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Expanding the lens on the determinants of FDI in South Africa: The impact of business confidence

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DECLARATION

I, Mishumo Kwinda, declare that the research report titled “Expanding the lens on the determinants of FDI in South Africa: The impact of business confidence” is my own work. Concepts and ideas obtained from the research work of others have been referenced accordingly. I am submitting this report in partial fulfilment of the requirements for the degree of Master of Business Administration. I also confirm that this work has not been submitted to any other institution or for any other degree in any form.



_____

Signature of candidate

23/02/2025

_____

Date

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Above all, I thank God for his grace, provision, and strength throughout this journey.

ABSTRACT

Studies have shown that foreign direct investment can contribute significantly to the economic growth of the host country. Like many other African countries, foreign direct investment inflow to South Africa has remained low over the past decade despite efforts to increase it. Among other factors, low investment levels have limited the government's ability to address the slow economic growth rate and consequently the ever-increasing levels of unemployment and inequality. Underpinned by persisting low investment, various studies have sought to identify the determinants of foreign direct investment in South Africa, and these have mostly focused on macroeconomic factors. Expectations play a crucial role in investment decisions and expectations shape business confidence. Few studies have examined the relationship between business confidence and investment in South Africa; however, research on the relationship between business confidence and specifically foreign direct investment is limited.

This study examined the relationship between the business confidence index and foreign direct investment using time series data spanning from 1972 to 2022. The autoregressive distributed lag (ARDL) model was used to analyse the long-run relationship between the business confidence index and foreign direct investment. A positive relationship between the business confidence index and foreign direct investment was found; however, it was not statistically significant, and business confidence was not found to have a significant impact on foreign direct investment. The findings indicate that other factors superior to business confidence are driving foreign direct investment into South Africa. A multifaceted approach is required to attract foreign direct investment, which will address both macroeconomic and structural factors and ensure sustainable economic growth. Future studies could investigate the relationship between business confidence and foreign direct investment in specific sectors of the economy, and alternative econometric models such as the Vector Error Correction Model are suggested.

Keywords: Business confidence index, foreign direct investment, ARDL, error correction model, economic growth, South Africa

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LIST OF ABBREVIATIONS AND ACRONYMS

ACF	Autocorrelation function
ADF	Augmented Dickey-Fuller
AIC	Akaike Info Criterion
ARDL	Autoregressive distributed lag
BCI	Business Confidence Index
BER	Bureau for Economic Research
FDI	Foreign direct investment
IDC	Industrial Development Corporation
KPSS	Kwiatkowski-Phillips Schmidt-Shin
MNC	Multinational Corporation
MNE	Multinational Enterprise
NPC	National Planning Commission
PP	Phillips-Perron
UNCTAD	United Nations Conference on Trade and Development

CHAPTER 1: INTRODUCTION

1.1 Statement of purpose

This explanatory study will examine the relationship between business confidence and foreign direct investment (FDI) in South Africa to expand on the knowledge of the determinants of FDI. This will be helpful to the government and policymakers who are concerned with increasing FDI into the country.

1.2 Background of the study

Economic growth remains a top priority for nations, particularly developing countries (Magdalena & Suhatman, 2020). Both domestic and foreign investment are crucial forms of capital required to support economic growth. Debt financing is an alternative; however, lending institutions seemingly focus mostly on economies in East Europe and emerging markets in Asia (Asiamah et al., 2019). Furthermore, the use of debt financing to fund development projects in Africa is unfavourable, as debt service eventually grows into a burden and limits the government's ability to meet socio-economic needs (Asiamah et al., 2019).

FDI is a financial investment made by an entity such as a multinational corporation (MNC) into a foreign country (also referred to as the host) and benefits both the MNC and the host country (Asongu et al., 2018). Some of the benefits to the host country include tax income, job creation, and the development of skills and technology (Asongu et al., 2018), and mostly notably the economy (IDC, 2023). Unfortunately, developing countries in Africa, including South Africa, continue to receive the least FDI (UNCTAD, 2023a) despite increased efforts to encourage more FDI (UNCTAD, 2023b). Underpinned by the various advantages of attracting FDI into an economy, several studies have been conducted to identify the determinants of FDI in Africa (Asongu et al., 2018; Dingela, 2021; Hlongwane et al., 2023; Jaiblai & Shenai, 2019).

The persistence of low investment warrants further investigation into the determinants of FDI. Studies on the determinants of FDI into South Africa have focused mainly on

market size, inflation (Asongu et al., 2018; Dingela, 2021; Dondashe & Phiri, 2018; Hlongwane et al., 2023; Tala & Hlongwane, 2023), infrastructure (Asongu et al., 2018; Dingela, 2021; Hlongwane et al., 2023), political instability (Dingela, 2021; Rama, 2021), trade openness (Asongu et al., 2018; Dingela, 2021; Dondashe & Phiri, 2018), and the exchange rate (Tala & Hlongwane, 2023).

A country's economic outlook and the future expectations of economic decision-makers can be measured and communicated through indices such as the Business Confidence Index (BCI) (Khan & Upadhayaya, 2020; Tayar & Aktas, 2024). Studies on the predictive properties of business confidence in relation to investment and the direct link of business confidence with investment are limited (Khan & Upadhayaya, 2020). de Jongh and Mncayi (2018) examined the relationships between BCI, domestic investment, and economic growth in South Africa and found that BCI was a leading indicator for domestic investment and growth. Kutu et al. (2024) investigated the impact of BCI on economic activity in South Africa and found a positive relationship and also that increased levels of BCI lead to an increase in economic growth and reduce unemployment. Khan and Upadhayaya (2020) report that business confidence has a predictive ability for investment growth and is superior to other predictors in forecasting investment.

Qeqe and Sibanda (2022) studied the relationship between BCI and private sector investment (measured by gross fixed capital formation per sector) in South Africa and found that there was a positive and statistically significant relationship between BCI and the level of investment in the manufacturing, mining, retail, construction, and transport sectors of the South African economy. Montes and Nogueira (2022) found that business confidence in Brazil acted as a transmission channel for uncertainties that affected investment. Cieślik and Ghodsi (2021) examined the influence of business sentiment in the decision-making process of MNEs in undertaking foreign direct investment across the European Union (EU) member states and found that sentiment in a host country induced MNEs to undertake FDI there. To the researcher's knowledge, no study has investigated the impact of business confidence on foreign direct investment in South Africa. This study aims to address that.

1.3 Research problem

This section discusses the main problem and sub-problems of the study.

1.3.1 Main problem

South Africa's annual average growth rate (gross domestic product) increased by 1.9% in 2022 and by 0.6% in 2023 (Stats SA, 2024a). Even before the COVID-19 pandemic, the country's growth rate was considerably low, not exceeding 3.2% in over a decade, pre-pandemic (UNCTAD, 2024). Poverty, unemployment, and inequality remain a major challenge. About 32.1% of the population in South Africa is unemployed (Stats SA, 2024b). This requires strategic interventions to address amidst several constraints, such as a high budget deficit, increasing public debt coupled with a rising interest burden (NPC, 2023) . The country's challenges have been exacerbated by sustained low levels of investment and growth (NPC, 2023). There is a need to broaden the knowledge of the determinants of FDI as the problem of low investment in the country persists.

1.3.2 Sub-problems

1.3.2.1 The relationship between FDI and business confidence

According to the RMB/BER BCI, business sentiment among business people in South Africa has remained low for over a decade (BER, 2024). This highlights a serious need to focus on business conditions in the country to improve business sentiment and subsequently attract more investment (domestic and foreign).

1.3.2.2 The extent to which business confidence impacts FDI inflow

Business people in South Africa have mostly attributed the declining sentiment to the negative impact of load shedding, the state of the local ports, crime, and political uncertainty (BER, 2024). These factors play a role when making investment decisions. Business confidence has been found to play a role in investment decisions (Mothibi & Van Wyk, 2022).

1.4 Research questions

The objective of this research is to examine the relationship between inward FDI and the South African BCI. The study therefore seeks to answer the following questions:

1. Is there a positive relationship between FDI and BCI?
2. What is the degree of impact of the BCI on FDI?

1.5 Rationale

This research is intended to contribute to the existing body of knowledge on the determinants of FDI in Africa and the body of research on business confidence. This research will also contribute to economic development by providing policymakers with recommendations towards improving and possibly better forecasting FDI inflow (Chattopadhyay et al., 2022; Dang & Nguyen, 2021; Jaiblai & Shenai, 2019). Additionally, this research could also provide insights for other African countries in similar circumstances.

1.6 Delimitations of the study

This study will only focus on South Africa.

1.7 Definition of terms

Foreign Direct Investment is a financial investment made by an entity such as an MNC into a foreign or host country (Asongu et al., 2018; Jaiblai & Shenai, 2019; World Bank, 2024). A foreign direct investment can be made by obtaining a lasting interest or by expanding one's business into a foreign country (CFI, 2024; Jaiblai & Shenai, 2019).

Business Confidence Index is viewed as a leading indicator that reflects the current economic situation and the future direction of commerce (Kutu et al., 2024). In South Africa, the RMB/BER Business Confidence Index is based on a survey that assesses

the level of optimism that senior executives in various companies have regarding the prevailing business conditions in the country (BER, 2024).

1.8 Assumptions

The following are assumptions made in this study:

- The study will use secondary data and thus assume data quality and credibility based on the reputation of the source of the data.
- Investor sentiment in South Africa, as measured by BCI, has an influence on foreign investor (MNC) sentiment.

CHAPTER 2: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

The previous chapter provided an introduction and background to the study. This chapter examines literature on FDI in Africa and South Africa, the benefits and challenges thereof, and the agreed-upon determinants in the literature. BCI pertaining to South Africa is discussed, thus leading to the study's hypothesis. The theories and models underpinning the study are outlined and finally lead to the theoretical model that will guide the study.

2.2 Foreign direct investment

Foreign direct investment is discussed in this section.

2.2.1 The benefits and challenges of foreign direct investment

Developing countries lack sufficient resources required to subsidise national investments (Boğa, 2019; Chattopadhyay et al., 2022); thus, both domestic and foreign investment are crucial sources of finance (Chattopadhyay et al., 2022; Jaiblai & Shenai, 2019). Some developing countries also rely on foreign aid from the global community, but this kind of financing is not reliable (Jaiblai & Shenai, 2019). Conversely, access to credit is limited, especially following the debt crisis since the 1980s (Boğa, 2019).

There is consensus in literature that FDI shares a positive relationship with economic growth (Dang & Nguyen, 2021; Jaiblai & Shenai, 2019; Masipa, 2018). There is also evidence from literature that FDI can benefit the host country through the development of human capital, skills, technology, and increasing employment (CFI, 2024; Dang & Nguyen, 2021; Marandu et al., 2019). Therefore, FDI has been seen as an effective tool for eradicating global poverty (Boğa, 2019). Masipa (2018) highlights the need to

attract FDI into South Africa and shows empirically through a study that it enhances gross domestic product and leads to economic growth.

Literature also highlights some disadvantages of FDI. According to Van Der Berg et al. (2021), FDI could negatively impact the host country by the MNC competing with local businesses and ultimately displacing them. FDI may also discourage domestic direct investment, and in some instances, there may be profit repatriation (CFI, 2024). Although there is much to be gained from attracting FDI, Masipa (2018) also rightly emphasises that FDI alone is not the solution to solving the country's socio-economic challenges. He also argues that it should not be viewed as a key to sustainable economic growth. On the other hand, Jaiblai and Shenai (2019) view FDI as contributing to sustainable economic growth through its contribution to infrastructure improvement. Despite the conflicting views, there is consensus on the advantages from FDI if it is well regulated.

2.2.2 Foreign direct investment in South Africa

Van Der Berg et al. (2021) express a concern about the seeming little interest from the international community on investing in African markets. The FDI inflow trend for South Africa shows increases in some years, but the increases are attributed to once-off transactions or acquisitions according to Thomas and Leape (2005, as de in Masipa, 2018); for example, the rise in FDI in 2021 was due to a large corporate reconfiguration (UNCTAD, 2023).

In 2022, only 3.47% of the world's FDI went into Africa (UNCTAD, 2024), and on average, less than 17% of the FDI to sub-Saharan Africa went to South Africa (Figure 2-1). Additionally, COVID-19 has had a negative impact on FDI inflows globally (Adegboye & Okorie, 2023; Al-Kasasbeh et al., 2022).

