023). Moreover, when N (number of countries) is greater than T (time series), using unit root tests and other conventional methods may be necessary to ensure the robustness of the analysis and to account for the potential presence of cross-sectional dependence among the observations.

Wehncke *et al.* (2023) pointed out that the Im, Pesaran, and Shin (IPS) test may suffer from a loss of power due to bias correction when incorporating individual-specific patterns. To address this issue, Im, Pesaran, and Shin (2003) proposed an alternative testing procedure that allows for a heterogeneous coefficient of y_(it-1) and is based on averaging individual unit-root test statistics. The null hypothesis of the IPS test is that

each series in the panel contains a unit root (H0: ρ_i=0 for all i) against the alternative hypothesis that allows for some (but not all) of the individual series to have unit roots.

4.11.2 Cointegration tests

Magwedere (2019) stated that when two variables have a long-term or equilibrium relationship, they are considered cointegrated. Moreover, Magwedere (2019) emphasised that the cointegration test serves as a preliminary test to detect and prevent spurious regression problems.

Wehncke *et al.* (2023) suggested several methods to test for cointegration in heterogeneous panel models, including the augmented Engle-Granger (AEG), augmented Dickey-Fuller (ADF), residual-based LM, Pedroni, and likelihood-based (LR) tests. These techniques are typically used when the variables being examined are integrated of order one [I(1)], and they add complexity to the analysis of level relationships, necessitating pre-testing (Magwedere, 2019) to detect and prevent spurious regression conditions.

This study utilised the ARDL approach proposed by Pesaran, Shin, and Smith (2001) to test for cointegration and to address research objective two; to assess how and to what extent foreign divestment, financial development, and economic growth co-integrate in the short and long term in African countries. This method was chosen due to the limited sample size of only 20 years annualised data, which was insufficient for implementing alternative techniques such as Engle-Granger, residual-based cointegration test, and maximum likelihood test based on Johansen and Juselius methods. In addition, the ARDL approach is a well-established testing method for cointegration that is commonly used in such situations.

In addition, the ARDL approach was chosen due to its advantages over cointegration tests, as it is much easier to implement and does not require the complex Vector Error Correction Model (VECM). Instead, the Unrestricted Error Correction Model (UECM) is used to estimate the long-term and short-term models, with lagged variables employed in the former and differenced variables in the latter. In contrast, VECM assumes that all

variables in the model are endogenous, especially when using vector autoregression (VAR) (Wehncke *et al.* 2023).

Moreover, according to Wehncke *et al.* (2023), the VECM model can handle all forms of cointegration relationships, but the type of relationship imposes limitations. Hence, for the ARDL Bounds test, there is only one requirement for cointegration, which is necessary when incorporating either I(0) or I(1) into the regression model. However, it is crucial that none of the components be integrated I(2).

Furthermore, Nkoro and Uko (2016) stressed that the ARDL method is a suitable mathematical approach for evaluating cointegration relationships in small samples, in contrast to the Johansen techniques, which require large data samples to achieve validity. Unlike traditional cointegration pre-testing issues that require factors to be categorised as I(1) or I(0), the ARDL model eliminates this need (Wehncke *et al.* 2023). Additionally, the ARDL bounds testing approach has the advantage of allowing the determination of bounds even when explanatory variables are endogenous due to simultaneous bias or bi-directional causality (Tsaurai, 2017).

On the other hand, according to (Nkoro and Uko, 2016) pool mean group (PMG) is a panel data estimation technique used to estimate the long-run coefficients of the model. The PMG assumes that the long-run relationship is homogeneous across all cross-sectional units, but allows for heterogeneous short-run dynamics (Wehncke *et al.* 2023). Additionally, PMG combines the advantages of both fixed effects and pooled estimation methods, providing efficient estimates of the long-run parameters while accommodating short-run heterogeneity (Pesaran, Shin, & Smith, 2001).

Pesaran, Shin, and Smith (2001) stressed that the Mean Group (MG) model is another panel data estimation technique that assumes cross-sectional homogeneity in both the short-run and long-run coefficients. Unlike PMG, which allows for short-run heterogeneity, MG assumes that the dynamics of the variables are the same across all cross-sectional units (Wehncke *et al.* 2023). Therefore, the MG model averages individual country-specific estimates to obtain the group average (Nkoro and Uko, 2016).

According to Pesaran, Shin, and Smith (2001) the Dynamic Fixed Effects (DFE) is a panel data estimation method that includes individual-specific fixed effects and allows for dynamic interactions between the variables. DFE assumes that the coefficients of the explanatory variables are constant across individuals but may vary over time (Tsaurai, 2017). Additionally, DFE models are particularly useful when there is concern about unobserved individual heterogeneity and endogeneity issues, as they control for individual-specific effects and allow for dynamic adjustments over time (Nkoro and Uko, 2016).

Consequently, to examine the relationships between FD, FIN, and economic growth, the ARDL bounds testing approach was employed in this study, and the following models were specified and estimated:

$$\Delta \mathrm{FIN}_{\mathrm{it}} = \delta_0 + \delta_1 FIN_{\mathrm{it-1}} + \delta_2 \mathrm{FD}_{\mathrm{it-1}} + \delta_3 \mathrm{GROWTH}_{\mathrm{it-1}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{1\mathrm{i}} \Delta \mathrm{FIN}_{\mathrm{it-i}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{2\mathrm{i}} \Delta \mathrm{FD}_{\mathrm{it-i}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{3\mathrm{i}} \Delta \mathrm{GROWTH}_{\mathrm{it-i}} + + \varepsilon_{\mathrm{it}} \quad \textbf{(4)}$$

$$\Delta \mathrm{FD}_{\mathrm{it}} = \delta_0 + \delta_1 \mathrm{FD}_{\mathrm{it-1}} + \delta_2 \mathrm{FIN}_{\mathrm{it-1}} + \delta_3 \mathrm{GROWTH}_{\mathrm{it-1}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{1\mathrm{i}} \Delta \mathrm{FD}_{\mathrm{it-i}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{2\mathrm{i}} \Delta \mathrm{FIN}_{\mathrm{it-i}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{3\mathrm{i}} \Delta \mathrm{GROWTH}_{\mathrm{it-i}} + + \varepsilon_{\mathrm{it}} \quad \textbf{(5)}$$

$$\Delta \mathrm{GROWTH}_{\mathrm{it}} = \delta_0 + \delta_1 \mathrm{GROWTH}_{\mathrm{it-1}} + \delta_2 \mathrm{FIN}_{\mathrm{it-1}} + \delta_3 \mathrm{FD}_{\mathrm{it-1}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{1\mathrm{i}} \Delta \mathrm{GROWTH}_{\mathrm{it-i}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{2\mathrm{i}} \Delta \mathrm{FIN}_{\mathrm{it-i}} + \sum_{\mathrm{i=1}}^{\mathrm{m}} \delta_{3\mathrm{i}} \Delta \mathrm{FD}_{\mathrm{it-i}} + + \varepsilon_{\mathrm{it}} \quad \textbf{(6)}$$

Where Δ indicates the first difference operator and the other variables remain as previously indicated. Even though it has been mentioned that stationarity testing is not a prerequisite in the ARDL framework, the study employed the Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), and Im, Pesaran, and Shin (IPS) unit-root tests to verify the stationarity assumption and ensure that the variables are not integrated of order two.

4.11.3 Vector error correction model (VECM)

This study asserts that both FD and FIN variables have both short-term and long-term effects on economic growth in selected African countries. Analysing only the long-term connection would produce flawed outcomes, hence, the study examines the short-term and long-term relationships between FD, FIN, and economic growth.

The study estimates a vector error correction model (VECM) to analyse both short-run and long-run dynamics of FD and FIN on economic growth for selected African countries. In addition, the VECM is a suitable method for analysing time-series data, as it accounts for both short-term and long-term relationships between variables.

$$\Delta \mathrm{FIN}_{\mathrm{it}} = \delta_0 + \sum_{\mathrm{i}=0}^{\mathrm{m}} \delta_{1\mathrm{i}} \Delta \mathrm{FIN}_{\mathrm{it}-1} + \sum_{\mathrm{i}=0}^{\mathrm{l}} \delta_{2\mathrm{i}} \Delta \mathrm{FD}_{\mathrm{it}-1} + \sum_{\mathrm{i}=0}^{\mathrm{l}} \delta_{3\mathrm{i}} \Delta \mathrm{GROWTH}_{\mathrm{it}-1} + \delta_4 \mathrm{ECT}_{\mathrm{it}-1} + \varepsilon_{\mathrm{it}} \quad \textbf{(7)}$$

$$\Delta FD_{it} = \phi_0 + \sum_{i=0}^{m} \phi_{1i} \Delta FD_{it-1} + \sum_{i=0}^{l} \phi_{2i} \Delta FIN_{it-1} + \sum_{i=0}^{l} \phi_{3i} \Delta GROWTH_{it-1} + \phi_4 ECT_{it-1} + \varepsilon_{it} \quad \textbf{(8)}$$

$$\Delta GROWTH_{it} = \lambda_0 + \sum_{i=0}^{m} \lambda_{1i} \Delta GROWTH_{it-1} + \sum_{i=0}^{l} \lambda_{2i} \Delta FIN_{it-1} + \sum_{i=0}^{l} \lambda_{3i} \Delta FD_{it-1} + \lambda_4 ECT_{it-1} + \varepsilon_{it} \quad \textbf{(9)}$$

In the above models, *ECT* is the error correction term obtained from the cointegration relationships, while its coefficients ($\delta, \phi, and\ \lambda$) represent the speed of adjustment to long-run equilibrium. ε_{it} is the white noise error term, and all the other variables are as previously defined.

Ultimately, the study aimed to examine the relationships between FD, FIN, and economic growth in the selected African countries by running all the ARDL models and analysing the results.

4.12 TESTING FOR GRANGER CASUALITY BETWEEN FD, FIN AND ECONOMIC GROWTH

The Granger causality test is a popular method used in empirical studies to test for causality. The test was employed in this study to address research objective three: to determine the causal relationship between foreign divestment, financial development, and economic growth in African countries. The test was invented by Granger (1969), and it remains a widely used method in the field of economics. The basic premise of Granger causality is that the past value of one variable (X) can improve the prediction of another variable (Y). Therefore, if variable X affects variable Y, then the changes in X should precede the changes in Y. It is important to note that future events (Y) cannot affect past events (X). If the inclusion of past or lagged X values in a regression analysis of Y significantly improves the prediction of Y, it can be inferred that X is the cause of Y (Dumitrescu-Hurlin, 2012). The same concept and explanation hold true if Y stimulates X (Dumitrescu-Hurlin, 2012).

The Granger causality test has a few critical issues that need to be considered. Firstly, it assumes that the variables are stationary. If they are not stationary, then taking the first difference between them can make them stationary in the level form. Secondly, the test assumes that the error terms of causality tests are independent of one another. If this is not the case, then a proper transformation is required. Finally, the causality in Granger causality is dependent on the selected lag period. As the causality path is influenced by the number of lags used in causality tests, it is essential to choose the appropriate number of lags. To determine the number of lags to be used, Liew (2004) suggested using the Akaike information criterion (AIC) or the Schwarz information criterion (SIC), which is similar to evaluating distributed-lag models.

In addition, identifying the latent variable that affects primary variables is essential to avoid spurious causality. Moreover, spurious regression outcomes, as outlined by Tsaurai (2017), suggest a positive connection between time series variables, even when no such connection exists in the data generation process under investigation. Therefore, to address this issue, Dumitrescu-Hurlin (2012) suggested the use of multi-equation systems like vector autoregression (VAR). According to Dumitrescu-Hurlin (2012), each endogenous variable explains its lagged or past values, as well as all other endogenous variables, lagged in the model.

On the other hand, establishing causal relationships between variables using panel data can be a daunting task as it requires accounting for dynamics. However, with the unit-root test results and cointegration tests, it becomes possible to perform the Granger causation tests between FD, FIN, and economic growth variables in a scientifically rigorous manner. Hence, Dumitrescu-Hurlin (2012) identified four categories of causality relationships that need to be examined, which include homogenous non-causality (HNC), homogenous causality (HC), heterogeneous non-causality, and heterogeneous causality.

Finally, to evaluate the Granger causality between variables in a panel data set, the standard specification observed for T years and N individual subjects is considered (Dumitrescu-Hurlin, 2012):

$$y_{it} = \alpha_i + \sum_{k=1}^{p} \gamma^k y_{it-k} + \sum_{k=1}^{p} \beta_i^k x_{it} + \varepsilon_{it} \quad \textbf{(10)}$$

Where *x* and *y* are two stationary variables, *i* is the country, *k* is the time lag, parameter ε_{it} are i.i.d (0, $\sigma_{\varepsilon}{}^{2}$), *p* is the number of lags and $t \in [I, T]$. At this point, the basic assumption is that the association between x and y exists in at least one subset of variables within our sample. In line with Dumitrescu-Hurlin (2012), it can be assumed that γ^{k} are similar for all individuals, and that the regression coefficients β_{i}^{k} may include an individual component. Moreover, the Granger causality testing will explain the directional relationships between foreign divestment, financial development, and economic growth in African countries, thereby identifying whether changes in one variable can predict changes in another. This insight will enhance the understanding of how macroeconomic factors interact to drive foreign divestment, providing a more comprehensive framework for policymakers and researchers.

4.13 DYNAMIC GENERALISED METHOD OF MOMENTS (GMM)

This study adopted difference GMM panel estimators developed by Arellano and Bond (1991). In addition, this study selected the difference GMM to address research objective one: to identify the key macroeconomic drivers of foreign divestment in African countries. Moreover, two primary reasons informed the choice of GMM estimator. Firstly, due to the complexity of the regression equation, it was not possible to include country-specific dummies to account for country-specific effects. Therefore, the GMM estimator was used to address this issue. Secondly, the estimator was able to test for the presence of simultaneity bias, which may arise due to endogeneity concerns. Moreover, the one-step and two-step GMM estimators are the most applied techniques, with the latter being more ideal as the weighting matrices for two-step estimators allow for reliable estimation of the conditions underlying the covariance matrices in two steps. In addition, the GMM approach, specifically the difference GMM, is implemented by transforming the regression equation into first differences to eliminate country-specific effects and potential biases from omitted variables. By using lagged values of the explanatory variables as instruments, the GMM method corrects for endogeneity. This helps in addressing simultaneity bias, measurement errors, and autoregressive issues.

In contrast, the OLS technique is frequently used for time series and panel data. However, this method also has its limitations, such as discrimination and endogeneity issues, which the GMM can solve (Moloi, 2019). Nakagawa, Fox, Negrete-Yankelevich and Sosa (2015) defined endogeneity as a situation when the dependent variable affects one or more independent variables, or when the independent variables influence one another in an econometric model. Komape (2019) added that endogeneity occurs when an explanatory variable is correlated with the error term. The following can cause endogeneity, namely, measurement error (error in variables), autoregression with autocorrelated errors, simultaneity, and omitted variable bias (Başer, 2011). It is, therefore, crucial to control for endogeneity using appropriate econometric techniques, to avoid erroneous results and improve the robustness of the findings. Furthermore, this study takes every reasonable step to deal with the endogeneity issue hence it has adopted dynamic GMM panel estimators. The dynamic GMM method assumes that the past values of the explanatory variables are uncorrelated with the error term. In addition, the dynamic GMM estimation approach circumvents cross-sectional estimate biases, such as omitted variable errors, endogeneity issues, and inclusion of lagged dependent variables in the regression.

