

Essays on the Corporate Governance Evolution and South African Real Estate Investment Trusts (REITs)

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DECLARATION OF ORIGINALITY

I declare that this document is entirely my work and that no part of it has been previously submitted in support of an application for another degree or qualification at this or any other institution of learning.

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A handwritten signature in black ink, consisting of a stylized 'D' with a horizontal line through it and a small flourish at the end.

Date.....13 September 2024

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DEDICATION

To my lovely children who have shown support and encouragement that has pushed me to finish my studies. To my extended family members who have shown great support.

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LIST OF ABBREVIATIONS

BBBEE- Broad Based Black Economic Empowerment

BEE- Black Economic Empowerment

CG-Corporate Governance

CSR-Corporate Social Responsibility

EPRA- European Public Real Estate Association

FDI- Foreign Direct Investment

FFO- Funds from Operations

FI- Foreign Investment

FPI- Foreign Portfolio Investment

FTSE- Financial Times Stock Exchange

NAREIT- National Association of Real Estate Investment Trusts

REITs- Real Estate Investment Trusts

ROA- Return on Assets

ROE-Return on Equity

ROI- Return on Investment

UK- United Kingdom

US- United States of America

SUMMARY

There has been substantial attention on corporate governance globally, representing a key area of research interest. Focusing on REITs as a natural experiment to study corporate governance and disclosure policies in SA is distinctive, particularly in that results are mixed globally. Studies by Campbell et al. (2011), Chong et al. (2016), and Chong et al. (2017) found an optimistic association with corporations that adopt CG and profitability; however, Bianco et al. (2007) and Bauer et al. (2010) reported adverse results. The study conducts three separate empirical studies that cover the following aspects of REITs: (a) the impact of corporate governance and corporate social responsibility on SA REITs performance; (b) the impact of corporate governance and foreign investor trading: An SA REIT perspective; (c) Black Economic Empowerment (BEE) and its influence on SA REIT liquidity. This thesis consists of three independent essays.

The first essay employs a Corporate Governance Index (CGI) formulated from the King III and King IV reports to investigate the link concerning corporate performance and superiority of CG and the corporate social responsibility (CSR) of SA REITs listed on the Johannesburg Stock Exchange (JSE). The CGI index is created from the King III and IV reports to measure the compliance of 33 SA REITs listed on the JSE as of January 2023. These REITs are assessed from 2013. The empirical investigation using multiple correspondence analysis (MCA) reveals that CG practices have a positive influence on firms' performance (such as total share return and return on assets). The results imply that CG's standard principles influence the performance of firms' SA REITs with a higher magnitude. Managers and investors that observe CG principles will notice improved firm performance. The CSR index is created from the King reports, and MCA was used to analyse CSR compliance to determine that SA REITs, which comply with CSR regulations, will improve returns.

The second essay investigates CG and foreign investment activity of SA REITs. REITs offer a natural experiment in CG. These leave little cash flow for management, thereby reducing agency problems. A CGI Index was formulated from the King III and IV reports to examine the association concerning foreign investment and the quality of CG. A sample of 33 SA REITs from 2013 until 2022 is documented. The study adopted the unique multiple correspondence analysis (MCA) to form a matrix for the CG, and the foreign investment was formulated by adopting the Buy and Sell Index (BSI) to capture foreign investment. With a well-balanced panel, it was found that corporate governance (CG) significantly influences foreign investment with a greater magnitude. Additionally, SA REITs that are cross-listed with better CG in place

were documented as this has been linked with attracting more foreign investors. Due to the nature and effectiveness of the CG and the lack of this type of investigation in South Africa (SA), this study will inform SA REITs and policy makers in understanding the importance of complying with CG and the practical implications for its influences on foreign investment activity.

The third essay examines the liquidity of SA REITs and their relationship to the BEE score. The contribution of this section to the literature is on SA REIT liquidity and its relationship with BEE policy. Firm liquidity has long been an area of interest of research (Yun, 2009). The paper adopts the BEE score for all SA REITs to measure their compliance levels and the link to a REIT liquidity. Thirty-three REITs are adopted from 2013 until 2022. To capture the different dimensions of a securitised REIT, more than one liquidity measure is used. This analysis uses four proxies to calculate REIT liquidity using ordinary least squares models (OLS). The study finds that the BEE has a positive association with an SA REIT liquidity, implying that REITs that comply with BEE policy are likely to have improved liquidity. Complying with government policy has been linked with firms' good financial standing. Highly compliant REITs wanting to maintain their liquidity levels should consider the influence of the macro-economic factors, particularly the adverse relationships that negatively affect REIT liquidity such as employment levels. This is the first study to probe the BEE and REIT liquidity in the South African context.

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CHAPTER ONE

INTRODUCTION

1.1 The Evolution of Corporate Governance and Disclosure Policies

Corporate governance (CG) is one of the most sought-after areas of research that has drawn interest for decades (Berle and Means, 1932; Jensen and Meckling, 1976; Williams, 1988; Yermack, 1996; Shleifer and Vishny, 1997; Xu and Wang, 1999; Guest, 2009; Shahier et al., 2020; Simons et al., 2023). This can be ascribed to the not consistent results that are presented in this strand of literature. A corporation is controlled by a board of directors (BOD) that are greatly away from being aligned, and their interest is instituted on what agency theory asserted initially in the 1970s¹ (Jensen and Meckling, 1976). The improvement of governance systems has been an important global issue addressed by various authors: in the Americas by Toms and Wright (2005); in Europe by Jones and Pollit (2004) and Dahya and McConnel (2007); in Asia by Cheung et al. (2007) and Cheng (2008); and in Africa by Ntim et al. (2013) and Pamburai et al. (2015). Having sound CG is imperative as Alregab (2023) mentioned that failing businesses can lead to economic collapse if a good CG is not adopted. This motivates policy makers to set numerous governance guidelines to emphasise corporation openness and disclosure to all stakeholders who are committed to the wellbeing of a corporation.

In the early 1900s, CG was introduced by Low (1920), and Berle and Means (1932) to better understand the functioning of corporates. Later, Shleifer and Vishny (1997) described CG as the pathways in which investors of companies guarantee themselves of realising a return on their investment. It is clear that the primary intent of an organisation is to increase its returns.

Several researchers have examined CG. The main CG theory was introduced by Berle and Means (1932) who studied the relationship between agents and principals. More recently, Williamson (1988) found that a strong CG mechanism reduces agency costs. Other methods commonly used in reducing the adverse impact of agency cost include the debt instrument, confirmed by Tuan et al. (2019). Ahmad and Nafiah (2020) considered the relationship between firm value and management, while Koirala et al. (2020) focused on CG reform and its positive effects on firm value, and Haj-Salem et al. (2020) considered firm performance and CG.

¹ These conflicts of interest were later made official by Michael Jensen and William Meckling in their primary-agent theory or model which was established in their seminal 1976 paper. Georgen (2006) named the two types of agency issues—namely, perquisites and empire building. Perquisites (Perks) also are benefits offered to the manager. These benefits increase the executives' costs but are financed by the shareholders.

In emerging economies, several studies investigated CG and performance. For instance, in the Asian context, Cheung et al. (2007) and Cheng (2008) found that unitary board members consist of executive officers that have a set of rules on how to govern corporations. Incorporating effective CG is correlated to a company's performance, and they observed a convincing affiliation of CG and firm performance. In an African context, using SA (South Africa) as a laboratory, Ntim et al. (2013) found that better governed corporations improved the performance of SA corporations significantly. However, these were CG and firm performance in general, not industry-specific CG and/or mainly in finance.

Initially, CG theories were mainly applied in finance (Low, 1920; Berle and Means, 1932; Williamson, 1988; Shleifer and Vishny, 1997; Denis and McConnell, 2003; Daily et al., 2003; Solomon, 2007; Shahrier et al., 2020). Then, other industries adopted these, such as law. Lipton and Lorsch (1992) explained all the mechanisms involved to improve corporate law, and Gourevitch and Shinn (2005) laid out how politics shape CG. In addition, CG theories have been applied to listed corporations' performance by Xu and Wang (1999) and Haniffa and Cooke (2002). Yermack's (1996) study on listed corporations concentrated on board structures and Guest (2009) focused on board size which has a substantial adverse effect on profitability. Most of this work was mainly in developed countries.

The South African CG framework is built from an arrangement of King reports that adopted the Anglo-American form and the United Kingdom's Cadbury reports. SA became the first country to have introduced such a model in the African region (King I, 1994; Rossouw et al., 2002). This model has been reviewed over the years, after the introduction of the Employment Equity Act of 1998 and the international UK changes, to attain better supervision and monitoring. Reviews were undertaken in 2002, then in 2010, and again in 2016. The CG index for this study is created from King III with 75 principles and King IV with 17 principles (see Appendices A1 and A2).

The SA model was first launched in 1994 as King I, and later modified to King II in 2002 after the execution of the Employment Equity Act, 55 of 1998. After changes to the Companies Act, 71 of 2008, the King III report was introduced in 2010 and, finally, in December 2016, the most recent King IV report was introduced when disclosure policy became compulsory. South Africa is an emerging market with the ultimate economy in the African continent (Stats SA, 2024) and can be used as a laboratory for emerging economies (Ntim and Soobaroyen, 2013; Southhall, 2004). The SA government enacted several policies such as the Employment Equity Act of 1998 to readdress inequalities in the country. Another policy is Black Economic Empowerment (BEE), which has been a crucial economic measure for the post-apartheid era. After assuming power in 1994, the then new democratic government introduced the BEE to readdress the economic and social unrest created by apartheid. Policies including Employment Equity (EE), Affirmative Action (AA), BEE, and many others were enacted to readdress social ills and encourage economic participation (Stats SA, 2024).

1.1.1 SA's Disclosure Policies

SA became the first country to have commenced such a construct and/or model in the African region (King I, 1994; Rossouw et al., 2002). This construct has been revised over the years, after the introduction of the Employment Equity Act of 1998 and the global UK amendments to attain better administration. After these changes, several policies were affected; these include Affirmative Action, Black Economic Empowerment (BEE), and Corporate Social Responsibility (CSR), (King II, 2002; JSE Listing Rules, 2007). Esser and Dekker (2008) stated that, subsequently, the King II report issued that executives ought to deliberate the interests of other associated parties because those of BEE corporations are required to have a social conscience. Ntim and Soobaroyen (2013) expanded that diversity for firms is integral to capturing multiple board structures, particularly by implementing BEE principles. Rossouw et al. (2002) recommended SA companies to meet universal standards, without overlooking local faults, fraud, affirmative action, AIDS, and so forth. The position is impaired by misalignment involving the various company measures that firms adopt (Rossouw et al., 2002; Brennan and Solomon, 2008; Ntim, 2013). All SA companies are required to represent the international assumed CG construct with SA's contextual exclusive characteristics, giving SA an exceptional CG (Andreasson, 2011; Ntim, 2013; Maroun and Cerbone, 2020).

The first and third essays of the thesis examine SA's disclosure policies. The first essay examines the impact of CG and CSR on SA REITs' performance. Previously, Ntim (2013) and

Ntim et al. (2012) stated that SA corporates are expected to be responsible citizens by giving back as per the Kings reports. The authors concentrated on the King II report. The present study investigates the King III and IV reports. All SA corporates are expected to submit annual reports based on the latest King report that has had more emphasis on disclosure policies annually since 2016. Previous work by Ali et al. (2020), who adopted the agency theory and CSR, determined that CSR impacts the performance of organisations positively.

The third essay visits the BEE policy. This has been an essential economic quantifier in SA after apartheid was dissolved. This policy is controlled by the Broad Based Black Economic Empowerment (BEE) Act 53 of 2003. Under this Act, organisations are given points for voluntarily conforming with the codes of competent practice, and the level of score in SA determines the growth and liquidity of firms. In SA, the government has made BEE the central part of achieving economic transformation. Southhall (2004) noted that the African National Congress (ANC) has keen interests in implementing this policy for their political agenda. After assuming power in 1994, the then new democratic government introduced the BEE to re-address these economic challenges and social unrest created by apartheid. The policy initially had seven principles: (i) Management Control; (ii) Ownership; (iii) Preferential Procurement; (iv) Skills Development; (v) Employment Equity; (vi) Enterprise-Development; and (vii) Residual (Ntim and Soobaroyen, 2012). Southhall (2004) explained that the first two BEE principles place emphasis on ensuring the inclusion of black manager-owners and that the majority of the top executive members should be black. The second and third principles focused on continuing to improve their situation.

1.2 REITs

Real estate investment trusts (REITs) offer a raw environment to study CG, as these are public businesses that employ the merged capital of numerous shareholders to buy, oversee, and develop income properties (Li and Zhu, 2022). REITs receive their money from the rental income that they give to shareholders as dividends. It is a public investment since stockholders own stock in a listed company, not in the properties.

There is evidence that, after the introduction of REITs on the New York Exchange, firm performance improved in the US, and the commencement of the novel kind of REITs in 1993 resulted in improved firm performance (Clayton and MacKinnon, 2000; Marcato and Ward, 2007) in Europe (Anuar and Soi Tho, 2011). Meanwhile, in Japan, the market capitalisation of Japanese REITs rose by 8.7 times in five years, and the selected number of REITs improved in

twofold from the inception of J REITs in 2001 (Ooi et al., 2006). In SA, this was further evidenced by Carstens and Freybote's (2018) finding that, after the inception of REITs, the firms listed as REITS improved significantly and more foreign investors proved SA REITs as an attractive investment vehicle. In SA, much of the work on CG focused on other listed corporations (e.g., Newell et al., 2002; Simo-Kengne et al., 2012; Apergis et al., 2014; Bonga-Bonga et al., 2016; Du Preez et al., 2016).

In 2023, nearly 40 countries had REITs with a market capitalisation of USD 2.5 trillion, up from USD 1.6 trillion in 2021 (FTSE EPRA/NAREIT, 2023). Market capitalisation determines the value of a company that is traded on the stock market (Bauer et al., 2010). REITs offer a genuine setting to conduct experiments in CG because they leave low free cash flow for executives, which reduces agency issues (Bauer et al., 2010). Ling et al. (2020) identified the significance of the role played by the institutional investors in abating the agency cost of executive opportunism.

1.3 Problem Statement

The issue is that a theoretical approach to the study of CG in SA focusing on REITs does not exist. This current study includes 75 principles extracted from the King III report and 17 principles from the King IV report as the main independent variable, while CSR is the second independent variable. There is no evidence of previous work on REITs and CG performance. A South African study will be different because of SA's uniqueness. A comprehensive CG is adopted with localised attributes like employment equity and HIV/AIDS included on the CSR index. In addition, investors are paying more attention to corporations that regularly report CSR; this has led to investor confidence, as the corporation's reputation is enhanced from its competitors. The latest King report requires that all listed corporations report their CSR. SA corporations report more on Employment Equity and Occupational Health and Safety, while smaller listed corporations are less compliant. There is a relationship with corporations that comply with CSR and firm performance. The developed nations' studies cannot be generalised to SA because the CG structure and compliance is not the same. Previous SA studies did not sample REITs; however, the performance measurement of REITs is different than other listed corporations. Third, the previous sampled work includes the five top-performing JSE industries, and REITs are mostly excluded in these studies even though they show promising growth since their inception. Fourth, this study for the first time contributes to the literature by testing each principle with REIT performance. The highly influential CG principles applicable to REITs

include BOD, leadership, risk management, compliance governance, and stakeholder relationship. The tests conducted in this study also include macro-economic variables

There is no evidence of the impact of board dynamics, management structures (internal and external), and the application of CG theories on REITs, even though nearly 40 countries have REITs with a market capitalisation of USD2.5 trillion (FTSE EPRA/NAREIT, 2023). Currently, no single theory explains firm performance, as elaborated by Nicholson and Kiel (2007) and Gaur et al. (2015); thus, there is a need to understand how boards add value to the firm. Agency problems may be experienced when it comes to managers and shareholders, when applying the agency theory only without considering the other CG theories. Such an investigation is needed to mitigate agency costs and avoid disloyalty issues, noting that managers may not be good stewards. Previous work determined the link involving CG and corporate performance in the US (Yermack, 1999; Gompers et al., 2003; Cremers and Nair, 2005; Guest, 2009; Larker et al., 2017); in Europe (Bauer et al., 2004; Brounen et al., 2004; Drobetz and Momtaz, 2020); and in South Africa (Ntim et al., 2012; 2013; Pamburai et al., 2015; Rehman and Khan, 2016; Maroun and Cerbone, 2020). The association between CG and operating performance of REITs has been extensively researched in other parts of the world, but not in SA, even though REITs account for 10% of the top 100 corporations listed on the Johannesburg Stock Exchange (JSE). Some of the REIT literature proves no substantial link involving CG and company performance in the US (Bianco et al., 2007; Bauer et al., 2010) and in Asia (Lecomte and Ooi, 2013). However, others found a positive link concerning CG and performance in Asia (Cheung et al., 2007; Cheng, 2008).

To the best of the author's knowledge, no CG theoretical approach study in SA exists that focuses on REITs. The current study includes both types of management structures—internal and external management; 75 principles are extracted from the King III report and 17 principles are derived from the King IV report as the main independent variable. CSR is the second independent variable as Advantage (2020) determined that CSR could generate brand perception and, thus, improve revenue. Ali et al. (2020) adopted the agency theory and determined that CSR improves a firm's valuation; the agency problems were also highlighted in this study. Ntim et al. (2012) reported on CSR using SA as a laboratory. At that time, there were no revisions to the King III and IV reports, the study was not industry-specific, like a REIT study, and CSR was a control variable. The identified gap in the literature is with regards to the African stock markets.

The second issue, addressed in the second essay of this thesis, is that traditional foreign investment theories fail to explain what attracts foreign investors. Carstens and Freybote (2018) proved that the introduction of REITs increased foreign investment attractiveness in SA, in the US (Clayton and Mackinnon, 2000), in the UK (Brounen et al., 2009), and, in Japan, Ooi et al. (2006) proved the same. Cosby and Zhang (2020) mentioned attractive tax laws, and Marfatia et al. (2021) mentioned political climate, although Carstens and Freybote (2018) posited that foreign investment improves firms' revenue. There is a lack of evidence in SA and in other emerging economies as to what drives or influences foreign investment (Ooi, Newell, and Sing, 2006; Marfatia et al., 2021) or what attracts foreign investment even though almost 40% of the SA REIT investment is from foreign investors (FTSE EPRA/NAREIT, 2020). In addition, there is a lack of evidence in the literature on CG and foreign investment in SA and REITs. Foreign direct investment (FDI) literature keeps on record that greater quality governance at both the national level and the corporate level (Tuan et al., 2019; Yi et al., 2020) is linked with greater prospects to invest overseas and to take sizable stakes when doing so (Mauck and Price, 2018).

The third essay addresses the fact that there is limited evidence in the literature with regards to SA REITs and BEE, with the exceptions of Akinsomi et al. (2016) on REIT performance and BEE, and Ajayi and Akinsomi (2023) on SEOs (Secondary Equity Offerings) and BEE. Other non-REIT research, such as Sartorius and Botha (2008), Ntim et al. (2012), Ntim and Soobaroyen (2013), and Ferreira and Van der Merwe (2014) considered the seven BEE provisions which might have more of an effect than others. Jefferis and Okeahalam (2000), Ntim and Soobaroyen (2013), and Thomas (2017) proved a positive link with JSE listed companies' profitability and BEE principles. Ntim (2013) confirmed a positive link relating to compliant companies with BEE. Further studies are required on the effect of BEE practices on firms' financial standing according to Ntim (2012). The issue is that the literature is silent on SA REITs' liquidity and its relationship to BEE, even though firm liquidity has been associated with a firm's good financial standing by Yun et al. (2009). In SA, REITs must share 75% of their earnings towards BEE, and this affects their liquidity (DTI, 2023). The contribution of this essay is with regards to SA REITs' liquidity and BEE. Liquidity measures the financial standing of a firm, and this measure is considered important (Zhao et al., 2023). The present study closes the gap in the literature is with regards to considering all seven principles and the scores of each listed SA REIT firm.

1.4 The Scope of the Study

Based on the above, the focus of this thesis is restricted to (a) the relationship between the CG and CSR to South African REITs' performance; (b) the relationship between Foreign Investment and SA REITs; and (c) the relationship between BEE policy and SA REIT liquidity. This study is specifically restricted to listed Real Estate Investment Trusts (REITs) on the Johannesburg Stock Exchange (JSE) in South Africa.

1.5 Research Questions and Objectives

In this thesis, there are three objectives and research questions. The first research question is: Does the level of principles in the King III and IV reports impact the performance of SA REITs? The first essay focuses on the evolution of CG and uncovers the performance of REITs over time. This essay investigates the impact of CG and CSR on SA Real Estate Investment Trusts' (REITs') performance. South Africa's unique CG model is adapted from the combination of the Anglo-American model style by Toms and Wright (2005) and Letza et al. (2004) and the United Kingdom's Cadbury report (Jones and Pollitt, 2004; Dahya and McConnell, 2007). The US and the UK have similar CG mechanisms in nature as indicated by Mangena and Chamisa (2008), Ntim (2013), and AlHares (2020). Both the US and the UK's CG style is made up of a three-tier management hierarchy; the board of directors is made up of top-level management, middle management, and non-executives who are predominantly accountable to the stockholders regarding corporate performance (Kumar and Kaur, 2020).

The impact of CG on REITs has been studied globally. The essay reviews some of the past work that focused on CG and REITs' performance. Chong et al. (2016) found a positive link concerning the CG index and excess returns, which helps to address agency problems. A study by Campbell et al. (2011) found that corporations with experienced CEOs had higher performance; moreover, Chong et al. (2018) applied a CG index that proved that not only does it help to enhance return on assets (ROA) but it also assists to evaluate surplus returns of REITs. Ramachandran et al. (2018) also concluded similar results that all three performance measures were positively correlated; however, they also noted that highly indebted REITs are risky to investors. Experienced managers of REITs show improved performance and positive correlation to the impact of CG. In this study, contrary to the above, the ROA is positively linked to CG.

Bianco et al. (2007) explored the CG index modified by Gompers in 2003. They found an adverse effect of CG and protective obstacles on the performance of REITs in 2004, and that there was an insignificant outcome of external governance on performance in 2006. Even with slight improvement in 2006 on performance, their study was inconclusive on whether, in 2006, REITs were managed more by management companies or internally. Assets also depreciate and return on assets (ROA) could also influence the finding of negative results. Bauer et al. (2010) found that REITs' CG Index was not related to value. They used Tobin's q and performance variables ROA, return on equity (ROE), and funds from operations (FFO) as their tools of analysis. This means that REITs are not shown to be steered by the assets that they invest in and, also, REITs with experienced managers realised improved performance.

The literature on CG in SA is mainly other listed corporations except REIT industries (Ntim, 2013; Hornmark, 2015; Pamburai et al., 2015; Rehman and Khan, 2016; Kemp et al., 2017) even though SA REITs account for 10% of the top 100 corporations registered on the JSE, the African world class exchange (JSE, 2020). The second area of interest in the first essay is CSR. In 2017, all organisations registered on the JSE had to conform with the King IV report that required all listed corporations to report on CSR, and these reports had to be audited. SA has problems like water shortages and CSR; the most recent King report was found to mitigate the issues unique to South African corporations (King IV, 2016). CSR is known as a company structure that supports sustainable development in delivering economic, social, and environmental welfare. Mostly developing nations care about CSR, while developed nations are less concerned or there is low emphasis on it. Emerging countries like India ensured that the Indian Companies Act of 2013 specified that it was mandatory that all organisations spend 2% of the corporation's net income on citizens. Similarly, in SA, after the introduction of the King IV report, companies—whether listed or non-listed—are required to conform with this report (King IV, 2016).

The second essay's objective is to assess the level of the CG 75 provisions from the King III report and 17 provisions from the King IV report and their effect on foreign investment trading. The second research question is: Does the level of principles in the King III and IV reports influence foreign investment activity? The literature has documented the association between better CG structures and foreign investment (Khan and Banerji, 2016; Appiah-Kubi et al., 2020). Farooque and Yarram (2010) found that CG studies are highly contextualised, with similar findings by Adelopo et al. (2009). Hence, the findings cannot be generalised globally.