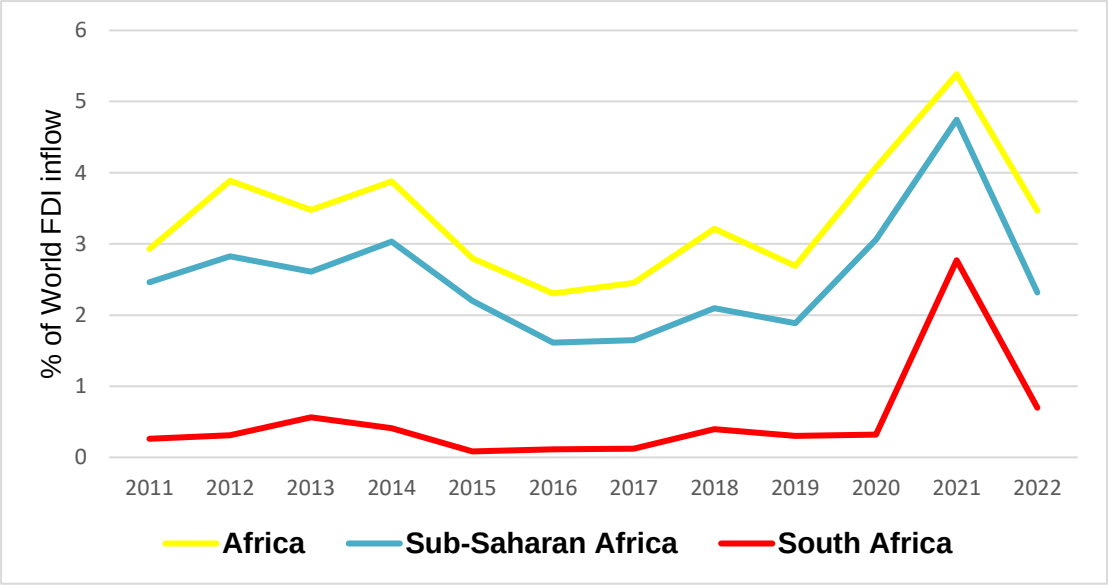


Figure 2-1: Percentage of World FDI to Africa (UNCTAD, 2024)

The South African government's National Development Plan is targeting an unemployment rate of 6% by 2030 (NPC, 2023). This will not be easy to achieve without substantial investment. The South African government has thus increased its efforts towards attracting more FDI into the country. One such effort is the introduction of the special economic zone programme, which provides incentives (tax and building allowances) for investors to operate within these zones (Ngwila & Govender, 2022).

2.2.3 The determinants of foreign direct investment

Motivated by several advantages of attracting FDI into the economy, studies focused on South Africa have found that FDI inflow has been encouraged and influenced by market size, inflation (Asongu et al., 2018; Dingela, 2021; Dondashe & Phiri, 2018; Hlongwane et al., 2023; Tala & Hlongwane, 2023), infrastructure (Asongu et al., 2018; Dingela, 2021; Hlongwane et al., 2023), political instability (Dingela, 2021; Rama, 2021), trade openness (Asongu et al., 2018; Dingela, 2021; Dondashe & Phiri, 2018), and the exchange rate (Tala & Hlongwane, 2023). Other studies have found that load shedding is detrimental to attracting investment, as it drives up costs (Hlongwane et al., 2023; Masipa, 2018). Others argue that energy availability and reliability are key criteria when evaluating the viability of a business and, consequently, FDI (Inglesi-Lotz & Ajmi, 2021). The study conducted by Inglesi-Lotz and Ajmi (2021) on South Africa

found that there was a positive relationship between electricity supply and FDI inflow and a negative relationship between electricity prices and FDI.

Infrastructure challenges such as the conditions of the ports have been identified as deterrents to foreign investors (Masipa, 2018; Van der Berg et al., 2021). Saidi et al. (2020) investigated the relationship between logistics, transportation, FDI, and economic growth in developing countries and found that transportation and logistics are significant determinants of FDI. Logistic performance was also found to have a positive impact on FDI for 26 African countries (Rathnayake et al., 2023).

A country's level of crime and the state of the rule of law has an impact on FDI inflow (Masipa, 2018; Ozekhome, 2022). According to Masipa (2018), foreign investors have complained about the state of security in South Africa. Investors have also been found to hold back when there are uncertainties related to policy and frameworks (Jahn & Stricker, 2022; Ozekhome, 2022).

Li et al. (2019) contend that emotions can have a significant influence on investor decision-making beyond what can be cognitively explained. According to the findings of their study, which theoretically and empirically examined the influence of national sentiment on FDI decisions, negative sentiment was found to have a greater influence on FDI than positive sentiment. Cieślik and Ghodsi (2021) examined the influence of business sentiment in the decision-making process of MNEs in undertaking FDI across the EU member states and found that sentiment in a host country induced MNEs to undertake FDI there. Notably, a few studies in South Africa have examined the relationship between business confidence and investment (domestic investment and gross capital formation) (de Jongh & Mncayi, 2018; Kutu et al., 2024; Qeqe & Sibanda, 2022) but have not considered its impact on FDI.

2.3 Business confidence

The confidence that investors have in an economy is closely related to their expectations – optimism or pessimism about the future has an impact on economic activities and yields specific results (Akkaya, 2024). Van der Walt and De Wet argue that expectations play a crucial role in investment decisions (1995, as cited in De Jongh

& Mncayi, 2018). Expectations shape business confidence, which forms early warning or leading indications (Van Luong & Vixathep, 2016). Business confidence has been measured through indices such as the BCI and provides insight into the economic outlook of a country, its developments, and the future expectations of economic decision-makers (Khan & Upadhayaya, 2020; Tayar & Aktas, 2024). Some studies identify business confidence as a leading indicator of macroeconomic activity (Khan & Upadhayaya, 2020; Kutu et al., 2024) and others as a leading indicator towards predicting future investment (de Jongh & Mncayi, 2018). Other studies have posited that there is a relationship between confidence and macroeconomic activity because confidence measures contain fundamental information about the current and future states of the economy (Ha & So, 2021).

Low credibility and high levels of corruption have been noted to negatively impact business confidence (Montes & Nogueira, 2022). Mothibi and Van Wyk (2022) examine the influence of some macroeconomic factors on business confidence and find that economic growth increases business confidence, while a depreciating rand to the US dollar exchange rate, increasing inflation rate, and rising unemployment decreases business confidence in South Africa. Montes and Nogueira (2022) also maintain that business confidence is reduced by political uncertainty as well as economic policy uncertainty.

2.3.1 Business confidence in South Africa

In South Africa, the BER measures and provides a composite BCI, which surveys five sectors of the economy (retail, wholesale, new vehicle trade, manufacturing, and building) (BER, 2024). The RMB/BER BCI long-term trend indicates that business sentiment among business people in South Africa has remained low for over a decade (BER, 2024).

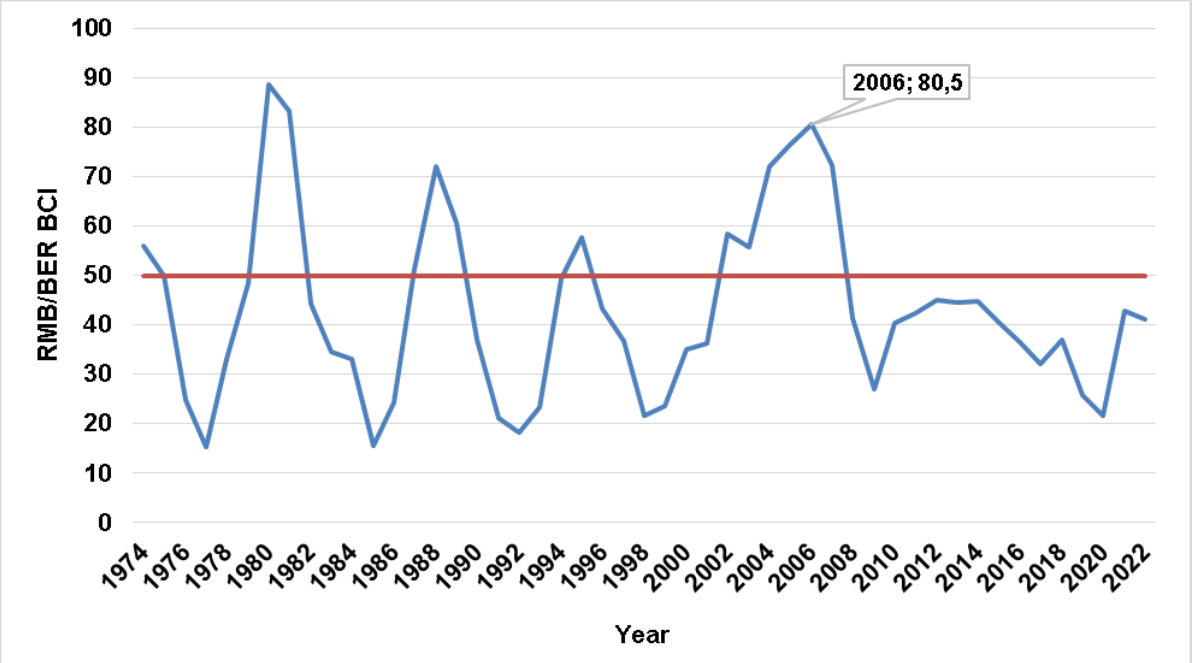


Figure 2-2: BCI trend from 1974 to 2022

Figure 2-2 reveals that the yearly average BCI has dropped from 80.5 index points in 2006 to below 50 in 2022. Kutu et al. (2024) attribute this to the steady depreciation of the South African rand, increasing inflation, oil and energy costs, as well as insufficient energy supply resulting in load shedding. According to (Sibeko, 2022), business confidence has also been impacted by the COVID-19 pandemic, which led to increased volatility in the global financial markets, increased costs of doing business, and looting and vandalism, which increased business risk. Furthermore, business risk has been increased significantly by load shedding and energy security (Inglesi-Lotz & Ajmi, 2021). According to the respondents of the RMB/BER Business Confidence Index survey, declining business sentiment in South Africa can be attributed to load shedding, the state of the local ports, crime, and political uncertainty (BER, 2024).

2.3.2 Business confidence and its relationship with investment

Mothibi and Van Wyk (2022) argue that business confidence plays an important role in attracting much-needed investments for South Africa's growth and development. Khan and Upadhayaya (2020) highlight that forecasters and policymakers can better their investment forecasts by leveraging the predictive power of business confidence.

Montes and Nogueira (2022) found that business confidence acts as a transmission channel for political and economic policy uncertainty to investments (investment in the form of gross fixed capital formation), thereby negatively impacting investment.

Khan and Upadhayaya (2020) conducted a study on US business confidence using survey data from 1955–2016 and found that, independently of other variables, business confidence had a predictive ability for investment growth and, compared to other predictors, is better at forecasting investment. de Jongh and Mncayi (2018) analysed the relationships between BCI, domestic investment, and economic growth in South Africa using data from 1995 to 2017 and found that BCI was a leading indicator for domestic investment and growth.

Kutu et al. (2024) studied the impact of business confidence (using BCI) on economic activity in South Africa and found a positive relationship which also led to reduced unemployment. The Department of Trade and Industry (2020, as cited in Qeqe & Sibanda, 2022) found that increased levels of uncertainty affects the level of business confidence, which has a negative impact on investment in the manufacturing industry. Qeqe and Sibanda (2022) studied the relationship between BCI and private sector investment (measured as gross fixed capital formation per sector) in South Africa from year 2000 to 2018 and found that there was a positive and statistically significant relationship between BCI and the level of investment in the manufacturing, mining, retail, construction, and transport sectors of the South African economy.

2.3.3 Hypothesis for the study

Drawing upon previous studies' findings, as highlighted in the literature review, the following hypotheses are made:

The null hypothesis H0: There is no positive relationship between BCI and FDI.

The alternative hypothesis H1: There is a positive relationship between BCI and FDI.

The null hypothesis H0: BCI has no impact on FDI

The alternative hypothesis H2: BCI has an impact on FDI.

2.4 Analytical framework

This section discusses the analytical framework.