Equation 11 below is expressed in first-difference form as per the Arellano-Bond estimation method:

$$FDGDP_{it} - FDGDP_{it-1} = \lambda 1\,(FDGDP_{it-1} - FDGDP_{it-2}) + \lambda 2\,(FINGDP_{it} - FINGDP_{it-1}) + \lambda 3\,(GROWTH_{it} - GRROWTH_{it-1}) + \sum_{j=1}^{n} \lambda_j\,(X_{it} - X_{it-1}) + (\varepsilon_{it} - \varepsilon_{it-1}) \quad \textbf{(11)}$$

Where:

FD_{it} = the net FDI outflows as a percentage of GDP into country *i* for time *t*

FD_{it-1} = effect of the previous period's FD measured as the first lag of the FDI outflows scaled by GDP into country *i* for time *t-1*

$GROWTH_{it}$ = the economic growth in country *i* for time *t*

X_{it} = the set of control variables country *i* for time *t*

X_{it-1} = the set of control variables country *i* for time *t-1*

ε_{it} = the error term country *i* for time *t*

ε_{it-1} = country i for time *t-1*

This study has carefully examined the different econometric techniques available (pooled effect, random effect, fixed effect, and FGLS) and has ultimately chosen to adopt the GMM as the preferred method. GMM offers several advantages over other econometric methods as previously explained, thus making it a more suitable choice for the research objectives of this study.

4.14 RELIABILITY AND VALIDITY

Validity, also known as a measure of accuracy, is a check that verifies whether the study is analysing the correct data, utilising an appropriate measuring instrument and whether the measuring instrument constructs truly measure what they are supposed to measure (Zohrabi, 2013). Reliability, on the other hand, refers to the measuring instrument's consistency, dependability, and replicability. They were used to ensure the rigour of the research as well as the research instrument. Throughout the research process, the researcher adhered to the principles of trustworthiness by ensuring rigour in quantitative research without sacrificing relevance. Validity was ensured by using secure online databases to obtain relevant secondary data on the phenomenon under investigation and retrieve the information as it was uploaded, that is a database such as the World Bank where the information cannot be changed. Using these sources ensured the data's reliability and validity because they are reputable and credible.

In addition, these databases are also easily accessible and verifiable. Pre-diagnostic tests were done on all variables used in the study for selected African countries spanning from 2000 to 2020 to identify abnormal values. In instances where abnormal values exist, corrective action was taken to address the issue of spurious results. The data analysis process consisted of various steps, including (1) unit root tests, (2) panel co-integration tests, and (3) main data analysis employing panel data analysis estimation methods as mentioned above. To promote the validity of this study and its results in research, data reviewing procedures were peer-reviewed and discussed with other research experts.

4.15 ETHICAL CONSIDERATIONS

To ensure that this study complies with UNISA’s ethical guidelines, the researcher strictly adhered to Creswell's (2008) statement that quantitative researchers should be mindful

of the importance of ethical considerations. The following ethical considerations surrounding data handling and published information were considered due to the necessity to access data from third-party entities. Firstly, because incentives are prohibited, the researcher did not utilise any incentives to acquire access to information. Copyright, plagiarism, and fabrication issues were closely monitored, and all sources used were appropriately acknowledged and credited. Lastly, the researcher obtained ethical clearance from the university's ethics committee and all of the university's ethical standards and regulations were adhered to.

4.16 CHAPTER SUMMARY

This chapter began by explaining the research paradigm and research design that were used in this study. It went over all of the variables used, their theoretical impact on FD, and the proxies for each variable. This chapter described and justified the population and sample size for the study. The chapter also assessed the various econometric estimation methods used in previous empirical research studies that investigated the drivers of FD. Furthermore, the chapter presented, described, and explained the general model specification and econometric estimation procedures applicable to this study. The methods and procedures for data analysis were also discussed and justified. The following chapter focuses on actual data analysis results presentation, results discussion, and interpretation.

CHAPTER 5: PRE-ESTIMATION DIAGNOSTICS, MAIN DATA ANALYSIS AND DISCUSSION

5.1 INTRODUCTION

The purpose of this chapter is three-fold. First, to outline procedures employed in executing the pre-estimation diagnostics. Secondly, the outcome of data analysis procedures. Lastly, the discussion of the results of the analysis. Part of diagnostic testing involves procedures on how data was prepared to understand the nature of the data under study. The aim was to check whether the data was stable by performing panel stationarity tests. This would be followed by correlation analysis to check the existence of (1) any priori relationships between variables and (2) multi-collinearity problems among the variables being studied. According to Alin (2010), multi-collinearity refers to the lack of orthogonality among the variables. The correlation analysis results suggest the presence or absence of a linear relationship between the variables. Co-integration tests are further conducted to establish whether a long-run relationship exists between the variables.

Various econometric techniques were employed to address the objectives of the study. Furthermore, panel methods such as fixed effects, random effects, pooled OLS, FGLS, and the dynamic GMM approaches using e-views data analysis software were performed for analysis purposes. These techniques were guided by the following research objectives as outlined in Chapter one:

- To identify the key macroeconomic drivers of foreign divestment in African countries.
- To assess how and to what extent foreign divestment, financial development, and economic growth co-integrate in the short and long term in African countries.
- To determine the causal relationship between foreign divestment, financial development, and economic growth in African countries.
- To develop a framework to mitigate foreign divestment.

GMM was employed to examine the deterministic link between the independent variables and the FD drivers. The ARDL method was also applied to examine the cointegration among FD, FIN, and economic growth. Once cointegration was established, the study

employed the VECM to explore the short-term connections between the variables. Additionally, this study used the ARDL system in combination with the pooled mean group approach to examine both long-term and short-term relationships. Finally, panel Dumitrescu-Hurlin Granger causality was used to investigate the direction and causal relationship between the variables, considering long-term causality when long-term coefficients were significant and short-term causality when short-term coefficients were important.

The chapter consists of several sections that present the pre-estimation diagnostics, correlation analysis, and descriptive data for the analysis variables in sections 5.1.1, 5.1.2, and 5.1.3. The unit-root pre-test diagnostics conducted prior to examining the variables are discussed in section 5.2. Section 5.3 deals with cross-country dependency. Economic model estimation, discussion, and analysis of the results are presented in section 5.4. Section 5.5 covers the GMM in detail and the results analysis and discussions. The cointegration and error correction results and discussions are presented in section 5.6. section 5.7 analyses the pairwise Dumitrescu Hurlin Granger panel causality tests. This is followed by section 5.8 which focuses on the development of a framework to mitigate FD in African countries. Finally, Section 5.9 outlines and provides concluding remarks on the chapter.

5.1.1 Pre-estimation diagnostics

The following types of pre-estimation diagnostics were performed using the E-views data analysis software: descriptive statistics and correlation analysis. This was done to describe and comprehend the nature and character of the data before conducting the main data analysis. Furthermore, the following unit-root tests were performed to check the stationarity and stability of the data: Levin, Lin, and Chu (LLC), Im, Pesaran, and Shin (IPS), Augmented Dickey-Fuller - ADF Fisher Chi-square, and Phillips-Perron (PP) Fisher Chi-square.

5.1.2 Correlation analysis

Table 5.1 depicts the correlation analysis results between all the variables under study from 2000 to 2020. According to Baltagi (2021), correlation is a bivariate statistical

technique that assesses the strength of association and the direction of the relationship between two variables. The value of the correlation coefficient can range between (+1), which indicates a perfect positive association between two variables, and (-1), which indicates a perfect negative association between variables. The relationship between the two variables weakens as the correlation coefficient value approaches zero. Baltagi (2021) further posits that a statistical significance test provides a (p) value indicating the probability that random chance could explain the result, in addition, a (p) value of 5% or less is generally considered statistically significant.

Table 5.1: Correlation Matrix

Variables	FD	EXCH	FIN	GROWTH	HCD	INFL	NAT	PINST	TOPEN	UNEMPL
FD	1.0000									
EXCH	-0.0363***	1.0000								
FIN	-0.0255***	-0.2734***	1.0000							
GROWTH	0.0696*	0.0334**	-0.1020***	1.0000						
HCD	-0.0601***	-0.1531***	0.5779	-0.1621***	1.0000					
INFL	-0.0388***	-0.0091***	-0.1184***	0.0229**	-0.0889***	1.0000				
NAT	0.1788	0.0668*	-0.3300***	0.1094	-0.2248***	0.1235	1.0000			
PINST	0.1277	0.2626	-0.3866***	0.0038***	-0.2809***	0.0667*	0.3791	1.0000		
TOPEN	0.1476	-0.1182***	0.2622	0.0442**	0.0994*	0.0053***	0.2274	-0.0460***	1.0000	
UNEMPL	0.0898*	-0.2811***	0.3363	-0.1622***	0.2740	-0.0760***	0.0471**	-0.2664***	0.4245	1.0000

The symbols *, **, *** denote statistical significance at the 10%, 5%, and 1% levels, respectively. Notes: FD is foreign divestment, EXCH is the exchange rate, FIN is financial development, GROWTH represents economic growth, HCD is human capital development, INFL is inflation, NAT is natural resources, PINST is political instability, TOPEN represents trade openness, and UNEMPL is unemployment.
Source: *E-views output*

The findings presented in Table 5.1 reveal that not a single one of the variables in the study had high correlations. According to Stead (1996), a cut-off value of 0.7 denotes the existence of a high correlation between the variables in question. As a result, this study draws the conclusion that multi-collinearity is eliminated from the sample data set. The drawback of correlations is that they do not reveal the direction of the relationship. Therefore, the findings cannot be utilised to suggest policy changes. Due to the above, the study only contains correlation analysis as part of the pre-estimation diagnostics. To precisely establish whether there was a multi-collinearity issue with the data so that corrective action could be taken before using it in the main data analysis, correlation analysis was employed.

The correlation results displayed in Table 5.1, suggest that a significant negative relationship existed between FD and exchange rate, this suggests that a weaker local currency might lead to more foreign investors withdrawing their investments, possibly due to lower returns or higher risks associated with currency volatility. The significant negative relationship between FD and financial development indicates that foreign investors are more likely to stay invested in markets with well-developed financial systems. In addition, the significant negative relationship between FD and HCD, suggests that a more skilled and educated workforce can attract and retain foreign investments. The significant negative relationship between FD and inflation indicates that foreign investors might be deterred by high inflation due to its impact on the stability and predictability of returns.

On the other hand, it is shown in Table 5.1 that a non-significant and positive relationship is evident between FD and natural resources. This implies that the presence of natural resources does not strongly influence the level of financial development suggesting other factors might be more critical in driving financial development. A non-significant and positive relationship between FD and political instability suggests that improvements in political stability do not strongly correlate with changes in FD. Additionally, a non-significant and positive relationship between FD and trade openness indicates that greater trade openness does not have a strong direct impact on FD.

The correlation analysis in Table 5.1 displayed that a significant and positive relationship existed between economic growth and FD. This implies that during the period 2000-2020, economic growth investors might seek to realise their profits, or it could reflect a shift of investments to other emerging opportunities. Finally, significant and positive relationship between unemployment and FD suggests that foreign investors may withdraw their investments in response to rising unemployment.

Based on the results displayed in Table 5.1 correlation analysis and discussion above, all variables selected were below the cut-off point of 70% indicating that there is a strong correlation between variables and therefore the main data analysis can be performed.

5.1.3 Descriptive statistics

Descriptive statistics were computed and results are shown in Table 5.2. One of the primary goals of descriptive statistics is to characterise the nature and character of the data, such as through the Jarque-Bera criterion, kurtosis, skewness, standard deviation, minimum, maximum, median, and mean. Additionally, the characteristics and nature of the data were precisely documented to determine the presence of anomalous (abnormal) results and whether the data for the variables was or was not consistently scattered. Moreover, to prevent inaccurate results, such information is essential to determine data transformation before using it for analysis.

Saunders *et al.* (2019) defined standard deviation as a statistic that measures the quantity or the extent of variation or spread in a set of values. According to Gujarati (2022), the Jarque-Bera criterion is a goodness-of-fit test that is used to determine normality; specifically, the test compares the skewness and kurtosis of the data to see if it matches a normal distribution. Skewness is the measure of asymmetry whereas kurtosis is a tail-extremity measure that determines whether the data are heavy-tailed or light-tailed in comparison to a normal distribution. Kurtosis indicates whether there are outliers or the propensity of a distribution to produce outliers (Gujarati, 2022)

Table 5.2: Summary of Descriptive Statistics

Variable	Obs	Skewness	Kurtosis	Jarque-Bera	Prob	Median	Mean	Std. Dev.	Range	Min	Max
FD	735	10,2359	162,1458	788485,6000	0.00	0,2577	0,7045	1,7477	32,6977	0,0000	32,6977
EXCH	735	4,6992	29,8306	24751,3500	0.00	158,5526	572,8476	1156,2960	9564,5371	0,5449	9565,0820
FIN	735	1,5818	5,0899	440,2485	0.00	15,0501	22,5428	19,7899	106,2603	0,0000	106,2603
GROWTH	735	0,9705	4,9537	232,2810	0.00	4,4465	4,7049	2,7723	18,2994	0,0338	18,3332
HCD	735	1,6461	4,9995	454,3603	0.00	5,4000	13,1841	16,8465	84,1145	0,0059	84,1204
INFL	735	14,0173	223,8893	1518327,0000	0.00	4,3450	8,0321	27,3281	513,8701	0,0367	513,9068
NAT	735	1,7488	6,1493	678,3906	0.00	7,6698	11,4107	10,9644	58,6864	0,0012	58,6876
PINST	735	0,2733	2,4185	19,5071	0.00	0,6568	0,6829	0,4232	1,8414	0,0000	1,8414
TOPEN	735	0,5856	2,9335	42,1381	0.00	62,9469	70,0517	28,5795	174,798	1,0000	175,7980
UNEMPL	735	1,0992	3,3171	151,0802	0.00	6,7370	8,9729	7,2648	32,97	0,3200	33,2900

Notes: FD is foreign divestment, EXCH is the exchange rate, FIN is financial development, GROWTH represents economic growth, HCD is human capital development, INFL is inflation, NAT is natural resources, PINST is political instability, TOPEN represents trade openness, and UNEMPL is unemployment.
Source: *E-views output*

According to Baltagi (2021), there are two strategies for identifying anomalies (outliers) in the dataset, using the standard deviation as well as the range. A standard deviation of above 1000 is considered an anomaly or outlier (Baltagi, 2021). Therefore, when such an anomaly is identified, it has a minimal effect on the median in the data set. Starting off, it can be seen from the general range values see Table 5.2 that for each of these indicators: EXCH, FIN, INFL and TOPEN, there is some degree of outliers. For example, a standard deviation statistic for exchange rate is 1156,2960 which is above 1000 and, therefore exhibits outliers or unusual results. To address the anomalities, the study employed the GMM. The GMM can be used to address anomalies, including outliers and endogeneity issues, in the dataset. In addition, GMM is particularly robust to certain types of anomalies because it relies on moment conditions rather than strict distributional assumptions. By using instruments, GMM can mitigate the impact of outliers that might otherwise skew the results in traditional regression models. Additionally, since GMM uses lagged variables as instruments, it can help control for the potential bias introduced by outliers, ensuring more reliable and robust estimates.

Tsaurai (2017) pointed out that a Kurtosis value close to three should have an equivalent distribution. As the kurtosis values of data variables like trade openness, unemployment and government effectiveness are near three (3), there is also an equivalent or even distribution for these variables. According to Tsaurai (2017), the Jarque-Bera criterion has zero chance of being met in the case of FD, EXCH, FIN, GROWTH, HCD, INFL, NAT, and TOPEN. These variables do not have regular data distributions as a result of the aforementioned. Likewise, Jarque-Bera test would not be fit for purpose given the small sample size. This test is usually applicable to large datasets.