There are other studies that have reported a different outcome on CG and foreign investment. For example, Kim et al. (2010) found that CG and foreign equity ownership are negatively associated, and Alregab (2023) found two distinct results—that CG and foreign investment are associated; however, foreign investment and institutional and managerial ownership have an adverse relationship.

The third essay's objective is to assess the BEE policy and SA REIT liquidity. In this thesis the third research question is: Does BEE policy influence SA REIT liquidity? REITs' liquidity has been associated with holding cash (Downs and Zhu, 2022), greater investment activity (Brockman and Chung, 2003; DiBartolomeo and Gatchev, 2021; Cheung et al., 2023), macro-economic factors, and asset structure (Downs and Zhu, 2022). Globally, there is evidence on policies and a REIT liquidity (Morri and Baccarin, 2016). In SA, there is some evidence on the BEE from Ntim and Soobaroyen (2013) and Akinsomi et al. (2016) on REIT performance and BEE, and evidence from Ajayi and Akinsomi (2023) on SEOs and the BEE, but a lack of evidence on REITs and liquidity. There is not significant research REITs and the BEE in SA.

1.6 Research Contributions

The first essay addressed some gaps in the literature. First, a number of researchers of scholars opt for board and audit committees on CG studies, but these fail to give a comprehensive image of all the principles; thus, a broad CG index is assumed, and the sub-indices of CG. SA offers an attractive research context; it has a seasoned corporate sector, good regulation, a formidable equity culture, and CG processes like first-world countries and other developing markets. Second, depending on the setting, there could be differences; for example, a broad framework was formed for the Asian market. However, Indian research assumed the same framework and the outcomes were dissimilar to Singapore and China. SA adopted the Anglo-American style of CG, and the country's model was different from the other countries. Because of apartheid policies that segregated races, the King reports were designed to re-address the equalities and place emphasis on disclosure policies especially in the last King report, as there are nation-precise characteristics that are distinctive. South African research is exceptional because of SA's distinctiveness. Third, investors are paying more attention to corporations that regularly report CSR; this has led to investor assurance, as the business's reputation is higher than that of its competitors. The newest King report requires that all listed companies account for CSR. SA companies, however, account mostly for Employment Equity and Occupational Health and Safety, and smaller listed companies are less conforming. There is a connection concerning CSR and firm performance with corporations that comply with CSR.

The second essay contributes to the literature in various ways. It adopts the unique CG index constructed from 75 provisions from the King III report and 17 provisions from the King IV report and their effect on the foreign investment trading of SA REITs. CG has been overlooked as one of the central attractors for foreign investors. After the commencement of REITs in SA, foreign investment quadrupled and foreign investment has significantly improved the revenue from SA REITs (Carstens and Freybote, 2018). Literature is, however, silent on CG and foreign investment trading. Recent research by Ali et al. (2020) determined the link concerning foreign institutional shareholders and the firm's financial performance. Ooi et al. (2006) determined that foreign investment improves REITs' financing opportunities (Appiah-Kubi et al., 2020) which, in turn, accelerates commercial real estate markets.

The third essay's contribution to literature is on the BEE and SA REITs' liquidity. To date, and to the best of the author's knowledge, there is little research on SA on REITs liquidity and BEE. The contribution of this paper is with regards to SA REITs' liquidity and BEE. Liquidity measures the financial standing of a firm, and this measure is considered important (Zhao et al., 2023). The SA BEE studies and REITs were not on liquidity; these were studies by Akinsomi et al. (2016), and Ajayi and Akinsomi (2023). The other BEE studies but not in REITs were on other listed companies by Sartorius and Botha (2008), Ntim et al. (2012), Ntim and Soobaroyen (2013), and Ferreira and Van der Merwe (2014) and have considered some of the seven BEE principles (Jefferis and Okeahalam, 2000; Ntim and Soobaroyen, 2013; Thomas, 2017). More research is necessary on the effect of BEE practices on firms' financial standing as called by Ntim (2012).

1.7 Hypotheses

The various hypotheses and findings are discussed in detail in Chapters 2 to 4. In Chapter 2, the empirical results further confirm the hypotheses formulated at the end of the literature review. The standard CG principles are statistically significantly influencing the performance of SA REITs. As the study spans almost 10 years of SA REITs, time-varying factors have been included and different CG mechanisms were adopted for these periods extracted from the King III and IV reports, all of which support the hypotheses. Furthermore, the results prove that CSR significantly influences SA REITs' performance. This section sets out to understand the CG mechanism, the different types of management, and the influence of CSR policy on the performance of SA REITs. There are two hypotheses from this section.

In Chapter 3, all standard CG principles are tested, after the introduction of REITs in SA foreign investment quadrupled (Carstens and Freybote, 2018; French et al., 2023). The results further confirm the hypothesis discussed in this section, that all CG principles have a positive association with foreign investment activity.

In Chapter 4, the empirical results prove that compliance with BEE policy will improve SA REITs' liquidity, which confirms the hypothesis mentioned in this section. Liquidity has been linked with a firm's financial standing, as called for by Ntim (2012) and Yun (2009).

1.8 Organisation of the Thesis

This thesis is arranged as follows. Chapter Two presents the first essay, titled *The Impact of Corporate Governance & Corporate Social Responsibility on SA REITs' Performance*. This chapter explores the unique SA CG index adapted from the King III and King IV reports and its relationship with SA REITs' performance. The second essay is presented in Chapter Three, titled *The Impact of CG on Foreign Investment: An SA REIT perspective*. This section explores the CGI Index formulated from the King III and IV reports to examine the link between foreign investment and CG. Chapter Four presents the fourth essay titled *Black Economic Empowerment (BEE) and its Influence on Listed Firms' Liquidity: An SA REITs perspective*. The essay adopts the BEE score for all SA REITs to measure their compliance levels and the link to a REIT liquidity. The last chapter of the thesis summarises all findings, points out the study's limitations, and recommends future research directions.

CHAPTER TWO

The Impact of Corporate Governance and Corporate Social Responsibility on South Africa's REITs' Performance.

2.1 Introduction

In the early 1900s, corporate governance (CG) was introduced by Low (1920) and Berle and Means (1932) to better understand the functioning of the corporations and corporates. Later, Shleifer and Vishny (1997) explained CG as the pathways through which investors of corporates promise themselves to gain a return on their investment. The primary intent of an organisation is to increase its returns.

Several researchers have examined CG. The main CG theory was introduced by Berle and Means (1932) who studied the relationship between agents and principals. A few decades later, Williamson (1988) found that a strong CG mechanism reduces agency costs. The other methods in reducing the adverse impact of agency cost include the debt instrument, confirmed by Tuan et al. (2019). Ahmad and Nafiah (2020) considered the relationship between firm value and management, while Koirala et al. (2020) focused on CG reform and its positive effects on firm value and Haj-Salem et al. (2020) considered firm performance and CG. In emerging economies, several studies investigated CG and performance. For instance, in the Asian context, Cheung et al. (2007) and Cheng (2008) found that CG's board members consist of executive officers that have a set of rules on how to govern corporations; also, it can be concluded that incorporating good CG is linked to firm financial performance. In an African context, Ntim et al. (2013) using South Africa (SA) as a laboratory and found that better governed corporations improved the performance of SA corporations significantly. These were CG and firm performance in general, not industry-specific or mainly finance performance.

Initially, CG theories were mainly applied in finance (Low, 1920; Berle and Means, 1932; Williamson, 1988; Shleifer and Vishny, 1997; Daily et al., 2003; Denis and McConnell, 2003; Solomon, 2007; Shahrier et al., 2020). Other industries then adopted these theories, like in law. Lipton and Lorsch (1992) explained all mechanisms to improve corporate law; Gourevitch and Shinn (2005) laid out how politics shape CG; and additional CG theories have been applied to listed corporations (Haniffa and Cooke, 2002; Xu and Wang, 1999). Yermack (1996) concentrated on the board structures of listed corporates and Guest (2009) observed that board

size has a considerable negative bearing on profitability. Most of this work was undertaken in developed countries.

South Africa's CG is built in an arrangement of King reports that incorporated the Anglo-American form and the United Kingdom's Cadbury reports (see Table 2.1). SA became the first country in the African region to have commenced such a construct (King I, 1994; Rossouw et al., 2002). This CG construct has been evaluated over a period of time since the initial King report commenced. After the introduction of the Employment Equity Act of 1998 and the universal UK changes to attain better supervision and monitoring, reviews took place in 2002, then in 2010, and again in 2016.

Table 2.1: King Reports

Item	King I	King II	King III	King IV
Inception	1994	2002	2010	2016
Changes	After the end of apartheid, SA adopted the American and UK Corporate Governance framework.	After the execution of the Employment Act of 1998, the King report was revised. This new report included new listing rules for listed corporations.	After the changes made to the US and UK framework after the 2008 recession, and after the birth of the modern Companies Act of 1998, the alterations to the reports were made.	Disclosure policies became compulsory for all corporates to report to their CSR.

REITs are under-researched in South Africa (SA). This paper seeks to examine CG and its impact on SA REIT performance. Much of the CG literature in SA and other emerging economies is mainly focused on other industries. These studies settle on a positive link involving CG and corporate performance (Ntim, 2013; Hornmark, 2015; Pamburai et al., 2015; Erasmus et al., 2017; ulRehman and Khan, 2023).

The SA REIT is the foremost real estate investment in an emerging economy like SA, which is the only nation that is well represented in the African region on the FTSE/EPRA NAREIT (WFE, 2018). Offshore and domestic investors encourage more research on SA REITs (Carstens and Freybote, 2018). On average, SA REITs have about 30% of their investments internationally and approximately 30% to 40% of their returns come from other nations (JSE, 2019). In addition, REITs are important to the investor globally, as nearly 40 countries have Real Estate Investment Trusts (REITs) with a market capitalisation of approximately USD 1.7

trillion in 2020; in 2021, this had fallen slightly to USD 1.6 trillion, and on 1 February 2023, it rose to USD 2.5 trillion (FTSE EPRA/ NAREIT, 2023). Market capitalisation determines the value of a company that is traded on the stock market (Bauer et al., 2010). SA REITs now encompass 5.8% of the JSE. The SA REITs market is liquid as of January 2023, and the market capitalisation of 33 listed REITs as of 1 February 2023 was R549,22 billion (JSE, 2023).

Table 2.2, below, shows the 10 best performing REITs by market capitalisation (the rand to US dollar (\$) to rand (R) exchange rate is R16,98). A REIT can either be diversified—that is, it includes retail, offices, industrial. It can be residential—or it can be specialising. These REITs are either managed internally or externally. All these in Table 2.2 are externally managed.

Table 2.2: Top ten REITs as of January 2023

REIT	Focus	Market Capitalisation in Rands	Market Capitalisation in US Dollars	Management
(1) Growth Point	Diversified	R37.22bn	2.19bn \$	Internal
(2) Redefine	Diversified	R25.81bn	1.52bn \$	Internal
(3)				
(4) Fortress Real Estate Investment	Diversified	R22.17bn	1.304bn \$	Internal
(5) Resilient	Retail	R14.55bn	856m \$	Internal
(6) Vukile Property Fund	Diversified: with residential	R13.82bn	813m \$	Internal
(7) Hyprop Investment	Retail	R11.73	689m \$	Internal
(8) Equities Property Fund	Industrial	R9.77bn	575m \$	External
(9) Attacq	Diversified	R6.08bn	358m \$	Internal
(10) Investec Property Fund	Diversified	R5.83bn	343m \$	Internal
(11) Storage Property REIT	Private Storage	R5.98bn	352m \$	Internal

Sources: Centre for Affordable-Housing-Finance in Africa (2017); Wall Street (2023); Real-Estate-Investment Trust (Website, 2023)

CG has been studied extensively globally by Berle and Means (1932), Williamson (1988), Ahmad and Nafiah (2020), Koirala et al. (2020), Ambrose and Linneman (2001), Capozza and Seguin (2000), and many more. In SA, there is no evidence on board dynamics or management

structures (internal and external). There is lack of evidence on the application of CG theories on REITs in emerging economies; no single theory explains firm performance as elaborated by Nicholson and Kiel (2007) and Gaur et al. (2015). Thus, there is a need to understand how boards add value. Agency problems may be experienced when it comes to managers and shareholders when only applying the agency theory without considering the other CG theories. Previous work determined the link concerning CG and corporate performance, in the US (Yermack, 1999; Gompers et al., 2003; Cremers and Nair, 2005; Guest, 2009; Larcker and Tayan, 2020); in Europe (Bauer et al., 2004; Brounen et al., 2004; Drobetz and Momtaz, 2020); and in SA (Ntim et al., 2012; Ntim, 2013; Pamburai et al., 2015; ulRehman and Khan, 2016; Cerbone and Maroun, 2020). The association between CG and operating performance of REITs has been extensively researched in other parts of the world, but not in SA, even though REITs account for 10% of the top 100 corporations listed on the JSE. Some of the REIT's literature proves that there is no considerable link between CG and company performance in the US (Bianco et al., 2007; Bauer et al., 2010) and in Asia (Lecomte and Ooi, 2013). However, others found an optimistic link concerning CG and firm performance in Asia (Cheung et al., 2007; Cheng, 2008).

From a review of the literature, no studies employing the CG theoretical approach exist in SA with a focus on REITs. This study, thus, includes 75 principles from the King III report and 17 from the King IV report as the main independent variable, and CSR is employed as the second independent variable, as Zahid (2021) determined that CSR could generate brand perception and, thus, improve revenue. Ali et al. (2020) adopted the agency theory and determined that CSR improves a firm's valuation; the agency problems were also highlighted in this study. Ntim et al. (2012) reported on CG using SA as a laboratory. At that time, there were no revisions to the King III and IV reports; the study was not industry-specific (e.g., a focus on REITs); and CSR was a control variable. This paper expands on Ntim et al.'s (2012) paper. The gap in the literature is with regards to the African stock markets. Therefore, the study sets out to determine whether the level of CG impacts the performance of SA REITs, and, also, to assess the advancement of CG and uncover the performance of REITs over time.

This essay determines why CG and SA REIT performance are statistically linked. The literature has demonstrated that there is an association involving performance and how a firm is managed. In corporations with superior CG, investors of these corporations reward their

organisations with better business performance. Numerous researchers mainly adopt board and audit committees; however, these collapse in providing a comprehensive assessment of the principles. Thus, in this study, a broad CG index is implemented. South Africa poses a formidable research setting. It has a seasoned business sector, sturdy equity values, great regulations, and a CG structure like that of first world nations and emerging markets, although context-wise, there could be differences. For example, a complete framework was constructed for the Asian market; however, an Indian study implemented the same framework, and the outcomes were dissimilar contrasted to Singapore and China. South Africa adopted the Anglo-American-style CG, which made it different from the other countries. Because of apartheid policies that segregated races, the King reports were designed to re-address equalities and to place emphasis on disclosure policies, particularly in the most recent King report, as there are nation-specific characteristics that are exclusive. A South African investigation will not be the same because of SA's distinctiveness. In addition, investors are paying more attention to corporations that regularly report CSR; this has led to investor assurance, as the corporation's status is enhanced from its competitors. The latest King report expects that all listed corporations account for CSR. SA firms report more on Employment Equity and Occupational Health and Safety, and smaller listed firms are less conforming. There is an association with companies that comply with CSR and corporate performance.

The empirical results from this study further confirm the hypotheses discussed at the end of the literature review. The standard CG principles are statistically significantly influencing the performance of SA REITs. As the study spans almost 10 years of SA REITs, time-varying factors have been included and different CG mechanisms were adopted for these periods extracted from the King III and IV reports. All these variables support both hypotheses. Furthermore, the results prove that CSR significantly influences SA REITs' performance.

2.2 Literature Review

Corporate governance issues date back to the 1900s (Berle and Means, 1932) when the disclosed performance of listed firms was emerging (Georgen, 2006). Berle and Means (1932) explained that the purpose of CG is to decrease agency costs that occur from partition of ownership and control. CG theories essentially decrease agency cost. One review by Simons et al. (2023) determined that CG is one of the most sought after areas of research globally.

2.2.1 CG Theories

The first and most popular theory is the agency theory, first introduced by Berle and Means (1932) to understand the relationship between agents and principals. In 1976, Jensen and Meckling (1986) determined how to mitigate agency problems by separating ownership and control of shareholders and corporate executives.

One of the agency problems include conflicts of interest by managers that were later made official by Michael Jensen and William Meckling in their primary-agent theory or model which was established in their seminal 1976 paper. Georgen (2006) named the two types of agency issues—namely, perquisites and empire building. Perquisites (Perks) are benefits offered to the manager. These benefits increase the executives' costs but are financed by the shareholders. They come in various forms—the use of a company car, exquisite private offices, and CEO mansions—all funded by shareholders. Moreover, managers can also give jobs to family members instead of the most qualified candidate; this is also known as nepotism (Georgen, 2006). Yermack (2006) found that CEOs that used private jets underperform by 4% compared to CEOs who do not utilise private jets. Cheng et al. (2005) found a correlation between personal use of private jets and membership of long-distance golf clubs, which implies that managers take projects that support self-interest.

Jensen's (1986) paper identified the second agency problem as empire building, also known as the *free cash flow problem*. Shareholders are more concerned about pursuing growth rather than *value maximisation*. Cashflow that remains after an investment is known as free cashflow. When a firm has free cashflow, then conflicts of interest may arise between shareholders and management.

Managers may require renegotiation over payout policies because of free cash flow. Various scholars (Rozeff, 1982; Jensen et al., 2009; Lee and Chen, 2011) stated that a reduction of agency costs can be achieved through free cash flow (FCF) dividends and managerial ownership substitutes. Benabou and Tirole (2010) and Eccles et al. (2012) argued that elevated sustainability corporations are more likely to determine a formal stakeholder engagement progression which limits the probability of short-term opportunistic actions.

According to Chung et al. (2005), this problem emerged as a result of the fact that managers can engage in projects or undertakings that would not add value to the organisation. However,

these undertakings may support the self-interest of executives and they can take non-optimal action as a value-destroying investment. Kemardin and Haron (2011) asserted that managers can also inflate reported earnings and invest in value-destroying investments. However, Chen et al. (2007) reported that dividend-paying organizations have greater earnings than no-dividend-paying organizations. Because of this issue, managers prefer projects with negative net present value (NPV); these discount future expected cashflows which are less than the initial investment outlay, and may ruin shareholders' wealth.

The other major agency problem is financing the organisation. When a firm does not have enough equity, they may use debt to finance projects. The problem arises when managers take on highly risky projects that may fail, in which case the costs will be borne by debt holders. However, if the project is successful, the shareholders will benefit (Georgen, 2006). This problem usually happens when firms are in financial distress. Jensen (1986) argued that there should be optimal mix of debt and equity, and this was later supported by Cheffins (2020).

The second most popular theory is the stewardship theory that was first introduced by Hamilton (1918). It states that managers will act as good stewards; however, Gaur et al. (2015) proved that the theory fails to interpret for instances where executives do not act as good stewards. Ali et al. (2020) pointed out that monitoring alone does not guarantee management performance; thus, to mitigate this issue, a multi-theoretical framework should be adopted.

The third theory is the resource dependency theory. Initially introduced by Srinavakatrakul (1919), this theory focuses on the functions of the board of directors (BOD) in granting entry to the corporation's resources required by the firm or corporates (Li et al., 2020). The BOD is possibly the utmost fundamental internal governance system in CG; it includes the board's expertise, diversity, and size. Shahrier et al. (2020) determined that a balanced approach in sourcing these resources is required to mitigate other issues that may come from applying this theory alone.

CG mechanisms give shareholders some guarantee that executives will endeavour to realise findings that are in the shareholders' interests (Shleifer and Vishny, 1997; Shahrier and Gaur, 2020). Shareholders employ both the internal and external governance structures to assist in bringing the interests of executives on par with themselves (Walsh and Seward, 1990). Internal structures incorporate a successfully coordinated board, rewarding deals that may foster

shareholder induction, and concentrated ownership holdings that lead to committed supervision of a company's executives. On the other hand, the market for corporate control serves as an external structure that is usually triggered when the internal CG mechanism oversees managerial opportunism that has not succeeded.

While agency theory leads CG studies (Daily et al., 2003), a some of the governance studies stems from a larger variety of theoretical views. Much of these theoretical views are anticipated as complements to, not replacements for, agency theory discussed above. Combining these theories of CG is necessary for acknowledging the many mechanisms and structures that could improve organisational functioning to some extent. For instance, the BOD is conceivably the most dominant internal governance mechanism.

2.2.2 Impact of CG on REIT Performance

The impact of CG on REITs has been studied globally. Some of the past work that focused on CG and REITs performance is reviewed herein. For example, Bianco et al. (2007) explored the CG index modified by Gompers in 2003. Their study spanned 2004 until 2006 with 50 especially selected REITs in the US. Using performance measures, ROA, ROE, and funds from operations (FFO), they found an adverse impact of CG and protective obstacles on the performance of REITs in 2004, and that there was not much effect of external governance on performance in 2006. Even with slight improvement on performance in 2006, their study was inconclusive over whether, in 2006, REITs were managed more by management companies or whether these were managed internally. Assets also depreciate and ROA could negatively influence the results. Bauer et al. (2010) applied a CG index for 2003 to 2006 using a US sample of a total of 216 REITs in 2004 and 225 REITs in 2005. They found that REITs' CG index was not related to value. They used Tobin's q and also performance variables ROA, ROE, and funds from operations (FFO). This means that REITs do not appear to be driven by the assets that they invest in and, also, REITs with experienced managers showed improved performance.

Chong et al. (2016) applied the APREA, the Asian CG index, using the generalised method of moments and found an optimistic link involving the CG index with ROA, and on excess returns, which helps to address agency problems. A study by Campbell et al. (2011) found that a corporation with experienced CEOs had higher performance; furthermore, Chong et al. (2017) applied a CG index that proved that not only does it help to enhance ROA but also

assists to assess surplus returns of REITs. Ramachandran et al. (2018) also concluded similar results; that all three performance measures were positively correlated. However, they also noted that highly indebted REITs are risky to investors. Experienced managers of REITs show improved performance and positive correlation to CG's impact. Contradictory to the above, here, the ROA is positively linked to CG.

Other CG studies in the US (e.g., Sirman, 1997; Ooi, 2000; Bauer et al., 2010) considered score cards. These studies typically concluded on the CG score of corporations and the researchers considered either the singular CG components or composite CG via the construction of the CG index. Much of the CG literature is focused on other listed corporations, not REITs (ulRehman and Khan, 2003; Ntim, 2013; Hornmark, 2015; Pamburai et al., 2015; Erasmus et al., 2017). Lecomte and Ooi (2013) determined that market performance is correlated to a decrease in *information asymmetry* that is generally enjoyed by corporates with good CG mechanism as implied by the positive relationship between REIT performance and CG.

REITs are under-researched in South Africa (SA). Much of the CG literature in SA is mainly focused on other industries. Ntim (2013) studied listed firms' CG performance in SA; Pamburai et al. (2015) focused on the evolution of CG in SA; Hornmark (2015), ulRehman and Khan (2016), and Erasmus et al. (2017) also considered the CG evolution in SA; and Mans-Kemp (2014) focused on listed corporation performance and CG, even though SA REITs account for 10% of the top 100 corporations on the JSE, the African world class exchange (JSE, 2020).

2.2.3 CG Firm Performance for Non-REIT Firms

Overall literature in emerging economies showed an optimistic association between performance and good CG. Hassan and ulRehman (2020) found that the effect of CG on corporation performance could vary by economic circumstances in a Bangladesh study, and Farooq et al. (2022) reported similar findings in Pakistan. They used three measures that found that the construct(s) short-term debt, (STD), long-term debt (LTD), and total debt (TD) have a weak link with company performance examined using return on assets (ROA) and return on equity (ROE) in Pakistan listed corporations. Using ROA as a performance measure, Hab and Schweizer (2016) proved a persistent adverse link for considerable supervisory panel meetings by the board and this had an impact on performance. Corporates with a negative ROA determine that a higher ratio of self-governing board members can perform well for undoing

the adverse trends. Other findings on CG are traced in Bangladesh by Islam et al. (2015), whereby there was no association amongst banks' profitability and CG practices. They applied the variable ROA in their study and adopted practices approved for banks.