2.4.1 Theoretical framework

Theories have been developed to conceptualise an MNC's decision to invest in a foreign country instead of other alternatives such as licensing or exporting (Boğa, 2019). This section outlines the theories that underpin this study.

2.4.2 Eclectic paradigm

The eclectic paradigm, also known as the Ownership, Locational, Internalization framework of Dunning (1977-2001), is the most holistic theory for conceptualising FDI (Boğa, 2019; Rashed et al., 2022), described by Dunning (2003) as a framework best suited for analysing the determinants of international production. The eclectic paradigm is the most holistic theory because it considers location and combines several international business perspectives in a single framework by including ownership and internalization advantages (Batschauer da Cruz et al., 2022). According to the theory, a corporation will embark on FDI based on having a balance between the three advantages, that is, Ownership, Locational, and Internalization (Dunning, 2003). Ownership advantage is required in a foreign country in order to overcome the

disadvantages that arise because of not being native, such as cultural differences (Kotieno, 2009). Ownership advantages are competitive advantages that a firm has over other firms (or the competition) arising from having either ownership of income-generating assets or technology that is unique or capabilities to create new technology or facilitate cross-border activities (Dunning, 2003).

Locational advantages are the host countries' pull factors that attract investing firms and are perceived by the firm as favourable for locating their value-adding activities outside their national borders (Dunning, 2003). Locational advantages include special tax regimes, low or no tariffs, low production or labour costs, low transportation costs, access to larger market size and protected markets, and low risk (Boğa, 2019). Location advantages are advantageous if operating in the foreign country will be more profitable than in the home country(Kotieno, 2009).

Internalisation advantage is the extent to which a firm perceives it to be in its best interest to keep the ownership advantages or, for instance, to contract the production of a product to a third party (Dunning, 2003). The firm has the option to acquire a subsidiary in a foreign country, enter a joint venture, or outsource.

2.4.3 Keynes' theory of investment

According to the Keynesian model of investment, investments contribute to economic development as a component of aggregate demand, and both the interest rate and the marginal efficiency of investment play a role in determining investment levels (Anderson & Goldsmith, 1997). Anderson and Goldsmith (1997) emphasise the role of the psychological mindset of the decision-maker in determining what the marginal efficiency of investment is which then determines the investment levels. The theory also asserts that the investment demand curve is driven by the firms' expectations of the profitability of an investment (Qeqe & Sibanda, 2022). The Keynes theory is most suited to this study compared to other theories because it incorporates business expectations which is aligned to business confidence.

2.5 Conceptual framework

Drawing primarily from the eclectic theory, a corporation's decision to embark on FDI also takes into consideration locational factors. Literature shows that business confidence is influenced by locational conditions as well as macroeconomic factors. These include load shedding or the availability of electricity, the state of the ports, crime, and interest rates (BER, 2024). Confidence measures contain fundamental information about the current and future state of the economy (Ha & So, 2021). Additionally, business confidence is shaped by expectations, and the Keynesian theory also posits that expectations determine investment levels. The BCI is viewed as a measure of investor expectations which is expected to determine the level of what is invested. Thus, a relationship between BCI and FDI is expected to exist. This is illustrated in Figure 2-3 and is the conceptual model that will thus guide this study.

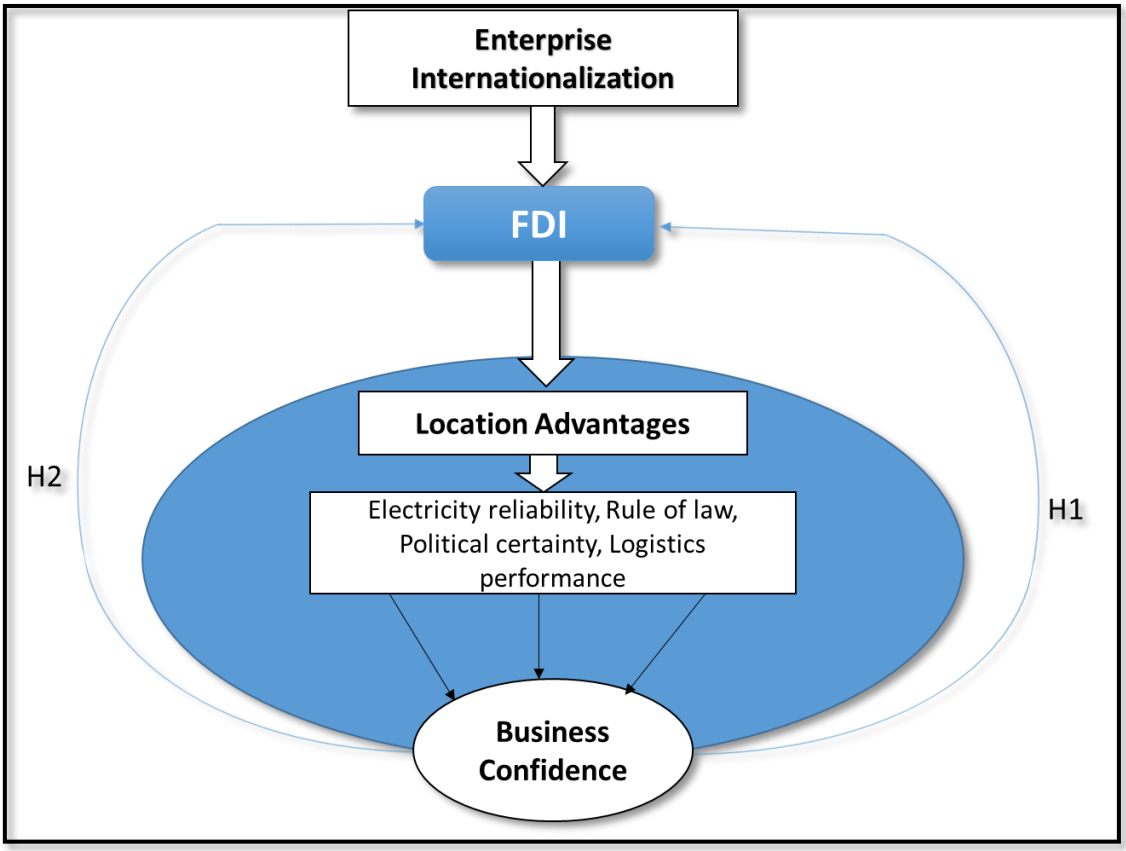


Figure 2-3: Conceptual framework for the study (Researcher's own work)

2.6 Conclusion of the literature review

The literature shows that there is consensus on the positive impact of FDI on the host country, and this serves as motivation for increased efforts towards attracting more FDI into the country. The eclectic theory indicates that foreign countries also take into consideration locational advantages when making FDI decisions. BCI has been seen as a leading indicator of macroeconomic activity and investment and has been shown to be influenced by locational advantageous. BCI provides insight into the economic outlook of a country and the future expectations of economic decision-makers. Several studies have examined the relationship between BCI and investment (domestic and gross capital formation) in South Africa; however, research on the relationship between BCI and FDI is limited.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The preceding chapter reviewed literature relevant to the study. This chapter focuses on the research methodology used in the study.

3.2 Research approach

A quantitative approach was followed for this study. This is because the study aims to examine the relationships between variables that are measured numerically and require analysis using statistical techniques (Saunders et al., 2016).

3.3 Research design

The study followed an experimental research design by developing a hypothesis where FDI was the dependent variable and BCI was the independent variable. When experimenting, the researcher's aim is to study the probability of a change in the independent variable resulting in a change in a dependent variable (Saunders et al., 2016). The challenge with an experiment would be the researcher's ability to account for the effect of the control and confounding variables on the data analysis (Saunders et al., 2016). Because the study seeks to explain the relationship between FDI and BCI, it can be characterised as an explanatory study.

3.4 Data collection methods

Secondary data was employed for the study, and it was sourced from the World Bank, the BER, and the South African Reserve Bank databases. These databases are the most accurate and reliable sources of data required to carry out this study.

3.4.1 Population

The study is a country-level analysis with South Africa as the unit of analysis.

3.4.2 Sample and sampling method

Numerical data was extracted from the online databases using Microsoft Excel.

3.5 The research instrument

Econometrics was used for data analysis on EViews, and it was proposed to employ the autoregressive distributed lag (ARDL) method. The ARDL is deemed suitable for this study because it can be used for variables of different orders of integration (Dondashe & Phiri, 2018; Inglesi-Lotz & Ajmi, 2021). It also takes into account both the effect of the current and past values of the independent variables on the dependent variable by including lagged variables (Adam & Owusu, 2017). The functional model for the study can be expressed as (Boğa, 2019):

$$FDI = f(BCI) \quad (1)$$

Where:

$\mathrm{FDI} = \text{Foreign direct investment inflow as a \% of GDP}$

$\mathrm{BCI} = \text{Business Confidence Index in South Africa}$

The statistical model can be expressed as (Boğa, 2019):

$$\mathrm{FDI_t} = \propto + \beta_1 \mathrm{BCI_t} + \mathrm{u_t} \quad (2)$$

Where:

$\alpha = \text{the constant term}$

$\beta = \text{the coefficients that specify the relationship between the variables}$

$\mathrm{ut} = \text{the error term}$

Based on the ARDL model, Equation 2 can be redefined according to Equation 3, as shown in Equation 4 (Adam & Owusu, 2017):

Where:

$$\Delta Y_t = \propto_0 + \sum_{i=1}^{p} \propto_i \Delta Y_{t-i} + \sum_{i=0}^{q} \beta_i \Delta X_{t-i} + \emptyset_0 Y_{t-1} + \emptyset_1 X_{t-1} + u_t \quad (3)$$

$$\Delta FDI_t = \propto_0 + \sum_{i=1}^{p} \propto_i \Delta FDI_{t-i} + \sum_{i=0}^{q} \beta_i \Delta BCI_{t-i} + \emptyset_0 FDI_{t-1} + \emptyset_1 BCI_{t-1} + u_t \quad (4)$$

Where:

$\emptyset_0 FDI_{t-1} + \emptyset_1 BCI_{t-1}$= represents the error term

3.6 Procedure for data collection

Data was collected from 1972 to 2022. The utilisation of secondary data is a viable option because the researcher had limited time and resources to obtain the kind of data required for such a study (Johnston, 2014). The use of online databases means that the research findings are open to scrutiny from others (Saunders et al., 2016).

3.7 Data analysis strategies and interpretation

Time series data can be analysed using regression modelling techniques. The ARDL method was utilised. The following steps were required to use the model:

1. First, it is critical to test whether the time series data is stationary or not so that an appropriate method can be selected (Inglesi-Lotz & Ajmi, 2021; Shrestha & Bhatta, 2018). Selecting the wrong method for analysis will result in biased and unreliable estimates, such as establishing correlations where there are none (Hlongwane et al., 2023). Unit root tests are used to determine stationarity. The Augmented Dickey-Fuller (ADF), Phillips-Perron (PP), and Kwiatkowski-Phillips Schmidt-Shin (KPSS) tests were used in this study (Hlongwane et al., 2023).

2. The residuals were checked to determine if the model had time series autocorrelation using the Autocorrelation function (ACF), which is a visual tool for identifying patterns in residuals (Yakubu & Saputra, 2022). Autocorrelation measures the correlation between data points and their lagged values (Rocha et al., 2024).

3. The optimal lag length that is suitable for the study was determined before the bounds test (Hlongwane et al., 2023).

4. A bounds test, which is a test for cointegration, was performed to determine if the independent and dependent variables had a relationship. If there is cointegration, the variables have an all-time relationship, and a long and short-run ARDL model can be specified (Boğa, 2019). If there is no cointegration, only a short-run ARDL model can be specified (Inglesi-Lotz & Ajmi, 2021).

5. The error correction model is derived through linear transformation and was used to analyse the short-run and the long-run relationships (Dondashe & Phiri, 2018). It also indicated the extent of influence the independent variable had on the dependent variable (FDI) (Hlongwane et al., 2023).

6. Finally, model diagnostic tests were conducted to ensure there were no violations of the models' assumptions and potential misspecifications (Akilo, 2023), and also to test for robustness and reliability of the model (Natsiopoulos & Tzeremes, 2024):

    - The Breusch-Godfrey serial correlation LM test was employed to test for serial correlation in the error terms (Uyanto, 2020).