According to Table 5.2, the variables with the lowest mean, below the overall average of 71.31 (the overall average equals to the total mean values divided by the total number of variables), were the mean net FDI outflow % of GDP (a proxy for FD), consumer price annual % (a proxy for inflation), GDP growth annual % (a proxy for economic growth), unemployment total % of total labour force modelled ILO estimate (a proxy for unemployment), total natural resources rent % of GDP (a proxy for natural resources), individuals using internet % of the population (a proxy for human capital development),

total trade% of GDP (a proxy for trade openness), and domestic credit to the private sector by banks% of GDP (a proxy for financial development) and government effectiveness % of the population (a proxy for political instability). However, official exchange rates LCU per US$ per average (a proxy for exchange rate), over this period were significantly higher than the overall mean of 71.31.

On the other hand, Table 5.2 displayed that FIN ranges from 0.00 to 106.26. With a threshold of 106.26, several of the economies included in this study were considered to be financially unstable. Poor financial development means that efforts to close the financial gap and free people from poverty have not been successful in eradicating poverty and generating jobs in these African countries.

TOPEN ranges from 1 to 175.80. When commerce is more open, business opportunities, competitiveness, and innovation driven by competition are improved.

The inflation rate (INFL), as displayed in Table 5.2, reaches a record high of 513.91. When goods and services are more expensive, a higher inflation rate (INFL) might result in a higher consumer price index (CPI). As a result, inflation will rise over a brief period of time, often six to eight months. If the inflation rate, which in this case is calculated as the consumer price annual%, is excessively high, it eventually leads to a lot of uncertainty and volatility. Thus, businesses favour a modest and steady level of inflation. Also, high rates of inflation will probably result in an increase in the price of raw materials, and employees will undoubtedly seek higher salaries in an effort to adjust to increasing living expenses.

Table 5.2 further indicates that FD (FD) ranges from 0.00 to 32.70 from 2000 to 2020. African countries avoided global foreign divestiture in 2018, according to OECD (2019). Rising prices for specific commodities and an increase in non-resource-seeking investment in a few economies were the main drivers of the surge. While South Africa, one of the continent's major economies, was exempt from international divestment, other nations like Nigeria and Egypt were unable to escape (OECD, 2019).

A mean of 572.85 and a standard deviation of 1156.30 were obtained for the exchange rate (EXCH). EXCH was observed in descriptive statistics (see Table 5.2) with a minimum

of 0.54 and a maximum of 9565.08. The fact that the standard deviation measurement of the exchange rate is over 1000 demonstrates that there are outliers in terms of the exchange rate.

The descriptive statistics demonstrate that the economic growth of African countries as a share of GDP has been modest. The mean economic growth (GROWTH) for the study period was 4.70, with a standard deviation of 2.77. The economic growth (GROWTH), as shown in descriptive statistics, ranged from 0.03 to 18.33.

A mean of 0.66 and a standard deviation of 0.42 were obtained for government effectiveness (PINST). PINST was observed in Table 5.2 with a minimum of 0.00 and a maximum of 1.84. The average values for each individual country were close to the average values for all the African countries, hence there were no outliers in terms of government effectiveness.

On the other side, human capital development (HCD) had a mean of 13.18. This result demonstrated the necessity of having advanced technology skills to be recruited profitably. This result shows that possessing cutting-edge technological expertise is essential for gaining employment. The use of cutting-edge technology to boost productivity, creativity, and competitive advantage is becoming more and more common in today's fast-changing technological environment. Strong technologists are therefore in high demand in the employment market. It suggests that corporations are actively searching for people who can successfully use technology to contribute to organizational performance by suggesting that people require advanced technological abilities to be recruited commercially. It is considered that having access to the internet has given workers a basis for learning, acquiring new knowledge, and communicating skills required to comprehend basic instructions in their employment.

Meanwhile, a low mean of 11.41 was recorded for natural resources (NAT). A large portion of African countries appeal to foreign investors due to their abundant natural resource endowments. The minimum percentage of natural resources (NAT) in African countries between 2000 and 2020 is 0.0012 percent, and the maximum percentage is 58.69 percent as displayed in Table 5.2 above. The results supported a prior study by Nguyen *et al.* (2021), who proposed that developing countries without access to natural

resources may escape FD by enhancing their political environments and institutional frameworks.

Based on the descriptive statistics displayed in Table 5.2, the study notes that the unemployment rate (UNEMPL) had a mean of 8.97 between 2000 and 2020, with a maximum value of 33.29 and a minimum value of 0.32.

Based on Table 5.2 summary of descriptive statistics and the discussion above, this study noted there are no errors and outliers in the data, therefore the main data analysis can be performed.

5.2 UNIT ROOTS TESTS

The order in which the research variables appear for regression analysis and cointegration testing had to be determined using static tests. Unit-root tests were used for cointegration and regression analysis because they are reliable in ensuring that no variables with a higher order of integration existed. Akaike information criterion (AIC) in E-views automatically chooses the lag duration. A lag time between 0 and 1 was automatically inputted by E-views.

The unit-root null hypothesis stipulates that the data-generating process for the variables can be characterised as a non-stationary process tested against the stationery based on t-statistic (Gujarati & Porter, 2009). The unit root was chosen in accordance with Gujarati and Porter (2009) based on the strength of the measure, including the test degree of significance. The potential for rejecting an erroneous null hypothesis is explained by the test's power or the test's degree of significance. This study, therefore, employed the following panel unit-root tests: Levin, Lin, and Chu (LLC), Im, Pesaran, and Shin (IPS), Augmented Dickey-Fuller - ADF Fisher Chi-square, and Phillips-Perron (PP) Fisher Chi-square; the p-value is not significant under these tests.

Moreover, the other explanation that the panel might not have a unit root, is rejected under the LLC, IPS, ADF, and PP tests, respectively. The results of the LLC, IPS, and ADF-Fisher Chi-square unit-root tests, as well as the estimation methods for the PP-Fisher Chi-square, are presented in Table 5.3.

Table 5.3: Unit root tests

Variable	No trend	Intercept and Trend	Individual Intercept	Decision
Panel Unit root test using the LLC				
EXCH	-12.8381***	-12.0862***	-9.78078***	I(1)
FD	-27.2271***	-12.5282***	-15.7565***	I(1)
FIN	5.73472	3.2194	-0.6192***	I(0)
GROWTH	-23.5847***	-2.12156***	-6.05148***	I(1)
HCD	7.6211	4.6393	11.248	I(0)
INFL	-39.4320***	-28.5585***	-36.8860***	I(1)
NAT	-3.10849***	-3.95092***	-2.1423***	I(0)
PINST	1.97745	-19.5966***	-18.6516***	I(0)
TOPEN	-1.9885***	0.2895	-0.7011***	I(0)
UNEMPL	-11.0618***	2.0711	-0.16241***	I(1)
Panel unit root tests using IPS				
EXCH	-	-9.57948***	-8.37519***	I(1)
FD	-	-14.9086***	-18.4130***	I(1)
FIN	-	2.2788	2.1075	I(0)
GROWTH	-	-11.5056***	-14.7164***	I(1)
HCD	-	8.2702	13.9405	I(0)
INFL	-	-22.9191***	-27.4679***	I(1)
NAT	-	-1.70538***	-2.2264***	I(0)
PINST	-	-16.7761***	-16.9867***	I(0)
TOPEN	-	-0.1262***	-0.6298***	I(0)
UNEMPL	-	-1.41231***	-3.61097***	I(1)

Panel unit root testing using ADF Fisher Chi-square

EXCH	315.217	233.000	215.903	I(1)
FD	606.399	317.832	424.482	I(1)
FIN	32.7178	49.5444	53.1094	I(0)
GROWTH	524.328	255.509	338.204	I(1)
HCD	43.1210	38.7042	31.2092	I(0)
INFL	670.155	405.175	764.892	I(1)
NAT	62.1682	90.0909	84.8651	I(0)
PINST	36.4332	357.032	484.677	I(0)
TOPEN	62.4296	69.2524	71.0565	I(0)
UNEMPL	230.118	104.875	129.493	I(1)

Panel unit root testing using PP - Fisher Chi-square

EXCH	364.569	278.418	378.738	I(1)
FD	727.203	668.983	2550.43	I(1)
FIN	24.9116	56.6697	38.1632	I(0)
GROWTH	725.321	601.922	1454.69	I(1)
HCD	21.4850	38.7942	13.9921	I(0)
INFL	715.531	694.237	2753.63	I(1)
NAT	73.2569	77.5022	87.2366	I(0)
PINST	82.2649	273.116	267.519	I(0)
TOPEN	69.9944	72.1936	79.4581	I(0)
UNEMPL	275.388	131.047	161.554	I(1)

Note: LLC, IPS, ADF and PP stand for Levin, Lin and Chu (2002); Im, Pesaran and Shin (2003); ADF Fisher Chi-Square and PP Fisher Chi-Square tests respectively.
*, **, *** denotes that the null hypothesis of unit root tests is rejected at 10%, 5% and 1%, respectively. All the tests are at first difference (except where indicated otherwise.) Probabilities for all the tests assume asymptotic normality except for Fisher tests which are computed using the asymptotic Chi-square distribution. EXCH is the exchange rate, FD is foreign divestment, FIN is financial development, GROWTH represents economic growth, HCD is human capital development, INFL is inflation, NAT is natural resources, PINST is political instability, TOPEN represents trade openness, and UNEMPL is unemployment.
Source: E-views output

The unit-roots tests demonstrate that all the variables under the analysis are stationary across all unit-root test methods (see Table 5.3). In addition, the summary table 5.3 displays that FD, EXCH, GROWTH, INFL and UNEMPL are of first-order integration, which implies that they are stationary at first difference/decision. Whereas FIN, HCD, NAT, PINST, and TOPEN are on the zero (0) order integration, which means that they are stationary at level zero decision.

The above discussion means that the data can be computable to any software (i.e., Eviews or Stata) and therefore the main data analysis can be performed.

5.3 CROSS-SECTIONAL DEPENDANCY

According to Bilgili, Koçak, Bulut and Kuloğlu (2017), cross-sectional dependence refers to a situation where a shock that impacts one country may also have an effect on the other countries in a panel data model due to the high degree of globalisation as well as the possibility of cross-national cooperation. Baltagi (2021) further stated that panel data can exhibit widespread cross-sectional dependence, in which all units in the same cross-section are correlated. It was, therefore, crucial to test for cross-sectional dependence in a panel data model to ensure that the data do not have size distortions across countries, and to avoid biases.

According to Tang and Bundhoo (2017) and Yoon and Moon (2014), the adjusted R-squared or R-squared is used to measure the strength and conditioning of cross-sectional dependency. A strong R-squared or adjusted R-squared indicates that the cross-sectional dependency model is valid, while a low percentage indicates that the model is unsuitable. Additionally, a Durbin Watson-Statistic (Durbin W-stat) value of less than 2 indicates positive autocorrelation, while a value greater than 2 indicates negative autocorrelation. A value of 2 indicates no autocorrelation. Therefore, for a successful regression model, the Durbin W-Stat should be equal to 2. In this study, the Durbin W-stat was used to identify the presence of autocorrelation in the dataset.

Table 5.4: Results of Cross-sectional dependency tests

Variable	Coefficient	Std. Error	t-Statistic	Prob
EXCH	-7.0405***	5.8605	-1.2021***	0.2297
FIN	0.0019***	0.0044***	0.4220	0.6731
GROWTH	0.0280**	0.0373**	0.7488	0.4542
HCD	-0.0049***	0.0047***	-1.0586***	0.2901
INFL	-0.0038***	0.0023***	-1.6381***	0.1018
NAT	0.0176**	0.0069***	2.5603	0.0107
PINST	0.4993	0.1768	2.8239	0.0049
TOPEN	0.0051***	0.0026***	1.9728	0.0489
UNEMPL	0.0183**	0.0107**	1.7035	0.0889
R-squared	0.0658			
Adjusted R^2	0.0529			
Durbin W-Stat	1.3822			
Obs	735	735	735	735
Instruments	20	20	20	20
Groups	35	35	35	35

*, ** and *** indicate the significance at the 10%, 5% and 1% significance levels, respectively
Source: E-views output

Between 2000 and 2020, Table 5.4 shows a Durbin W-Stat value of 1.3822 which indicates positive autocorrelation. Table 5.4 further indicates that various factors, including EXCH, FIN, GROWTH, HCD, INFL, NAT, PINST, TOPEN, and UNEMPL played a significant role in determining FD in African countries. Notably, political instability was found to be a non-significant factor in determining FD in African countries during this period.

According to Table 5.4, the R-squared value is 6.58 percent and the adjusted R-squared value is 5.29 percent, suggesting that the model was not a good fit for the African context

between 2000 and 2020. This means that the countries are not dependent on each other (the cross sections are independent). The results in Table 5.4 above show that there is non-existence of cross-sectional dependency between these selected African countries.

In conclusion, Table 5.4 presented in this study suggests that there is positive autocorrelation in the dataset, as indicated by the Durbin W-stat being less than two (2). However, it should be noted that despite this positive autocorrelation, the R-squared and adjusted R-squared values suggest that cross sectional dependency test may not be suitable. A positive autocorrelation from the Durbin W-stat does not indicate multicollinearity or the correlation between the variables.

5.4 ECONOMIC MODEL ESTIMATION RESULTS RESULTS AND DISCUSSION OF THE MAIN FINDINGS

This study established a causal relationship between FD, FIN, and economic growth in the African context using dynamic panel data estimation of the drivers of FD. In addition, the study employed a generalised method of moments (GMM) panel approach to examine the factors that influence FD. Meanwhile, the equations used in this study were derived from utilising a number of FD drivers as proxies. Furthermore, the EXCH, FIN, GROWTH, HCD, INFL, NAT, PINST, TOPEN, and UNEMPL were extensively employed in this study. Moreover, the pairwise Dumitrescu Hurlin Granger panel causality tests were used to assess the causative link between FD, FIN, and economic growth in this study.

On the other hand, this study employed data ranging from 2000 to 2020, which includes the global financial crisis that happened from 2007 to 2008 and partly the surge of the Covid-19 pandemic that happened in 2020. Due to the global financial crisis and partly the Covid-19 surge, this study could have employed structural breaks. However, it could not because this is a panel study with a sample of 35 countries and structural breaks are applicable to time-series studies. It is noted below that this study utilised GMM with dummy variables to take care of structural breaks. Moreover, as for causality and cointegration, the tests were stable despite the suspected structural breaks. Consequently, because of the stability of causality and cointegration, there was no need

to run structural breaks. Finally, the study also explains its specific methodologies and findings in sections 5.5 and 5.6.

5.5 GENERAL METHOD OF MOMENTS (GMM) (2-STEP DIFFERENCE GMM)

This study employed the GMM system approach, to estimate if there are deterministic relationships between the FD drivers in Africa. In addition, this study estimated pooled effects (PE), random effects (RE), fixed effects (FE), and feasible generalized least square (FGLS) methods for robustness testing and comparisons with GMM. Table 5.5 provides a summary of the findings using various methodologies. Meanwhile, the GMM was employed as the method of choice when dealing with endogeneity problems in variable estimation (Moloi, 2019). Additionally, in comparison with other methods, the GMM technique is more resilient to multi-collinearity and autocorrelation issues. Conversely, Lee, Choi, Lee, and Jin (2020) recommended that scholars take financial capital flow (inflow or outflow) heterogeneity into account before evaluating its efficiency since it may have an impact on the receiving country's economic development.

Moreover, the fixed effects model structure of the linear relationship is not necessary for the GMM technique to estimate t-statistics in a mathematically unbiased way (Tsaurai, 2017). As a result, the GMM measurement method, which addressed these issues, became a preferred approach for determining the deterministic relationship between the FD drivers. However, when dealing with short panel data with heteroskedasticity of an uncertain form, GMM is more effective than OLS and weighted least squares (WLS).