Other studies were led in conventional developing markets of Asia–Pacific, Europe, and America. For instance, Black (2001), Baek et al. (2004), Black et al. (2006a, b), Black and Khanna (2007), Cheung et al. (2007), and Garay and González (2008) examined the relationships among a wide-ranging complex CG index and monetary performance by means of a sample of Indian, Hong Kong, Russian, Venezuelan, and South Korea listed companies, correspondingly. The outcomes of these research studies contribute to the literature backing the positive link between comprehensive CG-indices and company performance stated for industrialised markets.

Prior evidence has established that improved governance in South African firms is related to higher performance. Ntim (2013) and Pamburai et al. (2015) established a positive connection with Tobin's q (TQ) and accounting measures (ROA, ROE, etc.) with CG.

Ntim (2013) found that the superior performance of SA firms is associated with good governance evidenced by a positive link involving Tobin's q and CG. Moreover, Pamburai et al. (2015) established a confident link of Tobin's q with the junior executives of top SA listed firms; however, a negative association was noted involving how often the panel meetings take place and ROA. This is yet to be established for REITs. Other performance measures will be used as real estate depreciates in addition to ROA.

Erasmus et al. (2017) used models that specified an optimistic alpha for portfolios of corporations covering a great CG practice—a positive alpha means that the fund did well. Although the corporations with a soft CG had a substantially positive alpha, there was a marked drop on Total Share Return (TSR), that indicated that the latter firms exposed shareholders to a higher level of risk. Earlier, Hornmark (2015) reported a positive alpha that was stated for the JSE. CG is negatively related to performance according to the alpha result; however, when TSR is used, the CG is positive. This implies that the results are sensitive to performance indicators. Alpha is risk-adjusted return while TSR is not.

Previous studies have largely established a positive statistically significant association with performance and noticeable CG (Hassan and ulRehman, 2020) subject to the setting and performance agencies adopted. There could be dissimilarities; for instance, China has a different outcome compared to other developing economies. Ntim (2013) proved that corporations with improved performance are associated with how an organisation is managed, showing an optimistic connection with Tobin's q and CG, and Pamburai et al. (2015) concluded a connection between the ratio of junior managers of TQ. Moreover, Erasmus et al. (2017) found a positive alpha for corporations having CG practice, while Hornmark (2015) also reported an optimistic alpha for the JSE. However, the outcomes were dissimilar for Russia, Brazil, China, and India when a different model was adopted (Prashant and Thomas, 2016).

2.2.4 Impact of CSR (ESG) on REIT Performance

Empire building is one of the agency problems as discussed, Jensen (1986) stated that managers are more concerned about a free cash flow problem than focusing on the growth of an organisation. Cheng et al. (2008) concluded that corporations with superior CSR have enhanced access to capital because of lowered agency costs, with greater stakeholder engagement. Lopatta et al. (2023) found that, by providing support, firms use CSR and CG involving executives and non-investing stakeholders.

Ali et al. (2020) adopted the agency theory and CSR. This policy has also been linked to firm performance by Ntim (2012, 2013). CSR influences SA REITs' performance from the above studies. A periodic investigation covering 2010 to 2016 was conducted by Westermann (2018) and they found no significant literature on CSR and REITs globally. They did report that the CSR of REIT outperforms its counterparts and, also, that a gap in lesser- and higher-rated CSR firms seems to be closing.

Joshi and Smith and Leon (2023) reported that, in the US, CSR has an effect on stock performance. Cohen et al. (2017) found that governance impact only seems to be essential when CSR is practised or reported by corporations, whereas Ali et al. (2017) found that ROA had a significant relationship with CG and CSR, although this measure was not applied on REITs. However, other CG principles like corporate panel and attendance of review commission have no impact on any of the accounting measures.

2.2.5 Literature Gap

This research endeavours to overcome shortcomings in prior SA studies in numerous ways. First, 33 REITs are analysed over the period of 2013 to 2022. Prior to 2013, in SA, there were PUTs/PLS² as previously explained. These converted when they changed to REITs in 2013. Dissimilar from prior studies, the influence of both cross-sectional and sequence of discrete time data variations in the CG index is found on company performance; also, on the 75 CG principles of King III and the 17 principles from King IV. Previous studies focused on other industries of listed corporation on JSE, the current study expands on the existing literature and proxies REITs. The study creates CG and CSR indices from the King III and IV reports. Last, to develop the robustness of the outcomes, endogeneity problems, with corporate-level fixed effects, are taken into consideration.

In light of the rising attention to REITs worldwide, Africa has lately attracted several studies covering similar themes. Africa, however, has dissimilar experiences to industrialised nations such as HIV/AIDS, poor administrative climate, poverty, corruption, and inconsistent economic conditions that are present in many African countries (Markus, 2007; Coleman, 2008; Esser and Dekker, 2008).

The Asian structure was created for all Asian nations; however, an Indian study by Black and Khanna (2001) and Singaporean studies by Chong et al. (2016) and Lecomte and Ooi (2013) showed that there are nation-precise elements that were not emphasised in the CG structure. Nevertheless, these revisions were applied in Asia; however, they could not decide on whether the CG structure is able to quantify the CG of REITs for the Indian and Singaporean markets. As a result, they suggested that each nation must have a structure that takes into consideration country-precise challenges. In Africa, though, nothing like the Asia Pacific Real Estate Association (EPREA) exists; however, SA has a newly constructed CG index extracted from the King III report with 75 provisions and 17 principles from the King IV report.

The Asian, American, UK and other CG indices cannot be applied to SA, there some principles that have been adopted to the SA CG framework with SA CG attributes. This current study employs an all-inclusive CG index that shows, for the first time in SA, that firms with a decent

² SA real estate companies operated as PUT/PLS, and differed from REITs structurally, particularly in areas of legal, tax, and legislation matters (Olayeye, 2011). In 2011, SA joined the BRICS nations, in 2013, the REIT structure was enacted which has resulted in SA being in the category of emerging markets with regards to REITs.

CG are likely to perform better for REITs. This study includes South African challenges and formulates a comprehensive CG mechanism to measure SA REITs' performance (Love and Klapper, 2004; Morey et al., 2009).

Larcker and Tayan (2020) also confirmed that a composite CG index is mandatory (Bianco et al., 2007). The former indices were difficult to replicate. Other indices were very western (Bauer et al., 2010); the differences between the westernised CG model and the SA model were discussed above. Drawn from the aforementioned studies, context-specific elements are adopted (Love and Klapper, 2004; Morey et al., 2009).

The gaps in the literature with regards to the African stock markets are as follows. First, there is no evidence of previous work on REITs and CG performance. Second, the comprehensive CG was adopted with localised attributes like employment equity, HIV/AIDS included on the CSR index, and the 75 CG provisions extracted from the King III report and 17 provisions from the King IV report. Third, the previous sampled work includes the five top-performing JSE industries and REITs are mostly excluded in these studies, even though they show promising growth since their inception.

2.2.6 Hypothesis Formulation

There are three essential CG theories—namely, agency theory, stewardship theory, and resource dependency theory. Application of one is not sufficient to understand the multifaceted nature of CG (Shleifer and Vishny, 1997). The literature proved the relationship between performance and CG in SA (Ntim et al., 2012; Pamburai et al., 2015), even though there are other studies that have proven otherwise. In line with the theories, the following hypotheses are, therefore, proposed. As one of the disclosure policies, CSR is also linked to firm performance by Ali et al. (2020) who adopted the agency theory and CSR. This policy has also been linked to firm performance by Ntim (2012, 2013). This current study sets out to understand the CG mechanism, the different types of management, and the influence of CSR policy on the performance of SA REITs. There are two hypotheses from this study.

H1: The performance of SA REITs is positively influenced by the all-inclusive CG and CGI indices.

H2: The performance of SA REITs is positively influenced by CSR.

2.3 Data and Research Methodology

The study investigates the impact of CG and CSR on the firm's performance for SA REITs listed on the JSE. The sample is drawn from 33 SA REITs on the JSE as of the end of December 2022. To examine the relationship involving CG and SA REITs' returns, CG financial data are taken from the *Annual Reports*. The accounting variables are extracted from *Datastream*. The datasets are sourced from the business's annual report and *Bloomberg* for the period between 2013 and 2022.

2.3.1 Identification of Key Variables

2.3.1.1 CGI

There are various restructuring methods; these include principal component analysis (PCA) and multiple correspondence analysis (MCA), among others. Measurement or the nature of the variables always informs the preferred and most appropriate method to use. The commonly used method is PCA but it is only appropriate for the restructuring of continuous variables (Adediran et al., 2020) whereas MCA is appropriate for the restructuring of categorical variables (Greenacre and Blasius, 2006). A CG index was constructed using MCA. MCA³ is a dataset to formulate application, and this will allow the investigation of association with a set of variables by converting the whole datasets into dummy variables to create an indicator matrix cross-tabulation among variables. The study adopts the use of singular value decomposition on stata software using *catvar1* and *catvar2*. The important part of MCA is its utilisation of a particular decomposition and weighted least squares techniques to find low-slung-dimensional best suiting subspaces with minimal inertia and information loss (LeRoux and Rouants, 2010). When the firm is identified with these criteria, it is allotted a value of 1, and 0 otherwise. Since the variables are categorical (dummy), the study applied MCA to generate an index of CG. The results of the MCA outcomes can be divided into two sections. The first section reveals the normalised principal inertia. The compliance data are retrieved from annual reports, and CGI is the collective of principles from the King III and IV reports.

³ MCA (Multiple Correspondence Analysis) is a dataset analysis tool used for categorical data, and it detects underlying structures in a dataset. This was first introduced by the mathematician, Benzéni, in the 1960s and the 1970s in France. This tool is an improvement from PCA and CA. PCA is used for large datasets containing a high number of dimensions and the CA is a multivariate statical technique like PCA that applies to categorical rather than continuous.

In SA, all companies are obliged to conform to CG provisions. After the 2017 King IV report, all companies must show compliance in their income statements. The King IV report King IV report has 17 principles; the 17th principle only applies to institutional investors, so corporations must comply with 16 principles. REITs must comply with these from 2017 to date. The King III report has 75 principles that are made up of nine broad principles and REITs must comply with these from 2013 until 2016. The nine broad principles are: (1) board and directors; (2) corporate citizenship, leadership, integrity & responsibility; (3) audit-committees; (4) risk-management; (5) internal-audit; (6) integrated sustainability reporting & disclosure; (7) compliance with laws, regulations, rules and standards; (8) managing stakeholder relationships; and (9) fundamental affected transactions.

Ntim et al. (2013) adopted the 50 provisions of the CGI Index for all listed corporations from the King II report, with positive correlations to performance. On the other hand, Love and Klapper (2004) and Morey et al. (2009) studied restricted CG provisions using listed corporations as a laboratory. Different from previous studies, this current paper employs the MCA to formulate the CGI index grouped the level of compliance for each REITs is recorded as an indicator matrix. The whole dataset is formulated as a dummy variable, where compliance on principle is conferred a value of 1, and 0 otherwise. These are inclusive of the SA unique attributes EE (Employment Equity) and AA (Affirmative Action). In older King reports, these attributes were separate; hence, Ntim et al. (2013) created an SCGI index to cater for these. The study hypothesises a positive correlation between CG Index and SA REITs' performance. These results are analysed in the next section.

2.3.1.2 CSR

Since the Ntim et al.'s (2012) paper where the CSR variable was tested using word count, much has changed as the authors proxied the King II report and, thereafter, the King III report made it mandatory that all listed corporations should report CSR. In 2017, the King IV report provided a list of compliance areas that each corporation should report on. Ackers and Eccles (2015) conducted a review on CSR reporting and compliance, and they found that South Africa is among the first countries to make CSR disclosure mandatory for listed corporations, and that companies should use their auditor assurance like the Big 5 (the top five auditing firms) to assist in reporting.

Adapted from the King IV report, these are the recommended practices that each corporation should report on, listed below. The CSR index is formulated using MCA, exploration of association is applied with a set of variables, and the datasets are transformed into dummy variables to create a matrix cross-tabulation among variables. The important part of MCA is its utilisation of a singular decomposition and weighted least squares procedures to find low-dimensional finest and suitable subspaces with least inaction and information loss, like the previous index created. When the firm is identified with these criteria, it is assigned a value of 1, and 0 otherwise. Since the variables are categorical (dummy), the study applied MCA to create an index of CSR. Below is the list of these practices that should be on the annual reports of corporations. The four areas are used to formulate an index:

The presiding body ought to administer and observe, on a continuing basis, how the aftermaths of the organization actions and output concern its status as a accountable corporate citizenship. This overseeing and supervising ought to be performed alongside methods and targets agreed with company' executives in the following areas.

- (i) Workplace (involving employment equity for compensation and safety, health, dignity, and education of staff).
- (ii) Economy (involving economic transformation, exposure and reaction to fraud and corruption, and accountable and obvious tax policy).
- (iii) Society (involving community health and safety, customer safety, community development, and safeguarding of human rights).
- (iv) Environment (involving obligations in respect of pollution and waste removal and safeguard of biodiversity).

The study adopted the ordinary least squares methods to discover low-dimensional finest-suitable subspaces with least inaction and information loss, like the previous index created. When the firm is identified with these criteria, it is allotted 1, and 0 otherwise. since the variables are categorical (dummy). The list of these practices that should be on the annual reports of corporations is set out below. The four areas are used to formulate an index (see appendix C):

The CSR⁴ variable is taken from the yearly reports and the firms' financial statements. A positive relationship with SA REITs' performance was hypothesised.

2.3.1.3 Performance Variables

The study's quantification of company performance is the commonly used Tobin's q. Nevertheless, to monitor the strength of the models' outcomes, total share returns (TSR) is used as a complementary and market-based accounting measure. TSR is made up of share price and dividends. Tobin's q is the total assets minus book value of equity and adds the market value of equity to total assets. The study does not use ROA, which is the ratio of operating profit to total assets, as these have an impact on the depreciation of assets on the balance sheet.

2.3.2 Model Specification

The current study draws from the work of Liu and Wu (2016) for a panel analysis with slight modification to obtain a specification as follows:

$$TSR_{it} = \alpha_i + \beta_{i1}CGI_{it} + \beta_{i2}CSR_{it} + \beta_{i3}X_{it} + \varepsilon_i, \quad t=1, 2, 3..T, \quad (1)$$

where TSR_{it} denotes the firm's performance; CGI_{it} represents the Corporate Governance index; CSR_{it} is the Corporate social responsibility; and X_{it} represents covariates (such as Total assets, Debt ratio, Audited by the Big 5, and cross-listing). α_i is constant or intercept; $\beta_{i1}, \beta_{i2}, \beta_{i3}$ are the vectors of explanatory variables; i is individual firm; t is time variable; and ε_i is the error term.

Cross-listing: This is measured on overseas stock markets that incline to superior CG structures (Black et al., 2006a; Ntim et al., 2013) and a positive correlation with CG is hypothesised. This will take the value of 1 if a REIT is cross-listed on overseas stock, and 0 otherwise.

Big 5: Corporations audited by one of the Big 5 accounting corporations are considered reputable (De Angelo, 1981). The value of 1 is assigned if the corporation is audited by the Big 5 firms in SA, and 0 otherwise.

⁴ CSR is taken from the annual reports. Prior evidence suggests that they are positively related with the level of disclosure provided through other mediums (Ntim et al., 2012). Annual reports are not a direct variable; however, after the King IV report of December 2016, companies are required to show this in their income statements.

Debt ratio: This means the ratio of debt to equity.

For a robustness check, the model is specified as follows.

$$TQ_{it} = \alpha_i + \beta_{i1}CGI_{it} + \beta_{i2}CSR_{it} + \beta_{i3}X_{it} + \varepsilon_i, \quad t=1, 2, 3..T \quad (2)$$

where TQ_{it} denote the Tobin's q (or market to book (MTB) ratio).

2.4 Results

2.4.1 Estimation Procedures

The study employs ordinary least squares (OLS) with a standard error robust check in a panel data analysis to investigate the association concerning SA REITs' firm performance and corporate governance (CG) index that consists of 75 provisions from the King III report and 17 provisions from the King IV report. CG is the chief independent variable. The results are for the first-time report on CG principles and their association with SA REITs' firm performance. These are some of the standard principles since the introduction of CG in SA. These include leadership/BOD and composition, risk governance, managing stakeholder relationship, and compliance with laws and regulations (King I, 1994; Rossouw et al., 2002). SA adopted the initial King report from the Anglo-American model from the United States of America and the Cadbury reports from the United Kingdom, and it was later modified with changes in laws, which makes the SA model unique (Andreasson, 2011; Ntim, 2013; Cerbone and Maroun, 2020). The SA CG framework has some similarities with other regions—America (Toms and Wright, 2005; Letza et al., 2004), Europe (Jones and Pollitt, 2004; Dahya and McConnell, 2007), and Asia (Lacomte and Ooi, 2013; EPRA, 2018).

The corporate social responsibility (CSR) index is also a key independent variable. For both the CG index and the CSR index, the study uses multiple correspondence analysis (MCA). MCA is a restructuring tool that is suitable for categorical variables (that is, dummy and ordered or ranked measured variables). The first dimension shows 0.516 principal inertia for the CSR index and 0.389 for the CG index. The inertia value indicates the amount of variation accounted for by the corresponding principal dimension (Ayele et al., 2014). The association between the selected variables represents 52% for the CSR index and 39% for the CG index. The indices constructed ranges from negative to positive values, which implies that negative is non-compliance and positive is compliance with both CSR and joint King III and IV reports.

The study investigates the presence of overlay and outliers in the data used for the analysis, and presents the findings graphically. Figure 1 shows that there are two data points that are outside the CG index, while there is no obvious data point outside the expected sequence for the CSR index.

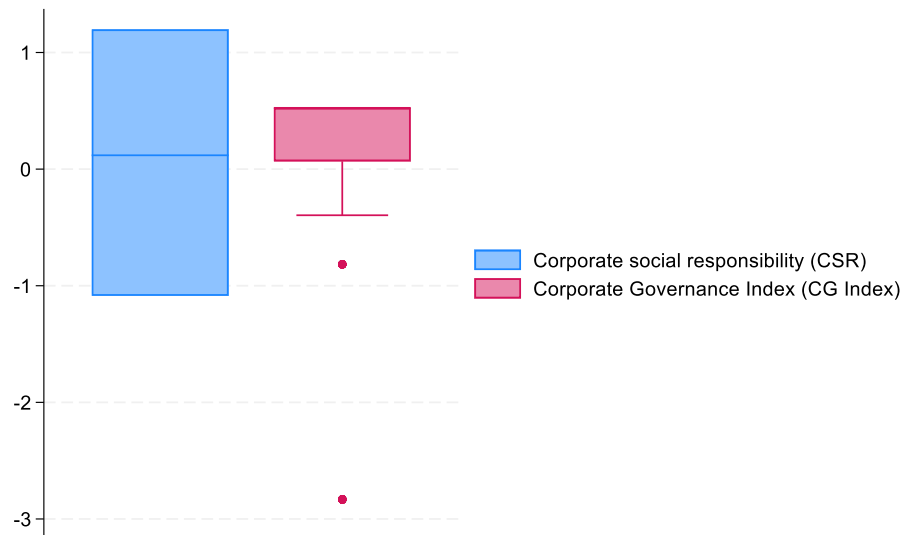
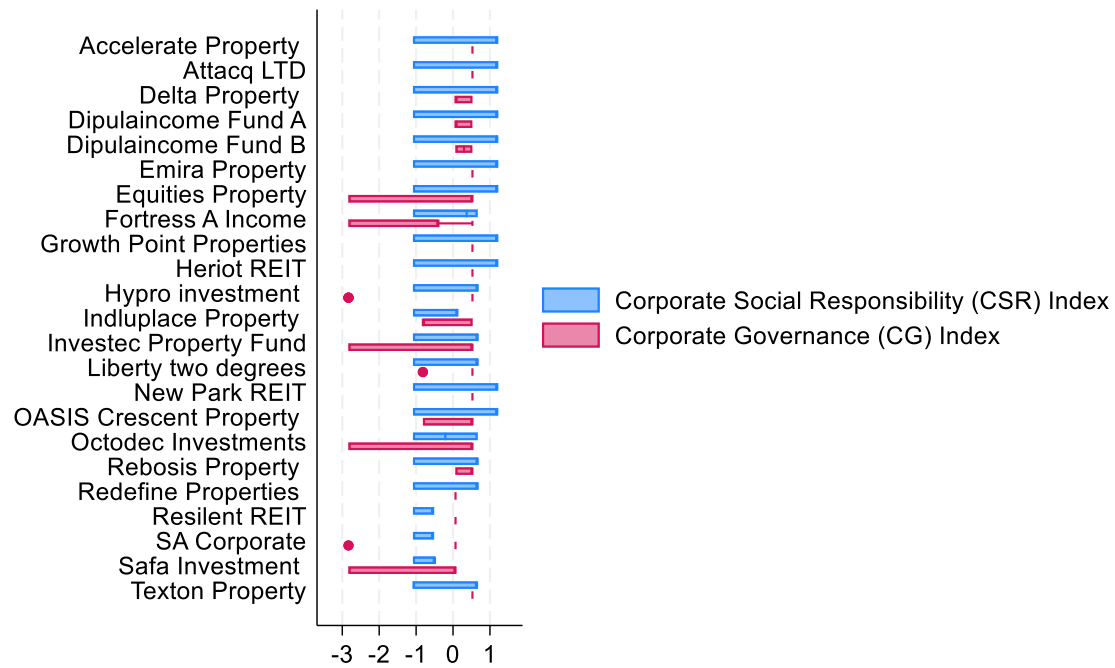


Figure 1. Graph box for corporate social responsibility and governance corporate index. Source: Computed by the authors.

Further, the study examines specific firms that had overlay. Figure 2 shows the overlay of CSR and CG by the firms' data points. From the graph, three companies have outliers in the CG index data— Hypro Investment, Liberty two degrees, and SA Corporate.



2.4.2 Descriptive Statistics

The study focuses on South African REITs and spans the period 2013 to 2022⁵. Table 2.3 exhibits summary statistics of the key variables used. The study generates performance by deducting the opening price from the closing price, adding it to the dividends, and dividing by the opening price, as mentioned above when describing the variables.

The average total stock returns (firm performance) value is 0.67, which is a little lower than the median value of 0.85. The CG index explains the distribution between the lower value of -0.54 and the upper value of 4.05. The average of the CG index is 0, and the standard deviation is 1. This reflects the CSR index that was created. The Tobin's q average value is 0.12, the median is minus -0.11, and the data distribution has a minimum of -0.73 and a maximum of 2.97. All the datasets used in the analysis are continuously measured, aside from cross-listing and Big 5 audit firms.

Table 2.3: Descriptive Statistics

Variables	Obs	Mean	Median	Std. Dev.	Min.	Max
Firm performance	207	0.673	0.853	1.002	-1.515	2.209
Corporate social responsibility index	230	0	0.119	1.002	-1.087	1.199

⁵ The study applied interpolation for some missing data points and has a strongly balanced panel.

Managing stakeholders' relationship	222	0.631		1	0.484		0	1
Leadership/BOD/BOD composition	222	0.901		1	0.299		0	1
Risk governance	222	0.874		1	0.333		0	1
Compliance governance	222	0.851		1	0.357		0	1
Corporate governance index	222	0	0.525		1.002	-2.833	0.525	
Tobin's q	230	0.117	-0.110		1.008	-0.725	2.974	
Total asset	230	-1.719	-1.671		0.129	-1.938	-1.565	
Equity ratio	230	-0.227	-0.347		0.517	-0.893	0.878	
Cross-listing	230	0.696		1	0.461		0	1
Big 5 audit firm	230	0.435		0	0.497		0	1
Consumer-price-index (CPI)	230	4.428	4.441		0.138	4.201	4.648	
Gross domestic product	230	15.311	15.314		0.024	15.275	15.341	
Interest rates	230	9.163	9.271		1.106	7.042	10.458	
Total Employment	230	16.093	16.108		0.039	16.020	16.146	

Note: The CSR index denotes corporate social responsibility index; the Corporate Governance index consists of the King III and IV reports jointly.