    - The Breusch-Pagan-Godfrey test was used to test for heteroskedasticity to test whether the variance of residuals was related to the independent variables (Obabire Akinleye et al., 2020).

    - Jarque-Bera test was used to test for normality in order to determine whether the observations aligned with a Gaussian process (Rocha et al., 2024).

    - The regression model coefficients were checked for stability and structural change over time by applying the cumulative sum (CUSUM) test (Dao, 2021).

3.8 Possible limitations and challenges of the study

Although data of this kind is likely to be of higher quality than the researcher could ever achieve by collecting the data on their own, there is still no real control over the quality of the data, as data can be distorted by the informal economy (Saunders et al., 2016).

3.9 Quality assurance

This section discusses quality assurance while this study was conducted.

3.9.1 External validity

The results will be, to some extent, generalisable to other African regions, such as sub-Saharan Africa. Other studies (Boğa, 2019; Wako, 2021) have investigated the determinants of FDI by studying sub-Saharan Africa as a whole, thus implying that the findings are generalisable. Generalisability can be affected by unique country-specific factors. For instance, Angola receives far more FDI than other sub-Saharan countries because of the presence of oil, and Rwanda has been found to receive the least FDI because of being landlocked (UNCTAD, 2023a).

3.9.2 Internal validity

This study ensured internal validity by focusing on minimising systemic and process errors that negatively affect confidence in the results (Edgar & Manz, 2017).

3.9.3 Reliability

The threat to reliability is minimised by using secondary data. This means another researcher can replicate the study, as the data is accessible online and the data analysis techniques are outlined (Vu, 2021). The use of secondary data also eliminates reliability threats such as participant error and bias as well as researcher error and bias (Saunders et al., 2016).

3.10 Ethical considerations

This study did not require contact with human participants and therefore can be categorised as being at a no-risk level. The study only utilised economic data that did not carry identifying information (Tripathy, 2013). The availability of the data on free online databases also implies that further analysis of the data is permitted (Tripathy, 2013).

CHAPTER 4: RESEARCH RESULTS AND DISCUSSION

4.1 Introduction

The previous chapter discussed the research methodology deployed in this study. This chapter presents the results of the model, which was estimated in the methodology chapter followed by a discussion of the results thus answering the research questions. Secondary data dating from 1974 to 2022 for both BCI and FDI was collected and analysed to examine the relationship between the variables. The data analysis began by evaluating the univariate characteristics of the variables used in the study, which include features such as skewness and kurtosis. After establishing a linear relationship between the variables, the ARDL model was run. Lastly, given the results of the analysis, the research questions of the study are addressed.

4.2 Descriptive statistics

Descriptive statistics of the study are presented in Table 4-1.

Table 4-1: Descriptive statistics

	FDI	BCI
Minimum	-0.769	15.2
Maximum	9.68	88.5
Median	0.494	41
Mean	0.969	43.2
Std. Dev.	1.67	18.4
Skewness	3.332	0.686
Kurtosis	16.855	2.842
Jarque-Bera	482.61	3.891
Probability	0.000	0.143

Table 4-1 shows the descriptive summary of all the variables. The mean value of FDI is 0.969, with a minimum and maximum value of -0.769 and 9.68, respectively. The median FDI value is 0.494. In line with the usual stylised facts of financial time series, the values of FDI appear to be skewed and leptokurtic, indicating that they are not normally distributed. FDI data shows a high value for kurtosis consistent with fat tails in the returns distribution. The Jarque-Bera statistic confirms the departure from normality for the FDI series at the 5% level of significance.

The minimum and maximum values of BCI are 15.2 and 88.5, respectively. The median BCI value is 41.0, and the mean is 43.2, with a standard deviation of 18.4. The skewness and kurtosis of BCI are 0.686 and 2.842, respectively. The BCI value appears to be skewed and leptokurtic. This is consistent with the fat tails of financial variables. The Jarque-Bera statistic indicates that BCI is stationary.

4.3 Graphical analysis

Time series characteristics of the variables can be visualized by carrying out a graphical analysis (Akilo, 2023). The variables must be integrated of order zero or one to avoid having spurious results. For this study, the differences of the variables were taken. A graphical plot of the variables is shown in Figure 4-1.

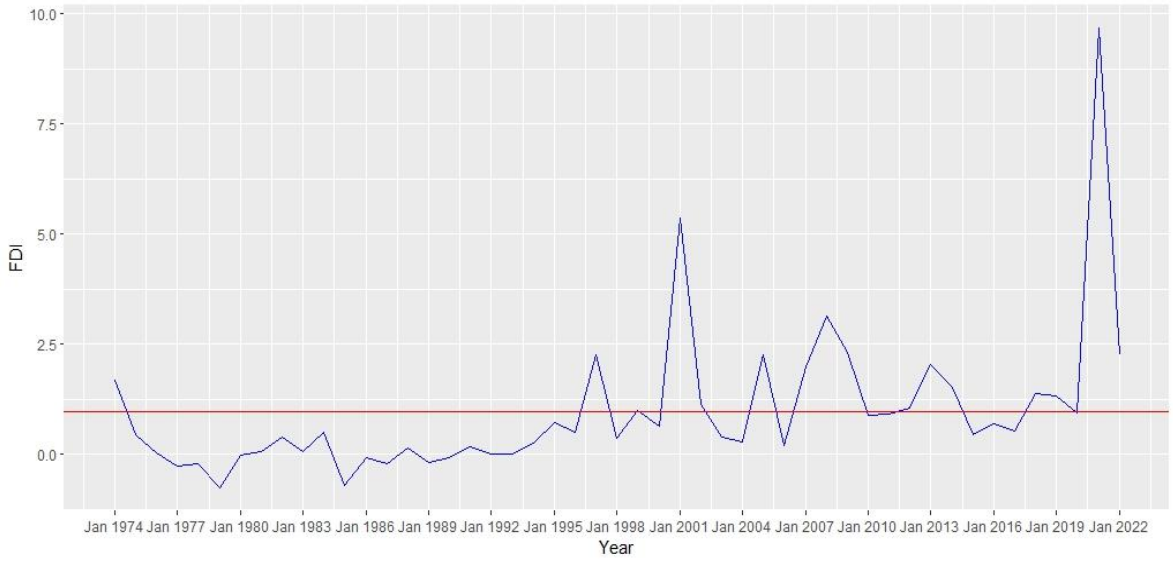


Figure 4-1: FDI trend from 1974 to 2022

Figure 4-1 shows the values of FDI so as to visualise the time series characteristics. The figure shows the trend for FDI for the entire period from 1974 to 2022. The figure depicts the general trend characterised by financial data. It is evident from Figure 4-1 that FDI is not stationary as it demonstrates a fairly upward trend.

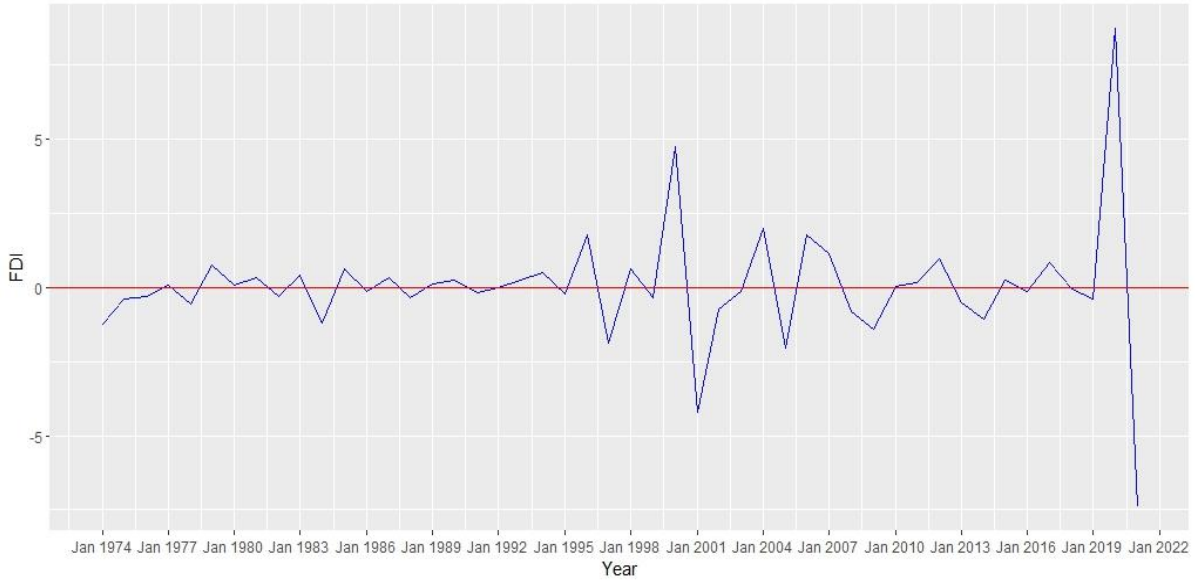


Figure 4-2: FDI differenced trend

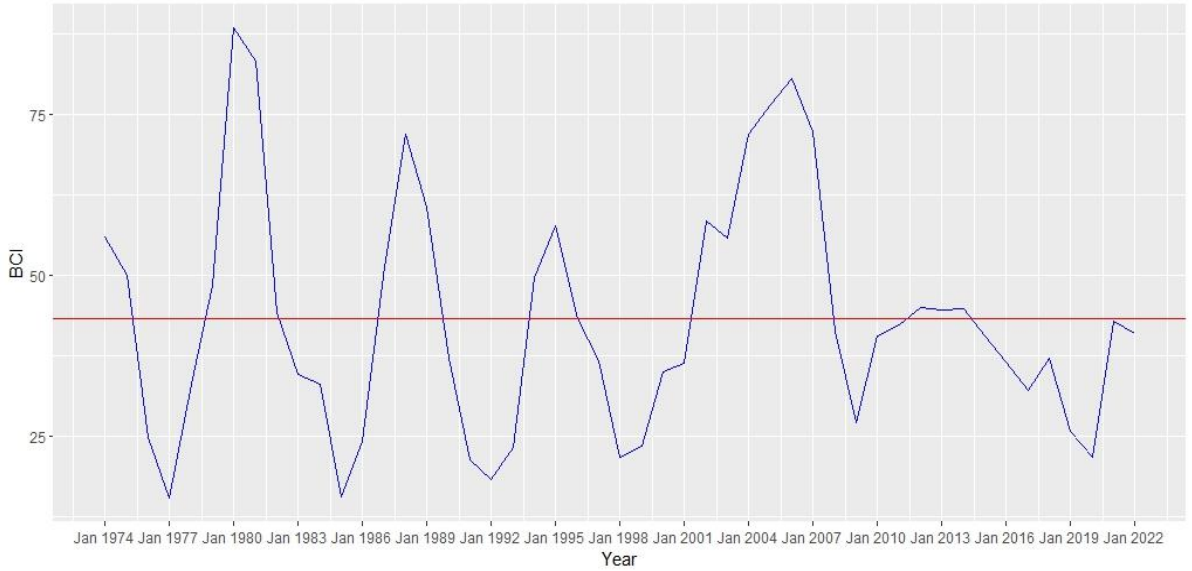


Figure 4-3: BCI trend from 1974 to 2022

Figure 4-3 depicts the trend from 1974 to 2022 for BCI. The trend depicts that the BCI variable is stationary (shows no upward or downward trend).