After Arellano and Bover (1995) and Blundell and Bond (1998) investigations, the GMM system was employed to minimise the differentiated GMM bias in large samples. In contrast, a handful of GMM studies already in existence employ various estimating techniques to produce reliable results for modifying a group of instruments for examining correlations between FD drivers. As a result, it appears that the literature on knowledge offers no guidance regarding precise cut-off points for the number of instruments in GMM estimation. Tsaurai (2017) contends that the GMM estimator exhibits a small amount of bias even in examples with few variables.

This study adhered to Roodman's core rule from 2009, which emphasised that groups must be more than the instruments, as is the case with most rule-based methodologies. Furthermore, Roodman (2009) acknowledged that the demise of the instrument collection and the subsequent increase in instrument proliferation had a significant negative impact on Hansen's statistics. Hence for the uniformity and precision of the estimation, the study utilised the two-step GMM methodology. Moreover, Blundell and Bond (1998) stressed that the one-step GMM estimation technique is not more stable and perfect than the two-step GMM technique.

On the other hand, Table 5.5 summarises and compares the two-step GMM with other estimations such as the fixed effects, FLGS, pooled effects, and random effects. In addition, this study excludes random effects and opts for the Hausman fixed-effects test, and as a result, the study documented the GMM system method that simulates fixed effects panel. Although other methods (pooled effects, fixed effects, random effects, and FGLS) exist for comparison and robustness, this study primarily focuses on the GMM model.

Since the effectiveness of the instruments depends on their diagnostic capabilities, Hansen (1982) confirmed the veracity of the diagnoses on the instruments. Nonetheless, despite the fact that each model used a different proxy for an FD determinant, no Hansen statistics could disprove the validity of the instrument in this study. Therefore, the foregoing is significant since Hansen (1982) showed that it is forbidden to combine accurate and incorrect instruments by making type II errors (mistaking accurate data for deceptive or inaccurate data).

This study followed the Arellano and Bond model (1991) and demonstrates consistency in the model estimates (first-order AR (1) and the second-order AR (2)) results. The study further highlighted the AR (1) and proved that the model can provide first-order serial correlation in Table 5.5. Moreover, Magwedere (2019) underlined that the AR (2) theory claims that mistakes have a detrimental effect on the independent variables and that the predictor variables are not predetermined.

As can be shown in Table 5.5, the outcomes of the analyses do not challenge the null hypothesis that there is no second-order AR (2) serial correlation. Furthermore, serial

correlation significantly affects how accurate estimations are during the inaccuracy term. Previous studies, such as those of Tsaurai (2017) and Magwedere (2019) revealed that serial order one correlation exists using the AR (1) test. Furthermore, previous studies found no correlation between the error term and the instruments when utilising the AR (2) method. As a result, no regression can disprove the null hypothesis that there is no second-order serial correlation. Moreover, Magwedere (2019) underlined that to ensure the correctness of the GMM estimation, the coefficient of the lagged dependent variable should fall between the estimations of fixed and pooled effects.

Finally, this study preferred the GMM approach other than pooled effects, fixed effects, random effects, and FGLS methods (see Table 5.5). This preference was guided by GMM's ability to address the endogeneity issue. However, those methods (pooled effects, fixed effects, random effects, and feasible generalised least squares) were estimated for robustness and comparison purposes. Moreover, Table 5.5 provides dynamic panel data estimations on the factors that influence FD in African countries.

Table 5.5: Dynamic panel-data estimations on the drivers of FD

Variables	**Pooled Effects** FD	**Fixed Effects** FD	**Random Effects** FD	**2 Step Diff GMM** FD	**FGLS** FD
L.FD	0.3242	0.1821	0.3242	0.4830	0.3242
	(0.000)	(0.000)	(0.000)	(0.344)	(0.000)
FIN	0.0019***	0.0210**	0.0019***	0.4804	0.0019***
	(0.655)	(0.059)	(0.655)	(0.487)	(0.652)
NAT	0.0077***	-0.0151***	0.0077***	-0.1561***	0.0077***
	(0.260)	(0.275)	(0.260)	(0.628)	(0.256)
INFL	-0.0022***	-0.0008***	-0.0022***	-0.2367***	-0.0022***
	(0.565)	(0.849)	(0.565)	(0.853)	(0.562)
TOPEN	0.0028***	-0.0001***	0.0028***	-0.1358***	0.0028***
	(0.279)	(0.982)	(0.279)	(0.394)	(0.275)
GROWTH	0.0181**	0.0391**	0.0181**	-0.9482***	0.0181**
	(0.630)	(0.317)	(0.630)	(0.347)	(0.627)
UNEMPL	0.0135**	-0.0251***	0.0135**	-2.5874***	0.0135**
	(0.202)	(0.503)	(0.202)	(0.435)	(0.198)
HCD	-0.0038***	-0.0059***	-0.0038***	-0.0806***	-0.0038***
	(0.411)	(0.274)	(0.411)	(0.728)	(0.406)
EXCH	-0.00005***	-0.00009***	-0.00005***	-0.0085***	-
	(0.329)	(0.482)	(0.329)	(0.728)	0.00005***
					(0.325)
PINST	0.4138	0.1035	0.4138	12.1240	0.4138
	(0.018)	(0.697)	(0.018)	(0.560)	(0.017)
_cons	-0.3183***	0.4020	-0.3183***		-0.3183***
	(0.226)	(0.482)	(0.226)		(0.222)
N	700	700	700	665	700
R^2		0.0144			
Instruments				20	
Groups				35	

Standard errors in parentheses; * p < 10%, ** p < 5%, *** p < 1%

Notes: ***, **, * are statistical significance at the levels of significance of 1%, 5% and 10% levels, respectively. FD is foreign divestment, FIN is financial development, NAT is natural resources, INFL is inflation, TOPEN is trade openness, GROWTH is economic growth, UNEMPL is unemployment, HCD is human capital development, EXCH is the exchange rate, and PINST is political instability
Source: Eviews output

5.5.1 Foreign Divestment drivers

FD is notable in African nations because it severely retards the continent's overall economic progress. In South Korea, Lee and Kang (2022) investigated the factors that influence FD using probit model analysis from 2010 to 2019. The study by Lee and Kang (2022) found that sales revenue and parent firm dummy, are found to be the key determinants at the firm level while the GDP economic growth rate, regulatory quality, and environmental policy are the key determinants in the country level.

Matekenya and Moyo (2023) investigated the effect of FD on economic growth and development in South Africa employing the non-linear ARDL method from 1991 to 2019. Moreover, their study used two regression models and the unit-root test to establish the order of factor integration. As a result, Matekenya and Moyo (2023) found a negative relationship between FD, and economic growth and development. Furthermore, Matekenya and Moyo (2023) found that in South Africa, the adverse consequences of FDs outweigh the favourable effects of FDI inflows.

FD assesses corporate strategy initiatives with a corporation's resources and private equity firm for globalisation (Matekenya & Moyo, 2023). This study found that FIN, NAT, INFL, TOPEN, GROWTH, UNEMPL, HCD, EXCH and PINST are the key FD determinants for the period 2000 to 2020. Furthermore, this study used the FGLS, dynamic GMM (2-step), fixed, pooled, and random effects methodologies to determine their influence and relative significance. However, the analysis of the findings in this study focused on the GMM method. Hence, as demonstrated in sections 5.4.2 to 5.4.11, the study assessed the regressors' impacts on the regressand.

5.5.2 Foreign Divestment (FD) and lagged Foreign Divestment flows

The two-step difference GMM demonstrates that the FD lag had a non-significant beneficial impact on FD, as indicated in Table 5.5 above. The findings of Subramaniam *et al.* (2023) are at odds with the GMM results for this study. According to Subramaniam *et al.* (2023), FD declines as economic growth declines, and this view is fairly comparable to those of Benito's (1997) finding that decisions to divest are negatively associated with economic growth. The current study’s findings are the result of a combination of

favourable market expansion, business-friendly economic circumstances, and desirable locations. In general, foreign investors are constantly searching for business possibilities, particularly in extractive industries involving the continent's natural resources.

5.5.3 Financial Development (FIN) and Foreign Divestment

FD is a significant worldwide phenomenon since it has an impact on the economy of the countries where the parent and affiliate companies are based as well as their financial development Borga *et al.* (2020). To bridge the financial gap, create jobs, and lift people out of poverty, financial development is essential for a country's economic progress (OECD, 2019). As Matekenya and Moyo (2023) demonstrated FD harms financial development. The authors further underlined that the non-linear ARDL methodology was adopted theoretically due to its ability to distinguish between positive and negative fluctuations in inward FDI stock.

The 2-step difference GMM in Table 5.5 indicates that FIN had a favourable but insignificant impact on FD. However, in theory, FIN is expected to have a significant impact because it encourages economic growth through capital accumulation and advanced technology by raising the rate of return, mobilising and accumulating investments, processing data regarding investment opportunities, enhancing and promoting foreign capital inflows, as well as improving capital distribution. These results demonstrate that although emerging economies are the primary emphasis, these economies generally draw significant foreign capital flow, subject to a demand for financing. In addition, the limited effect of financial development (FIN) on foreign divestment (FD) implies that simply improving financial development may not be enough to affect FD in African countries. Therefore, policymakers should contemplate implementing extensive interventions that simultaneously tackle structural and institutional elements, such as increasing governance, mitigating political risk, and fortifying legal frameworks, to establish a more stable investment climate. Moreover, implementing specific strategies to promote innovation, improve access to financial services, and enhance financial systems could further enhance the beneficial impact of financial development on foreign divestment.

5.5.4 Economic Growth (GROWTH) and Foreign Divestment

From 1991 to 2019 in South Africa, Matekenya and Moyo (2023) used a nonlinear ARDL technique to examine the relationship between FD, GROWTH, and FIN. Their study, contrary to this study did not employ the system GMM and any notable results in their study might be biased since non-linear ARDL is known for its inability to deal with autocorrelation and heteroskedasticity. Moreover, their study discovered that international divestments harm economic development and growth.

From Table 5.5, the two-step difference GMM model specification results indicates that GROWTH had a statistically significant but negative relationship to the FD in the African region from 2000 to 2020. The findings show that economic growth is causing foreign divestiture rather than investment in Africa. Therefore, policymakers should reduce regulatory burdens, improve infrastructure, and ensure political and economic stability to retain and attract foreign investment. In addition, authorities must diversify economies and reduce dependency on volatile industries to stabilise investment flows and attenuate economic growth consequences of foreign divestment. Given that there would be little return on investment for foreign investors, the aforementioned suggests that an economy with a low economic growth potential is unlikely to attract FDI inflows over the long term. The findings concur with those of Simionescu (2016), who contend that a shortage of infrastructure discourages economic growth and promotes FD.

5.5.5 Unemployment and Foreign Divestment

Table 5.5 shows a negative and significant relationship between unemployment and FD in African countries. These results confirm the statistical importance of UNEMPL to FD in African countries, in that an increase in unemployment rate is caused by an increase in FD which command more job losses. Additionally, these outcome indicates that African government should invest in education and vocational training to improve workforce skills and promote high-employment industries. Moreover, the findings show that policymakers must implement policies that promote entrepreneurship and small business development programmes to reduce unemployment and subsequently attract foreign investment. Furthermore, whenever multinational businesses exit the host nation, they typically result

in the closure of their operations and a withdrawal of their financial investments. Traditionally, a high level of unemployment percentage stimulates interest in public goods and services including education, social subsidies, and free healthcare (Mohr, 2015). In addition, Mohr (2015) asserts that rapid human population growth may significantly contribute to unemployment. Furthermore, a surge in international divestiture also significantly reduces the likelihood of a considerable unemployment rate (Belderbos & Zou, 2006).

5.5.6 Trade Openness and Foreign Divestment

Due to its effect on a country's capacity to reduce FD, trade openness has long attracted the attention of international and development economists. Thus, Edo and Nnadozie (2023) assert that international investors favour nations with liberal trade regulations. They further alluded that severe government controls and the country's economic trade openness raise the likelihood of divestments, and investors choose economies with accessible trade policies. Moreover, their study stressed that extensive government controls and the economy's trade openness raise the likelihood of international divestments. Furthermore, the absence of a good theoretically generated openness measure has negatively affected empirical studies on the relationship between FD and trade openness (Edo & Nnadozie, 2023). The extent of trade liberalisation influences the decision to invest or withdraw from a foreign country favourably. Trade openness, which affects foreign investment or divestment in African countries, is used to illustrate this similarity since it illustrates the diversification of the business climate of an economy.

Table 5.5 displays that TOPEN has a negative and significant impact (at the 1% level) on FD in Africa. The findings revealed that it is crucial for policymakers to give utmost importance to creating a trade environment that is stable and predictable. This can be accomplished by strategically removing trade barriers and encouraging regional trade agreements that foster economic stability. Furthermore, improving infrastructure and reducing administrative costs can boost the competitiveness and attractiveness of African markets for foreign investors, thereby minimising the adverse effects of trade liberalisation on divestment.TOPEN is obviously significant in impacting the decision to divest from foreign investments in African countries, and this is consistent with economic concepts

and earlier scientific research. Negative TOPEN leads to the decline in rates of economic growth. Furthermore, negative trade openness reduces the equilibrium income level and the function of aggregate spending. Moreover, trade openness is a crucial factor in determining economic expansion, job creation, and poverty reduction (Mohr, 2015). Additionally, increased market opportunities for domestic businesses, higher productivity, and innovation spurred by competition are all results of trade openness (Cantah, Brafu-Insaidoo, Wiafe & Adams, 2018). Cantah *et al.* (2018) underline that trade openness promotes effective factor accumulation, capital allocation, superior innovation, and spillover effects.

5.5.7 Exchange rate (EXCH) and Foreign Divestment

One of the most significant considerations in decision-making about international divestments continues to be exchange rate fluctuations. As a result, countries whose currencies are expected to depreciate more severely, deter foreign investors since their investments will decrease in value (Mughal & Akram, 2011). Therefore, this study employed the official exchange rates LCU per US$ per average to measure the exchange rate (EXCH).

Table 5.5 demonstrates that the EXCH has a negative and significant relationship with FD, demonstrating that the foreign investor's return on investment is significantly reduced if the host country's currency depreciates. Because of the negative and statistically significant relationship between the exchange rate and foreign divestment, this study finds that when the host country's currency depreciates, foreign investors' returns fall, leading to foreign divestment. Therefore, officials needs to implement sensible fiscal and monetary policies, as well as maintain adequate foreign exchange reserves to stabilise the exchange rate. Furthermore, officials should offer hedging instruments to foreign investors to reduce the impact of exchange rate fluctuations on foreign investments, making them more secure and appealing. Moreover, Djokoto (2021) demonstrated that currency rate depreciation discourages foreign investment; nonetheless, there was inconclusive data about the relationship between foreign investment and inflation. Lastly, Borga *et al.* (2020) discovered that MNEs are more likely to depart when exchange rate volatility is high compared to the actual EXCH.

5.5.8 Human Capital Development (HCD) and Foreign Divestment

For a business to run smoothly and effectively in today's culture, internet access is essential. Human capital development (HCD), a crucial determinant of FD in this study, is proxied as the proportion of the population using the internet. The results in Table 5.5 suggest that HCD has a negative and significant effect on FD in African countries. Due to Africa's poor adoption of information and communication technology (ICT) and related infrastructure compared to other emerging nations, this study's findings are probably the outcome of the level of digital literacy. Considering the detrimental impact of HCD on FD in African countries, it is imperative to improve digital literacy and ICT infrastructure. Therefore, it is crucial for governments to prioritise investments in education and training programmes that specifically target digital skills and technology adoption. This will greatly enhance the competency of the workforce. In addition, establishing collaborations with private sector companies to enhance ICT infrastructure can help in attracting and retaining foreign investments by ensuring a highly skilled and technologically proficient workforce.