2.4.3 Correlations Analysis

It is expected that the firm's performance will have a positive relationship with the CSR index. Moreover, there is a positive link involving corporate performance and equity ratio. CPI is significantly correlated with SA REITs' performance; however, GDP shows an adverse correlation. CG is significantly correlated to SA REITs' performance on the second column. To cater for multicollinearity, a further analysis on table 2.5 is employed. Multicollinearity was not found to be a problem.

Table 2.4 presents correlation analysis of firm performance and the control variables.

Table 2.4: Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
(1) Firm performance	1.000									
(2) CSR index	0.199* (0.004)	1.000								
(3) CG index	0.087 (0.220)	0.385* (0.000)	1.000							
(4) Equity ratio	0.426* (0.000)	-0.627* (0.000)	-0.293* (0.000)	1.000						
(5) Cross-listing	0.000 (1.000)	-0.051 (0.441)	0.061 (0.367)	0.000 (1.000)	1.000					
(6) Big 5 Audit	0.000	0.031	-0.169* (0.000)	0.000	0.008	1.000				

	(1.000)	(0.637)	(0.012)	(1.000)	(0.901)					
(7) CPI	0.241*	0.754*	0.337*	-0.642*	0.000	0.000	1.000			
	(0.000)	(0.000)	(0.000)	(0.000)	(1.000)	(1.000)				
(8) GDP	-0.127*	0.524*	0.242*	-0.651*	0.000	0.000	0.644*	1.000		
	(0.069)	(0.000)	(0.000)	(0.000)	(1.000)	(1.000)	(0.000)			
(9) Interest rate	-0.562*	-0.137*	-0.038	-0.396*	0.000	0.000	-0.276*	0.358*	1.000	
	(0.000)	(0.037)	(0.575)	(0.000)	(1.000)	(1.000)	(0.000)	(0.000)		
(10) Employment	-0.010	0.773*	0.346*	-0.866*	0.000	0.000	0.862*	0.748*	0.113*	1.000
	(0.883)	(0.000)	(0.000)	(0.000)	(1.000)	(1.000)	(0.000)	(0.000)	(0.087)	

Notes: *** p<0.01, ** p<0.05, * p<0.1; CSR index denote corporate social responsibility; GDP denote Gross Domestic Product; BFAF denotes Big 5 Audit firm; CPI denotes Consumer price index; GDP represent Gross Domestic Product.

2.4.5 Variance Inflation Factor

Table 2.5 presents the variance inflationary factors (VIF) analysis. The rule of thumb is that the VIF must not exceed 10. Otherwise, there is a probability of collinearity in the model. Hence, the analysis is not likely to suffer multicollinearity in the estimation, and our variables do not suffer from multicollinearity.

Table 2.5: Variance Inflation Factor

	VIF	1/VIF
CSR index	1.626	.615
Equity ratio	1.465	.683
CG Index	1.209	.827
Big 5 Audit	1.028	.972
Cross-listing	1.005	.995
Mean VIF	1.267	.

2.4.6 Empirical Results

2.4.6.1 CG Principles and SA REITs' Firm Performance

Furthermore, the study reports on each of the CG principles that have an association with SA REITs' performance to address Hypothesis 1. The results are shown in Table 2.6, below.

The Column (1) results report that the CSR index has a substantial positive link with corporate performance. This result is not new on listed corporations but new in SA REITs. Ntim et al. (2012) reported similar results on some listed corporations, but not REITs. A review by Westermann in 2018 also proved the same on listed corporations' performance and CSR. The BOD is possibly the most fundamental internal governance mechanism in CG; this may include

the board's expertise and composition (Shahrier et al., 2020). The result shows a positive link involving BOD and corporate performance. Therefore, SA REITs should consider complying with this principle, as compliance may assist with BOD members selection, which may positively improve the returns of an organisation. An SA REIT with high-level leadership is positively associated with performance, so it becomes mandatory to appoint a BOD that practices ethical leadership. The stakeholder relationships have a negative relationship with SA REITs' performance while the stakeholder relationship principle does not improve SA REITs' performance. However, it is still a relatively important CG principle even though it is adversely associated with SA REITs' performance (Ntim, 2013). Other variables such as equity ratio, total assets, CPI, interest rate, and employment level all have a substantial positive relationship with firm performance, whereas gross domestic product (GDP) has a substantial negative connection with corporate performance. SA has experienced slow economic growth for a while now and has struggled to improve after being hard hit by the COVID-19 pandemic (Stats SA, 2023), so this result is not surprising.

Column (2) shows that the leadership/BOD principle is considerably associated with SA REITs' firm performance. This is expected, as BOD expertise and composition are positively associated with performance. Campbell et al. (2011) found that corporations with experienced CEOs had higher performance; moreover, Chong et al. (2018) applied a CG index that proved that not only does an experienced BOD help to improve ROA, but it also assists to assess surplus returns of REITs. The CSR index has a substantial positive link with company performance. Total assets and equity ratio have a substantial positive link with SA REITs' performance; this is expected. SA REITs that are audited by the Big 5 are likely to perform better, so SA REITs should consider being audited annually and prepare thoroughly for these audits. On the other hand, the result for the management of stakeholder implies that SA REITs should take into consideration that this relationship adversely influences performance. The macro-economic indicators seem to have a significant influence on SA REITs' performance—these include CPI, employment levels, and interest rates. However, GDP is adversely associated with performance.

Column (3) shows that risk management has an insignificant negative association with firm performance. This does not mean that SA REITs can disregard risk compliance; however, complying with this principle has no association with returns. The CSR index has a substantial definite link with company performance. The leadership/BOD relationship principle has a

substantial optimistic link with corporate performance—this is expected, as discussed previously. Total assets have a substantial positive affiliation with corporate performance—this is also expected, similar to the literature (Sirman, 1997; Ooi, 2000; Bauer et al., 2010; Campbell et al., 2011; Chong et al., 2016). Even in this column, stakeholder relationship has a substantial adverse link with corporate performance. The equity ratio has a substantial link with firm performance. A Big 5 audit firm has a substantial positive link with corporate performance. It is expected that macro-economic variables will have substantial positive link with performance (Hornmark, 2015; ulRehman and Khan, 2016; Erasmus et al., 2017). The adverse impact response of GDP has been clarified above.

Column (4) shows a compliance governance association with SA REIT performance, implying that conformity with laws and regulations is linked with company performance. The CSR index has a substantial optimistic link with corporate performance. The leadership/BOD relationship principle has a sizable optimistic link with corporate performance—this is expected. Total assets have a considerable positive link with corporate performance. The equity ratio has a substantial link with company performance. The macro-economic indicators are still significantly positively associated with performance here, except GDP. Risk management has an insignificant negative link with firm performance.

Column (5) shows that the CSR index has a substantial positive link with firm performance. Total assets and equity ratio have a sizable positive link with company performance. The equity ratio has a substantial link with firm performance. The macro-economic variables are still significantly positively associated with SA REITs' performance, except for GDP.

Table 2.6: CG Principles and SA REITs' Firm Performance

Variables	(1) Firm Performance	(2) Firm Performance	(3) Firm Performance	(4) Firm Performance	(5) Firm Performance
CSR index	0.527*** (0.0563)	0.539*** (0.0545)	0.543*** (0.0545)	0.541*** (0.0546)	0.473*** (0.0557)
Stakeholders' Relationship	-0.207*** (0.0733)	-0.363*** (0.0821)	-0.374*** (0.0824)	-0.402*** (0.0912)	
Leadership/BOD		0.550*** (0.147)	0.799*** (0.238)	0.712*** (0.267)	
Risk management			-0.246	-0.242	

			(0.185)	(0.186)	
Compliance governance				0.120	
				(0.167)	
CG Index					0.0113
					(0.0385)
Total Asset	16.87***	16.89***	16.91***	16.91***	16.71***
	(1.053)	(1.018)	(1.016)	(1.018)	(1.074)
Equity ratio	4.869***	4.944***	4.956***	4.959***	4.810***
	(0.235)	(0.228)	(0.228)	(0.228)	(0.239)
Cross-listing	0.0414	-0.00489	-0.0163	-0.0229	0.0679
	(0.0687)	(0.0676)	(0.0680)	(0.0687)	(0.0694)
Big 5 audit firm	0.0267	0.121*	0.108	0.124*	-0.0252
	(0.0663)	(0.0689)	(0.0696)	(0.0734)	(0.0655)
CPI	9.528***	9.498***	9.506***	9.512***	9.375***
	(0.975)	(0.943)	(0.941)	(0.942)	(0.994)
GDP	-105.5***	-106.0***	-106.2***	-106.2***	-104.4***
	(6.672)	(6.455)	(6.443)	(6.452)	(6.802)
Interest rate	0.215***	0.239***	0.242***	0.243***	0.196***
	(0.0678)	(0.0659)	(0.0658)	(0.0659)	(0.0689)
Employment	28.23***	27.27***	27.16***	27.12***	28.79***
	(2.909)	(2.826)	(2.821)	(2.825)	(2.962)
Constant	1,148***	1,170***	1,174***	1,175***	1,122***
	(95.68)	(92.73)	(92.60)	(92.73)	(97.26)
Observations	201	201	201	201	201
R-squared	0.804	0.818	0.819	0.820	0.796

Notes: Standard-errors-in parentheses: *** p<0.01, ** p<0.05, * p<0.1

2.4.6.2 Corporate Social Responsibility and SA REITs' Firm Performance

Table 2.7, below, shows the results of corporate social responsibility and SA REITs' company performance to address Hypothesis 2.

Column (1) presents the estimation of CSR and company performance. CSR has a sizable positive connection with the firm's performance (Khan et al., 2023). Similar results were reported by Ntim et al. (2012), Ali et al. (2020), and a review report by Westermann (2018). This implies that CSR is likely to improve company performance. The finding shows that the CG index has positive association with firm performance. These outcomes reveal that an increase in the CG index is likely to influence firm performance. It is anticipated that total asset will have a substantial optimistic link with company performance, and it is expected that the equity ratios result will have a substantial link with firm performance. SA REITs that have assets funded by equity rather than debt show financial stability in the long run. SA REITs

audited by one of the Big 5 audit companies have significant positive association with corporate performance. The macro-economic variables have a sizable positive link with SA REITs' performance. However, GDP had an adverse association with SA REITs' performance.

In Column (2), the CSR index has a sizable positive relationship with SA REITs' performance. Compliance with CSR criteria is likely to influence firm performance by 57%. Moreover, Cheng et al. (2014) found that corporations with greater CSR have improved access to capital because of lowered agency costs, with greater stakeholder engagement. Total assets and equity ratio have a substantial positive link with company performance—this is not new to the literature (Kemardin and Haron, 2011, p. 201; Ntim, 2013; Hornmark, 2015). The Big 5 audited firms have a negative link with company performance; this is a surprising result. Macro-economic indicators' CPI, interest rate, and employment levels have a substantial positive link with firm performance. However, GDP has an adverse result.

In Column (3), the CSR index is consistent with a substantial positive association with corporate performance; this is similar to and expected from the literature as explained above. Total assets and equity ratio have a substantial positive link with corporate performance. The consumer price index has a substantial positive link with corporate performance. This macro-economic variable, GDP, has an adverse link with corporate performance.

In Column (4), the CSR index has a substantial positive link with corporate performance. Total assets and equity ratio have a substantial positive link with corporate performance, as expected. Moreover, GDP has a considerable negative link with corporate performance.

In Column (5), the CSR index has a substantial positive link with firm performance. The equity ratio has a considerable link with firm performance. In Column (6), as in Column (5), the CSR index has a substantial positive link with firm performance. The equity ratio has a sizable association with corporate performance.

Table 2.7: SA REITs' Firm Performance and Corporate Social Responsibility

Variables	(1) Firm Performance	(2) Firm Performance	(3) Firm Performance	(4) Firm Performance	(5) Firm Performance	(6) Firm Performance
CSR index	0.473*** (0.0767)	0.577*** (0.0878)	0.534*** (0.0867)	0.731*** (0.102)	0.635*** (0.0787)	0.629*** (0.0761)
CG Index	0.0113 (0.0440)	0.0154 (0.0512)	0.0165 (0.0515)	0.0462 (0.0800)	0.0419 (0.0847)	0.0422 (0.0858)
Total Asset	16.71*** (0.446)	13.85*** (0.909)	13.00*** (1.012)	2.018* (1.194)	0.268 (0.603)	
Equity ratio	4.810*** (0.247)	3.534*** (0.246)	3.096*** (0.209)	2.220*** (0.266)	2.104*** (0.245)	2.054*** (0.193)
Cross-listing	0.0679 (0.0656)	0.0825 (0.0789)	0.0764 (0.0814)	0.105 (0.104)	0.0910 (0.107)	0.0901 (0.107)
Big 5 audit firm	-0.0252 (0.0643)	-0.0315 (0.0777)	-0.0277 (0.0795)	-0.0403 (0.100)	-0.0314 (0.102)	-0.0305 (0.101)
CPI	9.375*** (0.617)	11.36*** (0.842)	9.153*** (0.595)			
GDP	-104.4*** (3.170)	-83.35*** (5.879)	-72.81*** (5.994)	-10.95** (5.479)		
Interest rate	0.196*** (0.0482)	0.212*** (0.0680)				
Employment	28.79*** (2.854)					
Constant	1,122*** (54.62)	1,249*** (88.53)	1,098*** (91.32)	172.5** (85.75)	1.746 (1.080)	1.274*** (0.123)
Observations	201	201	201	201	201	201
R-squared	0.796	0.694	0.684	0.478	0.465	0.464

Notes: Robust standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

2.4.7 Sensitivity Analysis

For a robustness check, the study used firm performance as a proxy using Tobin's q, as mentioned above.

Table 2.8 shows the robustness tests for Hypothesis 1. Columns (1)– (4) show estimation of CG and Tobin's q using OLS. In columns (1)– (3), there is a positive association with Tobin's q; this result reflects Ntim (2013). Total assets are significantly positive at Columns (1) and (4); this is expected, as found in the literature (Pamburai et al., 2015), The macro-economic

variables CPI, employment levels, and GDP are adversely related to Tobin's q; however, interest rates are notably positive in Column (2) with Tobin's q.

Table 2.8: CG and Tobin's q

	(1)	(2)	(3)	(4)	(5)
Variables	1	2	3	4	5
	Tobin's q	Tobin's q	Tobin's q	Tobin's q	Tobin's q
CG Index	0.00295 (0.0570)	0.0175 (0.0593)	0.0337 (0.0535)	-0.0113 (0.0583)	-0.0105 (0.0583)
Total Asset	0.708* (0.360)		0.0796 (0.349)	2.755*** (0.805)	2.756*** (0.803)
Equity ratio	0.895*** (0.146)		0.953*** (0.113)	1.557*** (0.149)	1.557*** (0.148)
Cross-listing	0.00383 (0.0863)		0.00448 (0.0766)	0.00354 (0.0889)	0.00323 (0.0889)
Big 5 audit firm	-0.00425 (0.0799)		0.00214 (0.0705)	-0.00851 (0.0825)	
Employment	-10.98*** (1.515)	-6.137*** (1.793)			
Interest rate		-0.309*** (0.0471)			
CPI		-6.264*** (0.658)	-3.369*** (0.222)		
GDP		13.53*** (1.311)		-13.18*** (3.318)	-13.19*** (3.309)
Constant	178.2*** (24.44)	-77.69** (31.04)	15.39*** (1.186)	207.1*** (52.09)	207.2*** (51.95)
Observations	222	222	222	222	222
R-squared	0.643	0.674	0.718	0.621	0.621

Notes: Robust-standard-errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table 2.9 exhibits the robustness test for Hypothesis 2. Columns (1)– (6) present the estimation of CSR and Tobin's q using ordinary least squares (OLS). CSR has a sizable positive link with Tobin's q. This was proven by Ntim (2013), Ntim et al. (2012) the association of CSR initiatives and performance and in SA corporates are expected to be responsible citizens by giving back. CSR influences SA REITs' performance from previous studies. This would imply that governance effect only appears to be vital when CSR is practiced or reported by corporations, like Cohen et al. (2017). At columns (1)– (4), total assets have a positively

significant relationship with Tobin's q. Employment levels have a substantial negative link with Tobin's q in the first column. Interest rates are notably positive in Column (2) with Tobin's q. Furthermore, GDP has an optimistic link with Tobin's q, and it is statistically significant.

Table 2.9: CSR and Tobin's q

	(1)	(2)	(3)	(4)
Variables	1	2	3	4
	Tobin's q	Tobin's q	Tobin's q	Tobin's q
CSR index	0.165*** (0.0441)	0.225*** (0.0449)	0.296*** (0.0414)	0.0778* (0.0437)
Total Asset	0.821** (0.352)	-1.757*** (0.416)	0.195 (0.339)	3.038*** (0.894)
Equity ratio	0.907*** (0.139)	1.898*** (0.131)	1.130*** (0.108)	1.665*** (0.162)
Cross-listing	0.0183 (0.0858)	0.0251 (0.0757)	0.0330 (0.0728)	0.00867 (0.0897)
Big 5 audit firm	-0.0105 (0.0797)	-0.0144 (0.0707)	-0.0189 (0.0678)	-0.00498 (0.0831)
Employment	-14.43*** (1.784)			
Interest rate		0.486*** (0.0441)		
CPI			-4.523*** (0.320)	
GDP				-15.21*** (3.881)
Constant	234.0*** (28.70)	-6.935*** (1.028)	20.72*** (1.393)	238.6*** (60.86)
Observations	230	230	230	230
R-squared	0.656	0.728	0.750	0.627

Notes: Robust-standard-errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

2. 5 Conclusion

This study examined the affiliation concerning CG and performance for commercial property assets, adopting a number of publicly listed REITs. The focus was on SA REITs as they work in parallel markets, they grow funds in the capital market, and they invest in the real estate market in a portfolio context. This distinctive disposition facilitates evaluating CG and REITs' performance, using a balanced panel data to control for time-invariant components in the

model. A second hypothesis associated to CSR and the genesis of the REIT performance was also tested.

REITs offer a natural experiment in CG because they leave low free cash flow for management, which decreases agency challenges. A typical SA REIT in the study companies holds its properties for about 10 years.

The study documented a positive and substantial relationship relating to all CG principles and corporate-level performance and profitability. Like previous studies by Ntim (2013) and Sharier et al. (2020), BOD, as the significant and most integral CG compliance measure, is linked to SA REITs' performance. Experienced board members and boards that practised ethical leadership influence the SA REITs' performance. It was also found that stakeholder relationship does not influence or improve SA REITs' performance; therefore, it is concluded that this relationship with stakeholders—even though it was previously believed to be mandatory for all organisations—has an adverse relationship with SA REITs' performance.

The study conducted robustness checks to assess firm performance as a proxy using Tobin's q. The results also correspond to existing studies. Concurrently, the mechanisms of the optimistic link involving CG and SA REIT performance were explored.

The SA CG Index is extracted from the King III and IV reports. The study's unique indices feature 17 principles from the King IV report and 75 principles from the King III report, to measure CG.

The outcomes confirm a positive link between CG and corporate performance and have focal implications for listed real estate executives and investors. This study also opens the door for potential research on the CG and REIT performance, elements, and results related to CG and REIT performance.

The first hypothesis, H1, is not related to the concept of internal and external management. SA REITs are either managed internally or externally, which can influence CG compliance level. The five top-performing SA REITs are internally managed; their internal construct includes a

magnificently structured board, reward deals that inspire shareholder training, and concentrated ownership holdings that drive the active supervision of executives.

The other major agency problem is financing the organisation. When a firm does not have enough equity, they may use debt to finance projects (Georgen, 2006). SA REITs that comply with governance of risk (principle 4) of the King III report will likely improve performance. Ramachandran et al. (2018) also concluded similar results, that all three performance measures (ROE, ROA, ROI) were positively correlated; however, they also noted that highly indebted SA REITs are risky to investors. The problem arises when managers enter high-risk projects that may fail. In this case, the costs will be borne by debt holders. However, if the project is successful, the shareholders will benefit.

Ethical leadership and corporate citizenship contribute more to SA REITs than other principles from the King III report that shows a positive relationship with SA REITs' performance. The stewardship theory fails to account for where executives do not become good stewards (Bathula and Singh, (2015). The board includes board expertise, diversity, and size (Shahrier et al., 2020). The board assists in providing access to the resources that a company or its stakeholders need (Li et al., 2020). This is at par with the resource dependency governance theory; however, the results from other principles from the same report were inconclusive.

It can be concluded that CG has a positive influence on SA REITs, as all CG principles, when pooled together, have a positive result with high significance. SA REITs that are also cross-listed will likely influence performance; this also applies to those that are audited by the Big 5 auditing companies in SA.

The second hypothesis, H2, tested the link concerning CSR and SA REITs firm performance. The study documents a positive and sizable link relating all CSR conformity areas and firm-level performance and profitability.

The study conducted a robustness check to study firm performance as a proxy using Tobin's q. The findings also complement those of existing studies. Concurrently, the positive relationship between CSR and SA REIT performance was explored. The SA CSR levels are extracted from the company's annual reports and the King IV report to form an index.

The findings on CSR and SA REITs' performance close the gap in the literature that currently exists, using this study's unique index to capture CSR compliance. Not much work was conducted after Westermann (2018) conducted a review and found limited studies on CSR and corporate performance. The index of this study shows a positive link with the corporate's performance (Khan et al., 2023). This implies that CSR is likely to improve firm performance with higher magnitude. CSR and equity ratio have a sizable positive connection with the corporate performance. Chung et al. (2005) argued that corporations with greater CSR have better access to capital because of decreased agency costs, with greater stakeholder engagement.

Ali et al. (2020) adopted the agency theory and CSR. This policy has also been linked to firm performance by Ntim (2012, 2013). In SA, corporates are expected to be responsible citizens by giving back. From the above studies, it is shown that CSR influences SA REITs' performance.

This study did not focus on the management structure of REITs; that is, whether a REIT is internally or externally managed. Further research can explore this area on CG. In the SA context, Ntim (2013) constructed an index formulated from older King reports. They did not focus on management structure, and they also did not focus on different industries, only top-performing industries at the time. The present study will assist SA REITs to comply with reporting and improving their compliance each year if they are to witness higher returns.

CSR compliance has become mandatory in SA, so it should be easier to capture compliance in the coming years. In 2017, reporting improved, and this upward trajectory is expected to continue each year. Ntim's (2012) in SA used word count at the time as the compliance reporting was difficult to trace, and their data were very limited compared to richer data in the later years. CSR has been highly linked to performance for SA REITs; this encourages firms to improve the CSR reporting on their annual reports if they are to realise promising returns.

CHAPTER THREE

The Impact of Corporate Governance on South Africa's REIT Foreign Investment Activity.

3.1 Introduction

Corporate governance (CG) is one of the areas of interest for research with evidence spanning decades (Berle and Means, 1932; Jensen and Meckling, 1976; Williams, 1988; Yermack, 1996; Shleifer and Vishny, 1997; Xu and Wang, 1999; Guest, 2009; Shahier et al., 2020; Simons et al., 2023). This could be qualified to the not consistent findings that are being presented in this area of research. A company is controlled by a board of directors (BOD) who are far from being aligned, and their interests are based on agency theory that was introduced in 1976 by Jensen and Meckling. Various authors have emphasised the importance of the improvement of governance systems globally: in the Americas by Toms and Wright (2005); in Europe by Jones and Pollit (2004) and Dahya and McConnel (2007); in Asia by Cheung et al. (2007) and Cheng (2008); and in Africa by Ntim et al. (2013) and Pamburai et al. (2015). Having sound CG is imperative as Alregab (2023) mentioned that failing businesses can lead to economy collapse. This motivates policy makers to set numerous governance guidelines to emphasise corporate transparency and disclosure to all stakeholders who are involved in the wellbeing of an organisation.

Real estate investment trusts (REITs) offer a natural environment to study CG, as these are public companies that utilise the merged capital of several investors to hold, manage, and develop income-producing properties (Li and Zhu, 2022). REITs derive their income from the rental proceeds that they in turn, give shareholders as dividends. They are a public investment since a shareholder owns stock in a listed company, not in the properties.