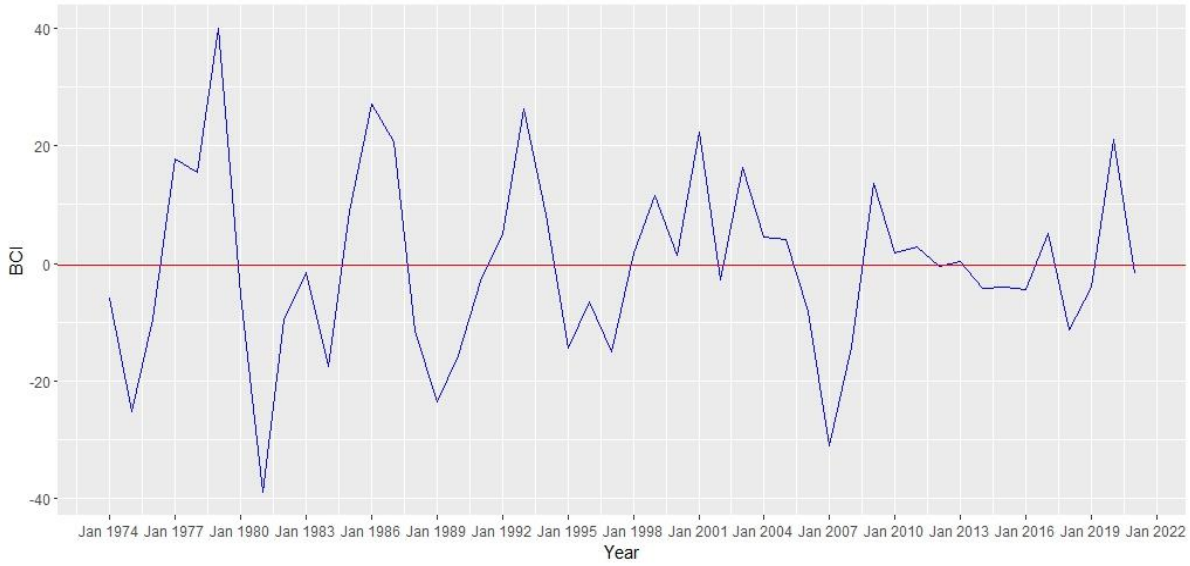


Figure 4-4: BCI differenced trend

Figure 4-4 shows the graph of the first differenced BCI. As shown in the graph, the series is stationary.

4.4 Unit root test

The aforementioned variables were tested for stationarity to check for the presence of a unit root and if the use of the ARDL model would be appropriate (Hlongwane et al., 2023). One of the conditions of testing for cointegration is that all data must be integrated in the same order (Engle & Granger, 1987). Therefore, the first step was to establish the order of integration of each variable using the ADF, PP, and KPSS tests. The null hypothesis of the tests is that each series has a unit root (is non-stationary). Table 4-2 presents the results of the ADF test, Phillips Peron test, and KSPP test.

Table 4-2: Unit root test results

	ADF		PP		KPSS	
	Test statistic	**p-value**	**Test statistic**	**p-value**	**Test statistic**	**Critical value**
FDI	-2.845	0.0598	-2.732	0.0763	0.795	0.463
***First diff of FDI**	-6.003	0.000	-14.988	0.000	0.319	0.463
BCI	-5.497	0.000	-2.616	0.097	0.118	0.463
***First diff of BCI**	-4.916	0.000	-5.839	0.000	0.149	0.463

*First diff = first difference

According to the results of the unit root test, the FDI variable was not stationary at level using ADF, PP, and KPSS tests. However, after first differencing, the ADF, PP, and KPSS tests confirmed that the FDI variable was stationary at the 5% level of significance. The BCI variable was stationary at level using the results of ADF and KPSS at the 5% level of significance. However, at level, the BCI variable was not stationary using the PP test. The BCI variable was stationary at the first difference using a 5% level of significance and using ADF, PP, and KPSS results. The results show that both variables become stationary after first differencing using all three stationarity test results. This confirms that differencing the data once is all that was required to make it stationary. The stationarity test was done to ensure that none of the variables were integrated at order 2. Given that both variables were found to be integrated at order 1, the ARDL model was thus utilised to estimate the long-run relationship between FDI and BCI.

4.5 Autocorrelation function

The autocorrelation function plot for FDI is depicted in Figure 4-5.

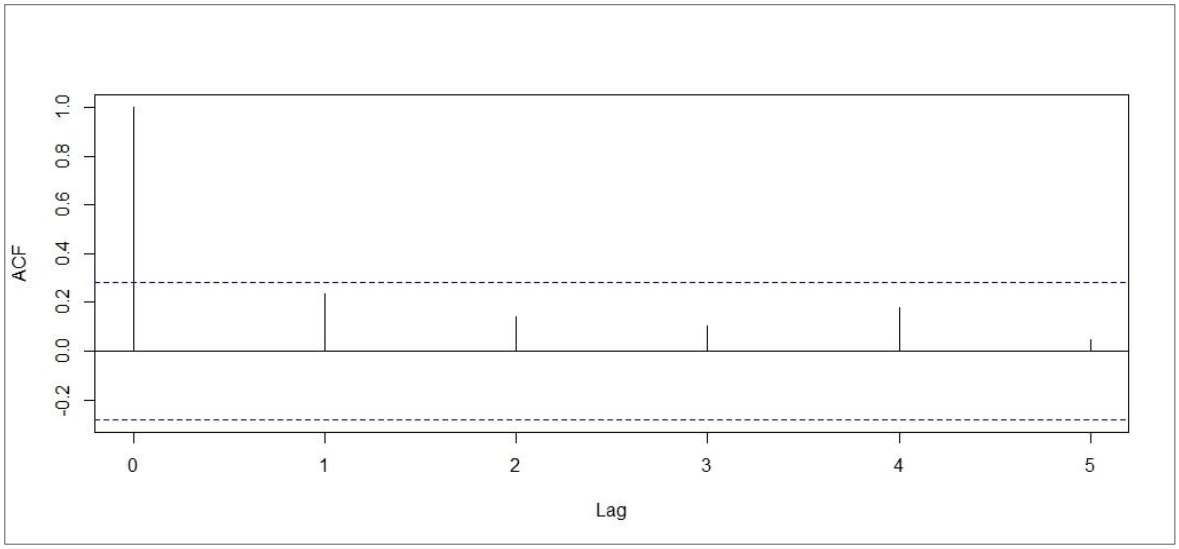


Figure 4-5: Autocorrelation function plot for FDI

The residuals were checked to determine if the model has time series autocorrelation. The ACF plot to test for serial correlation was employed. The ACF plot for residuals of the model shows that there are no significant spikes, indicating no serial correlation among the residuals. This indicates that the observations are independent of past observations.

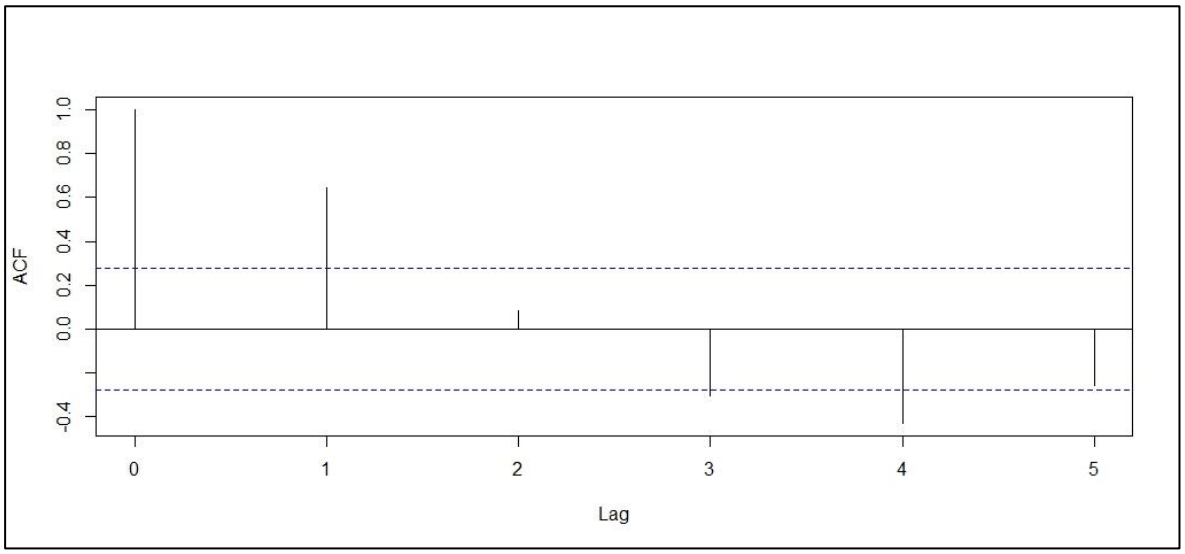


Figure 4-6: Autocorrelation function plot for BCI

Figure 4-6 shows the autocorrelation function of BCI. The residuals were checked to determine if the model has time series autocorrelation. The ACF plot was employed to test for serial correlation. The ACF plot for residuals of the model shows a significant spike at lag one, and thereafter, there are no significant spikes in the remaining lags, indicating no serial correlation among the residuals.

4.6 Linear autoregressive distributed lag

This section presents the analysis of the ARDL model. The optimal lag structure of the model was done automatically using the Schwarz information criterion.

4.6.1 Initial ARDL model

The results of the ARDL model are presented in Table 4-3.

Table 4-3: Results of the ARDL model

Dependent Variable: DIFF_FDI
Method: ARDL
Included observations: 45 after adjustments
Maximum dependent lags: 4 (Automatic selection)
Model selection method: Akaike info criterion (AIC)
Dynamic regressors (4 lags, automatic): DIFF_BCI
Fixed regressors: C
Number of models evaluated: 20
Selected Model: ARDL(3, 0)
Note: final equation sample is larger than selection sample

Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.***
DIFF_FDI(-1)	-0.816869	0.153098	-5.335580	0.0000
DIFF_FDI(-2)	-0.535868	0.246188	-2.176658	0.0355
DIFF_FDI(-3)	-0.424827	0.225113	-1.887173	0.0664
DIFF_BCI	0.002244	0.016823	0.133410	0.8945
C	0.232390	0.255342	0.910113	0.3682

R-squared	0.429794	**Mean dependent var**	0.056394
Adjusted R-squared	0.372773	**S.D. dependent var**	2.141112
S.E. of regression	1.695710	**Akaike info criterion**	3.998519
Sum squared resid	115.0173	**Schwarz criterion**	4.199259
Log-likelihood	-84.96668	**Hannan-Quinn criter.**	4.073353
F-statistic	7.537521	**Durbin-Watson stat**	1.989031
Prob(F-statistic)	0.000127		

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

The results of the ARDL model used to determine a long-run relationship between FDI and BCI is shown in the above table. Also, it is meant to determine if BCI has a statistically significant effect on FDI. The lag selection for the model was done automatically using the Akaike info criterion (AIC) criterion and delivered an optimal

model of 3,0. Figure 4-7 demonstrates the lag selection criterion using the AIC. FDI is the dependent variable, and BCI is the independent variable. The model was run with an unrestricted constant and trend. BCI was not found to be statistically significant at the 5% level of significance. The first and second lags of FDI were found to be statistically significant at the 5% level of significance, while the third lag of FDI was statistically significant at the 10% level of significance. The adjusted R square is 42.98.5%, indicating that BCI explains 42.98% of the variability in the dependent variable.

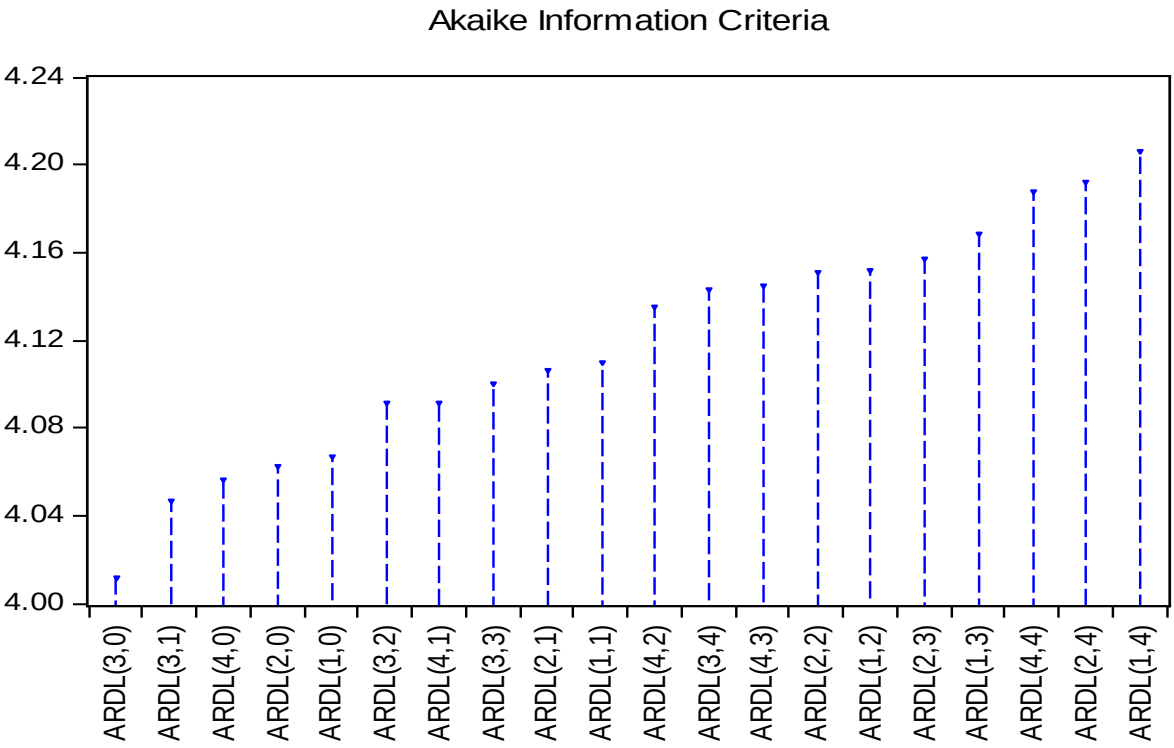


Figure 4-7: Lag selection criteria using AIC

An ARDL bounds test for cointegration was conducted to determine whether a long-run relationship exists between FDI and BCI (Boğa, 2019). The cointegration test was done using the ARDL bounds test within a model that has an unrestricted constant. The null hypothesis is that there is no cointegration relationship between the variables, while the alternative hypothesis is that there is a cointegration relationship between the variables (Akilo, 2023). The null hypothesis will be rejected by comparing the critical values of the bounds test with the F-statistics value given by the bounds test. If the F-statistic value is greater than the upper bounds critical values at any significance level,

the null hypothesis will be rejected at that significance level. The result of the bounds test is shown in Table 4-4 with the calculated F-statistics and its associated critical values at 10%, 5%, and 1%. The I(0) shows the lower critical bound value, and I(1) represents the upper critical bound.