5.5.9 Inflation (INFL) and Foreign Divestment

One of the goals of macroeconomic policy is to keep prices steady because they might hinder investment and overall demand in an economy. It must further be noted that although not all 35 countries might use CPI as a measure of INFL, as stipulated in the previous chapter, for the purpose of this study, INFL was measured using CPI.

Table 5.5 indicates that INFL has a significantly negative impact on FD in our sampled African countries. The adverse relationship between INFL and FD in African countries highlights the importance of implementing robust macroeconomic policies to ensure price stability. Therefore, it is crucial for governments to adopt responsible fiscal and monetary measures to manage inflation. This includes exercising caution in public spending, implementing efficient tax policies, and making necessary adjustments to interest rates. In addition, the establishment of independent central banks with clear mandates to combat inflation can boost the credibility of policies and inspire confidence among foreign investors, thereby decreasing the chances of foreign divestment. A sound monetary

policy must control INFL. In addition, uncertainty regarding INFL discourages foreign investment (Udoh & Egwaikhide, 2008). Omankhanlen (2011) backed this up by highlighting that a high rate of INFL increases instability, which deters MNEs from undertaking long-term investments in a specific nation. Moreover, Wadhwa and Reddy (2011) noted that INFL could pose a risk to investors and deter investors from investing in a certain economy. Hence, continued price increases will make foreign divestiture less likely. As a result, investments will rise as well, which will benefit investors since they may generate or manufacture additional goods while also reaping good yields on their invested capital. Nonetheless, the present study discovered that INFL had a significant and adverse impact on FD under the 2-step dynamic GMM model, at the 1% level of significance.

The results in Table 5.5 show that from 2000 to 2020, there was significant INFL in African countries. Hence, high INFL poses a threat to economic expansion and may have an impact on the value of commodities, equities, and financial instruments in African countries. Notwithstanding, Mohr (2015), claims that by investing in securities that benefit from INFL, the CPI allows investors to reduce the aforementioned risks, high INFL, the value of commodities risk, equity risk, and financial risk.

5.5.10 Natural Resources (NAT) and Foreign Divestment

Potential investors desire to invest financial resources to tap into the enormous NAT in the African continent because of the wealth of NAT.

According to the statistics in Table 5.5, NAT have a considerable and unfavourable impact on FD in Africa. The significant and negative impact of natural resources on FD in Africa, as demonstrated in Table 5.5, suggests a potential phenomenon of economic instability and decreased foreign investment known as the "resource curse." Therefore, it is crucial for officials to shift their attention towards diversifying economies. This can be achieved by investing in sectors like manufacturing and services, thus reducing their heavy dependence on natural resources. In addition, the implementation of transparent and accountable resource management policies can help to reduce the negative impacts, attract more secure investments, and promote long-term economic growth. Given that the

abundance of natural resources is one of the key factors influencing FD from other countries, this result was unexpected. However, the macroeconomic policies of the host nations are evolving, though, and many governments are increasingly capping investments in the extractive industries to ensure local benefit.

OECD (2019) states that the quantity of two key variables, (1) current revenue flows and (2) potential future income flows, determines the economic significance of NAT. Natural resource endowments and management practices dictate the potential future income flows, while production costs and market demand mostly influence the current revenue flows. Hence, to fully understand the value of natural resources, both current and future income flows must be considered. Moreover, current flows may be a false indicator of how NAT will contribute to GROWTH in the long run if revenue results from the depletion of natural capital (OECD, 2019). On the other hand, commodity countries may lay the foundation for long-term development and the eradication of poverty by successfully handling their mineral resources (OECD, 2019). Furthermore, natural resources support economic growth, job creation, and poverty reduction.

5.5.11 Political Instability (PINST) and Foreign Divestment

In developing countries like Africa, political instability as assessed by governmental efficacy is crucial in selecting whether to invest or divest. The empirical results in Table 5.5 show that PINST has a positive but non-significant impact on FD in the African continent. The data presented in Table 5.5 reveals that political instability in Africa has a positive effect on foreign direct investment (FD), although this effect is not statistically significant. This suggests that while there may be certain cases where political changes lead to investment opportunities, the overall uncertainty tends to discourage significant divestment. African countries should therefore focus on improving political stability by implementing strong governance reforms, bolstering institutions, and promoting transparent and equitable political processes. In addition, African government should implement robust legal frameworks and policies that prioritise investor protection to contribute to a more stable and secure investment climate, fostering long-term foreign investment.

The results in Table 5.5 displayed a positive relationship between PINST and FD, suggesting that due to high government interference and corruption, the African continent cannot attract FDI. Musibau, Mahmood, and Hammed (2017) assert that the majority of African nations see divestment flows due to political unrest. This viewpoint is in line with that of Afolabi and Bakar (2016), who pointed out that political instability, is defined by a level of uncertainty and constitutes a serious threat to foreign investors. Khan and Akbar (2013) highlighted that political unrest in the host country is closely tied to economic uncertainty, which negatively impacts foreign investors' decisions. Bitar, Hamadeh and Khoueiri (2020) underlined that disrupting production, reducing the incentives for foreign investors to continue investing in a country, and uncertainty to economic activity adds a layer of political unrest.

This study generated diagnostic statistics on the drivers of FD in Africa from 2000 to 2020 based on the results of the foregoing discussion on the key FD drivers. Diagnostic statistics on FD drivers are shown in Table 5.6.

Table 5.6: Diagnostic statistics on the drivers of FD

	Pooled effects	Fixed effects	Random effects	2 Step Diff GMM	FGLS
Observations	700	700	700	665	700
Groups	35	35	35	35	35
Instruments	20	20	20	20	20
F-stats/Wald chi2	128.49***	3.08***	128.49***	15.62***	130.73***
Prob>F/Prob>Wald chi2	0.0000	0.0005	0.0000	0.156	0.0000
Hausman Test		123.38***			
Prob>chi2		0.0000			
R-SQUARED	0.8229	0.0144	0.8229		
Rho		0.2345	0.0000		
Arellano-Bond				-1.11	
AR(1)				0.269	
Prob>z					
Arellano-Bond				0.03	
AR(2)				0.974	
Prob>z					
Sargan test of overid				1.68	
Prob>chi2				0.989	
Hansen test of				5.14	
overid				0.742	
Prob>chi2					
Pesaran's test for					
CSD		-1.9240	1.4040		
Probability		1.9456	0.1603		
Frees' test of CSD		0.5670	0.6970		
Critical value @5%		0.1695	0.1695		

Standard errors in parentheses * $p < 10\%$, ** $p < 5\%$, *** $p < 1\%$
Source: Eviews output

The study computed the diagnostic statistics on the drivers of FD in Table 5.6 above. In Table 5.6 the study identified the use of F statistic/Wald chi-square test, Hausman test, Coefficient of Determination Test and Autocorrelation, Sargan and Hansen tests. The following sections will discuss the above-mentioned tests.

- **F statistic/Wald chi square test**

By using the F-statistic and Wald chi-square, it is possible to assess the overall impact of the regressors [past values of foreign divestment (FD), financial development (FIN), economic growth (GROWTH), unemployment (UNEMPL), trade openness (TOPEN), human capital development (HCD), inflation (INFL), natural resources (NAT), exchange rate (EXCH), and political instability (PINST)] on the regressand [current value of FD].

Table 5.6 shows that the historical value of FD, FIN, GROWTH, EXCH, UNEMPL, TOPEN, HCD, INFL, NAT, and PINST are all positive and statistically significant factors influencing the current value of FD. The results of this study revealed that the regressors are mutually significant when assessing the present value of FD in the selected African countries.

- **Hausman test**

The Hausman test makes it possible to choose the model that is most suitable for estimating the consequences of FD in Africa. Table 5.6's findings show that the probability is 0.000 and the chi-square is 123.38. Hence, this investigation disproves the null hypothesis of random effects. Therefore, assessing the FD variables in Africa using the random-effects model is inefficient. As a result, fixed effects models work well for predicting the static model.

- **Coefficient of determination test**

The current value of FD as determined by the explanatory factors is represented by the ratio of causation, which is measured by the R-squared. For African nations, the R-squared values in Table 5.6 above range from 0.01 to 0.82. The implication of the aforementioned is that 1 to 82 percent of fluctuations in the present value of FD are due

to historical values of FD, FIN, GROWTH, and all other variables, as previously noted above.

- **Autocorrelation, Sargan and Hansen tests**

The results of the diagnostic tests for FD in Africa are shown in Table 5.6. The diagnostic tests of Arellano-Bond for zero autocorrelation and Sargan and Hansen for over-identifying restrictions for instrumental variables are crucial for establishing the validity of the differenced-Generalised Moment of Methods. Although heteroscedasticity can be controlled, the dynamic panel model GMM makes no normality (Baltagi, 2008).

The Sargan and Hansen tests for over-identification constraints and the Arellano-Bond test for zero autocorrelation were performed in this study to validate the models. The dynamic panel model's estimators in the residuals, according to Arellano and Bond (1991), require no second-order autocorrelation (serial correlation) but first-order serial correlation. Since the null hypothesis does not exclude H0, there must be no autocorrelation (serial correlation).

Based on the Arellano-Bond tests for zero autocorrelation results for the FD model, as shown in Table 5.6, which further suggests that the dynamic GMM: z = 0.03 with p-value = 0.974, this study did not refute H0 at the 10% significance level in the first difference error (2). As a result, the model does not include the serial correlation. These outcomes of the Arellano-Bond test for zero autocorrelation validate the FD model in this study.

The Sargan and Hansen tests were used in this study to assess all of the model's overtly distinguishable variables. This study's findings show that the FD model is trustworthy because the chi-square statistic and p-value are 0.989 and 0.742, respectively. As a result, the study does not disprove the null hypothesis and settles that over-identification limitations are legitimate. The FD model in Africa, therefore, is accurate and exogenous.

5.6 COINTEGRATION AND ERROR CORRECTION

One of the aims of the present study is to examine the relationship of cointegration in the African context among FD, financial development, and economic growth. In this study,

FD and financial development were used as proxies, while economic growth was the focal variable to establish the cointegrating links.

Cointegration refers to a long-term equilibrium correlation between two variables (Moloi, 2019). As this study found evidence of cointegration among the variables, vector error correction (VEC) was employed to examine the relationship between FD, FIN, and GROWTH. This study also analysed and tested the drivers of FD.

In this study, the pooled mean group (PMG) estimator was appropriately chosen in a panel ARDL approach, as evidenced by the Hausman-test results that demonstrated slope homogeneity in the cointegrating vector. Moreover, it is important to note that the variables used in the ARDL approach should not be of a higher order than first-order integration I(1) to ensure precise estimates. Apart from the error correction term (ECT), the panel ARDL estimation is also used to evaluate the short- and long-term dynamics of the relationship between FD, FIN, and GROWTH in Africa.

In contrast, the panel ARDL approach allows for the examination of both short-term and long-term coefficients, including the error correction coefficients, to establish the cointegration relationship between FD, FIN, and overall GROWTH. As the panel ARDL approach can identify both short-term and long-term associations, it can also serve as an ECM (Kalai & Zghidi, 2019).

5.6.1 Cointegration and error correction model for FD, FIN and economic growth

Table 5.7 illustrates whether there is a long-term and short-term correlation between FD, FIN, and GROWTH using the Pooled Mean Group (PMG), Mean Group (MG), and Dynamic Fixed Effects (DFE) techniques. Although the study primarily focused on the results obtained from the PMG estimator, the findings from the other methods were used to test the robustness of the analysis. The table presents the estimated long-term and short-term outcomes of the ARDL model when FD was regressed using the PMG, MG, and DFE on the cointegrating relationship between FD, FIN, and GROWTH in Africa.

Table 5.7: Estimated Long Run and Short Run Results in the ARDL Model: FD regressed

	PMG D.FD	MG D.FD	DFE D.FD
Long Run			
FIN	0.0050*** (0.019)	0.0205** (0.100)	0.0319** (0.008)
GROWTH	-0.0024*** (0.735)	0.0546* (0.239)	0.0593* (0.115)
ECT	0.7633 (0.000)	0.9074 (0.000)	0.8131 (0.000)
Short Run			
D.FIN	-0.0061*** (0.668)	0.0004*** (0.980)	0.0052*** (0.801)
D.GROWTH	0.0091*** (0.549)	0.0275** (0.254)	0.0323** (0.191)
_cons	-0.4880*** (0.0000)	-0.2779*** (0.3660)	0.2365** (0.399)
N	700	700	700

*t statistics in parentheses * p < 10%, ** p < 5%, *** p < 1%*
Source: Eviews output

Table 5.7 depicts the ARDL estimation approach's estimated long-term and short-term outcomes. Upon regressing FD, the long-term estimates revealed that FIN had a positive impact on FD throughout the study period. This outcome was statistically significant at both the 1% and 5% levels in the PMG, MG, and DFE models, respectively. Therefore, a rise in foreign capital flows would result in an increase of 0.005, 0.021, and 0.032 units (as indicated by the PMG, MG, and DFE models, respectively) in GROWTH in Africa. The long-term estimates highlight the significant role of strong financial systems in attracting and retaining foreign investment in African countries. In addition the long term results emphasises the positive impact of financial development on foreign divestment, underscoring the importance of robust financial systems. Therefore, it is crucial for policymakers to give utmost importance to improving financial infrastructure, facilitating access to credit and capital markets, and reinforcing regulatory frameworks. These

measures will help create a favourable environment for foreign investment. In addition, these findings enhance our understanding of the macroeconomic factors that influence FD, highlighting the interdependence between financial development and foreign investment patterns in African economies.

The utilisation of the PMG estimator indicated that GROWTH had a negative impact on FD in Africa over the study period. The PMG estimator reveals that rapid economic expansion in Africa does not necessarily attract sustained foreign investment in the region. This highlights the negative impact of economic growth on foreign divestment. Policymakers needs to prioritise sustainable and inclusive growth strategies that emphasise job creation, infrastructure development, and investment in human capital. Subsequently, this will help attract and retain foreign investment. This long-term negative effect of GROWTH on FD is attributable to the fact that FD revenue is not being channelled into productive purposes within the region. This results in local businesses losing market share, weak absorption capacity, and ineffective economic competition (Iamsiraroj, 2016). These findings are consistent with the conclusions of Saqib, Masnoon, and Rafique (2013) and Rahman (2015), who reported that FD hindered GROWTH but diverged from Gui-Diby (2014) and Adam and Opoku (2015).

The findings on GROWTH suggest a positive long-term impact on FD throughout the study period, with a statistical significance of 10% in both the MG and DFE models. This implies that an increase in foreign capital flows would result in a decrease of 0.002 units in the PMG model and an increase of 0.054 and 0.059 units in the MG and DFE models, respectively, GROWTH in Africa.

In contrast, the short-term estimates suggest that FIN had a negative impact on FD when using the PMG model, but a positive impact when using the MG and DFE models during the study period. The findings of the PMG model suggest that there may be a negative relationship between financial development and foreign divestment in Africa. These short-term estimates highlight the importance of implementing careful policy interventions to address financial sector reforms. Therefore, it is crucial for policymakers to focus on implementing measures that will improve the efficiency, stability, and inclusivity of financial markets. This will help in attracting and retaining foreign investment in the short

term. The findings presented in Table 5.7 above provide valuable insights into the complex interplay between financial development and foreign divestment dynamics. The findings in this study underscore the significance of implementing customised policies to tackle the specific obstacles that African economies encounter when it comes to attracting foreign investment. These findings were statistically significant at 1% in all models. This means that a decrease in foreign capital flows would result in a decrease of 0.006 units in the PMG model and an increase of 0.0004 and 0.005 units in the MG and DFE models, respectively, for Africa's GROWTH.