There is evidence that, after the introduction of REITs on the New York Exchange, firms' performance improved in the US. The commencement of a new kind of REIT in 1993 resulted in ensuing improved firm performance (Clayton and MacKinnon, 2000; Marcato and Ward, 2007) and Europe (Anuar and Soi Tho, 2011). In Japan, the market capitalisation of Japanese REITs surged 8.7 times in five years and several REITs increased twofold given the establishment of J REITs in 2001 (Ooi et al., 2006) and in South Africa (SA). This was further evidenced by Carstens and Freybote (2018) who found that, after the commencement of REITs,

the firms listed as REITS improved significantly and more foreign investors proved SA REITs as an attractive investment vehicle. In SA, a significant body of work on CG focused on other listed corporations (e.g., Newell et al., 2002; Simo-Kengne et al., 2012; Apergis et al., 2014; Bonga-Bonga et al., 2016; Du Preez et al., 2016). Carstens and Freybote (2018) considered REITs and foreign investment and found that the commencement of REITs increased REITs' market liquidity. Carstens and Freybote (2019) addressed the geographical aspect of international REITs. Lowies et al. (2015) investigated the effect of sentiment and first principles on the executives of listed SA corporations using a survey. Akinsomi et al. (2015) investigated the hindrances of entrance into other listed SA REITs. Attracting foreign investors is one of the objectives of introducing SA REITs. However, particularly in this area of interest, and to the best of the author's knowledge, no one has investigated the impact of REIT CG on foreign investors' SA REIT activity (Carstens and Freybote, 2018; Newell et al., 2002; Simo-Kengne et al., 2012; Apergis et al., 2014; Bonga-Bonga et al., 2016; Du Preez et al., 2016).

The SA REIT is the foremost real estate investment in a promising market similar to SA, which is the well represented nation in the African region on the FTSE /EPRA NAREIT (WFE, 2023). Offshore and domestic investors require more studies on SA REITs (Du Preez et al., 2016; Li and Zhu, 2022). On average, SA REITs have around 30% of their investments' properties offshore and approximately 30% to 40% of their earnings come from outside SA (JSE, 2023). In addition, REITs are important to the investor globally, as nearly 40 countries have REITs with a market capitalisation of approximately USD 1.7 trillion in 2020. In 2021, this fell slightly to USD 1.6 trillion, and on 1 February 2023 it went up to USD 2.5 trillion (FTSE EPRA/ NAREIT, 2023). Market capitalisation determines the value of a company that is traded on the stock market (Bauer, Eichholtz and Kok, 2010). European REITs have acquired secondary listings on the Johannesburg Stock Exchange (JSE) and, thus, are deemed SA REITs that foreign investors can participate in. These REITs have no holdings in SA; however, non-US REITs are prone to invest not only locally but also worldwide (Brounen and De Koning, 2012; Gibilaro and Mattarocci, 2016). These investors could be attracted for several reasons, one of which could be attractive tax laws. Recently, Cosby and Zhang (2020) found that foreign investment of REITs are attracted to more tax-free transactions. Moreover, good political climate was highlighted as one of the good attractors for new investors (Marfatia et al., 2021).

Currently, no studies employing the CG theoretical approach have been undertaken in SA, focusing on REITS. This current study addresses this gap in the literature. It employs 75

principles extracted from the King III Report and 17 principles from the King IV report as the central independent variable. There is limited literature where CG and foreign investment are studied in the SA context, relating to how an organisation is managed, and foreign investment activity has not been investigated to a great extent, particularly in emerging economies. Adelopo et al. (2009) conducted a study in another emerging economy in Africa and also mentioned that CG is highly contextualised. Khan and Banerji (2016) reported that foreign direct investment (FDI) and CG have become an integral part of globalisation. Corporations do not exist in isolation; they trade globally, and most are cross-listed, and foreign investment has been linked to improved firm revenue (Gibilaro and Mattarocci, 2016). There is lack of evidence on REITs' CG and foreign investment. FDI and FPI (foreign portfolio investment) theories do not provide many details on what attracts REITs' foreign investors. Carstens and Freybote (2018) proved that the introduction of REITs increased foreign investment attractiveness in SA. Other scholars proved this in the US (Clayton and Mackinnon, 2000), in the UK (Brounen et al., 2009), and in Japan (Ooi et al., 2006). Others studied foreign investment considering various areas of interest. Cosby and Zhang (2020) looked at attractive tax laws, and Marfatia et al. (2021) studied political climate. There is lack of evidence in SA and in other emerging economies as to what drives or influences foreign investment (Ooi et al., 2006; Marfatia et al., 2021). However, it is known that about 40% of SA REITs' investment is from foreign investors (FTSE EPRA/NAREIT, 2020)⁶, and this has been improving since the commencement of REITs (Carstens and Freybote, 2018). Foreign direct investment (FDI) studies document that greater quality governance at both the national level and company level (Tuan et al., 2019; Yi et al., 2020) is connected with an elevated chance to invest overseas and to take larger stakes when investing offshore (Mauck and Price, 2018); this concurred with recent evidence on CG and foreign investment from French et al. (2023).

The South African CG structure is built in an arrangement of King reports that assumed the Anglo-American form. The first King report was introduced in 1994 after the end of apartheid; in 2002, the report was revised, and then the King II report was implemented after the execution of the 1998 Employment Act. In 2010, after the birth of the new Companies Act, the King II report was revised and King III was implemented. Then, in 2016, after disclosure policies

1. ⁶European Public Real-Estate Association, 2018. [online] 29 April. Available at <www.epra.com>[Accessed 29 May 2018, 25 August 2020 and 12 May 2023]

became compulsory for all corporations, changes to the report were required and the King IV was affected in December 2016.

To measure CG, indices are constructed from the 17 principles of the King IV report and 75 principles from the King III report. These are formulated for compliance with King III and IV reports for all SA REITs. To measure foreign investment, the study employed the buy and sell index (BSI), and an annual BSI was developed based on Kumar and Lee (2006) and Carstens and Freybote (2018).

Table 3.1 exhibits the top 10 listed SA REITs in 2023 by market capitalisation. A REIT can either be diversified—that is, it includes retail, offices, industrial. It can be residential—or it can be specialising. These REITs are either managed internally or externally. A cross-listed REIT means that it is listed outside the borders of South Africa. Ho et al. (2017) found evidence that all cross-listed REIT realise improvements in their returns.

Table 3.1: Top ten SA REITs by Market Capitalisation in 2023

REIT		Focus	Market Capitalisation in Rands	Market Capitalisation in US Dollars	Management	Cross-listed
(1) Growth Point		Diversified	R37.22bn	2.19bn \$	Internal	Yes
(2) Redefine		Diversified	R25.81bn	1.52bn \$	Internal	Yes
(3) Fortress Real Estate Investment		Diversified	R22.17bn	1.304bn \$	Internal	Yes
(4) Resilient		Retail	R14.55bn	856m \$	Internal	No
(5) Vukile Property Fund		Diversified: without residential	R13.82bn	813m \$	Internal	Yes
(6) Hyprop Investment		Retail	R11.73	689m \$	Internal	No
(7) Equities Property Fund		Industrial	R9.77bn	575m \$	External	Yes
(8) Attaq		Diversified	R6.08bn	358m \$	Internal	Yes
(9) Investec Property Fund		Diversified	R5.83bn	343m \$	Internal	
(10) Storage REIT		Private Storage	R5.98bn	352m \$	Internal	Yes

Sources: Centre for Affordable-Housing-Finance in Africa (2017); Wall Street (2023); Real-estate Investment Trust (website, 2023)⁷

This study's empirical results further confirm the hypothesis at the end of the literature review section. The standard CG principles are statistically significantly influencing the performance of SA REITs. As the study covers almost a 10-year span of SA REITs, time-varying factors were included and different CG mechanisms were adopted for these periods extracted from the King III and IV reports.

This essay is ordered as follows. First, the related literature is reviewed. Next, the data and methodology are presented. Then, a reproduction method is used to regulate the model's propositions. Thereafter, the data and empirical results are discussed and presented, followed by conclusions.

3.2 Literature Review

3.2.1 Theories

The main corporate governance theories are discussed to better understand how corporations are governed. These comprise the agency theory, stewardship theory, the resource dependency theory, and the resource-based view. Furthermore, foreign investment theories are discussed to understand what attracts foreign investors.

3.2.1.1 Agency Cost

This paper seeks to understand the link between CG and foreign investment. The most popular CG theory was introduced by Berle and Means (1932) to understand the relationship between agents and principals, and, in 1976, Jensen and Meckling determined how to mitigate these problems. In 2006, Georgen explained the types of agency problems—namely, perquisites and empire building. Perquisites are benefits offered to the manager by shareholders, and empire building is also known as the free cash flow problem; cashflow that remains after an investment is known as free cashflow. When this cashflow is available, conflicts of interest may arise concerning shareholders and executives. In their respective papers, Rozeff (1982), Jensen et al. (1992), and Lee (2011) concurred that renegotiation over pay may arise because of free cash

⁷ Real-Estate Investment Trust Association, 2017. [online] 20 July. Available at <<www.sareit.com->> [Accessed 22 August 2017 and 25 October 2023].

flow (FCF), and reduction of agency costs can be achieved through free cash flow dividends and managerial ownership substitutes. Chung et al. (2005) provided evidence that, as a result of FCF, managers are likely to enter into projects that would not add value to the organisation. These support the self-interests of managers; they take non-optimal actions such as value-destroying investment and may also inflate reported earnings and invest in value-destroying investments.

3.2.1.2 Stewardship Theory

The second most popular CG theory was first introduced by Hamilton (1918). This theory posits that managers will act as good stewards; however, Gaur et al. (2015) shared evidence that the theory does not succeed in accounting for cases where executives do not act as good stewards.

3.2.1.3 Resource Dependency Theory

The third CG theory was introduced by Srinavakatrakul in 1919; it focused on the functions of the BOD in granting entry to resources required by corporates (Li et al., 2020). The BOD is the chief internal governance mechanism of CG, and it includes expertise, diversity, and size. Thus, Shahrier et al. (2020) determined that a balanced approach in sourcing these resources is required to make better investment decisions.

2.2.1.4 Foreign Investment Theories

Foreign investment has adopted finance theories to explain the phenomenon, and, in 1976, Hymer attempted to explain FDI as when a company purchases assets in a foreign country. FDI can be horizontal or vertical; when it is horizontal, the company expands its local operations of a foreign country and, when vertical, it is vice versa. Hymer (1976) further explained foreign investment as foreign portfolio investment (FPI). It can be defined as purchasing securities of foreign countries, such as stocks and bonds, on an exchange. As it stands, there is currently no unified theoretical explanation of FDI (Denisia, 2010). This paper, thus, focuses on CG theories to explain CG and foreign investment.

3.2.2 Empirical Evidence

This section seeks to uncover what the literature documents on various aspects that may influence foreign investment activity as well as the relationship between foreign investment activity and CG.

3.2.2.1 Foreign Investment

Over the years, the FPI was further modified. Makoni (2020) proved a negative relationship between FPI and real exchange rates and capital openness in most emerging countries. An earlier paper by Kim et al. (2010) conducted in Asia found a negative association between foreign investment with firms' ownership levels. In the same year, Farooque and Yarram (2010) also found no significant positive link between CG and FDI.

A recent study by Gupta (2022) found the link between FDI and financial development of corporations. Earlier, Goldstein and Razin (2006) established a model that considers both the FDI and FPI, by explaining several realities in relation to foreign equity flows, such as the higher ratio of FDI and FPI inflows in emerging nations relative to first world nations, and greater instability of FDI net inflows in relation to FPI net inflows.

Mauck and Price (2018) proved that the relationship between FDI and greater governance at both local and international levels is associated with the likelihood of investing abroad. Khan and Barnerji (2016) reported similar findings in their study conducted in India. Other papers that studied foreign investment and other various areas of interest include Cloutier (2018) who studied international diversification improves performance. Carstens et al. (2019) addressed the geographical aspect of global REITs on diversification benefits for overseas REIT investors. Anderson et al. (2020) found that REITs making offshore property investment normally generate higher surplus total returns to shareholders than REITs that invest simply in domestic settings. Still, this result is only with regards to surplus returns on publicly traded shares. This proves work on the link between REITs and CG is scant.

3.2.2.2 CG and Foreign Investment

There is some empirical evidence on the connection between CG and foreign investment. For instance, Mauck and Price (2018) found that real estate firms were negatively associated with the propensity to invest abroad; similar findings were reported by Kim et al. (2010) in a different context using Asian data. Makoni (2020) used real exchange rates and found a negative relationship with FPI inflows; however, the lag of FPI and real economic growth attracts inward FPI. Earlier, Goldstein and Razin (2006) determined that first world countries induce larger shares of FPI than emerging economies do. Thus, this proved that CG is adversely related with tendency to invest offshore and adversely linked to the stake purchased in overseas property investment. These outcomes run counter to the more general FDI studies (Farooque and Yarram, 2010). Wang's (2012) study on US and Japanese merger and acquisition activity

and FDI determined that a stronger CG can reduce the returns of foreign investment of merger and acquisition activity.

Alregab (2023) found an optimistic link concerning CG and foreign investment in Saudi Arabia. Adelopo et al. (2009) also found a positive link relating to CG and FDI in Nigeria, but they emphasised that these results are highly contextualised. Therefore, it is imperative that the findings from previous studies should be analysed in a contextual form.

Appiah-Kubi et al. (2020) conducted a study on 17 West African countries and determined that countries with firms portraying ethical values also generally increase their FDI inflows and the existence of effective boards. Cloutier (2018) emphasised that economies that promote foreign investing are likely to have better CG structures in place. It is important to note that Cloutier (2018) emphasised that local investing limits diversification potential, while international diversification is sensible for long-term investors. If foreign investment is purposefully limited, the performance of domestic firms can take longer to improve. Furthermore, firm performance has also been related to CG. Literature has proven that firms that perform better attract foreign investors; however, more work is required to establish the affiliation concerning CG and foreign investment.

3.2.2.3 CG, REITs, and Foreign Investment

There is evidence in the literature that the commencement of REITs improved foreign investment issues like the bid-spread and illiquidity which disappear following the introduction of REITs, and that firm performance is influenced by good CG (Ntim, 2013). There is, however, a lack of evidence in the REITs literature on whether foreign investors are attracted by strong CG in place.

Other studies proved that foreign investors will likely be interested in a portfolio because of its location. Gilibaro and Mattarocci (2021) conducted a study on geographical specialised REITs based on the global REITs index to evaluate the percentage of investment released by domestic and foreign investors. Carstens et al. (2019) used South Africa as a laboratory and found that potential diversification advantages for foreign investors were lacking. Diversified REITs have a higher chance of performing better as mentioned by Ahmad and Nafiah (2020), and Campbell et al. (2019) emphasised that this will likely improve the interests of foreign investors which will, in turn, reduce agency costs (Chahine et al., 2019). SA REITs held by foreign investors

have superior diversification benefits for offshore investors. Some SA REITs predominately invest in commercial REITs in SA and others in developed markets like Europe because of location (Eichholtz and Kok, 2008; French et al., 2023).

Literature has also provided evidence on foreign investment and foreign tax laws. Hirschfeld (2015) and Herzig (2016) opined that one of the reasons for investors to invest in a specific country is the minimal tax constraints. REITs are establishments that must follow rigid, yet evolving, laws to enjoy the gains of a single level of taxation (Diaz, 2014; Howard et al., 2016).

3.2.2.4 CG, REITs' Performance, and Foreign Investment

Investors are encouraged to own shares of local property corporations in regions globally. This was one of the findings by Eichholtz in his 2001 study and a later study in 2011. This encouragement is also mentioned in Appiah-Kubi et al. (2020) and Adelopo et al. (2009); that economies with better or well-structured CG in place will encourage foreign investment activity. According to Khan and Banerji (2016), FDI and CG are or have become the most integral part of globalisation.

Anderson et al. (2020) determined that, as REITs increase their foreign footprint, investors may be receiving a premium, as REITs grow in their foreign holding. Ho et al. (2017) reported that all cross-listed REITs reported a positive mean daily return that was statistically insignificant.

3.2.3 Research Gaps

The FDI studies report that improved quality CG, at both the national and firm levels, is related to a greater chance to invest offshore and to take larger stakes when investing overseas (Wang, 2012). It is known that there is an association between better CG structures and foreign investment (Appiah-Kubi et al., 2020; Khan and Banerji, 2016). Farooque and Yarram (2010) opined that CG studies are highly contextualised, and similar findings were presented by Adelopo et al. (2009) on the contextual element.

There is, however, a study that reported a different outcome on CG and foreign investment. Kim et al. (2010) found that CG and foreign equity ownership are negatively associated. In addition, Alregab (2023) found two distinct results: (i) CG and foreign investment are associated; however (ii) foreign investment and institutional and managerial ownership have an adverse relationship. However, literature is silent on what attracts foreign investment in a domestic setting and CG has been overlooked as one of the potential attractors for foreign investors.

After the introduction of REITs in SA, foreign investment quadrupled. Foreign investment improves SA REITs' revenue (Carstens and Freybote, 2018). Ali et al. (2020) determined the link concerning foreign institutional shareholders and the firm's financial performance. The benefits of inviting more offshore investors into the local REIT sector enhances investment opportunities for a REITs (Ooi et al., 2006), which, in turn, drives up commercial real estate markets (Seth 2020). This section considers both CG and foreign investment theories.

3.3.4 Hypothesis Formulation

REITs' foreign investment has a definite impact on CG (Ooi et al., 2006; Ahmad and Nafiah, 2020). Foreign investment and CG are related when there is stronger merger and acquisition activity between two countries—in this case, the US and Japan. Adelopo et al. (2009) determined a positive association between FDI and CG as an integral part of globalisation (Khan and Banerji, 2016).

After the introduction of REITs in SA, foreign investment quadrupled and improved SA REITs' revenue (Carstens and Freybote, 2018; French et al., 2023). Alregab (2023) reported similar results; that CG may enhance foreign investors interest thus, the subsequent hypothesis is purported:

H3: The CGI Index of SA REITs has a positive association with foreign investment activity.

3.3 Data and Research Methodology

The study investigates whether corporate governance influences foreign investment for SA REITs listed on the JSE.

The sample is drawn from 33 SA REITs listed on the JSE in 2023. To examine the relationship involving CG and foreign investment on SA REITs, CG data are taken from individual SA REITs' annual reports. The accounting variables are extracted from *Datastream*. The study period spans 2013–2022, providing sufficient data to analyse the CG compliance levels of SA REITs. The compliance data are retrieved from SA REITs' individual annual reports; CGI is the collective of principles from the King III and King IV reports. In SA, the reporting facilitates this approach. There were some adjustments adopted as the King III and King IV

reports are not the same; the King III report has 75 principles applicable from 2013 until 2016 and the King IV report has 17 principles applicable from 2017 to date.

In SA, all companies are obliged to conform to CG provisions. After the 2017 King IV report, all companies must show compliance in their income statements. The King IV has 17 principles; the 17th principle only applies to institutional investors, so corporations must comply with 16 principles. REITs must comply with these from 2017 to date (see Appendix A). King III has 75 principles that are made up of nine broad principles and REITs had to comply with these from 2013 until 2016. The nine broad principles are: (1) board and directors; (2) corporate citizenship, leadership, integrity & responsibility; (3) audit-committees; (4) risk-management; (5) internal-audit; (6) integrated sustainability reporting & disclosure; (7) compliance with laws, regulations, rules and standards; (8) managing stakeholder relationships; and (9) fundamental affected transactions.

Ntim et al. (2013) adopted the 50 provisions of the CGI Index for all listed corporations from King II report, with positive correlations to performance and Morey et al. (2009) studied specific CG provisions and listed corporations of SA. Different from previous studies, this current paper employs the MCA to formulate the CGI index by grouping the level compliance for each REIT into a matrix. The whole dataset is formulated as a dummy variable where compliance with principle is assigned a value of 1, and 0 otherwise. These are inclusive of the SA unique attributes of EE (Employment Equity) and AA (Affirmative Action). In older King reports, these attributes were separate; hence, Ntim et al. (2013) created an SCGI index to cater for them. A positive relationship is hypothesised to exist between CG Index and SA REITs' performance.

3.3.1 Model Specification

The current study draws from the work of Liu and Wu (2016) for a panel analysis with slight modification to obtain a specification as follows.

$$BSI_{i,t} = \alpha_0 + \beta_1 CGI_{i,t-1} + \beta_2 \ln(Size_{i,t}) + \beta_4 MTB_{i,t} + \beta_5 D/E_{i,t} + \beta_6 Y + \sigma X_t + e_{i,t} \quad t=1,2,3,4 \quad (1)$$

3.3.2 Identification of Key Variables

3.3.2.1 CGI

There are various methods that measure categorical data; these include principal component analysis (PCA) and multiple correspondence analysis (MCA), among others. The measurement or nature of the variables always informs the preferred and most appropriate method to use. The commonly used method is PCA, but it is only appropriate for the restructuring of continuous variables (Adediran et al., 2020). PCA computes new variables called principal components which are taken as a linear arrangement of the original variables (Abdi and Williams, 2010), whereas MCA is appropriate for the restructuring of categorical variables (Greenacre and Blasius 2006). A CG index was constructed using MCA. MCA⁸ is an analysis tool to formulate application; this will allow the exploration of relationships among a set of variables by converting the whole datasets into dummy variables to form an indicator matrix cross-tabulation among the variables. Singular value decomposition on stata software was adopted using catvar1 and catvar2. The important component of MCA is its use of a singular decomposition and weighted least squares methods to realise low-dimensional suitable fitting subspaces with least inertia and information loss (LeRoux and Rouants, 2010). When the firm is identified with these criteria, it is allocated 1, and 0 otherwise. Since the variables are categorical (dummy), the study applied MCA to create an index of CG. The result of the MCA outcomes were divided into two segments. The initial section reveals the normalised principal inertia.

3.3.2.2 BSI

The buy and sell index is captured by obtaining annualised information about investments and disinvestments of offshore stockholders from SA REITs, similar to Kumar and Lee (2006) and Carstens and Freybote (2018). The annual BSI in line with Kumar and Lee (2006) is constructed. BSI is the difference between foreign purchases and sales divided by the sum of foreign purchases and sales. Equation 2, below, captures foreign investment activity. A positive BSI signifies a net buying behaviour of foreign investors while a negative BSI indicates a net selling behaviour.

⁸ MCA (Multiple Correspondence Analysis) is a dataset analysis used for categorical data, and it detects underlying structures in a dataset. This was first introduced by the mathematician, Benzéni in the 1960s and the 1970s in France. This analysis is an improvement from PCA (Principal component analysis) and CA (Correspondence analysis). PCA is used for large datasets containing a high number of dimensions and the CA is a multivariate statistical technique like PCA which applies to categorical rather than continuous analysis.

$$BSI_{jt} = \frac{(B_{jt} - S_{jt})}{(B_{jt} + S_{jt})}$$

where $B_{jt}(S_{jt})$ are Rand-designated acquisition (transactions) of shares of each SA REIT j by foreign investors in year t .

The magnitude of the company and development forecasts are measured with the standard *log* of SA REIT i 's market capitalisation in year t , the ratio of SA REIT i 's market to book value (MTB) in year t , and the proportion of SA REIT. The D/E Ratio _{t,i} characterises the corporates' use of leverage, and the debt asset ratio for SA REIT i year t as a control variable. The company size and growing opportunities are controlled for by incorporating the natural log of SA REIT i 's market capitalisation in year t .

X_{it} represents covariates (such as Total assets, Debt ratio, Audited by the Big 5, and cross-listing). α_i is constant or intercept; $\beta_{i1}, \beta_{i2}, \beta_{i3}$ are the vectors of explanatory variables; i is individual firm; t is the time variable, and ε_i is the error term.

Cross-listing is measured on offshore stock markets incline to better CG structures (Black et al., 2006; Ntim et al., 2013) and a positive relationship with CG is hypothesised. It will take the value of 1 if a REIT is cross-listed on offshore stock, and 0 otherwise.