The calculated F-statistics (17.59471) is greater than the upper bound critical values at all levels of significance. This suggests that the null hypothesis of no cointegration is rejected. The results of the bounds test show that there is a long-run relationship between FDI and BCI. This means that variables have a long-run relationship, although they could diverge from equilibrium in the short run and tend to return to equilibrium in the long run.

Table 4-4: Bounds test for cointegration

Test statistic	Value	Significance	I(0)	I(1)
F-statistics	17.59471	10%	4.225	5.020
		5%	5.235	6.135
		1%	7.740	8.650
T-statistics	-5.832119			
		10%	-2.570	-2.910
		5%	-2.860	-3.220
		1%	-3.430	-3.820

4.6.2 Long-run linear autoregressive distributed lag

After establishing a cointegrating relationship, the long run and the short run were estimated using the ARDL error correction model. The empirical results, as presented in Table 4-5, show that the coefficient of BCI is positive and not statistically significant at a 5% level of significance. Even though BCI has a positive relationship with FDI, it is not statistically significant at 5%. The p-value of BCI is more than 0.05; hence, it does not have a long-term effect on FDI. The F-statistics of 37.59258 has a statistically significant p-value of 0.000, implying that the model is robust. The Durbin-Watson value of the model is 1.989031, which is close to 2. This indicates that there is no significant autocorrelation in the residuals, which confirms the validity of the model.

The adjusted R square is 76.89%, indicating that the independent variable explains 76.89% of the variability in the FDI.

Table 4-5: Cointegration form

Cointegration form				
Variable	**Coefficient**	**Std. Error**	**t-statistic**	**Prob.**
D(DIFF_FDI(-1))	0.960695	0.402934	2.384248	0.0219
D(DIFF_FDI(-2))	0.424827	0.225113	1.887173	0.0664
D(DIFF_BCI)	0.002244	0.016823	0.133410	0.8945
CointEq(-1)	-2.777564	0.476253	-5.832119	0.0000
Long-run coefficients				
DIFF_BCI	0.000808	0.006081	0.132888	0.8949
C	0.083667	0.091801	0.911393	0.3675

R-squared	0.789883	**Mean dependent var**	-0.157678
Adjusted R-squared	0.768872	**S.D. dependent var**	3.527157
S.E. of regression	1.695710	**Akaike info criterion**	3.998519
Sum squared resid	115.0173	**Schwarz criterion**	4.199259
Log-likelihood	-84.96668	**Hannan-Quinn criter.**	4.073353
F-statistic	37.59258	**Durbin-Watson stat**	1.989031
Prob(F-statistic)	0.000000		

4.6.3 Error correction model

The results of the error correction model are presented in Table 4-6.

Table 4-6: Results of the error correction model

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
Cointegrating Equation				
COINTEQ	**-2.777564**	**0.462483**	**-6.005760**	**0.0000**
Short-run Regressors				
Linear: Dependent				
D(DIFF_FDI(-1))	0.960695	0.392344	2.448607	0.0187
D(DIFF_FDI(-2))	0.424827	0.221725	1.916010	0.0624
Deterministic				
C	0.232390	0.251818	0.922848	0.3615

R-squared	0.789883	**Mean dependent var**	-0.157678
Adjusted R-squared	0.774509	**S.D. dependent var**	3.527157
S.E. of regression	1.674903	**Akaike info criterion**	3.954075
Sum squared resid	115.0173	**Schwarz criterion**	4.114667
Log-likelihood	-84.96668	**Hannan-Quinn criter.**	4.013942
F-statistic	51.37652	**Durbin-Watson stat**	1.989031
Prob(F-statistic)	0.000000		

After establishing a cointegrating relationship, the long-run and the short-run were estimated using the ARDL error correction model. The speed of adjustment is expected to be negative, and its absolute value determines how quickly equilibrium is restored. The negative speed of adjustment suggests that the system adjusts towards equilibrium. The value of -2.777564 suggests that the adjustment overshoots equilibrium, thereby creating instability rather than a gradual convergence.

4.6.4 Diagnostic tests

A series of model diagnostics tests were carried out to ensure that there were no violations of the models' assumptions. These tests include autocorrelation, heteroscedasticity, and normality.

4.6.4.1 Autocorrelation

The Breusch-Godfrey serial correlation LM test in Table 4-7 was used to test for autocorrelation. The null hypothesis for the test states that there is no autocorrelation. From the result, since the p-value is greater than 0.05, the null hypothesis is not rejected. The result suggests that there is no autocorrelation present.

Table 4-7: Breusch-Godfrey serial correlation LM test

Null hypothesis: No serial correlation at up to 2 lags			
F-statistic	0.514371	Prob. F(2,38)	0.6020
Obs*R-squared	1.186136	Prob. Chi-Square(2)	0.5526

4.6.4.2 Heteroskedasticity

The Breusch-Pagan-Godfrey test was conducted and shown in Table 4-8. The result delivered a chi-square p-value of 0.7172. Since the chi-square p-value is greater than 0.05, the null hypothesis of no heteroscedasticity is not rejected.

Table 4-8: Heteroskedasticity test: Breusch-Pagan-Godfrey

Null hypothesis: Homoskedasticity

F-statistic	0.489699	Prob. F(4,40)	0.7432
Obs*R-squared	2.100770	Prob. Chi-Square(4)	0.7172
Scaled explained SS	14.48757	Prob. Chi-Square(4)	0.0059

4.6.4.3 Normality test

The normality of the model was tested using the Jarque-Bera test where the null hypothesis is that normality is present if the p-value of the Jarque-Bera is greater than 0.05 (Akilo, 2023). Alternatively, there is no normality should the p-value be less than 0.05. According to the results below, normality was not found to be present for the model, as the Jarque-Bera test had a p-value of 0.000. Thus, normality cannot be assumed to be present in the residuals.

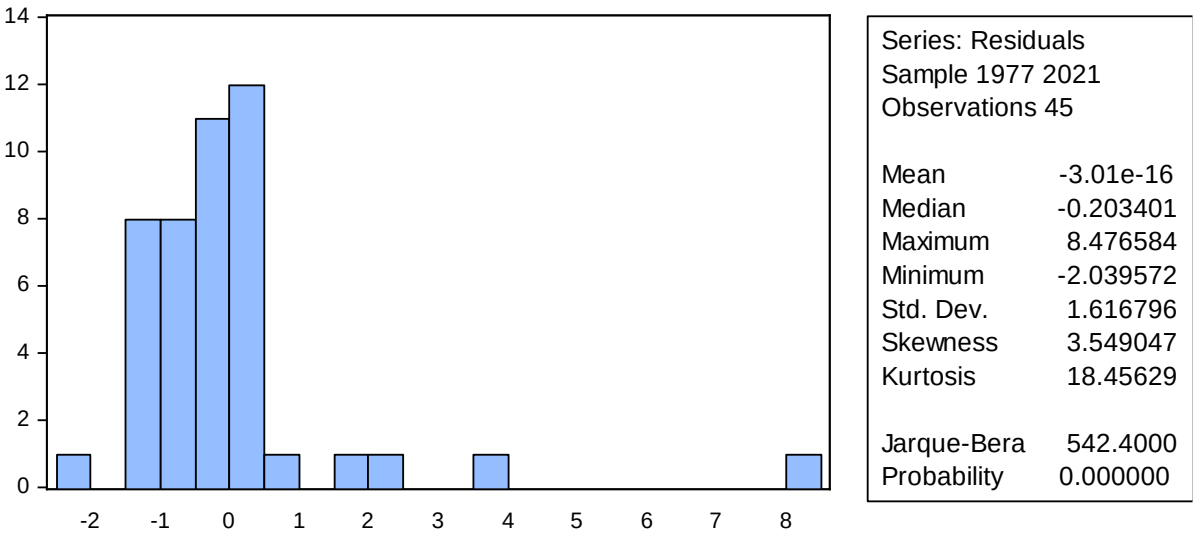


Figure 4-8: Jarque-Bera test for normality

4.6.4.4 Stability testing

A stability test was conducted for the model using the CUSUM test. The null hypothesis is that the coefficient vector in the error correction model remains the same in all periods (Akilo, 2023). Thus, the model is stable. Figure 4-9 depicts the stability test results for the CUSUM of the model and shows that residuals were within the 5% significance boundary and that the null hypothesis of stability can, therefore, be accepted.

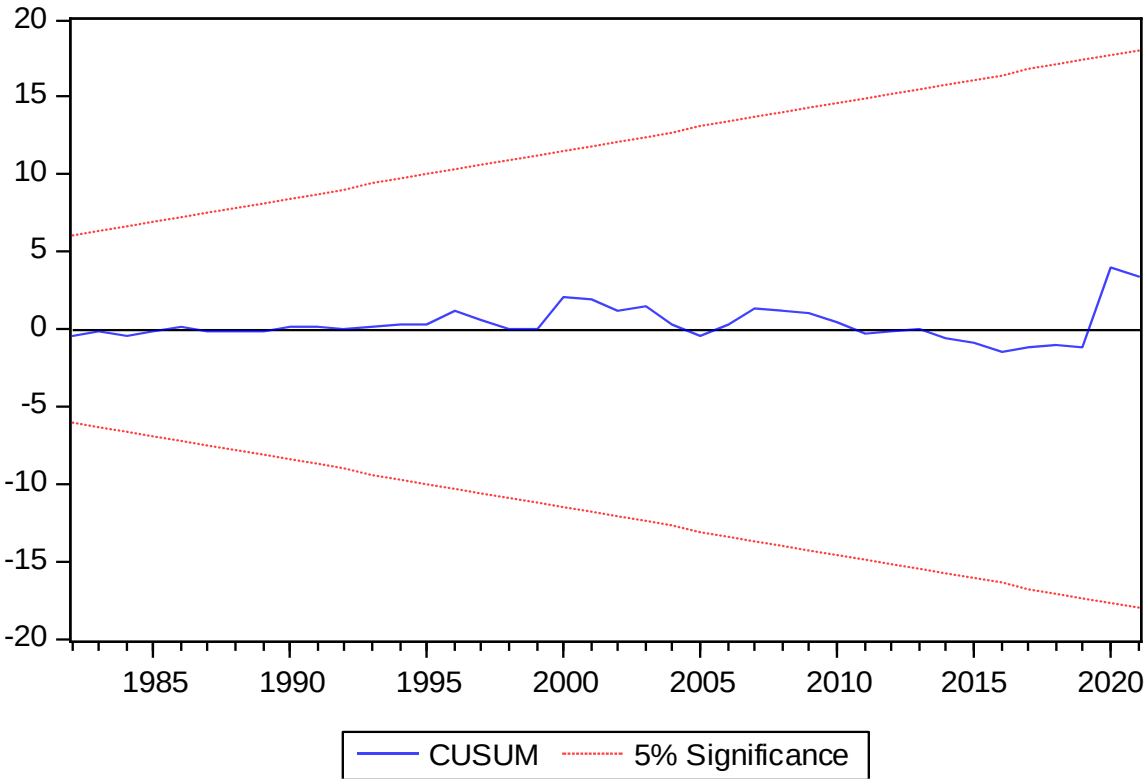


Figure 4-9: Results for the CUSUM test

4.7 Research results discussion

The preceding section presented the results of the data analysis. In this section, the research questions are answered through an analysis and discussion of the results. They are also answered by evaluating how the findings align with the literature and theory outlined in Chapter 2.