The findings for the short run suggest that GROWTH positively impacted FD significantly in all models used in the study. This indicates that an increase in foreign capital flows would lead to a decrease of 0.01, 0.03, and 0.03 (PMG, MG, and DFE respectively) units in GROWTH in Africa.

The parameter equivalent to the estimation of the error-correction term (ECT) ranges from -1 to 0, where 0 indicates no movement towards equilibrium, and -1 indicates full convergence. Any shock occurring in the current period is corrected in the following period. According to Table 5.7, the ECT demonstrates a statistically significant positive effect on FD, with a probability of 1%. This implies that Africa experienced convergence in receiving FDI between 2000 and 2020. The shift from the short-run to the long-run equilibrium took approximately 76% in the PMG model.

The results suggest that the relationship between FD, FIN, and GROWTH in both short-run and long-run equilibrium is mixed. Specifically, using PMG, the influences of FIN and GROWTH on FD are consistent at a 1% level of significance, but their impacts vary depending on the timing. Thus, the timing of the influence of FIN and GROWTH on FD flows is crucial, and different periods have mixed relationships. The same findings were also confirmed using mean group and DFE models. Additionally, there exists a long-term positive relationship between FD and FIN across all three estimated models (PMG, MG, and DFE). In contrast, FD had a negative impact on GROWTH in the long run. Lastly, both FIN and GROWTH had direct and indirect effects on FDI in the short run.

5.6.2 Cointegration and ECM for FIN, FD, and GROWTH

Table 5.8 showcases the estimated long-run and short-run outcomes of FIN using the ARDL model. The FIN was regressed using the PMG, MG, and DFE techniques on the cointegrating relationship between FIN, FD, and GROWTH.

Table 5.8: Estimated Long Run and Short Run Results in the ARDL Model: FIN regressed

	PMG D.FIN	MG D.FIN	DFE D.FIN
Long Run			
FD	0.3996** (0.419)	-174.5701*** (0.340)	-0.4043*** (0.606)
GROWTH	-0.7089*** (0.000)	1.2364 (0.731)	-1.8035*** (0.001)
ECT	0.1588 (0.000)	0.2071 (0.000)	0.1208 (0.000)
Short Run			
D.FD	0.7294 (0.024)	1.1261 (0.037)	0.0184** (0.801)
D.GROWTH	-0.4784*** (0.251)	-0.1555*** (0.012)	-0.1029*** (0.026)
_cons	-3.1708*** (0.000)	-4.4021*** (0.000)	-3.3525*** (0.000)
N	700	700	700

*t statistics in parentheses * p < 10%, ** p < 5%, *** p < 1%*
Source: Eviews output

Table 5.8 presents the estimated long-run and short-run results using the ARDL estimation approach when FIN is regressed. The results show that the impact of FD on financial development varies depending on the model used. In the long run, FD has a positive impact on FIN when using the PMG model, while it has a negative impact when using the MG and DFE models. These findings are statistically significant at the 5% and 1% levels for PMG and MG/DFE, respectively. The results indicate that an increase in foreign capital flows of 0.40 units using the PMG model will result in an increase in economic growth in Africa, while a decrease in foreign capital flows of 174.57 and 0.40

units using the MG and DFE models will lead to a decrease in economic growth. In addition, the PMG model reveals a mutually reinforcing relationship between foreign divestment (FD) and financial development (FIN) in African countries, indicating a positive long-run impact on FIN. Policymakers should acknowledge the significant role of foreign direct investment in fostering the growth and stability of financial markets. Therefore, it is crucial to prioritise policies that promote and facilitate foreign investment, as well as encourage the active involvement of foreign investment in domestic financial systems. The findings presented in this study shed light on the complex relationship between foreign divestment and financial development. Moreover, they emphasise the need to create a favourable environment for foreign investment to stimulate growth and stability in the financial sector of African economies.

The findings regarding GROWTH suggest that it had a negative and statistically significant impact on FIN in both PMG and DFE models. On the other hand, using the MG model, GROWTH had a positive but statistically insignificant effect on FIN during the study period. This indicates that an increase in foreign capital flows would result in a decrease of 0.70 units in PMG, 1.24 units in MG, and 1.80 units in DFE in the GROWTH of the African region. Moreover, using PMG in the long run, GROWTH was found to be a negative contributor to FIN inflows in Africa during the study period. The findings of the study using PMG reveal a noteworthy and statistically significant relationship between economic growth and financial development in African countries. This suggests that the impact of economic expansion on the financial sector is not straightforward and can be quite complex. Policymakers must urgently tackle the various obstacles that impede the smooth conversion of economic growth into strong financial systems. These barriers include insufficient infrastructure, regulatory hurdles, and restricted availability of financial services. Understanding the complex relationship between economic growth and financial development is crucial for policymakers. In addition, it is important to implement specific interventions to ensure that growth leads to inclusive and sustainable expansion of the financial sector in African economies.

Short-term estimates when FIN is regressed reveal that in all the models (PMG, MG, and DFE) over the study period, FD had a positive impact on FIN. However, the PMG and MG

models were not statistically significant, while the DFE model was statistically significant at a 5% level. This indicates that an increase in foreign capital flows would result in a unit increase of 0.73, 1.13, and 0.02 (PMG, MG, and DFE) in the GROWTH of Africa. In the short run, the significance of foreign divestment (FD) on financial development (FIN) highlights the contribution of foreign investment in improving the depth and effectiveness of financial markets in African countries. Policymakers should prioritise the creation of a favourable environment that appeals to foreign investment. This can be achieved by enhancing regulatory frameworks, bolstering institutions, and fostering stability in the financial market.

Table 5.8 displays the short-run estimates on FIN, showing that GROWTH had a negative and statistically significant impact on FIN across all three methods (PMG, MG, and DFE) throughout the study period. This indicates that an increase in foreign capital flows would result in a decrease of 0.48, 0.16, and 0.10 (PMG, MG, and DFE) units in Africa's GROWTH. The short run findings indicate that economic growth does not necessarily lead to improved financial sector development in African countries. The negative and statistically significant impact observed across all three estimation methods suggests that rapid economic expansion may not always result in positive outcomes for the financial sector. Therefore, it is crucial for policymakers to put in place measures that not only promote economic growth, but also support financial inclusion, improve access to credit, and enhance regulatory frameworks to create a stronger and more inclusive financial sector. Our findings shed light on the complex dynamics that shape Africa's financial landscape and the potential implications for overall economic growth and stability.

The ECT has a significant and positive impact on GROWTH, with a probability of 0.00%. It is noteworthy that the adjustment process from the short to the long-run equilibrium takes approximately 16%.

These findings suggest that the relationship between FIN, FD and GROWTH is mixed, both in the short term and long term. While FIN consistently influences GROWTH at a significant level of 1 percent, the impact of FD is inconsistent. This indicates that the timing of FIN is crucial in determining its influence on GROWTH, with varying relationships observed during different periods. Moreover, the study shows that the long-term

relationship between FIN and GROWTH is negative according to the PMG and DFE models, while the MG model yields a positive long-term relationship. Finally, it is observed that both FIN and FD have a direct and indirect impact on GROWTH in the short term.

5.6.3 Cointegration and error correction model for GROWTH, FD and FIN

The estimated long-run and short-run findings in the ARDL model, where GROWTH is regressed using the PMG, MG, and DFE on the cointegrating relationship between GROWTH, FD, and FIN, are presented in Table 5.9 below.

Table 5.9: Estimated Long Run and Short Run Results in the ARDL Model: GROWTH regressed

	PMG D.GROWTH	MG D.GROWTH	DFE D.GROWTH
Long Run			
FD	0.1550 (0.051)	0.9419 (0.240)	0.1231 (0.211)
FIN	-0.0184*** (0.091)	0.0214** (0.704)	-0.0244*** (0.211)
ECT	0.7822 (0.000)	0.8937 (0.000)	0.7912 (0.000)
Short Run			
D.FD	0.0089*** (0.972)	0.1616 (0.703)	0.0799* (0.191)
D.FIN	-0.1502*** (0.016)	-0.1260*** (0.129)	-0.0721*** (0.026)
_cons	-3.9448*** (0.000)	-4.1074*** (0.000)	-4.0879*** (0.000)
N	700	700	700

t statistics in parentheses * $p < 10\%$, ** $p < 5\%$, *** $p < 1\%$
Source: Eviews output

Table 5.9 displays the long-run and short-run outcomes obtained through the ARDL estimation approach. The long-run estimates indicate that FD had a positive influence on GROWTH during the study period, as observed in all three models (PMG, MG, and DFE) where GROWTH was regressed. However, the statistical significance of these findings

was insignificant across all models. Consequently, a unit increase in foreign capital flows led to an increase in GROWTH in Africa, with estimated values of 0.16, 0.94, and 0.12 in the PMG, MG, and DFE models, respectively. The significant impact of foreign divestment (FD) on economic growth (GROWTH) across all three estimation methods highlights the potential of foreign divestment to boost economic activity and foster long-term growth in African countries. Policymakers should prioritise the creation of a conducive environment that appeals to foreign investors. In addition, it is crucial to ensure that these investments are directed towards productive sectors that foster sustainable economic development. The findings indicate that financial development had a negative impact on GROWTH in the PMG and DFE models, while the MG model yielded a positive relationship in the long run over the study period. This implies that an increase in foreign capital flows resulted in a decline in GROWTH of 0.02 units for both the PMG and DFE models, while the MG model showed a 0.02 unit increase in GROWTH in the African context. Furthermore, in the long run, FIN had a negative effect on GROWTH in Africa during the study period. The impact of financial development on economic growth in Africa raises concerns about the challenges associated with the development of the financial sector and its influence on overall economic performance. Therefore, it may be necessary for policymakers to review financial policies and regulatory frameworks to ensure that financial development initiatives are in line with broader economic growth objectives and do not unintentionally impede sustainable development. In addition, this negative impact is due to the fact that financial resources are not effectively utilised for practical purposes in the region, leading to the mismanagement of funds by government officials and weak governance (Hien, 2008).

On the other hand, short-run estimates indicate that FD had a positive impact on GROWTH across all three models (PMG, MG, and DFE) when GROWTH was regressed during the study period. The results were statistically significant at a 1% level for PMG, 10% level for DFE, and non-significant for MG. Additionally, Table 5.9 shows that FD had a positive influence on GROWTH in the short run. This implies that an increase in foreign capital flows resulted in a 0.01, 0.16, and 0.08 unit increase in GROWTH in Africa for PMG, MG, and DFE models, respectively. The short-term beneficial impact of foreign divestment (FD) on African economic growth (GROWTH) indicates that larger FD inflows

may enhance short-term economic expansion. Therefore, policymakers may consider using foreign capital inflows to boost economic growth through targeted investments in critical sectors and infrastructure projects.

Short-run estimates show that FIN had a negative impact on economic growth across all three models (PMG, MG, and DFE) during the study period. This suggests that an increase in foreign capital flows resulted in a decline of 0.15, 0.13, and 0.07 units in GROWTH in Africa for PMG, MG, and DFE models, respectively. The negative short-run impact of financial development (FIN) on economic growth (GROWTH) across all models highlights the potential issues connected with foreign capital inflows. Policymakers may need to carefully analyse the quality and routes of financial development to guarantee that capital inflows lead to long-term economic growth.

The estimated value of the error-correction term (ECT) ranges from -1 to 0, where a value of -1 indicates complete convergence and 0 indicates no convergence toward equilibrium. During this period, any shocks would adjust for the following period. Table 5.8 indicates that the ECT had a highly significant and positive impact on GROWTH with a probability of 1%. Therefore, between 2000 and 2020, there was satisfactory evidence of convergence across Africa to achieve GROWTH. In the PMG model, the transition from short-run towards long-run equilibrium accounts for approximately 78%.

These results demonstrate that there are mixed relationships between FD, FIN, and GROWTH in both the short-run and long-run equilibrium. While FIN consistently and significantly influences GROWTH, FD is inconsistent. The timing of the influence that FD and FIN have on GROWTH is critical since there are mixed relationships during different periods. Moreover, the long-term positive relationship between FD and GROWTH is evident in all three estimated outcomes (PMG, MG, and DFE). However, PMG and DFE show that FIN negatively affected GROWTH in the long run, while MG indicates a positive impact on GROWTH. Lastly, there is a long and short-term positive relationship between GROWTH and FD, with direct and indirect influences on FD over both periods.

5.7 PAIRWISE DUMITRESCU FURLIN GRANGER PANEL CAUSALITY TESTS

The PMG/ARDL approach was used in this study to examine the cointegration relationship between FD, financial development, and economic growth. However, PMG does not provide information on the causal direction among the variables. Understanding the causal direction between these variables is crucial for policymakers to comprehend their role and interrelationship on the African continent. Thus, Dumitrescu-Hurlin Granger causality tests were conducted in this study to test the causal relationship between the variables. However, when cointegration exists, using the Engle and Granger (1987) causality test in the first difference variable using a VAR model can produce misleading results. Therefore, an ECT needs to be added to the VAR model. Table 5.10 presents the results of the panel Dumitrescu-Hurlin Granger causality tests of long-run cointegration, which determines the direction of causality.

Table 5.10: Pairwise Dumitrescu Hurlin Granger Panel Causality Tests

Variables	***W-Stat*** ***∆lnFin***	***Zbar-Stat*** ***∆lnFin***	***W-Stat*** ***∆lnFD***	**Zbar-Stat** ***∆lnFD***	**Zbar-Stat** ***∆lngrowth***	**Zbar-Stat** ***∆lngrowth***
∆lnFin			3.6038*** [0.0065]	2.7224*** [0.0065]	4.5065 [3.006]	4.6569 [3.006]
∆lnFD	3.3906** [0.0235]	2.2656** [0.0235]			2.4523 [0.7988]	0.2549 [0.7988]
∆lnGrowth	3.4125** [0.0207]	2.3126** [0.0207]	2.9488 [0.1872]	1.3188 [0.1872]		

Notes: Probability values, which represented the probability values of the F-statistics and the Wald chi-square tests, are in brackets [ ] and reported next to the corresponding F-statistic and sum of the lagged coefficients, respectively.
, ** and * indicates the significance at the 10%, 5% and 1% significance levels, respectively*
Source: Eviews output

The results of the causality test indicate that there is no unidirectional or associated causation running from FIN to GROWTH. However, there is a bidirectional causal relationship between FD and financial development, suggesting that Africa's financial operations may be insufficient. When FIN is the dependent variable, there is no unilateral or associated causation running from it to GROWTH. Instead, there is a bidirectional causal relationship between FD and FIN. When GROWTH is the dependent variable, there is a bidirectional correlation between GROWTH and FIN, while there is no unilateral or associated causation running from GROWTH to FD.

Table 5.10 shows that the causality running from FIN to FD, FD to FIN, and GROWTH to FIN is stronger than the causality derived from FIN to GROWTH, FD to GROWTH, and GROWTH to FD in all panels.

5.8 THE FRAMEWORK TO MITIGATE FOREIGN DIVESTMENT IN AFRICAN COUNTRIES

This section builds from the previous discussion and covers a proposed framework that will assist with the mitigation of FD in selected African countries. The framework is the core of the contribution of the study and it is based on the research findings and preceding discussion on the nature and extent of the association between the variables (macroeconomic drivers of FD). The framework also serves to address the fourth research question and by extension objective four of the study. The framework has significant implications for the key stakeholders such as policymakers, and financial institutions on the African continent. This framework will further assist in terms of understanding the drivers of FD and how they can be mitigated through the implementation of proactive policies to create and maintain an FDI-friendly business environment on the African continent.