Large corporations audited by the Big 5 are considered reputable (De Angelo, 1981). If the corporate is audited by the Big 5 audit companies in SA, it is assigned the value of 1, and 0 otherwise.

The macro-economic variables are represented by $\beta_6 Y$; they include gross domestic product, consumer price index, employment levels, and interest rate.

Table 3.2: Variables' Definitions

Variable	What the variable represents	Type of variable	How it is measured
BSI	Buy and Sell index for foreign investors	Dependent	By obtaining annualised data about investment and disinvestment of foreign investors from SA REITs similar to Kumar and Lee (2006). The research uses an equation to capture foreign investment activity.
α_i	constant or intercept	$\beta_{i1}, \beta_{i2}, \beta_{i3}$	

CGI	CG Principles	Main independent	These are obtained from individual SA REITs' annual reports for Kings reports III and IV, from 2013 to 2022 and MCA is used to analyse the data.
Size	Firm size	Control	The log market capitalisation is used to capture the size of a REIT.
MTB	Market to Book Value	control	Market capitalisation divided by book equity.
D/E	Represents firms' leverage	control	Debt divided by equity.
Xit	Total assets, Big 5, Cross-listing	covariates	Total Assets directly obtained from Bloomberg and logged. Big 5; 1 is assigned for representation, and 0 otherwise. Cross-listing; 1 is assigned for representation, and 0 otherwise.
Y	is a factor of macro-economic- CPI, GDP, interest rates, and employment		These are directly obtained from Datastream and Quantec.

The model for the robustness assessment is stated as follows.

$$BSI_{i,t} = \alpha_0 + \beta_1 CGI_{i,t-1} + \beta_2 \ln(Size_{i,t}) + \beta_4 MTB_{i,t} + \beta_5 D/E_{i,t} + \beta_6 Y + \sigma X_t + e_{i,t} \quad t=1,2,3,4 \quad (3)$$

Panel-corrected standard error was used. The study employs alternative estimators to investigate whether the estimation techniques influence the results of the effect of CG on foreign investment, or otherwise.

3.4 Results

3.4.1 Estimation Procedures

The study uses a longitudinal dataset of selected REITs from 2013 to 2022. In the current study, an index of CG variables was created from Kings' III and IV compliance level using multiple correspondence analysis. The study uses principles that are commonly found in both King III and IV reports, which includes risk governance, stakeholders, leadership/board/ board size, and compliance governance. Table 3.3 exhibits the summary statistics of the variables employed in the estimation.

3.4.2 Descriptive Statistics

Table 3.3: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Foreign investment activity	207	0.12	2.685	-4.374	5.525
Market to Book Value	230	16.223	0.736	13.683	18.106
Corporate Governance index	222	0	1.002	-2.833	0.525
Stakeholder	222	0.631	0.484	0	1
Leadership/Board/Board size	222	0.901	0.299	0	1
Risk Governance	222	0.874	0.333	0	1
Compliance Governance	222	0.851	0.357	0	1
Total Asset	230	-1.719	0.129	-1.938	-1.565
Debt Equity ratio	230	-0.227	0.517	-0.893	0.878
Cross-listing	230	0.696	0.461	0	1
Audited by Big 5 Firm	230	0.435	0.497	0	1
Consumer Price Index	230	4.428	0.138	4.201	4.648
Gross Domestic Product	230	15.311	0.024	15.275	15.341
Interest Rate	230	9.162	1.106	7.042	10.458
Employment	230	16.093	0.039	16.02	16.146

Note: Market to book value is the capitalization or size.

The index created has a mean of zero (0) and a standard deviation of one (1) (see Table 3.3). The study logged foreign investment, total capitalisation and market to book value, while variables such as foreign investment, CG index, total assets, and equity ratio are continuous. Cross-listing and also audited by one of the Big 5 audit companies are categorical variables. The average foreign investment value is 12 (minimum: -4.37, maximum: 5.54). The average capitalisation value is 16.22, which is slightly greater than the midpoint of 15.90 between the minimum of 13.68 and the maximum of 18.11. This implies that dataset distribution may be normal, and that the small difference is not likely to skew the data. The study further investigates the correlation and multicollinearity in the model. Table 3.4 exhibits the pairwise correlations for the model.

3.4.2 Correlation Analysis

Table 3.4: Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) Foreign investment	1.000								
(2) Corporate governance	-0.074 (0.295)	1.000							
(3) Market to book value	0.031 (0.655)	0.018 (0.794)	1.000						
(4) Total asset	-0.332* (0.000)	0.159* (0.018)	-0.006 (0.926)	1.000					
(5) Debt/Equity Ratio	0.594* (0.000)	-0.293* (0.000)	-0.078 (0.240)	-0.677* (0.000)	1.000				
(6) Cross-listing	0.000 (1.000)	0.061 (0.367)	-0.042 (0.523)	0.000 (1.000)	0.000 (1.000)	1.000			
(7) Audited by Big 5 firm	0.000 (1.000)	-0.169* (0.012)	-0.175* (0.008)	0.000 (1.000)	0.000 (1.000)	0.008 (0.901)	1.000		
(8) Consumer Price Index	-0.237* (0.001)	0.337* (0.000)	0.171* (0.010)	0.317* (0.000)	-0.642* (0.000)	0.000 (1.000)	0.000 (1.000)	1.000	
(9) Interest rate	-0.118* (0.090)	-0.038 (0.575)	-0.120* (0.070)	0.642* (0.000)	-0.396* (0.000)	0.000 (1.000)	0.000 (1.000)	-0.276* (0.000)	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Table 3.4 exhibits that the foreign investment has a substantial positive link with debt/equity ratio.

Table 3.4 presents pairwise correlation with the level of significance. Foreign investment has a substantial positive link with debt/equity ratio. Moreover, market to book value has a substantial positive connection with total asset. The consumer price index has a sizable positive connection with CG—this finding is similar to the literature (Alregab, 2021; Kim et al., 2010). On the other hand, the business audited by one of the Big 5 auditing companies has a significant negative association with market to book value and CG.

3.4.3 Variance Inflation Factor

Table 3.5: Variance Inflation Factor

	VIF	1/VIF
Interest rate	4.269	0.234
Consumer Price Index	3.112	0.321
Debt/Equity Ratio	2.436	0.411
Total asset	2.286	0.438
Corporate governance	1.164	0.859
Market to book value	1.079	0.927
Audited by Big 5 firm	1.053	0.949
Cross-listing	1.002	0.998
Mean VIF	2.05	.

Table 3.5 presents the variance inflation factor to ascertain the true position of correlation analysis. More so, the study investigates whether there is a possibility of multicollinearity in the model, which is an issue if the rule of thumb is not satisfied. The rule of thumb says that VIF must not exceed 10 (Murray et al., 2012), and the exhibit shows that all variables' VIFs are less than 5. Therefore, the variables do not suffer from multicollinearity.

3.4.4 Cross-sectional Dependence

Table 3.6: Cross-Sectional Dependence

Variable	CD-test	p-value	average joint T	mean ρ	mean abs(ρ)
Foreign direct investment	+ 47.718	0.000	9.00	+ 1.00	1.00
Corporate governance	+ .842	0.400	9.32	+ 0.02	0.29
Market to book value	+ 3.284	0.001	10.00	+ 0.07	0.43
Total Asset	+ 50.299	0.000	10.00	+ 1.00	1.00
Debt/Equity ratio	+ 50.299	0.000	10.00	+ 1.00	1.00
Cross-listing	0	1.000	10.00	+ 0.00	0.00
Audited by Big 5 firm	0	1.000	10.00	+ 0.00	0.00
logCPI	+ 50.299	0.000	10.00	+ 1.00	1.00
logGDP	+ 50.299	0.000	10.00	+ 1.00	1.00
InterestRate	+ 50.299	0.000	10.00	+ 1.00	1.00
logEmployment	+ 50.299	0.000	10.00	+ 1.00	1.00

Notes: Under the null hypothesis of cross-section independence, $CD \sim N(0,1)$; P-values close to zero indicate that data are correlated across panel groups.

The study investigates the cross-sectional dependence in the model (see Table 3.6). The study followed Pesaran (2004, 2015) to investigate cross-sectional dependence, which investigates mean connection concerning panel units. The main understanding of Pesaran (2004) is that a change of the sum of pairwise correlations concerning panel units is standard normally distributed. The study controls for stationarity of the dataset by conducting the unit root test.

3.4.5 Unit root: Levin–Lin–Chu

Table 3.7: Unit root: Levin–Lin–Chu Unit-root test

Variables	At level (Adjusted)	1st difference
Foreign investment	-43.471***	-88.389***
Market to book value	-70.2565***	1.109
Total asset	-9.304***	1.931
Debt/Equity ratio	-4.969***	-8.453***
CPI	-5.147***	7.806
GDP	-8.038***	-11.461***
Interest rate	-8.0549***	-5.132***
Employment	-1.1889***	-11.673***

The study uses a strongly balanced panel and the Levin–Lin–Chu unit-root test to test for stationarity for the variables.

3.4.6 Empirical Results

Table 3.8: Ordinary Least Square (OLS) Regression

Variables	(1) 1 Foreign investment	(2) 2 Foreign investment	(3) 3 Foreign investment	(4) 4 Foreign investment	(5) 5 Foreign investment
Stakeholder Relationship	0.0205 (0.198)				
Market to Book value	-0.0161 (0.125)	0.0328 (0.157)	-0.0110 (0.123)	0.00898 (0.123)	0.00155 (0.123)
Total Asset	-32.95*** (2.954)		-33.00*** (2.935)	-32.96*** (2.927)	-33.00*** (2.928)
Debt/Equity ratio	5.438*** (0.638)	10.10*** (0.624)	5.478*** (0.634)	5.499*** (0.633)	5.493*** (0.633)
Cross-listing	0.0314 (0.194)	0.00102 (0.244)	0.0280 (0.190)	0.00351 (0.190)	0.0261 (0.189)
Audited by Big 5 firm	0.0131 (0.188)	0.0982 (0.235)	0.0981 (0.187)	0.0985 (0.184)	0.0683 (0.182)
CPI	-31.31*** (2.750)	-12.49*** (2.754)	-31.40*** (2.732)	-31.38*** (2.724)	-31.44*** (2.726)
GDP	172.1*** (18.66)	-19.49** (9.404)	172.1*** (18.53)	171.8*** (18.48)	172.1*** (18.49)
Interest rate	0.0438	0.556**	0.0572	0.0654	0.0619

	(0.185)	(0.229)	(0.184)	(0.183)	(0.183)
Employment	89.84***	115.3***	89.18***	88.81***	88.93***
	(8.081)	(9.855)	(8.039)	(8.026)	(8.027)
Leadership		0.801*			
		(0.467)			
Risk			0.484		
			(0.307)		
Compliance				0.549*	
				(0.292)	
Corporate Governance					0.189*
					(0.104)
Constant	-3,996***	-1,504***	-3,987***	-3,977***	-3,982***
	(262.4)	(180.7)	(260.8)	(260.2)	(260.3)
Observations	201	201	201	201	201
R-squared	0.784	0.648	0.787	0.788	0.788

Standard-errors-in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table 3.8 shows and examines the link concerning CG and foreign investment. In Column (1), stakeholders has an insignificant positive relationship with foreign investment; this result is new as it is normally expected that a relationship with stakeholders will likely improve foreign investment activity (Farooque and Yarram, 2010). Debt/equity ratio, gross domestic product, and employment have a substantial positive affiliation with foreign investment, whereas consumer price index and total asset have a substantial negative link with foreign investment. Total assets have an inverse link with foreign investment activity (Khan and Banerji, 2016).

Column (2) shows that leadership/board/board size has a noteworthy positive correlation with foreign investment, similar to Appiah-Kubi et al. (2020). Similarly, debt/equity ratio and employment have a positive link with foreign investment, and it is statistically significant. In contrast, consumer price index and gross domestic product have a significant negative relationship with foreign investment.

In Column (3), risk governance as a principle of CG has an insignificant positive relationship with foreign investment. This is also not expected; however, there are studies that have found adverse relations like Kim et al. (2010). Debt/equity ratio, gross domestic product, and employment have a substantial positive affiliation with foreign investment, whereas consumer price index and total asset have a substantial negative link with foreign investment.

In Column (4), compliance governance as a principle of CG has a substantial positive relationship with foreign investment, it is expected that compliance with laws and taxes will likely improve foreign investment activity; this is has also been proven by Adelopo et al. (2009) that compliance with local laws may attract investors even more so foreign investors, as this corporation not only focuses on profits but also adhering to local laws. Moreover, debt/equity ratio, gross domestic product, and employment have a substantial positive link with foreign

investment, whereas consumer price index and total asset have a significant negative affiliation with foreign investment.

In Column (5), CG has a great positive link with foreign investment, which is expected based on Wang (2012), Appiah-Kubi et al. (2020), and Alregab (2023). Moreover, debt/equity ratio, gross domestic product, and employment have a substantial positive association with foreign investment, whereas consumer price index and total asset have a substantial negative link with foreign investment. The analysis may have omitted cross-listing and Big 5 audit firm, which are dummy variables when the alternative panel estimator is used. However, the study assumed that there may be a bias in the model using ordinary least squares (OLS). Next, fixed effect was employed, which controls for the time-invariance component in the model.

Table 3.9: Fixed Effects

Variables	(1) Fixed effect Foreign investment	(2) Fixed effect Foreign investment	(3) Fixed effect Foreign investment	(4) Fixed effect Foreign investment	(5) Fixed effect Foreign investment
Stakeholder Relation	0.0442 (0.296)				
Market to Book value	0.0369 (0.171)	0.143 (0.217)	0.0563 (0.169)	0.0674 (0.169)	0.0664 (0.169)
Total Asset	-32.91*** (3.115)		-32.98*** (3.082)	-32.92*** (3.077)	-32.96*** (3.079)
Debt/Equity ratio	5.434*** (0.673)	10.13*** (0.659)	5.510*** (0.667)	5.523*** (0.666)	5.521*** (0.666)
CPI	-31.23*** (2.905)	-12.44*** (2.901)	-31.37*** (2.873)	-31.33*** (2.868)	-31.40*** (2.870)
GDP	171.7*** (19.67)	-19.74** (9.892)	171.8*** (19.47)	171.4*** (19.44)	171.6*** (19.44)
Interest rate	0.0547 (0.195)	0.582** (0.242)	0.0785 (0.194)	0.0834 (0.193)	0.0806 (0.193)
Employment	89.24*** (8.571)	113.7*** (10.46)	88.07*** (8.505)	87.90*** (8.494)	87.96*** (8.497)
Leadership/ Board/ Board size		1.063* (0.569)			
Risk Governance			0.833* (0.439)		
Compliance governance				0.748** (0.367)	
Corporate Governance					0.262** (0.132)
Constant	-3,983*** (277.5)	-1,479*** (191.4)	-3,965*** (274.7)	-3,957*** (274.4)	-3,961*** (274.5)
Observations	201	201	201	201	201
R-squared	0.784	0.649	0.788	0.789	0.789
Number of coycode	23	23	23	23	23
sigma_u	0.117	0.207	0.206	0.170	0.169
sigma_e	1.323	1.682	1.310	1.308	1.308
Rho	0.00778	0.0149	0.0240	0.0166	0.0164

Standard errors in parentheses:*** p<0.01, ** p<0.05, * p<0.1; Fixed effect estimator control time invariance components and omitted Audited by Big 5 firm and cross-listing from the estimation.

Table 3.9, Column (1) exhibits the estimation of the CG index on foreign investment using a fixed effect estimator. The finding indicates that the CG index has a substantial positive bearing on foreign investment—this is expected. Capitalisation has an insignificant positive impact on foreign investment. Moreover, debt/equity ratio has a positive bearing on foreign investment, but it is not statistically significant.

Column (2) presents the effect of CG index on foreign investment with reduced number of control variables. Corporate governance index has an effect on foreign investment, and it is statistically significant. The debt/equity ratio has a substantial positive influence on foreign investment, whereas total asset has an insignificant negative bearing on foreign investment.

Column (3) presents the estimation of the CG index on foreign investment using a random effect estimator. The outcome shows that the CG index has a positive impact on foreign investment and is statistically significant, supporting the findings of Wang (2012) and Appiah-Kubi et al. (2020). Furthermore, capitalisation, debt/equity ratio, and cross-listing have a positive bearing on foreign investment, but it is not statistically significant. Conversely, being audited by one of the Big 5 auditing companies and market to book value have an insignificant negative impact on foreign investment. Moreover, the total asset has an insignificant negative impact on foreign investment.

Column (4) presents the effect of the CG index on foreign investment with a reduced number of control variables using the random effect estimator. The CG index has a substantial positive influence on foreign investment. Debt/equity ratio has an insignificant positive impact on foreign investment, whereas total asset has an insignificant adverse effect on foreign investment.

Furthermore, the study conducted Pesaran's test—the cross-sectional independence value is 45.315, and the p-value is 0.0000. The mean absolute value of the off-diagonal elements is 0.980, which is a very high value. The CD test strongly rejects the null hypothesis of no cross-sectional dependence.

3.4.7 Sensitivity Analysis

The study employs alternative estimators—panel-corrected standard error—to investigate whether the estimation techniques influence the results of the effect of CG on foreign investment or otherwise.

Table 3.10: Linear Regression with Panel-corrected Standard Error

Variables	(1) Foreign investment	(2) Foreign investment	(3) Foreign investment	(4) Foreign investment	(5) Foreign investment
Shareholders	0.0194*** (0.00732)				
Market to book value	-0.0183* (0.0101)	0.0215 (0.0153)	-0.0225** (0.0108)	-0.00356 (0.00947)	-0.00715 (0.00944)
Total Asset	-32.95*** (9.436)		-33.00*** (9.350)	-32.97*** (9.307)	-33.00*** (9.287)
Debt/Equity	5.438*** (2.083)	10.10*** (1.536)	5.478*** (2.063)	5.499*** (2.053)	5.494*** (2.051)
CPI	-31.31*** (9.006)	-12.51* (6.817)	-31.41*** (8.917)	-31.40*** (8.875)	-31.45*** (8.868)
GDP	172.1*** (60.14)	-19.46 (23.34)	172.2*** (59.57)	171.9*** (59.30)	172.1*** (59.20)
Interest rate	0.0434 (0.612)	0.553 (0.565)	0.0546 (0.606)	0.0627 (0.603)	0.0602 (0.603)
Employment	89.86*** (26.68)	115.4*** (24.17)	89.33*** (26.41)	88.97*** (26.29)	89.03*** (26.29)
Leadership		0.765*** (0.182)			
Risk			0.440*** (0.115)		
Compliance				0.513*** (0.131)	
Corporate Governance					0.183*** (0.0430)
Constant	-3,997*** (848.1)	-1,507*** (443.7)	-3,989*** (840.1)	-3,980*** (836.2)	-3,983*** (835.1)
Observations	201	201	201	201	201
R-squared	0.784	0.647	0.786	0.787	0.787
Number of coycode	23	23	23	23	23

Standard errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Column (1) of Table 3.10 exhibits the estimation of shareholders on foreign investment using a panel-corrected standard error estimator. The finding indicates that shareholders have a considerable definite link to foreign investment. GDP, debt/equity, and employment has a sizable positive link to foreign investment.

Column (2) presents the analysis of leadership and foreign investment. The result revealed that leadership has an optimistic effect on foreign investment, and it is statistically significant, while debt/equity ratio has a positive effect on foreign investment, but it is not statistically significant. Total asset has an insignificant negative effect on foreign investment.

Column (3) presents the result of risk as a principle of CG on foreign investment. The result indicates that risk has a substantial positive effect on foreign investment, while debt/equity ratio, GDP, and employment have an optimistic effect on foreign investment, and they are

statistically significant. Market to book value, CPI, and total asset have a substantial adverse influence on foreign investment.

Column (4) presents that the result of compliance as a principle has a substantial and optimistic effect on foreign investment, while debt/equity ratio has an insignificant positive effect on foreign investment. Total asset has an insignificant adverse effect on foreign investment.

Column (5) presents the estimation of the CG index on foreign investment. The outcome shows that the CG index has a substantial positive influence on foreign investment, while employment, debt/equity ratio, and GPD have a substantial optimistic effect on foreign investment. Total asset and CPI have a substantial adverse influence on foreign investment.

3.5 Conclusion

Using REIT as an application, this study developed a CG index from 2013 to 2022. The relationship between CG and foreign investment for commercial property assets was examined using an example of publicly listed equity (REITs). The research centres on SA REITs as they operate in parallel markets, they grow funds in the capital market, and they invest in the real estate market in a portfolio setting. This exceptional form facilitates in evaluating the CG and foreign investment, using a balanced panel data to control for time-invariant components in the model. The foreign investment model used in this study is BSI previously adopted by Kumar and Lee (2006) and Carstens and Freybote (2018).

REITs offer an inherent experiment in CG because they leave minimal free cash flow for executives, which lowers agency challenges. A typical SA REIT in the example holds its properties for about 10 years. The study finding implies that the cross-sectional heterogeneity of CG horizon has a crucial influence on commercial foreign investment activity, whilst previous studies had a shorter sampled period, and only focused on horizontal FDI.

The findings provide evidence of a positive and substantial relationship relating to all SA CG principles and foreign investment activity, reflecting findings from previous literature (Adelopo et al., 2009; Alregab, 2023). Moreover, a positive association is documented between leadership/boards and board size with foreign investment activity. This further proves that firms with highly structured CG and board will likely influence foreign investment activity, following

Wang (2012). It is noted that risk governance has no significant relationship while compliance governance influences foreign investment activity. It is expected that compliance with tax laws will likely improve foreign investment activity, supporting Adelopo et al. (2009). A sensitivity analysis was undertaken to study CG and foreign investment. The study used panel-corrected standard error. These results reflect those of prior research.

The SA CG Index is extracted from the King III and IV reports. The study's unique indices feature 17 principles from the King IV report and 75 provisions from the King III report to measure CG. The outcomes confirm a positive relationship involving CG and foreign investment and have valuable implications for REIT executives and shareholders. The hypothesis that CG influences foreign investment is accepted. The study also opens the door for potential studies on the CG and foreign investment, determinants, and outcomes related to CG and foreign investment.

This essay contributes to the body of knowledge as the first study to proxy CG index from both King III and IV reports. Previous works considered specific King reports applicable during a specific time, like Ntim et al. (2013). The King III report from 2013 to 2016 and the King IV report from 2017 to 2022 were further compared. The favourable functioning of businesses is mandatory as this can lead to economic collapse (Alregab, 2023). CG has been linked with the functioning of business and corporates. Previous studies in SA (e.g., Carstens and Freybote, 2018) proxied for foreign investment on the favourable introduction of REITs and its improvement in attracting more foreign investors. This study further expands on foreign investment and adds to its relationship to CG.

The study did not consider the concept of internal and external management, which is a limitation. SA REITs are either managed internally or externally, which can influence CG compliance level. The five top-performing SA REITs are internally managed. The internal mechanisms include a successfully coordinated board, reward deals that foster a shareholder orientation, and focused ownership holdings that indicative to committed supervising of directors. Previous work focused on FDI and development of corporations (e.g., Gupta, 2022), while others focused on both FDI and FPI, although they could not give evidence on the affiliation concerning CG and foreign investment. Future studies can expand on the existing variables considered.

In the context of empire building as one of the agency problems, Anderson et al.'s (2020) findings suggest that REITs should undertake cross-border property investment to gauge excess return. The present study did not focus on returns; however, foreign investment has been proven to gauge the negative effects of empire building although this result was isolated on publicly traded shares. This study has further expanded on this.

It can be concluded that CG has a positive influence on SA REITs' foreign investment. SA REITs that are also cross-listed are likely to influence foreign investment; this also applies to those that are audited by the Big 5 auditing companies in South Africa.

CHAPTER FOUR

Black Economic Empowerment (BEE) and its Influence on Listed Firms' Liquidity: An SA REITs' Perspective

4.1 Introduction

Firms' liquidity is one of the most desirable areas of research (Pigou, 1936; Chung et al., 2011; Gupta, 2022; Zhao et al., 2023). A review in 2009 by Yun determined that liquidity is an effective way to measure whether a company was meeting its obligations, and Fang et al. (2009) found that liquidity improves the information content of market values and performance-sensitive organisational compensation.