4.7.1 The relationship between FDI and BCI

The first research question of the study was whether there is a positive relationship between FDI and BCI. The findings of the study indicate that there is a positive relationship between BCI and FDI in the long run; however, it is not statistically significant. This is contrary to other studies conducted in other countries, which found a positive and statistically significant relationship between FDI and business confidence (Cieślik & Ghodsi, 2021). Cieślik and Ghodsi (2021) study found that better economic sentiment in a European member states resulted in FDI inflow from MNEs. The finding of this study, therefore indicates that there are other factors superior to BCI in South Africa that are driving FDI.

The presence of a long-run relationship corroborates previous findings that BCI is a leading indicator of macroeconomic activity (Khan & Upadhayaya, 2020; Kutu et al., 2024), namely, positive changes in the economy will be reflected by BCI. For instance, other studies found that economic growth has a significant and positive relationship with BCI (de Jongh & Mncayi, 2018; Kutu et al., 2024), while others have found that economic growth has a positive and significant relationship with FDI (Dang & Nguyen, 2021; Masipa, 2018).

4.7.2 The degree of impact of BCI on FDI

The second research question sought to determine the degree of impact of BCI on FDI. Contrary to the findings of Cieślik and Ghodsi (2021) and Khan and Upadhayaya (2020), BCI was not found to have a direct impact on FDI, and past values of BCI were not found to predict FDI. It was noted earlier that the FDI inflow trend for South Africa shows increases in some years, but the increases were mostly attributed to once-off transactions or acquisitions according to Thomas and Leape (2005, as cited in Masipa, 2018). This could explain the limited impact BCI has on FDI, signalling that FDI was driven by other factors not necessarily linked to BCI.

According to the eclectic paradigm, corporations embark on FDI based on having a balance between three advantages: ownership, location, and internalisation (Dunning & Lundan, 2008). This further supports the observation that FDI decisions are driven

by multiple aspects, and therefore, a multifaceted approach is required when analysing the determinants of FDI in a country.

The findings of this study therefore also indicate that FDI decisions related to South Africa have not been driven by business sentiment or expectations, thus being inconsistent with the Keynesian theory, which posits that expectations determine investment levels.

4.7.3 Model diagnostics

The diagnostic tests confirm the robustness of the ARDL model, with no evidence of autocorrelation or heteroscedasticity. Despite the finding of non-normality in the residuals, the stability tests (i.e. CUSUM) show that the model remains stable over time, strengthening confidence in the reliability of the results.

4.8 Conclusion

The ARDL model was used to achieve the objective of determining the relationship between FDI and BCI and determining if BCI influences FDI inflow. To begin with, descriptive statistics of the variables were conducted, which showed the departure from normality for the FDI series at the 5% level of significance and showed that the BCI series is stationary. Using the ACF plots for BCI and FDI, it was confirmed that autocorrelation is not present in the residuals. The results of the initial ARDL model indicated that BCI was not statistically significant at the 5% level of significance. The current values of BCI did not have a significant influence on FDI; an R^2 value of 43% was found. The first and second lags of FDI were found to be statistically significant at the 5% level, indicating that FDI is influenced by its past values in the short run.

The ARDL bounds test for cointegration was conducted, and it showed that a long-run relationship exists between FDI and BCI. After establishing cointegration between the variables BCI and FDI, the long-run and short-run relationship was estimated using the ARDL error correction model. A positive long-term relationship between BCI and FDI was indicated; however, the p-value of BCI was found to be more than 0.05, indicating

that it does not have a long-term effect on FDI. The high R^2 value, the significant F-statistic, and the Durbin-Watson statistic of 1.989 proved the model to be robust. Additionally, the ARDL model was subjected to a series of model diagnostics tests. Autocorrelation was tested and not found using the Breusch-Godfrey serial correlation LM test. Using the Breusch-Pagan-Godfrey test, no heteroscedasticity was confirmed. Normality was not found to be present for the model according to the Jarque-Bera test. The model was also confirmed for stability using the CUSUM test. The diagnostic tests confirmed the robustness of the ARDL model.

The study sought to establish if there was a positive relationship between BCI and FDI: a positive but not statistically significant relationship in the long run was found between BCI and FDI and is attributed to BCI being a leading indicator of economic activity and its reflection of some macroeconomic factors that also affect FDI. Additionally, the finding that BCI had no impact on FDI, indicates that other factors superior to BCI are driving FDI in South Africa. Therefore, the findings of this study were not consistent with those of previous studies. Despite this finding, BCI is still a valuable tool for tracking progress on efforts made by the government to improve the business and economic climate in the country.

The chapter that follows will provide the conclusions and recommendations of the study.

CHAPTER 5: CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The objective of this study was to examine the relationship between FDI and BCI in South Africa, thus expanding on the knowledge of the determinants of FDI. This is deemed valuable in aiding efforts aimed at increasing FDI inflow into the country to provide the much-needed capital to assist in addressing economic challenges. In the penultimate chapter, all the research questions of the study were answered. This final chapter presents the conclusions of the study and provides recommendations towards improving the problem of low FDI into the country. Additionally, the limitations of this study are outlined and recommendations towards future studies are made.

5.2 Conclusion and recommendations

5.2.1 Conclusion

This study sought to broaden the knowledge on the determinants of FDI inflow into South Africa by examining the relationship between the BCI and FDI. The study addressed all the research questions: while BCI provides valuable signals about economic sentiment, its direct influence and impact on FDI was found to be limited. This is contrary to other studies that found that business confidence had an impact on investment. The study found a positive but statistically insignificant relationship between BCI and FDI in the long run. The findings of the study thus highlight the complexity of the factors driving foreign direct investment in South Africa. This has implications for policymakers and government. While fostering a positive business climate, as measured by the BCI, is important, this alone will not yield increased FDI. Furthermore, more research is required into understanding the superior drivers of FDI into the country.

5.2.2 Recommendations

BCI can be viewed as a proxy for broader economic conditions, and its positive association with FDI could reflect underlying factors affecting FDI. Thus, policymakers could benefit by using BCI as one of their decision-making and progress-tracking tool in their efforts towards improving the country's business climate, which has been shown to impact domestic investment. Policymakers should consider complementary strategies, such as targeted investment incentives, regulatory reforms, and also the strengthening of institutional frameworks, to enhance the attractiveness of the economy to foreign investors.

5.3 Limitations and recommendations for future research

While the study provides valuable insights, several limitations should be acknowledged:

- The time series data spans a significant period (1974–2022), during which structural changes in the global economy may have influenced the relationship between variables.
- Because of the South African Chamber of Commerce and Industry BCI not having adequate observations available, only the BER BCI could be used in this analysis.

Future research could employ alternative econometric models, such as Vector Error Correction Models, which could validate better the robustness of the findings. The study conducted by Qeqe and Sibanda (2022) showed that BCI had a significant impact on investment in the manufacturing, retail, and mining sectors, while the relationship was weak in the transport and construction sectors, although it was positive. Based on this, a sectoral analysis is suggested, as it may yield more useful results by uncovering whether it is in specific sectors only where business confidence plays a more significant role when it comes to foreign investment.

REFERENCES

Adam, A. M., & Owusu, P. (2017). *Financial econometrics: An example-based handbook*. Nova Science Publishers.

Adegboye, F. B., & Okorie, U. E. (2023). Fragility of FDI flows in sub-Saharan Africa region: Does the paradox persist? *Future Business Journal, 9*(1), 8. https://doi.org/10.1186/s43093-023-00184-6

Akkaya, M. (2024). An analysis of the relationship between business confidence and macroeconomic factors: Türkiye case. *Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi, 26*(1), 140–152. https://dergipark.org.tr/en/download/article-file/2370318

Akilo, O. C. (2023). The impact of dividend policy on JSE index value. University of Johannesburg (South Africa).

Al-Kasasbeh, O., Alzghoul, A., & Alghraibeh, K. (2022). Global FDI inflows and outflows in emerging economies post-COVID-19 era. *Future Business Journal, 8*(1), 53. https://doi.org/10.1186/s43093

Anderson, M. A., & Goldsmith, A. H. (1997). Mr. Keynes' theory of investment: Do forward-looking expectations and weight really matter? *Journal of Economic Psychology, 18*(5), 547–573. https://doi.org/10.1016/S0167-4870(97)00023-8

Asiamah, M., Ofori, D., & Afful, J. (2019). Analysis of the determinants of foreign direct investment in Ghana. *Journal of Asian Business and Economic Studies, 26*(1), 56–75. https://www.emerald.com/insight/content/doi/10.1108/jabes-08-2018-0057/full/pdf

Asongu, S., Akpan, U. S., & Isihak, S. R. (2018). Determinants of foreign direct investment in fast-growing economies: Evidence from the BRICS and MINT countries. *Financial Innovation, 4*(1), 1–17. https://doi.org/10.1186/s40854-018-0114-0

Batschauer da Cruz, C. B., Eliete Floriani, D., & Amal, M. (2022). The OLI Paradigm as a comprehensive model of FDI determinants: a sub-national approach.

International Journal of Emerging Markets, 17(1), 145-176. http://dx.doi.org/10.1108/IJOEM-07-2019-0517

BER. (2024). *SA economy scrapes by in Q4, with business confidence going nowhere slowly in Q1* (*Weekly Review*, Issue 1010). https://www.ber.ac.za/Publications/BERWeekly/1010

Boğa, S. (2019). Determinants of foreign direct investment: A panel data analysis for sub-Saharan African countries. *EMAJ: Emerging Markets Journal, 9*(1), 80–87.

CFI. (2024). *Foreign direct investment (FDI)*. https://corporatefinanceinstitute.com/resources/economics/foreign-direct-investment-fdi/

Chattopadhyay, A. K., Rakshit, D., Chatterjee, P., & Paul, A. (2022). Trends and determinants of FDI with implications of COVID-19 in BRICS. *Global Journal of Emerging Market Economies, 14*(1), 43–59. DOI: 10.1177/09749101211067091

Cieślik, A., & Ghodsi, M. (2021). Economic sentiment indicators and foreign direct investment: Empirical evidence from European Union countries. *International Economics, 168*, 56–75. https://doi.org/10.1016/j.inteco.2021.07.001

Dang, V. C., & Nguyen, Q. K. (2021). Determinants of FDI attractiveness: Evidence from ASEAN-7 countries. *Cogent Social Sciences, 7*(1), Article 2004676. https://doi.org/10.1080/23311886.2021.2004676

Dao, P. B. (2021). A CUSUM-based approach for condition monitoring and fault diagnosis of wind turbines. *Energies, 14*(11), Article 3236.

https://doi.org/10.3390/en14113236

De Jongh, J., & Mncayi, P. (2018). An econometric analysis on the impact of business confidence and investment on economic growth in post-apartheid South Africa. *International Journal of Economics and Finance Studies, 10*(1), 115–133. https://dergipark.org.tr/en/download/article-file/889962

Dingela, S. (2021). *A behaviour of South Africa's economy towards inflows of foreign direct investment (FDI) from BRICs economies*. [Unpublished master's thesis].

Dondashe, N., & Phiri, A. (2018). *Determinants of FDI in South Africa: Do macroeconomic variables matter?* [Working paper]. https://mpra.ub.uni-muenchen.de/83636/

Dunning, J. H. (2003). The eclectic (OLI) paradigm of international production. In J. H. Dunning (Ed.), *International business and the eclectic paradigm: Developing the OLI framework* (pp. 21–40). Routledge. http://www.tandf.co.uk/journals

Dunning, J. H., & Lundan, S. M. (2008). Institutions and the OLI paradigm of the multinational enterprise. *Asia Pacific Journal of Management, 25*, 573–593.