On the other hand, five FD theories were identified as the relevant theories underpinning the study, namely, the eclectic paradigm, divestiture theory, resource-based view, institution-based view, and real options theory which were discussed in detail in Chapter 2. Upon identifying the theories, the study further identified nine key macroeconomic drivers of FD from the empirical literature, and the impact of these macroeconomic drivers was empirically tested in the context of Africa. Based on the theories and empirical literature, this study developed an FD framework that has four pillars of governance and indicates their relevance to the FD drivers. Figure 5.1 illustrates the proposed framework for mitigating FD.

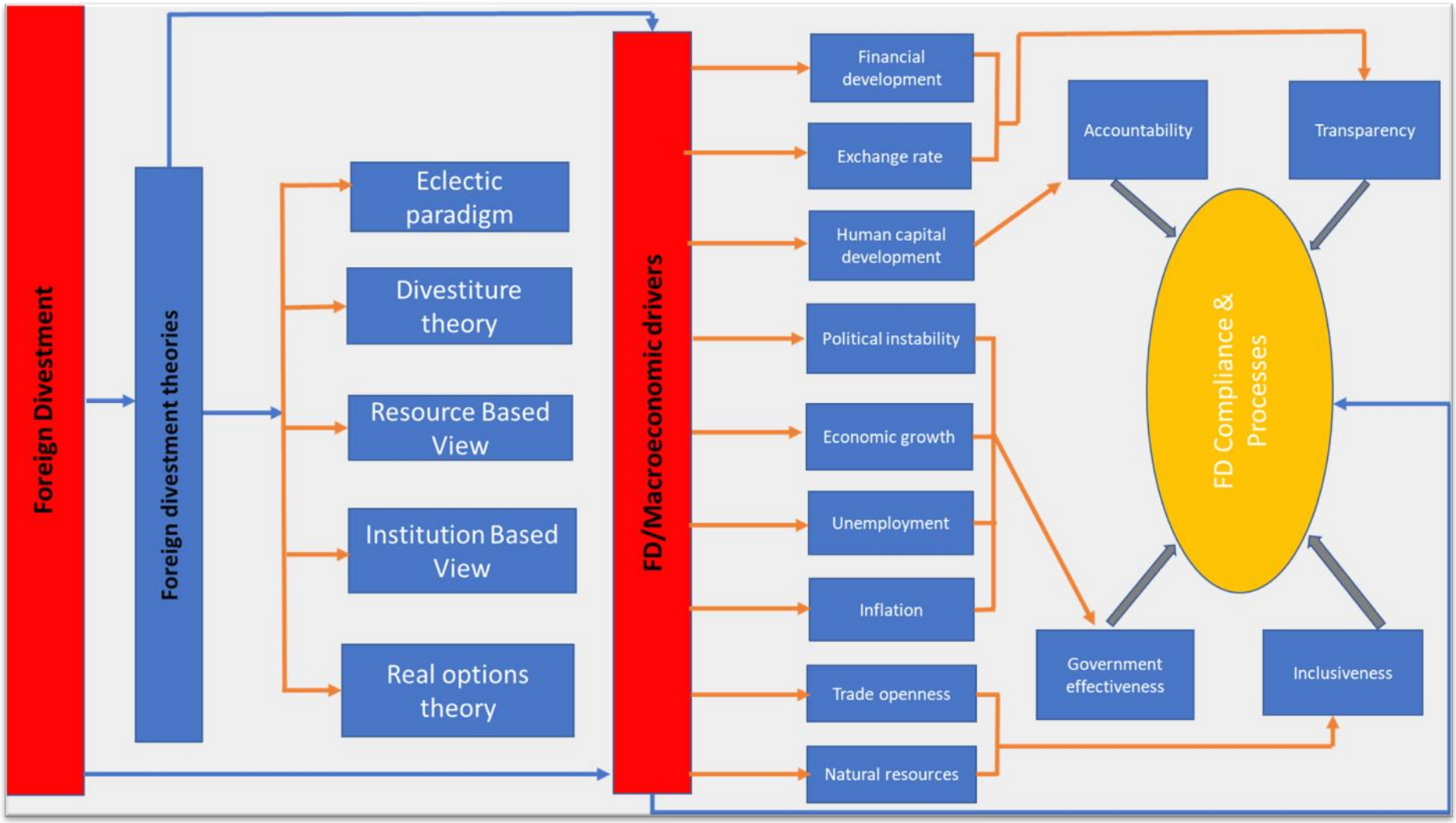

Figure 5.1: The Framework to Mitigate FD

Source: *Owner's conceptualisation*

The framework consists of four pillars of corporate governance: (transparency, government effectiveness, accountability, and inclusiveness), that link with the identified FD drivers. Based on the results in Table 5.5, it was revealed that there is a positive but insignificant impact between FD and FIN. This suggests that both significant and inconsequential FIN depends on transparency in the framework. Therefore, transparency guarantees the prompt and correct disclosure of pertinent financial information, fostering investor trust, reasoned decision-making, and market efficiency by the government. In addition, transparency enables stakeholders to examine the company's financial health and gauge its value proposition, regardless of the size of the financial developments.

The findings of the study displayed in Table 5.5 found a negative significant impact of exchange rates on FD. This underscores the importance of transparent disclosure as transparent disclosure on exchange rates helps stakeholders understand and assess the financial impact, mitigation of risk, and valuation implications associated with exchange rate fluctuations.

On the other hand, pillar two which is government effectiveness refers to the ability of the government to provide stable and efficient governance, implement policies, and create a favourable investment environment. This pillar consists of four macroeconomic variables (**political instability, economic growth, unemployment,** and **inflation**) in the framework. Therefore, the elaboration of these four macroeconomic variables is based on the results displayed in Table 5.5. Political instability was found to have a positive but non-significant impact on FD. The fact that political instability has a positive and minor impact on FD suggests that government effectiveness is crucial in sustaining investor confidence and a stable investment climate. The ability of the government to offer good governance, policy continuity, investor protection, resilience, and economic stability assists in reducing the potential negative results of political instability on FD decisions.

Economic growth, on the other hand, was found to have a negative and significant impact on FD. Government effectiveness becomes crucial in the framework when economic growth declines significantly. The negative and significant impact of economic growth on FD indicates the government's failure to adhere to its policy responses, initiatives, and reforms aimed at addressing the economic challenges. This includes failure to disclose

details of economic stimulus packages, structural reforms, and investment-friendly measures. Therefore, government officials should understand the disclosure to enhance the understanding of stakeholders, including foreign investors, regarding the government's efforts to revive economic growth and provide clarity on the policy environment.

Table 5.5 displays the negative and significant impact of **unemployment** on FD. This emphasises the importance of transparent disclosure to address unemployment challenges, communicate labour market policies, promote skills development, foster economic stability, engage stakeholders, and communicate economic development plans effectively. Unemployment transparent disclosure enhances the government's effectiveness in managing unemployment issues, facilitates stakeholder engagement, and supports efforts to attract and retain foreign investments.

Lastly, as displayed in Table 5.5 above, the inflation under the government effectiveness pillar was found to have a negative and significant impact on FD. This shows that the decision of foreign investors to withdraw their investments from a country is significantly influenced by high inflation rates. An adverse and significant impact of inflation on FD in the context of government effectiveness within an FD framework highlights the significance of open disclosure to address inflation challenges, communicate monetary and fiscal policies, promote economic stability, engage stakeholders, and effectively communicate economic development plans. Transparency in inflation reporting helps the government to better control inflation, encourages stakeholder engagement, and supports initiatives to draw in and keep foreign capital.

Furthermore, focusing on pillar three which speaks to accountability in the framework above, the findings of the study found a negative significant influence of human capital development on FD. Therefore, in terms of accountability, the host government should make concerted efforts to upskill their workforce so that they are not only employable but are equipped with the knowledge and skills necessary to effectively write and analyse financial reports that are deemed significant by stakeholders such as foreign investors when they decide where to invest.

The last pillar of the framework is inclusiveness, which consists of two variables to

mitigate FD (**trade openness and natural resources**). Trade openness was found to have a negative and significant impact on FD, this means that the less open the host country is, the higher the probability of FD. Therefore, the inclusiveness in the disclosure framework requires transparent disclosure of tax incentives and low trade tariffs. Therefore, host countries should create a conducive environment to attract foreign investors through less stringent trade barriers.

Finally, Table 5.5 shows that natural resources in African countries have a negative and significant impact on FD. When there is a negative impact on FD, it suggests that foreign investors perceive the failure of the government's efforts to ensure fair benefit sharing. Hence, government needs transparent disclosure to help local communities and stakeholders access information about the benefits and opportunities related to natural resources. Therefore, transparent disclosure of natural resources, allows foreign investors to assess the government's commitment to inclusive development and mitigate risks of social tensions and conflicts. Overall, transparent disclosure of environmental risks, social impacts, governance practices, legal frameworks, and benefit-sharing mechanisms is crucial to address concerns and promote sustainable and inclusive development in the context of natural resources. Therefore, inclusiveness in the FD framework requires transparent disclosure of benefit-sharing mechanisms, revenue distribution, and local participation in natural resource activities.

The presented framework provides a comprehensive overview of the interconnections between corporate governance pillars and the drivers of foreign divestment in African countries. Important findings from Table 5.5 highlight the crucial importance of transparent disclosure in relation to different macroeconomic factors. This indicates the necessity for strong reporting mechanisms and effective communication strategies to improve stakeholder comprehension and trust. Policymakers and stakeholders have the important responsibility of implementing transparent disclosure practices that enable informed decision-making, encourage accountability, and support inclusive development.

Some potential approaches could involve increasing the clarity of financial reporting, maintaining consistent policies, promoting skill-building initiatives, minimising trade obstacles, and establishing equitable systems for sharing the benefits of natural resource

utilisation. To effectively address FD challenges and promote sustainable economic development in Africa, it is crucial to prioritise transparency and accountability. This can be achieved by implementing clear and accessible disclosure mechanisms.

5.9 CHAPTER SUMMARY AND CONCLUSION

To assess the viability of the research aims stated in Chapter 1, this chapter employed various econometric techniques to test the variables. As a preliminary diagnostic test for the study, descriptive statistical and correlational analyses were conducted.

The diagnostic tests, such as the unit-root test to determine whether the characteristics of the data met the requirements for conducting panel data analysis before proceeding with econometric modelling were performed. The two-stage GMM approach was utilised to examine the drivers of both the FD predictor variables and the interest variables. The Hausman test was employed to determine whether to apply a panel of random or fixed effects with the GMM method. The results of the Hausman test suggested that fixed effects were the most appropriate test for this panel data. Moreover, the findings revealed that there was no consensus regarding the relationship between the selected independent variables and FD proxies. These variables were linked to the FD measures in different ways, indicating that the definitions and measurements of FD play a critical role.

The study utilised the ARDL approach to investigate the cointegrating relationships between the variables. It is important to note that the parameters used in the ARDL panel should not have higher-order integration than the first-order integration, and there is no need to conduct unit root testing.

As per this study, the PMG, MG, and DFE were found to be the most precise estimators for the panel ARDL. In addition, when using the Hausman test to analyse the cointegration relationship between variables, the PMG estimator was the most accurate. Based on the cointegration, the study utilised panel ECM to examine the short-term relationship between the variables.

In addition, the study found that all examined variables had positive and significant or insignificant ECT. This suggests that after experiencing short-term shocks, the variables will eventually reach a long-term equilibrium. To determine the causal relationship between the variables, the study used the Dumitrescu-Hurlin Granger Panel Causality Tests.

Furthermore, the developed framework to mitigate FD was proposed and explained with the utilisation of four main elements/pillars namely, transparency, government effectiveness, accountability, and inclusiveness together with the identified macroeconomic drivers of FD in selected African countries. This is regarded as the key contribution of the study and these components are included in the framework to mitigate FD. The developed framework proposed a practical solution to key stakeholders and policymakers on how to address/mitigate FD which will ultimately encourage and retain FDI on the African continent.

In the next chapter, a summary of the key findings of this study is presented. We will also highlight the significance of our research in contributing to existing knowledge on the macroeconomic drivers of FD in Africa. Furthermore, we will provide recommendations based on our study's findings for consideration by relevant stakeholders.

CHAPTER 6: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

This chapter provides a summary of the main findings and emphasises the scholarly contributions to knowledge. It also examines the policy implications of the empirical evidence gathered from the econometric analysis of secondary data and offers recommendations for stakeholders to consider. Lastly, the chapter suggests areas for potential future research.

To summarise the study's key findings, it is important to revisit the research aim and objectives. The primary goal of the study was to analyse the macroeconomic factors that influenced FD in African countries between 2000 and 2020. This was accomplished by analysing the co-integrating and causal relationships between these variables.

Specifically, the study's objectives were:

- To identify the key macroeconomic drivers of FD in African countries.
- To assess how and to what extent FD, financial development, and economic growth co-integrate in the short and long term in African countries.
- To determine the causal relationship between FD, financial development, and economic growth in African countries.
- To develop a framework to mitigate FD.

The study was prompted by the recent increase in FD, particularly in Africa, which led to a shift in economic policies. It is essential for the continent to improve its economic performance and perceptions to attract long-term FDI and restructure its economies accordingly. While the study focused on examining the macroeconomic factors of FD in Africa, it was found that economic growth is critical for encouraging and sustaining foreign investment. The study was driven by the negative perception of FD outflows in Africa, which impedes progress in addressing funding gaps in a country's balance of payments (BOP). Overall, the presence of FD in Africa poses a challenge to bridging these gaps.

6.2 SUMMARY OF KEY FINDINGS

This section presents the key findings from the data analysis, which include the drivers of FD, the co-integrating relationships between FD, FIN, and economic growth, as well as the causality between these variables in African countries. To address the initial research questions, the primary factors that influence FD outflows in the sampled African countries are examined.

6.2.1 Research objective 1: Key FD drivers in African countries

The study identified factors that drive FD in Africa as financial development, exchange rate, economic growth, unemployment, trade openness, human capital development, inflation, natural resources, and political stability. Therefore, developing countries' inability to utilise their internal resources leads to FD.

Using the 2-step difference GMM estimator from 2000 to 2020, this study discovered that financial development and political instability had a positive but insignificant impact on FD outflows in African countries. In addition, the study found that economic growth rate, natural resources, exchange rate, unemployment, trade openness, human capital development, and inflation had negative effects on FD outflows in the studied African countries. Thus, the study concluded that the primary drivers of outward FD flows were financial development, political instability, economic growth, natural resources, exchange rate, unemployment, trade openness, human capital development, and inflation.

Table 6.1: Summary of the key FD drivers and their effects in African countries

Dependent Variable	Independent Variable	Coefficient	Effect and significance
FD	Lag of the previous period's FD (FD_{t-1})	0.4830	Positive but non-significant
	Financial development (FIN)	0.4804	Positive but non-significant
	Economic growth(GROWTH)	-0.9482***	Negative***
	Exchange rate (EXCH)	-0.0085***	Negative***
	Unemployment(UNEMPL)	-2.5874***	Negative***
	Trade openness (TOPEN)	-0.1358***	Negative***
	Human capital development (HCD)	-0.0806***	Negative***
	Inflation (INFL)	-0.2367***	Negative***
	Natural resources (NAT)	-0.1561***	Negative***
	Political Instability (PINS)	12.1240	Positive but non-significant

Significant at 10%; ** Significant at 5%; * Significant at 1%*

6.2.2 Research objective 2: Cointegration relationship between FD, FIN and economic growth in African countries

After identifying the primary drivers of FD in African countries from 2000 to 2020, the study aimed to examine the relationships between FD, FIN, and GROWTH using the ARDL panel data analysis.