Using REIT (Real Estate Investment Trusts) as a laboratory in Europe, Marzuki and Newel (2018) found REITs to be seamless to measure liquidity. Marcato and Ward (2007) used the Americas for their study and found REITs to be favourable to study firm liquidity, supporting the study by Clayton and MacKinnon (2000) on the Americas, who also came to the same conclusion. In an emerging economy, Niskanen (2020) was also of the same opinion that REITs are a seamless method to study firm liquidity. REITs' liquidity has been associated with holding cash (Downs and Zhu, 2022), greater investment activity (Brockman and Chung, 2003; DiBartolomeo and Gatchev, 2021; Cheung et al., 2023) macro-economic factors, and asset structure (Downs and Zhu, 2022). Globally, there is evidence on policies and a REIT liquidity from Morri and Baccarin's (2016) study.

Disclosure policies were proven to influence firms' financial standing (Ntim and Soobaroyen 2013). Corporates are required to comply with these policies and to improve liquidity (Pratap et al., 2014; Todes and Robinson, 2020). Recently, Apergis and Destidar (2023) linked liquidity to specific context and policies applicable in a country and found that this can influence the firm's liquidity.

South Africa (SA) enacted several policies such as the Employment Equity Act of 1998 to readdress inequalities in the country. Another policy is Black Economic Empowerment (BEE), which has been an imperative economic criterion for the post-apartheid era. This policy is administered by the Broad Based Black Economic Empowerment Act 53 of 2003, where organisations are awarded points for voluntarily conforming to and or complying with the codes of beneficial practice. The level of score in SA determines the growth of firms and the

liquidity of firms (Ntim et al., 2012, Ntim and Soobaroyen, 2013). In SA, the government has made the BEE the central part of achieving economic transformation. Southhall (2004) noted that the African National Congress (ANC) has keen interests in implementing this policy for their political agenda. After assuming power in 1994, the then new democratic government introduced the BEE to re-address the economic and social unrest created by apartheid. The policy initially had seven principles—(i) Management Control, (ii) Ownership, (iii) Preferential Procurement, (iv) Skills-Development, (v) Employment Equity, (vi) Enterprise Development, and (vii) Residual (Ntim and Soobaroyen, 2012). Southhall (2004) explained that the first two BEE principles emphasise ensuring the inclusion of black owners and that the majority of the top executive members should be black. The second and third principles focused on ensuring the development and improvement of black people's lives.

Unlike previous literature in the South African setting, this study developed the BEE score for each listed REIT firm, and this is measured with the firm's liquidity. There is limited research on REITs and the BEE in SA; the exceptions are studies by Akinsomi et al. (2016) on REIT performance and the BEE, and Ajayi and Akinsomi (2023) on SEOs (Secondary Equity Offerings) and the BEE, but with a lack of evidence on REITs and liquidity even though liquidity has been deemed an effective way to measure whether a company was meeting its obligations, as reported by Yun (2009).

Non-REIT literature findings such as Sartorius and Botha (2008), Ntim et al. (2012), Ntim and Soobaroyen (2013), and Ferreira and Van der Merwe (2014) considered a handful of the seven BEE principles which may possibly have more effect than others. Jefferis and Okeahalam (2000), Ntim and Soobaroyen (2013), and Thomas (2017) proved a positive association with the Johannesburg Stock Exchange (JSE) listed corporations' performance with BEE principles, with a notable positive link with corporations' performance. Ntim (2013) demonstrated a positive link concerning compliant companies. Moreover, despite the ever-growing importance of disclosure studies in developing nations, existing empirical studies concentrate on developed countries and/or on other emerging economies; for instance, El Ghouli et al. (2011) focused on the US context, and Tuan et al. (2019) and Yi (2020) focused on Vietnam and China, respectively. This section examines the SA setting to explore the key factors influencing BEE score and SA REITs' liquidity. Furthermore, for this kind of study, variables like control for companies audited by the Big 5 auditing firms in SA as well as macro-economic variables are included in the study. The BEE as an Affirmative Action is included; however, it is not

investigated intensively. Even though Ntim and Soobaroyen (2013) examined the BEE and HIV/AIDS, this has not been applied in the context of the SA REIT.

The King II report obligated all JSE listed companies to better their management structure and observe disclosure practices, and the most recent King report confers more importance on the need for all companies to conform. More studies are necessary on the effect that BEE practices have on listed companies as proven by Ntim et al. (2012). Ntim et al. (2012) furthermore examined, in depth, on the influence of BEE principles on firms' financial standing. The contribution of this section is with regards to SA REITs' liquidity and the BEE. Liquidity measures the financial standing of a firm, and this measure is considered important (Zhao et al., 2023). The purpose of this section is to assess the liquidity of SA REITs and their relationship to BEE score. Muniandy (2020) proved an association with stock liquidity and corporations that have black women executives, which is part of the first and second BEE principles mentioned above. There is also evidence from Ntim et al. (2012a) that companies that have successful land investment structures with government were BEE-compliant. According to an Extension of the Security of Tenure Act 62 of 1997, land tenure is associated with the acquisition and development of land for government. This land can be secured through leases also known as government tenure. The present study closes the gap in the body of knowledge with regards to considering all seven principles and the scores of each listed SA REIT firm. Akinsomi et al. (2016) specified evidence for of the impact of SA REITs on the BEE and performance, and Ajayi and Akinsomi (2023) showed evidence for the impact on SEOs, but evidence on firms' liquidity is lacking.

4.1.1 SA REITs

The SA REIT is the foremost real estate investment in an emerging market like SA, which is the only nation well represented in the African region on the FTSE/EPRA NAREIT (WFE, 2018). Offshore and domestic investors need more research on SA REITs (Carstens and Freybote, 2018). On average, SA REITs have around 30% of their investments overseas and roughly 30% to 40% of their returns come from outside SA (JSE, 2019). In addition, REITs are important to the investor globally, as nearly 40 countries have REITs with a market capitalisation of approximately USD 1.7 trillion in 2020. In 2021, this was slightly lower, at USD 1.6 trillion, but rose again and, on 1 February 2023, it went up to USD 2.5 trillion (FTSE EPRA/NAREIT, 2023). Market capitalisation determines the value of a company that is traded

on the stock market (Bauer et al., 2010). SA REITs now encompass 5.8% of the JSE. The SA REITs' market is liquid as of January 2023, and the market capitalisation of 33 listed REITs as of 1 February 2023 is R549. 22 billion (JSE, 2023).

Table 4.1, below, shows the top five highest performing REITs by market capitalisation and their Black Economic Empowerment (BEE) compliance level. A REIT that has different sectors is basically diversified. The last column shows the BEE-level contributors, where 8 is the least contributing or non-compliant REIT and 1 is the highest contributor or most compliant.

Table 4.1: Top 5 SA REITs by Market Capitalisation and their BEE Levels

REITs	Focus	Size of Portfolio (in Rands)	Size of Portfolio (in US Dollars)	BEE Compliance Level
Growthpoint-Property-Fund	Diversified	R37.22bn	2.19bn \$	1
Redefine Properties Ltd	Diversified: without residential	R25.81bn	1.52bn \$	1
Fortress Real Estate Investment	Retail	R22.17bn	1.304bn \$	7
Resilient	Diversified	R14.55bn	856m \$	4
Vukile-Property-Fund	Diversified: without residential	R13.82bn	813m \$	3

Sources: Centre for Affordable-Housing-Finance in Africa, (2017); Wall Street Journal (2023); Real-Estate Investment Trust (website), (2023)

South Africa's distinctive setting of Black Economic Empowerment that was established after the apartheid regime was intended to undo disequilibrium issues; this was investigated by Esser and Dekker (2008). Subsequent to the King II report being published, executives were encouraged to ponder on the attention of other investors, which, through BEE corporations, are obliged to have a social conscience (Van der Merwe and Ferreira, 2014). Some studies on the BEE include that by Ntim and Soobaroyen (2013) on the BEE compliance and firm's performance. Other studies, including Ntim et al. (2012), focused on the BEE principles and

the importance of achieving the required BEE score which may influence the firm's performance. Ferreira and Van der Merwe (2014) studied the importance of complying with the BEE, and there were other similar studies by Jefferis and Okeahalam (2000) and Sartorius and Botha (2008).

The BEE score card in SA is a key component of any sector. The higher the BEE ranking of a firm, the more likely it is that the firm will advance from several prospects (Sibeta, 2013). The present study investigates the relationship between BEE score and firm liquidity. Firm liquidity has been associated with good financial standing (Fang et al., 2009). Hence, REITs are ranked by market capitalisation as shown in Table 4.1, above. Table 4.2 shows the seven BEE principles of the top five REITs. The second column shows the maximum score that the firm has obtained per principle, and the remaining columns show each of the top five SA REITs and their BEE scores per principle. Table 4.2 shows the BEE score levels of the top five SA REITs.

Table 4.2: BEE Principles' Score of the Top five REITs

Criteria	Maximum Score	Fortress	Growth Point	Redefine	Resilient	Vukile
Ownership	30	15.26	20.13	31	19.30	26
Management control	9	4	5.69	7	3.48	4.33
Employment equity	13	2.51	6.84	7.35	23.37	4.48
Skills Development	19	14.75	18.47	17.76	0	17.31
Enterprise development	5	38.97	42.16	35.69	23.37	31.34
Socio-economic development	2	2	2	2	1.31	2
Economic development	5	5	5	5	0	4
Overall Result	117	83.49	100	105.80	47.47	90.46

Source: BBBEE certificates (2023).

4.1.2 Black Economic Empowerment (BEE)

Following the 1994 elections in SA, numerous policies were introduced to improve disparities of apartheid in the face of appeals that re-emerged; although, it was only following the stock market collapse in 1998 that the BEE first emerged (DTI, 2023; Sartorius and Botha, 2008).

BEE compliance is associated with improvement with possession of wealth on the JSE (Southall, 2004; Sartorius and Botha, 2008). Since 1994, investors have been assured that disclosure and adhering to BEE principles has a noticeable effect on stock performance (Ntim et al., 2012).

4.1.2.1 BEE and SA-Listed Firms

After a cost-benefit assessment is carried out on each of the principles, each company then considers all the BEE principles. As at 2015, BEE transactions to the value of R350 billion were landed by the top 100 corporations on the JSE; moreover, transactions to the value of R50 billion were landed by private corporates. As a result, the SA GDP has been transferred to 20% of the country's population since 2000 (Business Day, 2018).

Sartorius and Botha (2008) mentioned in their study that it is essential for companies to follow advice on integrating BEE into their strategic frameworks to enhance the company's performance. The authors also asserted that a company that complies with BEE principles will assist in achieving South Africa's economic goals. The BEE policy encourages companies to use the criteria on selecting a BEE partner, shown in Table 3, below. This table sets out a checklist for selecting a board of directors' member or any candidate in top-level management if they are a suitable BEE partner as this a requirement for BEE principles 1 and 2. In addition, private equity has proved popular for BEE equity ownership deals (Ntim et al., 2012).

Table 4.3: Checklist for Evaluating the Suitability of a BEE Partner

Checklist	Variables
1. Degree of investment	Industry agreement, the competition, submission with other BEE principles
2. Motives for BEE Deal	Social interest, governmental networks, upsurge market share
3. Appropriateness of BEE partner	Internal versus external, managing skills, funds, political networks
4. Source of funding	Third party money, credits, self funding

Sourced: (Sartorius and Botha, 2008)

The present study documents the relationship between the BEE and SA REIT liquidity. The result further highlights that SA REITs that comply with BEE principles are likely to have a strong financial standing. The study sample includes 33 SA REITs; however, only the SA REITs that comply with the BEE are included in the tests.

This essay is organised as follows. First, the related literature is reviewed. Next, the data and model to test SA REITs' liquidity and the BEE are shown. The data and the empirical results are then discussed, and, finally, conclusions are presented.

4.2 Literature Review

4.2.1 Theories

There are many theories that have been studied widely for disclosure studies. These include the agency, resource dependency, legitimacy, and instrumental theories. For the present paper, the focus is on SA REITs and the BEE influence on REIT liquidity and market capitalisation (El Ghouli et al., 2011). Companies with pronounced disclosure practices are associated with improved liquidity. The most popular theory is the agency theory, introduced by Berle and Means in 1932 to understand the relationship between agents and principals. Then, in 1976, Jensen and Meckling determined how to mitigate agency problems by separating ownership and control of shareholders and corporate executives.

These misalignments of interests were later made official by Jensen and Meckling in their principal-agent theory which was instituted in their seminal 1976 paper. Georgen (2006) named the two types of agency challenges—perquisites and empire building. Perquisites (perks) also are benefits offered to the manager. These benefits increase the manager's remuneration costs but are financed by the shareholders. They come in various forms; for example, the use of a company car, plush private offices, and CEO mansions, all funded by shareholders. In addition, managers can give jobs to family members instead of the most qualified candidate—this is also known as nepotism (Georgen, 2006). Yermack (2006) found that CEOs that used private jets underperform by 4% compared to CEOs who do not utilise private jets, and they also found a correlation between personal use of private jets and membership of long-distance golf clubs (Cheng and Firth, 2005). This implies that managers take projects that support self-interest. According to Fang et al. (2009), this may adversely affect firms' liquidity if managers take these projects. Liquidity is known to measure the company's financial standing (Yun, 2009).

Jensen (1986) identified the second agency problem known as empire building, also known as the free cash flow problem. Shareholders are more concerned about pursuing growth than pursuing value maximisation.

Cashflow that remains after an investment is known as free cashflow. When a firm has free cashflow, then conflicts of interest may arise between shareholders and management. Liquidity has been deemed to mitigate agency problems (Yun, 2009). The present study investigates SA's BEE policy. According to Ntim et al. (2012), to mitigate agency problems, companies should comply with BEE.

The second theory, the resource dependency theory, considers that those corporations that profess to have disclosure policies in place can increase their performance by acquiring competitive advantage (Ntim and Soobaroyen, 2012). According to Apergies and Destidar (2023), liquidity was linked to firm performance and to context-specific policies that are applicable in a country. The present study considers BEE policy that is applicable in SA to determine whether this policy influences SA REIT liquidity.

The third theory, which is the legitimacy theory, suggest that a company's will is legitimised if its value arrangement is unswerving with the greater social system (Ntim and Soobaroyen, 2012). The BEE was enacted to re-address social ills and disequilibrium in the society and organisations (Southall, 2004). The present study unpacks BEE and SA REIT liquidity to determine whether there is a relationship.

The last theory, instrumental stakeholder theory, suggests that disclosure is used as an instrument by corporations to achieve the informational needs (Ntim and Soobaroyen, 2012). This theory is applicable to SA REITs, as they require information on how to improve their compliance level and improve their BEE score. This paper seeks to discover the relationship between SA REIT liquidity and the BEE.

4.2.2 Empirical evidence

4.2.2.1 Liquidity and REITs

4.2.2.1.1 REIT Liquidity and Pricing

This part of the review considers various contributions of liquidity and REITs. First, holding additional cash raises REIT stock liquidity, according to Downs and Zhu (2022). They found a positive relationship relating to property market liquidity and REIT stock liquidity. This

relationship is greater for REITs with lower growth prospects, less information advantage, and with more financial limitations. This kind of evidence is not from SA or the African context, as the markets are different. The SA REIT has a great representation in the African context with 33 REITs (JSE, 2023). Moreover, there is evidence on liquidity and REIT costs; this was investigated by Clayton and Mackinnon (2000) who resolved that increased liquidity indicates better stock pricing, and they also found a link with REIT liquidity and the company's reduced costs. According to DiBartolomeo and Gatchev (2021), the pricing of REITs tends to upsurge relative to the wider stock market, while Amihud and Mendelson (2008) posted that liquidity has major effects on the pricing of firms' stocks and bonds and on investors' returns for holding them. The association of the REIT and stock pricing on the SA REIT has not been studied, and there is limited evidence on SA REIT and liquidity.

4.2.2.1.2 REIT liquidity and investment

There is further evidence in liquidity studies whereby liquidity has been associated with enhanced REIT investment activity and investors are attracted to firms with better liquidity, as confirmed by Brockman and Chung (2003). Additionally, Brockman and Chung (2003) determined that corporation liquidity is substantially influenced by investor dividend payouts. However, this kind of evidence is silent in the SA context literature; most of these studies are in developed economies. According to DiBartolomeo and Gatchev (2021), the REIT liquidity and investment findings offer provision for the view that investors perceive dividend disbursements as a source of improved liquidity and, furthermore, that REITs, as a security class with comparatively high regulatory authorised payout requirements, offer investors a vital advantage in the form of condensed liquidity risk. Furthermore, Cheung et al. (2023) emphasised that investors are subject to cognitive biases; they also argued that there are several key issues with liquidity management that can be managed through efficient investment in the future.

4.2.2.1.3 REIT liquidity and Macro Economic Factors

Liquidity has also been linked to macro-economic factors. According to Downs and Zhu (2022), executives can actively affect stock liquidity through asset structure and macro-economic factors. In their study, macro-economic factors seemed to influence REIT liquidity significantly. Moreover, Wang et al. (2022) found that (i) REIT liquidity is linked to changes with macro-economic factors; (ii) macro-economic effects are dissimilar across stages of the

business cycle; and (iii) funding liquidity is certainly related to REIT market liquidity. This evidence on REIT liquidity and macro-economic factors is silent in the SA context, although macro-economic factors are deemed to affect the liquidity of a firm. The present study adopts the macro-economic variables in the tests. More studies were conducted outside the African context on REIT liquidity and macro-economic factors, and Hoesli et al. (2017) found that economic factors affect the buying and selling activity. Demirci et al. (2023) determined that the quantity of indirect assets is a critical determinant of sales activity and the cost of borrowing which affects a REIT's liquidity. They also emphasised that the effect on trade activity and loan spreads is less noticeable for financially healthy REITs.

4.2.2.1.4 REIT liquidity and Daily Closing Bid Spread

Liquidity has been associated with the daily closing bid spread of REITs. There is evidence in the literature by Cannon and Cole (2011) that liquidity is used to measure readily available daily returns data rather than market microstructure. Blau et al. (2015) adopted daily average bid–ask spreads and found that these were more elevated for REITs than for non-REITs. More evidence on this was reported by Soyeh and Wiley (2019); that the inconsistency of bid–ask spreads is more pronounced for REITs than for non-REITs, and that the skewness of REIT bid–ask spreads has not only augmented over a period time; it can also be augmented at a superior rate than the skewness of non-REIT spreads. This kind of evidence is silent in the SA context on REITs.

This review has discussed various elements that may influence a REIT's liquidity; these include stock liquidity, enhanced investment, macro-economic factors, and daily bid spread. According to Apergies and Destidar (2023) liquidity was linked with country-specific policies. The policy of interest for this paper is the BEE.

4.2.2.2 BEE, Policies and REITs, and Liquidity

4.2.2.2.1 SA BEE Policy

South Africa's listed firms are compelled to comply with BEE policy; their noncompliance is punishable, and this could affect their financial standing (Ntim and Soobaroyen, 2013; Southall, 2004). This applies to REITs as well. There is a lack of evidence on localised policies and REITs' liquidity. The SA's unique BEE policy has not been studied in this context. Sartorius and Botha (2008) attested that companies have to engage with BEE because of the

supposed perception that conformity is related to profit making. Thomas (2017) opined that BEE compliance will improve SA's economy and its financial standing.

Nguyen and Muniandy (2020) determined that listed corporations with more female or black directors on company boards are linked with an elevated level of stock liquidity. Ntim et al. (2012) reported that black and female boards influence firm performance.

BEE compliance is significant in SA, and it has been linked to firm performance. As the BEE is associated with firm profitability and good social standing, the BEE has also been linked with the companies' worth determined by the stock market. (e.g., Esser and Dekker, 2008; Ntim and Soobaroyen, 2013; Padia and Yasseen, 2011; Sartorius and Botha, 2008; Seate et al., 2016; Thomas, 2017; Van der Merwe and Ferreira, 2014). The King II report compelled all corporates to deliberate the interests of other stakeholders; it highlighted that corporations should comply with the BEE as one of the most imperative policies to change inequalities in the country (DTI, 2023; King II, 2002; Ntim and Soobaroyen, 2013; Southall, 2004). Thus, all corporations must divulge their BEE (DTI, 2023). South Africa's government-owned corporations are more likely to submit BEE disclosure as they continue to pursue government sustenance and to have access to added backing such as contracts, which can improve performance (De Villiers and Van Staden, 2006). Enhanced BEE disclosure is also linked with government tenure (Ntim et al., 2012a; Eng and Mak, 2003).

Differing from other studies, Ntim (2013) attested that including black people among board-level management has become less impactful in motivating company culture. Independence and variation unswervingly affect company resolutions. Coleman (2008) stated that board activity impacts profits negatively, although length of CEO tenure in office enhances profitability. Additionally, the size of the board and how often the meetings are held also improves business profitability.

Seate et al.'s (2002) findings from their correlation analysis proved that there was a relationship between BEE principles and firms' strong financial standing, while Ferreira and Van der Merwe (2014) showed a positive connotation amid organisation elements of BEE and the corporate's partial earnings. Prior studies focused on the accounting and finance that enhance the effect of BEE compliance through the completing of typical score cards.

Padia and Yassen's (2011) cross-sectional research exhibited that South African companies greatly care about the strategy variables of mission, objectives, and goals compared to Dutch listed firms. Thomas (2017) asserted that BEE principles will serve to advance the economy, as there is a link with compliance to BEE principles and improved performance of the JSE listed firms. Jefferis and Okeahalam (2000) had similar sentiments for their cross-sectional research—that supervised compliance, such as BEE in South Africa, proved to have a positive connection with listed companies' performance.

4.2.2.2.2 Other Government Policies and Liquidity

A significant body of literature confers importance on company conformity with government policies and performance, which shows an encouraging affiliation globally. A cross-sectional European study by Rennings et al. (2003) found that policy compliance has a positive connection with stock profitability, whereas some variables in their research showed a significant effect on average monthly stock return. Hu et al. (2012) reported that administrative strategy makers should deliberate in estimating the costs and receivables of accounting-based rules. However, in a Bangladesh study, Rashid et al. (2010) found that political policies have a positive influence on company profitability, and that informal elements such as culture, racial demographics, connectedness, and so forth have a negative effect on business performance.

Earlier, Weber (2014) believed that liability and compliance with government policies have a positive link with stock profitability. Moreover, Lu et al. (2015) found that company performance was related to whether the firm was state owned or not, similar to Weber's (2014) findings. In another setting, Maciel et al. (2017) were convinced that foreign direct investment in a Mexican stock market has a vague affiliation with performance. This was linked to compliance with government policies in research by Chen and Lai (2013), who reported that investors were certain of informal reclassification introduced by the government in China Taiwan. They found evidence for the influence of performance on government policies.

4.2.2.3 REITs' Liquidity and BEE Policy

Currently, there is evidence with regards to SA REIT literature on BEE. These studies include a study on BEE and SA REIT performance by Akinsomi et al. (2016). Another study by Ajayi and Akinsomi (2023) focused on SEOs (Seasoned Equity Offerings). However, there are no studies on liquidity and REITs. As mentioned above, firms' liquidity measures the firms' good

financial standing, according to Ntim et al. (2012a) and Yun (2009). It is imperative that this kind of research is pursued to close this gap in the literature. Firms' liquidity improves when a new REIT is introduced (Clayton and MacKinnon, 2000; Marcato and Ward, 2007).

4.2.3 Research Gap

As the present study investigates BEE and SA REIT liquidity, the literature review also looked at evidence on SA BEE policy. Much of the BEE literature was on companies by Thomas (2017) who reported that compliance with BEE will improve the SA economy; moreover, studies by Seate et al. (2016) on BEE and firm performance reported the same. Others studies- for example, Ntim and Soobaroyen (2013) investigated listed firms not, SA REITs. Furthermore, Jefferis and Okeahalm (2000) undertook a cross-sectional study and found a link between performance and the BEE. The present study is cross-sectional; it is also unique in a sense that it investigates the BEE and liquidity, which has not been studied in the SA context. Companies with pronounced disclosure practices are associated with improved liquidity.