Edgar, T. W., & Manz, D. O. (2017). *Research methods for cybersecurity*. Syngress.

Engle, R. F., & Granger, C. W. (1987). Co-integration and error correction: Representation, estimation, and testing. *Econometrica: Journal of the Econometric Society*, 55(2), 251–276.

Ha, J., & So, I. (2021). Global confidence, uncertainty, and business cycles. *Uncertainty and Business Cycles*, November 2021.

Hlongwane, N. W., Mahapa, R., & Nthebe, T. C. (2023). The nexus between foreign direct investment and electricity consumption in South Africa. *International Journal of Energy Economics and Policy, 13*(5), 213–220. https://doi.org/10.32479/ijeep.14460

IDC. (2023). *South Africa: Replete with opportunities for a better world*. https://www-idc-co-za.b-cdn.net/wp-content/uploads/2023/04/South-Africa-Replete-with-Opportunities-for-a-Better-World-Publication-for-SAIC-2023.pdf

Inglesi-Lotz, R., & Ajmi, A. N. (2021). The impact of electricity prices and supply on attracting FDI to South Africa. *Environmental Science and Pollution Research, 28*(22), 28444–28455. https://doi.org/10.1007/s11356-021-12777-1

Jahn, M., & Stricker, P. (2022). FDI, liquidity, and political uncertainty: A global analysis. International Economics and Economic Policy, 19(4), 783-823. https://doi.org/https://doi.org/10.1007/s10368-022-00543-8

Jaiblai, P., & Shenai, V. (2019). The determinants of FDI in sub-Saharan economies: A study of data from 1990–2017. *International Journal of Financial Studies, 7*(3), Article 43. https://doi.org/10.3390/ijfs7030043

Johnston, M. P. (2014). Secondary data analysis: A method of which the time has come. *Qualitative and Quantitative Methods in Libraries, 3*(3), 619–626. https://www.qqml-journal.net/index.php/qqml/article/view/169/170

Khan, H., & Upadhayaya, S. (2020). Does business confidence matter for investment? *Empirical Economics, 59*, 1633–1665. https://doi.org/10.1007/s00181-019-01694-5

Kotieno, J. (2009). An understanding of Dunning's ownership-location-internalisation (OLI) eclectic theory of multinational companies. *International Journal of Research in Commerce, IT and Management, 3*, 12–23.

Kutu, A. A., Ngalawa, H., & Nzimande, N. (2024). Business confidence and the economic activity in South Africa. *Journal of Ecohumanism, 3*(7), 632–642. https://doi.org/10.62754/joe.v3i7.4230

Li, M. Y., Makino, S., & Jiang, C. (2019). Does national sentiment affect foreign direct investment, and if so, how? Additional evidence. *International Business Review, 28*(5), Article 101586. https://doi.org/10.1016/j.ibusrev.2019.101586

Magdalena, S., & Suhatman, R. (2020). The effect of government expenditures, domestic investment, and foreign investment on the economic growth of the primary sector in Central Kalimantan. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 3*(3), 1692–1703. https://doi.org/10.33258/birci.v3i3.1101

Marandu, E. E., Mburu, P. T., & Amanze, D. (2019). An analysis of trends in foreign direct investment inflows to Africa. *International Journal of Business Administration, 10*(1), 20–32. https://doi.org/10.5430/ijba.v10n1p20

Masipa, T. S. (2018). The relationship between foreign direct investment and economic growth in South Africa: Vector error correction analysis. *Acta Commercii, 18*(1), Article e683. https://doi.org/10.4102/ac.v18i1.466

Montes, G. C., & Nogueira, F. d. S. L. (2022). Effects of economic policy uncertainty and political uncertainty on business confidence and investment. *Journal of Economic Studies, 49*(4), 577–602. https://www.emerald.com/insight/0144-3585.htm

Mothibi, L., & Van Wyk, A. (2022). Evaluating the influence of specific macroeconomic variables on business confidence in South Africa. *International Business Conference Proceedings*.

Natsiopoulos, K., & Tzeremes, N. G. (2024). ARDL: An R package for ARDL models and cointegration. *Computational Economics, 64*(3), 1757–1773. https://doi.org/10.1007/s10614-023-10487-z

Ngwila, S., & Govender, D. (2022). *Foreign investment regulation review*. *The Law Reviews, 10*.

NPC. (2023). Report on monitoring national development plan indicators and targets. https://www.nationalplanningcommission.org.za/assets/Documents/Report%20on%20the%20implementation%20of%20the%20NDP%20ZA%2013%20December%202023.pdf

Obabire Akinleye, A., Agboola, J. O., Ajao Isaac, O., & Adegbilero-Iwari Oluwaseun, E. (2020). Comparison of different tests for detecting heteroscedasticity in datasets. *Annals. Computer Science Series, 18*(2), 78–85.

Ozekhome, H. O. (2022). Do regulatory quality, government effectiveness and rule of law matter to foreign direct investment in Nigeria. Romanian Journal of Economic Forecasting, 25(1), 160-175.

Qeqe, B., & Sibanda, K. (2022). The relationship between business confidence and private sector investment: Evidence from selected sectors of the South African economy. *African Journal of Business & Economic Research, 17*(1). https://doi.org/10.1186/s43093-023-00184-6

Rashed, A., Yong, C.-C., & Soon, S.-V. (2022). Determinants of foreign direct investment in the renewable electricity industry in Africa. *International Journal of Sustainable Energy, 41*(8), 980–1004. https://doi.org/10.1080/14786451.2021.2016763

Rathnayake, S., Jayakody, S., Wannisinghe, P., Wijayasinghe, D., Jayathilaka, R., & Madhavika, N. (2023). Macroeconomic factors affecting FDI in the African region. Plos one, 18(1), e0280843.

Rocha, J., Viana, C. M., & Oliveira, S. (2024). *Time series analysis: Recent advances, new perspectives and applications*.

Saunders, M., Lewis, P., & Thornhill, A. (2016). *Research methods for business students* (7th ed.). Pearson Education.

Saidi, S., Mani, V., Mefteh, H., Shahbaz, M., & Akhtar, P. (2020). Dynamic linkages between transport, logistics, foreign direct Investment, and economic growth: Empirical evidence from developing countries. Transportation Research Part A: Policy and Practice, 141, 277-293. https://doi.org/10.1016/j.tra.2020.09.020

Shrestha, M. B., & Bhatta, G. R. (2018). Selecting appropriate methodological framework for time series data analysis. *The Journal of Finance and Data Science, 4*(2), 71–89. https://doi.org/10.1016/j.jfds.2017.11.001

Sibeko, S. (2022, September 14). South African business confidence index hits lowest since Sept 2020. *Reuters*. https://www.reuters.com/world/africa/safrica-business-confidence-index-hits-lowest-since-sept-

Stats SA. (2024a). *P0441 - Gross Domestic Product (GDP), 4th quarter 2023*. https://www.statssa.gov.za/?page_id=1854&PPN=P0441&SCH=73566

Stats SA. (2024b). *Work & labour force*. https://www.statssa.gov.za/?page_id=737&id=1

Tala, L., & Hlongwane, T. M. (2023). How oil price changes affect foreign direct investment inflows in South Africa: An ARDL approach. *International Journal of Economics and Financial Issues, 13*(2), 115–123. https://doi.org/10.32479/ijefi.13903

Tayar, T., & Aktas, R. (2024). Investigation of investor sentiment through confidence and expectation indices: A behavioural approach. *Öneri Dergisi, 19*(61), 95–122. 10.14783/maruoneri.1352101

Tripathy, J. P. (2013). Secondary data analysis: Ethical issues and challenges. *Iranian Journal of Public Health, 42*(12), 1478–1479. http://ijph.tums.ac.ir/

UNCTAD. (2023a). *Investment flows to Africa dropped to $45 billion in 2022*. https://unctad.org/news/investment-flows-africa-dropped-45-billion-2022

UNCTAD. (2023b). *World investment report 2023*. https://unctad.org/publication/world-investment-report-2023

UNCTAD. (2024). *Foreign direct investment inflows*. https://unctad.org/

Uyanto, S. S. (2020). Power comparisons of five most commonly used autocorrelation tests. *Pakistan Journal of Statistics and Operation Research*, 16(2), 119–130. http://dx.doi.org/10.18187/pjsor.v16i1.2691

Van der Berg, J., Mazibuko, N., & Rootman, C. (2021). Factors influencing foreign direct investment by multinational corporations in South Africa. *Journal of Contemporary Management, 18*(1), 362–384. https://doi.org/10.35683/jcm20104.109

Van Luong, K., & Vixathep, S. (2016). Business confidence index: a reflection of business sentiment in Viet Nam. 国際協力論集, 23(2), 1-27.

Vu, T. T. N. (2021). Understanding validity and reliability from qualitative and quantitative research traditions. *VNU Journal of Foreign Studies, 37*(3). https://doi.org/10.25073/2525-2445/vnufs.4672

Wako, H. A. (2021). Foreign direct investment in sub-Saharan Africa: Beyond its growth effect. *Research in Globalization, 3*, Article 100054. https://doi.org/10.1016/j.resglo.2021.100054

World Bank. (2024). *Indicators*. https://data.worldbank.org/indicator

Yakubu, U. A., & Saputra, M. P. A. (2022). Time series model analysis using autocorrelation function (ACF) and partial autocorrelation function (PACF) for e-wallet transactions during a pandemic. International Journal of Global Operations Research, 3(3), 80–85. http://www.iorajournal.org/index.php/ijgor/index

APPENDIX: DATA USED FOR ANALYSIS

Year	Foreign direct investment, net inflows (BoP, current US$)	RMB/BER BCI
1974 [YR1974]	696123636,3	56
1975 [YR1975]	187962807,7	50
1976 [YR1976]	18400004,6	24,75
1977 [YR1977]	-121900030,5	15,25
1978 [YR1978]	-109250027,3	33
1979 [YR1979]	-484547334,2	48,5
1980 [YR1980]	-10300000	88,5
1981 [YR1981]	65000000	83,25
1982 [YR1982]	329699999,9	44,25
1983 [YR1983]	70900000	34,5
1984 [YR1984]	419500000	33
1985 [YR1985]	-452643658,3	15,5
1986 [YR1986]	-50487073,7	24,25
1987 [YR1987]	-191667969,8	51,25
1988 [YR1988]	158437159,5	72
1989 [YR1989]	-201208430,6	60,5
1990 [YR1990]	-75722412,12	37
1991 [YR1991]	254133621,7	21,25
1992 [YR1992]	3358018,174	18,25
1993 [YR1993]	11290546,02	23,25
1994 [YR1994]	374410441,1	49,5
1995 [YR1995]	1248424933	57,75

Year	Foreign direct investment, net inflows (BoP, current US$)	RMB/BER BCI
1996 [YR1996]	816389273,8	43,25
1997 [YR1997]	3810543923	36,75
1998 [YR1998]	550338596	21,75
1999 [YR1999]	1503332454	23,5
2000 [YR2000]	968831356	35
2001 [YR2001]	7270344986	36,25
2002 [YR2002]	1479804589	58,5
2003 [YR2003]	783136092,3	55,75
2004 [YR2004]	701422007,6	72
2005 [YR2005]	6522098178	76,5
2006 [YR2006]	623291744,3	80,5
2007 [YR2007]	6586792253	72,25
2008 [YR2008]	9885001293	41,25
2009 [YR2009]	7624489974	27
2010 [YR2010]	3693271715	40,5
2011 [YR2011]	4139289123	42,25
2012 [YR2012]	4626029122	45
2013 [YR2013]	8232518816	44,5
2014 [YR2014]	5791659020	44,75
2015 [YR2015]	1521139945	40,5
2016 [YR2016]	2215307020	36,5
2017 [YR2017]	2058579911	32
2018 [YR2018]	5569462350	37
2019 [YR2019]	5116098443	25,75

Year	Foreign direct investment, net inflows (BoP, current US$)	RMB/BER BCI
2020 [YR2020]	3153552569	21,75
2021 [YR2021]	40658789145	42,75
2022 [YR2022]	9194808416	41