The ARDL-bound test was employed to determine the short-run and long-run cointegrating correlations between FD, FIN, and economic growth variables. The results indicated a positive and significant long-run relationship between FD and FIN when FD was regressed as the dependent variable, using PMG, MG, and DFE methods. However,

while using PMG, economic growth revealed a negative and significant relationship with FD in the long run, whereas MG and DFE methods showed a positive and significant relationship between economic growth and FD. The study also found that financial development and FD were positively correlated using MG and DFE methods while using PMG, there was an inverse relationship between financial development and FD in the short run. Furthermore, all panel models (PMG, MG, and DFE) showed a positive and significant relationship between FD and economic growth during the period 2000 to 2020 in the short run. However, it should be noted that these results do not necessarily imply causation.

On the other hand, the ARDL-bound test was used to determine the short-run and long-run cointegrating correlations between FIN, FD, and economic growth variables. When financial development was the dependent variable, MG and DFE showed a negative and significant relationship between financial development and FD in the long run. However, PMG showed a substantial positive relationship between financial development and FD in the long run. PMG and MG both yielded a short-term positive but insignificant relationship between financial development and FD, while DFE produced a short-term positive and significant relationship.

Regarding economic growth, PMG and DFE models showed a negative long-term correlation between financial development and the economic growth rate, while MG yielded a positive and insignificant relationship. In the short run, all panel models (PMG, MG, and DFE) revealed a negative and significant relationship between financial development and economic growth.

In summary, the study found complex and varied relationships between FIN, FD, and economic growth in both the short and long run.

Finally, the study conducted ARDL regression analyses with economic growth regressed as the dependent variable. In the long run, all panel models (PMG, MG, and DFE) showed a positive but non-significant relationship between economic growth and FD. However, PMG and DFE revealed a negative and significant relationship between economic growth

and financial development, while MG produced a positive and significant relationship between the two variables.

In the short run, PMG and DFE showed a significant positive relationship between economic growth and FD, whereas using MG, the relationship was positive but non-significant. The study also found a negative and significant correlation between economic growth and financial development in the short run using all panel models.

Moreover, this study observed an error-correction term (ECT) of 0.763 (PMG), 0.907 (MG), and 0.813 (DFE) in the interaction between FD, financial development and economic growth. The system took 70.3% (PMG), 90.7% (MG), and 81.3% (DFE) to correct its previous disequilibrium and reach a steady state. Similarly, when FIN interacted with FD and the economic growth rate (GROWTH, the error-correction term (ECT) was 0.159 (PMG), 0.207 (MG), and 0.121 (DFE). This indicates that the system corrected approximately 15.9% (PMG), 20.7% (MG), and 12.1% (DFE) of the previous period's disequilibrium each year to achieve a steady state.

To conclude, the study also examined the interaction between the economic growth rate (GROWTH), foreign divestment (FD), and financial development (FIN), and found an error-correction term (ECT) of 0.782 (PMG), 0.894 (MG), and 0.791 (DFE), respectively. This indicates that the system corrected its previous period disequilibrium at around 78.2% on PMG, 89.4% on MG, and 79.1% on DFE annually to achieve a steady state.

6.2.3 Research objective 3: Causality between FD, FIN and economic growth in African countries

It would be an error to conclude that cointegrating correlations establish causality between FD, FIN, and economic growth. Therefore, further research is needed to determine causality in this regard.

The study concludes that there is no evidence of a unidirectional or associated causation between financial development and economic growth in the African continent. However, there was a bidirectional causal relationship between FD and financial development, indicating potential insufficiencies in Africa's financial operations. The causality running

from financial development to FD, FD to financial development, and economic growth to financial development were stronger than other causal relationships. When financial development was regressed, the study concludes that there was a bidirectional correlation with FD, and finally, when economic growth was regressed, the study concludes that there was a bidirectional correlation with financial development, but no causation running from economic growth to FD.

6.2.4 Research objective 4: To develop a framework to mitigate FD

The study in chapter 2 developed a conceptual framework based on the gaps identified in existing FD frameworks. In summary, this study identified financial development, exchange rate, economic growth, unemployment, trade openness, human capital development, inflation, natural resources, and political stability as the key macroeconomic drivers of FD in selected African countries. Based on these FD drivers, this study in chapter 5 developed a more comprehensive framework to mitigate FD. The framework designed provides policymakers and MNEs with a number of benefits in terms of fostering an environment that promotes FDI in host nations. In summary, the more comprehensive FD framework developed in chapter 5 responded to research objective 4.

6.3 CONTRIBUTION TO NEW KNOWLEDGE

The study has significant contributions to the body of knowledge in three dimensions: empirical, theoretical, and methodological. These contributions, along with their policy implications, are analysed in the following four subcategories.

6.3.1 Empirical contribution

The primary empirical contribution of this study is the investigation and analysis of the macroeconomic variables that drive FD in African countries. This contribution has three key components:

- Firstly, despite an increasing number of studies in this area, the outcomes have been mixed and inconsistent, as noted by Edo and Nnadozie (2023), Itoh and Konno (2020), and Borga *et al.* (2020). Edo and Nnadozi (2023) found that macroeconomic performance and institutional quality are the primary

macroeconomic drivers behind FD whereas this study found that financial development, economic growth, exchange rate, unemployment, trade openness, human capital development, inflation, natural resources, and political instability are the drivers behind FD in African countries.

- Secondly, the variables of interest such as FD, financial development, and economic growth are rarely examined in a single study, resulting in fragmented literature on this topic. Studies such as those of Edo and Nnadozie (2023); Ralarala and Makwala (2022); Matekenya and Moyo (2023); and Yadav and Iqbal (2020) focused on FD and economic growth. This study is unique and contributes to the body of knowledge by introducing the financial development dimension.
- Lastly, most of the previous studies that investigated macroeconomic drivers in this area focused on FDI. This study fills the gap in empirical literature by specifically examining the macroeconomic drivers of FD in African countries.

The majority of studies on the macroeconomic drivers of FD are conducted in developed countries, with only a few examining underdeveloped countries, particularly those in Africa. Prominent studies such as Borga *et al.* (2020), Panibratov and Gaur (2022), and Khaing (2016) explored these macroeconomic drivers, but they did not focus on Africa.

In acknowledging the developing and evolving nature of these drivers, Borga *et al.* (2020) suggest that further research is needed in other contexts. Specifically, Matekenya and Moyo (2023) and Edo and Nnadozie (2023) highlight the lack of investigation within the African context.

Therefore, this study contributes to the empirical knowledge and scholarly understanding of the macroeconomic drivers of FD in Africa. Notably, this study sheds light on the fact that the key drivers of FD, such as inflation, exchange rate, unemployment, political instability, natural resources, financial development, trade openness, economic growth, and human capital development, are understudied variables in the context of African countries.

6.3.2 Theoretical contribution

The use of theories is crucial in research as they provide a framework for understanding and analysing the chosen topic. They also serve as a catalyst for advancing knowledge in the field of interest (Inglis & Maclean, 2005). Therefore, the relevance of the selected theory in any research is essential (Babbie & Mouton, 2001).

In this study, multiple complementary theories were used to explain the hypothesised relationships between macroeconomic variables, emphasising the need for a multi-theory approach in understanding the drivers of FD integration research. The study integrated principles from various mainstream FD theories, such as the eclectic paradigm theory, FD theory, RBV, IBV theory and real option theory in chapter two.

According to Cairney (2013), a single theory may not adequately explain all the observed study outcomes and variable correlations. Hence, this study employed multiple theories to provide a comprehensive analysis. To the best of the researcher's knowledge, this technique has not been widely used in African studies. Instead, many studies in Africa have relied heavily on individual prominent theories (e.g., Matekenya & Moyo, 2023; Panibratov & Gaur, 2022; Djokoto *et al.* 2022; Yadav & Iqbal, 2020; Borga *et al.* 2020; Mele & Quarto, 2018; Zak, 2018; Khaing, 2016; Li & Liu, 2015; and Chen, 2013).

6.3.3 Methodological contribution

Edo and Nnadozie (2023), Itoh and Konno (2020), and Borga *et al.* (2020) conducted similar empirical studies that investigated the macroeconomic drivers behind FD. However, these studies employed the OLS estimation technique, which has limitations in addressing the autocorrelation and heteroskedasticity problem. In contrast, this study contributed to new knowledge by using the GMM to address the autocorrelation and heteroskedasticity problem in the data.

On the other hand, previous studies that employed panel data estimation methods to examine the macroeconomic drivers of FD in Africa ignored the autocorrelation and heteroskedasticity problem triggered by the bi-directional cause-and-effect relationship between the dependent and independent variables. Moreover, they neglected the dynamic nature of FD data. However, this study considered the complex nature of FD

data by using the dynamic GMM approach to address the autocorrelation and heteroskedasticity problem.

In addition, this study also contributes to new knowledge by providing insights into the macroeconomic drivers of FD from an African perspective. Methodologically, the study extended on previous studies by employing different estimation techniques, including the Pooled Effect, Random Effect, Fixed Effect, and FGLS, for robustness and comparison purposes.

Finally, given the current drive by African governments to boost economic development by attracting more inward FDI and escaping FD, this study proposes policies that can complement the efforts of governments towards this goal.

6.3.4 Framework contribution

The framework developed for the mitigation of FD serves to offer various contributions to policymakers and multinational enterprises in creating a conducive environment that encourages FDI in host countries. Firstly, it addresses the need for cross country approach in addressing FD challenges faced in Africa. Secondly, the proposed FD framework developed has four pillars of governance and indicates their relevance to the FD drivers making it a more comprehensive framework for organisations and policymakers to better understand FD decisions. Thirdly, the framework elucidates the political ramifications of FD. Finally, the framework further contributes by incorporating economic, policy, and political variables and seeing how these variables affect FD at a continental level.

6.4 POLICY IMPLICATIONS

The findings and outcomes of this study have significant implications for policymakers, practitioners, and academics. Policymakers in African countries should focus on implementing policies that promote economic growth, trade openness, human capital development, and reduced unemployment to curb FD outflows. Additionally, this study recommends the adoption of good governance practices to improve government effectiveness in FD management.

The study contributes to the literature, practice, and policy by proposing a framework for mitigating FD in Africa. The framework addresses the weaknesses in the current fragmented legislative framework and lack of defined guidelines. The effectiveness of the government can be improved by establishing a coordinated strategy for enforcing compliance and investing in human capital development through training and mentoring. The standing committee on FD should strengthen its monitoring of FD disclosure performance and provide necessary assistance to the government in carrying out its roles independently.

To achieve consistent reporting behaviour, the reporting, compliance, and disclosure processes of FD should be centrally coordinated, promote transparency, and sustain a high degree of ethical standards in line with good governance principles such as accountability, fairness, and responsibility.

Finally, qualitative reporting on FD disclosures should be aligned to regulatory, governance, and monitoring frameworks, as prescribed by King III and IV and the OECD's principles of good governance. Authorities and governments should ensure that procedures and resources are in place to implement disclosure guidelines. These implications are significant to policymakers, practitioners, and academics as they contribute to the literature, practice, and policy on FD in Africa.

6.5 LIMITATIONS OF THE STUDY

While every effort was made to improve issues related to reliability and validity, as discussed in section 1.7 of chapter 1, the research still had limitations. Firstly, the sample size of the study was meant to include all 54 countries on the African continent, however, only thirty five African countries were included in the final sample size and nineteen countries were excluded. In addition, the number of years (T) was limited to twenty because of the scarcity of some of the secondary data. To address this issue, the study period was shortened and some of the African countries were excluded. Nevertheless, despite this limitation, the data collected for the 35 African countries over a 20-year period was deemed adequate for this study.

6.6 RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the limitations and findings of this study, several recommendations for future research are proposed. While this study focused on the analysis of macroeconomic drivers of FD in African developing countries, future studies could extend the number of countries and economic blocs for a comparative analysis using the same variables. For example, researchers could compare the patterns of FD outflows and economic growth among countries in the Middle East and North Africa (MENA) and the BRICS (Brazil, Russia, India, China, and South Africa) to identify any differences based on level of development, economic bloc membership, or other factors that may impact FD.

Moreover, future studies could explore other variables that may influence FD, such as the legal and regulatory framework, institutional capacity, cultural and social factors, and the impact of FD on domestic industries and employment. Such studies could provide policymakers with a better understanding of the factors that drive FD and inform the design of policies to attract and retain foreign investment.

Lastly, researchers could employ more advanced econometric techniques to analyse the causal relationships among the variables and investigate the possibility of non-linear relationships. This could help to identify any complex interactions and provide a more nuanced understanding of the drivers of FD.

6.7 CONCLUSION

The study looked at a framework of macroeconomic drivers of FD in African countries. The study aimed to examine the key macroeconomic drivers of FD in African countries. This study further investigated the cointegrating relationships between FD, FIN and economic growth. Additionally, the causal relationship between the variables was investigated. Lastly, a framework to mitigate FD was developed and explained with the utilisation of four main pillars namely, transparency, government effectiveness, accountability, and inclusiveness together with the identified macroeconomic drivers of FD. Secondary data was collected from the World Bank Indicators and various econometric techniques were used to test the variables. The study focused on 35 African countries with data spanning from 2000-2020. The developed framework proposed a

practical solution to key stakeholders and policymakers on how to mitigate FD by creating conducive, stable, investor-friendly, and transparent environments that will encourage and retain foreign investment in Africa.

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APPENDIX A: ETHICS APPROVAL

Graduate School of Business Leadership, University of South Africa, PO Box 392, Unisa, 0003, South Africa
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SCHOOL OF BUSINESS LEADERSHIP

RESEARCH ETHICS REVIEW COMMITTEE (GSBL CRERC)

07 February 2023

Ref #: 2023_SBL_DBL_003_SD
Name of applicant: Ms R Maduane-Komape
Student #: 46871810

Dear Ms Maduane_Komape

Decision: Ethics Approval

Student: Ms R Maduane-Komape (46871810@mylife.unisa.ac.za, 083 440 2806)

Supervisor: Prof M Tshehla, (tshehlmf@unisa.ac.za ; 011 652 0223)

Project Title: A framework for the macroeconomic drivers behind foreign divestment in developing African countries.

Qualification: Doctor of Business Leadership (DBL)

Expiry Date: January 2025

Thank you for applying for research ethics clearance, SBL Research Ethics Review Committee reviewed your application in compliance with the Unisa Policy on Research Ethics.

Outcome of the SBL Research Committee: Approval is granted until January 2025.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the SBL Research Ethics Review Committee on the 06/02/2023.

The proposed research may now commence with the proviso that:

1) The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached
2) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.
3) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the SBL Research Ethics Review Committee.
4) An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.
5) The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.

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APPENDIX B: EDITING CERTIFICATE

Contact number:0839383265
Whatsapp:0658888129
Email: rbrtncky@yahoo.com

This serves to confirm that we've duly edited and technically formatted Doctor of Business Leadership Thesis titled:

A Framework for Macroeconomic Drivers of Foreign Divestment in African Countries

by

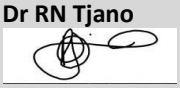
Refilwe Maduane-Komape
St No: 46871810

Balican Consulting Solutions is a professional language and technical editing academy, and our clients include students from University of South Africa (UNISA), Unisa School of Business leadership (SBL), Gordon Institute of Business Science (GIBS), DaVinci, University of the Free States (UFS), Mancosa and various other entities in South Africa.

NB! All editing and technical formatting are executed with recommended track changes on Microsoft Word processor, and we therefore have no control or influence over what the author accepts or rejects. Furthermore, we have no control over additional text done at a later stage.

Should there be any queries, please do not hesitate to contact us on the details provided above.

Yours sincerely
Dr RN Tjano



01/12/2023
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