In the SA context, there is evidence on SA REIT and the BEE. One study was conducted in 2016 by Akinsomi on BEE and performance and another was conducted in 2013 by Ajayi and Akinsomi on SEOs and BEE, but neither studied liquidity. It is known that there is international evidence that firms' liquidity improves when a new REIT is introduced (Clayton and MacKinnon, 2000; Marcato and Ward, 2007).

Furthermore, macro-economic factors have been linked to REIT liquidity. Studies in this regard include Downs and Zhu (2022) and Wang et al. (2022). These emphasised the importance of studying macro-economic factors for REIT liquidity to improve a REIT's financial standing and preparation in the case that the economy fell into recession. Other evidence on macro-economic factors includes Hoesli et al. (2017) and Demirci et al. (2023). This study adopts macro-economic factors like consumer price index (CPI), interest rates, gross domestic product (GDP), and employment levels and tests these with SA REIT liquidity. This kind of study is silent in the SA context.

4.2.4 Hypothesis Formulation

When a firm has free cashflow, then conflicts of interest may arise between its shareholders and management. Liquidity has been deemed to mitigate agency problems (Yun, 2009). According to Ntim et al. (2012), to mitigate agency problems, companies should comply with

the BEE. The nature of the BEE initiatives indicates that there is substantial wealth and financial implications for shareholders in SA corporations since employing the BEE. According to Ntim and Soobaroyen (2013), the additional income as a result of the BEE may be invested in social themes. The present study investigates SA's BEE policy: according to Ntim et al. (2012), to mitigate agency problems, companies should comply with the BEE.

According to Downs and Zhu (2022), REITs' liquidity has been associated with holding cash. Moreover, greater investment activity has been associated with firm liquidity by Brockman and Chung (2003), DiBartolomeo and Gatchev (2021), and Cheung et al. (2023). Furthermore, macro-economic factors also influence the firm's liquidity, as confirmed by Downs and Zhu (2022) and Wang et al. (2022). Globally there is evidence on policies and a REIT liquidity by Morri and Baccarin (2016). In SA, there is some evidence on BEE policy from the studies of Nguyen and Muniandy (2020), Ntim and Soobaroyen (2013), Seate et al. (2002), and many more. On REIT and the BEE, there is evidence from Akinsomi et al. (2016) on REIT performance and BEE, and Ajayi and Akinsomi (2022) on SEOs (Seasoned Equity Offerings), but there is a lack of evidence on REITs and liquidity. Additional work is necessary on the effect of BEE practices on firms' financial standing as called for by Ntim (2012).

From the above literature the following hypothesis can be formulated.

H1: There is a positive association between BEE principles and liquidity of SA REIT.

4.3 Data and Research Methodology

The study investigates the BEE and firm liquidity of SA REITs listed on the JSE. The datasets are sourced from the companies' BEE certificates to measure BEE compliance, and financial data are sourced from Bloomberg for the period between 2013 and 2022.

The sample is drawn from 33 SA REITs on the JSE as of the end of December 2022 to observe the relationship between the BEE and SA REITs' liquidity. The BEE data are taken from each firm's BEE compliance certificates for each year to retrieve the company's BEE score. Financial data are taken from data stream and Bloomberg.

4.3.1 Model Specification

Equation (1) tests H1, where LIQ is the relevant liquidity calculation (logTURN, logRVOL, BASPR, and logLIQ); BEE Score represents all seven BEE principles and scoring for each

firm. X is an element of corporate-level variables such as total assets, Tobin' q and Debt. Tobin q is the ratio between firms asset market value and its replacement value. Debt ratio means the ratio of debt to equity. Y is a factor of macro-economic variables; these include CPI, prime interest rates, employment, stock, and GDP growth. Our returns are from the JSE All Share Index return, and the SA Listed Property Index return. X also includes SA REITs corporations that are audited by the Big 5 auditing companies in SA, and cross-listing represents SA REITs that are also listed in exchanges other than the JSE.

$$LIQ_{it} = \alpha_i + \beta_{i1}BEE\ Score_{it} + \beta_{i3}Y_{it} + \beta_{i3}X_{it} + \varepsilon_i, \quad t=1, 2, 3..T \quad (1)$$

Equation (1) tests Hypothesis 1. Table 4 offers further explanation of the variables.

Table 4.4: Variable Definition

Variable	What the variable represents	Type of variable	How it is measured
BEE	BEE compliance by SA REIT. The BEE scorecard of each classification of REITs between 2013 and 2022. Level 1.: 100 points and above—135% Compliance _ Level 2.: 85 to 99.99 points—125% Compliance _ Level 3.: 75 to 84.99 points—110% Compliance _ Level 4.: 65 to 74.99 points—100% Compliance _ Level 5.: 55 to 64.99—80% Compliance _ Level 6.: 45 to 54.99—60% Compliance _ Level 7.: 40 to 44.99—50% Compliance _ Level 8.: below 40%—0% Compliance	Dependent	The BEE certificates are obtained from individual SA REITs from 2013 until 2022. The certificates show the compliance of each firm on all BEE principles by obtaining a score.
Liquidity (LIQ)	SA REIT Liquidity measure	Independent	The liquidity ratio the total yearly corporate-level income divided by the yearly trading level and is related to greatly linked with micro-structure liquidity calculations.
α_i	Constant or intercept	$\beta_{i1}, \beta_{i2}, \beta_{i3}$	
Yit	Is a factor of macro-economic CPI, GDP, interest rate, employment	Covariates	These are directly obtained from Datastream and Quantec.
Xit	Total assets, Big 5 firms, cross-listing		Total Assets—directly obtained from Bloomberg and logged. Big 5; 1 is allotted for representation, and 0 otherwise; Cross-listing; 1 is allotted for

4.3.2 Identification of Key Variables

4.3.2.1 BEE

Consistent with past studies, first, the seven BEE principles were used (Ntim et al., 2012). To test the compliance of each SA REIT's BEE, certificates are collected from 2013 until 2022. Each certificate shows all seven principles and score level to measure compliance with each principle. The certificates are verified by the Broad Based Black Economic Empowerment (B-BBEE) Act No. 53 of 2003. The BEE measure employed in this current study is represented by the following:

$$Ln(BSCR_t),$$

where $Ln(BSCR_t)$ measures BEE principle's score, and BEE_{score} is the independent variables consisting of (i) BLK-OWN; (ii) Management Control (MNGCO); (iii) Employment Equity (EE); (iv) Skills Development (SKILDEV); (v) Enterprise & Supplier Development (E&SDEV); and (vi) Socio Economic Development (SOCDEV). Table 4, above, shows the detailed explanation of the BEE score variables.

4.3.2.2 Liquidity

The measure of liquidity employed here is like previous studies (Brounen et al., 2008; Cannon and Cole, 2011; Marcato and Ward, 2007). Here, four proxies are used to measure REIT-level liquidity. Owing to the absence or lack of data outside the bid spread, the liquidity measure will be classified as activity measure (i.e., revenue). This will reflect the degree of trading resistance (i.e., bid–ask spread) exhibiting the price reductions for imminence. The upsurge in activity measure improves liquidity; however, the improvement in friction calculation decreases it (Bertin et al., 2005).

The study uses share earnings and trading level as dual activity quantification similar to Brounen et al. (2009). The yearly share turnover is described as the trading level of shares divided by not-accounted-for shares, which is similar to former studies (Brounen et al., 2009; Huang et al., 2011; Wang et al., 2022). Similar to Cannon and Cole (2011), the yearly trading volume is explained

as the yearly closing price multiplied by yearly share trading volume. In this current study's analysis, the logs of both variables (LogVol and LogTURN) are utilised, and the data are sourced from the Bloomberg database.

The resistance measurement of liquidity is measured by using the bid–ask-spread and Amihud's (2002) liquidity calculation that signifies the price effect measure (Cannon and Cole, 2011; Wang et al., 2022). The bid–ask spread mirrors the charge of liquidity (Bertin et al., 2005; Brounen et al., 2009), while the Amihud (2002) liquidity quantification shows sensitivity of prices to shifts in trade-off level (depth dimension; Amihud, 2002; Brounen et al., 2009). The liquidity calculations are intertwined with past work measures (Bertin et al., 2005; Brounen et al., 2009; Cannon and Cole, 2011; Huang et al., 2011; Wang et al., 2022).

Annual liquidity data are obtained from the Bloomberg database. Then, the yearly average bid–ask spread (BASPR) is calculated and negative bid–ask spreads are eliminated, similar to past studies (Anand and Subrahmanyam, 2009; Cashman et al., 2016).

The liquidity calculation is described as the total yearly corporate-level revenue divided by the yearly trading level and has been found to have a significant link to micro-structure liquidity calculation (Amihud, 2002). The greater the liquidity calculation, the less the trading liquidity of a corporate's shares (Huang et al., 2011; Wang et al., 2022). Revenue and trading volume figures were retrieved from the INET BFA database, and the yearly mean (Amihud, 2002) liquidity calculation was derived; that is then log-transformed due to a great skewness and kurtosis (logLIQ).

Longitudinal datasets have been understood to withstand from the serial and concurrent correlation of residuals (De Hoyos & Sarafidis, 2006; Dufour and Khalaf, 2000). To evaluate whether serial link is showing in the dataset, the study adopts the Wooldridge test for autocorrelation. To measure whether concurrent correlation is presented in this study's dataset, the Pesaran and Frees-test for cross-sectional dependence is adopted. Cross-sectional dependence or concurrent link of inaccuracies may be the outcome of several factors such as a normal shock, ignored effects, or longitudinal dependence. Depending on whether there are unnoticed factors leading to cross-sectional dependencies which are linked with encompassed predictors or not, the effect can range from biased projected standard errors to prejudiced fixed or random effects estimators (De Hoyos and Sarafidis, 2006). For this study's dataset, the test statistics of the Pesaran and Frees-test for all liquidity factors are used, implying a dismissal of

the null hypothesis of cross-sectional independence. Finally, for a robustness check, the model is specified as follows:

$$TobinQ_{it} = \alpha_i + \beta_{i1}BEE\ Score_{it} + \beta_{i2}Y_{it} + \beta_{i3}X_{it} + \varepsilon_i, \quad t=1, 2, 3..T. \quad (2)$$

X_{it} represents covariates (such as Total assets, Debt ratio, Audited by the Big 5, and cross-listing); α_i is constant or intercept; $\beta_{i1}, \beta_{i2}, \beta_{i3}$ are the vectors of explanatory variables; i is individual firm; t is the time variable; and ε_i is the error term.

Cross-listing: This is measured on foreign stock markets' liquidity (Black et al., 2006; Ntim et al., 2013). A positive relationship with BEE score is hypothesised. It will take the value of 1 if a REIT is cross-listed on foreign stock, and 0 otherwise.

Big 5: Corporations audited by one of the Big 5 companies are reputable (De Angelo, 1981). It will take the value of 1 if the firm is audited by the Big 5 audit companies in SA, and 0 otherwise.

Debt ratio: This is the ratio of debt to equity.

4.4 Results

4.4.1 Estimation of Procedures

This study uses a dataset of selected REITs in South Africa from 2013 to 2022. The study investigates the impact of being a BEE-status firm on liquidity ratio and Tobin's q based on the generated liquidity ratio from the division of total asset by total liability. For the BEE variable, the study identified and compiled the BEE score for those firms that are compliant with the BEE. It was hypothesised that having a black economic empowerment status is likely to enhance liquidity ratio and market to book value.⁹

⁹ However, the variables have some omitted value or data points, and the study employed interpolation (or extrapolation) to populate the data point for panel analysis. In the next paragraph, the study presents descriptive statistics, correlation statistics, variance inflationary factor, and results of the analysis.

4.4.2 Descriptive Statistics

Table 4.5 exhibits the descriptive statistics of key variables, while continuous variables include liquidity ratio, Tobin's q, interest rate, GDP, employment, CPI, total asset, and debt/equity ratio.

Table 4.5: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Liquidity ratio	144	-0.212	0.228	-0.539	0.183
Tobin's q	144	-1.884	4.747	-15.254	0.006
BEE Score	144	0.003	0.006	0	0.02
Total Asset	144	-0.033	0.685	-5.77	2.11
Debt/Equity ratio	139	-0.099	1.018	-8.559	2.079
Gross Domestic Product	144	0.007	0.027	-0.061	0.046
Employment	144	0.011	0.018	-0.033	0.033
Interest rate	160	9.162	1.107	7.042	10.458
Consumer Price Index	160	4.428	0.138	4.201	4.648
Audited by Big 5 firm	160	0.562	0.498	0	1
Cross-listing	160	0.625	0.486	0	1

Categorical variables are cross-listing and whether a corporate is being audited by any of the Big 5 auditing companies. The average of liquidity ratio is -0.212 with a minimum of -0.54 and a maximum of 0.18. This shows that, between 2013 and 2022, there were a number of net sellers that are BEE-compliant. Moreover, the average of MTB (market to book value) is -1.88, the minimum is 0.03, and the maximum is 12.01. This shows that the REIT stock of BEE-compliant firms is not overvalued.

4.4.3 Unit-root Test

The study used two balanced panel conventional unit-root tests—the Levin–Lin–Chu (LLC) and Breitung unit-root tests—presented in Table 4.5.

Table 4.6: Unit root: Levin–Lin–Chu unit-root test

Variables	LLC unit-root test		Breitung unit-root	
	At level	1st Difference	At level	1st Difference
Liquidity	5.4992	-3.3401***	7.395	-4.897***
Market to book value	67.653	62.038	1.555	-3.541***
Total asset	-5.413***	-8.524***	1.327	-4.225***
GDP	-6.7048***	-9.5596***	-4.517***	-6.3816***
Employment	-0.9916	-9.7364***	2.809	-5.897***
Consumer Price Index	-4.293***	6.510	1.0612	4.255
Interest rate	-6.7183***	-4.280***	0.555	4.082
BBEE	-1.208	-79.101***	-2.663***	-6.840***
Debt/Equity ratio	.	.	.	.

Notes: The test statistics of the Levin–Lin–Chu (LLC) test unit-root test shown as Adjusted t* are reported. The trend was included. *, **, *** implies series stationary significance levels at 10%, 5%, and 1%, respectively. The test statistics of the Breitung unit-root test are shown. The trend was included. The LLC and Breitung unit-root tests are applicable to a balanced panel.

Table 4.6 presents the unit-root tests at level of first difference for the stationarity of key variables using the Levin–Lin–Chu (2002) and Breitung (2005) unit-root tests. The variables are statistically significant at first difference using Levin–Lin–Chu (2002). It can be seen that the findings are consistent with the Breitung unit-root test. The study assumed that most variables are stationary at first difference. Furthermore, the study investigates whether there is a correlation in the model.

4.4.4 Correlation Analysis

Table 4.7 presents the pairwise correlations for the model. Liquidity ratio and BEE ($r = 0.14$) are positively correlated.

Table 4.7: Pairwise Correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)
(1) Liquidity ratio	1.000					
(2) BEE	0.144* (0.084)	1.000				
(3) Total Asset	0.092 (0.272)	-0.058 (0.489)	1.000			
(4) Debt/Equity ratio	-0.171* (0.045)	-0.281* (0.001)	-0.056 (0.509)	1.000		
(5) Audited by Big 5 firm	0.000 (1.000)	0.000 (1.000)	-0.049 (0.559)	0.066 (0.439)	1.000	
(6) Cross-listing	0.000 (1.000)	0.000 (1.000)	-0.046 (0.586)	-0.091 (0.288)	0.098 (0.220)	1.000

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

Liquidity ratio and total asset ($r = 0.09$) are positively correlated. Liquidity ratio and debt/equity ratio ($r = -0.17$) is likely to have a negative correlation.

4.4.5 Variance Inflation Factor

Table 4.8 presents the variance inflation factor to ascertain the true position of correlation analysis.

Table 4.8: Variance Inflation Factor

	VIF	1/VIF
Debt/Equity ratio	1.109	.902
BEE Score	1.093	.915
Cross-listing	1.03	.971
Audited by Big 5 firm	1.026	.975
Total asset	1.014	.986
Mean VIF	1.054	.

The study investigates whether there is a possibility of multicollinearity in the model, which is an issue if the rule of thumb is not satisfied. The rule of thumb says that VIF must not exceed 5 or 10 (Murray et al., 2012). However, all the variables have VIF scores that are less than 5.

4.4.6 Empirical Results

Table 4.9: Liquidity Ratio and the BEE

Variables	(1) OLS Liquidity ratio	(2) OLS robust Liquidity ratio	(3) FE Liquidity ratio
BEE Score	5.119*** (0.382)	5.119*** (0.187)	5.107*** (0.404)
Total asset	0.00176 (0.00222)	0.00176 (0.00152)	0.00181 (0.00239)
Debt/Equity ratio	-0.00166 (0.00158)	-0.00166 (0.00108)	-0.00180 (0.00173)
Gross Domestic Product	6.318*** (0.180)	6.318*** (0.163)	6.314*** (0.190)
Employment	-5.043*** (0.435)	-5.043*** (0.396)	-5.034*** (0.460)
Interest rate	0.0442*** (0.00389)	0.0442*** (0.00397)	0.0441*** (0.00411)
Consumer Price Index	1.487*** (0.0213)	1.487*** (0.0244)	1.487*** (0.0225)
Audited by Big 5 firm	0.000380 (0.00305)	0.000380 (0.00304)	
Cross-listing	-3.39e-06 (0.00316)	-3.39e-06 (0.00319)	
Constant	-7.251*** (0.0824)	-7.251*** (0.0960)	-7.251*** (0.0873)
Observations	139	139	139
R-squared	0.994	0.994	0.994
Number of firms			16

Notes: Standard-errors in parentheses: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$; Fixed effect (FE) omitted Audited by Big 5 firm and cross-listing because they are categorical variables.

Table 4.9, Column (1) examines the relationship between liquidity ratio and the BEE as well as other control variables. The BEE has a significant positive relationship with liquidity ratio. This is expected as it is evidenced in the literature. Nguyen and Muniandy (2020) studied non-listed companies, but not REITs; these authors focused on female and black directors (Nguyen and Muniandy, 2020). Ntim and Soobaroyen's (2013) results focused on the BEE and

compliance of SA corporations. However, in their study, the liquidity test was not run and they did not use REITs in their study. GDP, interest rate, and CPI have significantly positive relationships with liquidity ratio whereas employment has a significant negative relationship with liquidity ratio, which was not expected. Macro-economic factors have been linked to REIT liquidity improvement (Wang et al., 2022). An adverse relationship can also be realised from this relationship similar to the employment variable utilised in this study. Moreover, like the present study, Downs and Zhu (2022) found that macro-economic variables influence stock liquidity.

Table 4.9, Column (2) exhibits that the BEE has a significant certain link with liquidity ratio. GDP, interest rate, and CPI have significantly positive relationships with liquidity ratio whereas employment has a significant negative relationship with liquidity ratio. Macro-economic factors can have an adverse relationship with firm liquidity; this could also be ascribed to changes in the economy (Wang et al., 2022). The employment-level variable included the labour force from REITs where salaries and wages are paid to the employees. This adversely affects REIT liquidity, which was also documented by Dermirci et al. (2023).

In Table 4.9, Column (3), the BEE has a significant positive relationship with liquidity ratio using the fixed effect estimator. GDP, interest rate, and CPI have significant positive relationships with liquidity ratio. The employment has a significant adverse link with liquidity ratio. The adverse relationship with employment level is not new; changes in economic factors may affect the relationship with a REIT's liquidity. Wang et al. (2022) reported that changes in macro-economic factors influence REIT liquidity, while Dermirci et al. (2023) stated that liquidity can have an adverse relationship with some of the macro-economic factors, especially factors like employment level. The SA employment level variable represents employment from 2013 to 2022.

4.4.7 Robustness Test

The robustness check for the estimation of liquidity ratio and BEE using GLS and PCSE is exhibited in Table 4.10.

Table 4.10: Robustness Results of Liquidity Ratio and BEE

Variables	(1) FGLS liquidity ratio	(2) PCSE liquidity ratio
BEE Score	5.119*** (0.368)	5.119*** (1.269)
Total asset	0.00176 (0.00214)	0.00176* (0.00103)
Debt/Equity ratio	-0.00166 (0.00152)	-0.00166*** (0.000636)
Gross Domestic Product	6.318*** (0.173)	6.318*** (0.614)
Employment	-5.043*** (0.419)	-5.043*** (1.486)
Interest rate	0.0442*** (0.00374)	0.0442*** (0.0132)
Consumer Price Index	1.487*** (0.0205)	1.487*** (0.0726)
Audited by Big 5 firm	0.000380 (0.00293)	0.000380 (0.000285)
Cross-listing	-3.39e-06 (0.00305)	-3.39e-06 (0.000160)
Constant	-7.251*** (0.0794)	-7.251*** (0.281)
Observations	139	139
R-squared		0.994
Number of firms	16	16

Notes: Standard-errors in parentheses: *** p<0.01, ** p<0.05, * p<0.1; Panel-Corrected Standard Error (PCSE); Feasible Generalised Least Squares (FGLS).

Table 4.10, Column (1) exhibits the investigation of the effect of the BEE on liquidity ratio using feasible generalised least squares. The BEE has a substantial positive effect on liquidity ratio. GDP has a substantial positive link to liquidity ratio. The interest rate has a substantial definite effect on liquidity ratio. Moreover, interest rate has a substantial optimistic effect on liquidity ratio. Similarly, consumer price index and total asset have a significant positive impact on liquidity ratio, and changes in macro-economic factors affect liquidity (Glascok and Lu-Andrews, 2021), whereas employment has a substantial negative influence on liquidity ratio.

Table 4.10, Column (2) presents the findings from the investigation of the impact of the BEE on liquidity ratio using the panel-corrected standard error estimator. The BEE has a sizable positive link to liquidity ratio. GDP has a sizable positive effect on liquidity ratio—this is expected. Macro-economic factors influence a REIT's liquidity (Downs and Zhu, 2022). The interest rate has a sizable positive link to liquidity and a substantial positive connection with the liquidity ratio. Similarly, consumer price index has a substantial positive association with liquidity ratio whereas employment has a substantial adverse effect on liquidity ratio. The adverse relationship with employment has been discussed above. The changes in economic factors can have an adverse relationship with REIT liquidity (Wand et al., 2022).

4.5 Conclusion

This study investigates the link concerning the BEE and the liquidity of SA's firms, adopting an example of publicly listed equity REITs. The emphasis is on REITs because they operate in parallel markets, they raise funds in the capital market, and they invest in the real estate market in a portfolio setting. There is evidence on the BEE and SA REITs from Akinsomi et al. (2016) and Ajayi and Akinsomi et al. (2023), but these studies were not on REIT liquidity. The contribution of this current study is that is the first time a relationship concerning REIT liquidity and BEE is established, thus filling this gap in the body of knowledge by using a balanced panel data to control for time-invariant components in the model.

REITs offer a natural experiment for the BEE because they leave low free cash flow, which decreases agency challenges. The BEE phenomenon indicates that there are holdings and monetary benefits for the shareholders of SA firms since BEE compliance might affect the board and executive effectiveness. This is more precisely on the bottom-line (a percentage of additional revenue can be reinvested in other social projects).

The study documents a positive and sizable relationship involving all BEE principles' scores and SA REIT liquidation. These findings are similar to studies by Rennings et al. (2003) and Chen and Lai (2013) where government policies influence a REIT's liquidity, but this was not investigated in the South African context. The South African studies in REIT and BEE did not investigate liquidity; these are by Akinsomi et al. (2016) and Ajayi and Akinsomi (2023). Other BEE studies on other firms in SA are by Sartorious and Botha (2008), Ntim and Soobaroyen (2012), and Thomas (2017); however, these were not on REITs. This present study addressed this gap in the literature.

A series of robustness checks were carried out to study firms' performance as a proxy using Tobin's q , to present an estimation of Tobin's q and the BEE. The results also complement existing research by Rennings et al. (2003) and Rashid et al. (2010); however, these studies did not proxy for the BEE but for other government policies. This current study concurrently explored the constructs of the positive relationship concerning the BEE and SA REIT liquidity. The SA BEE score variable is extracted from the company's BEE certificates. These display the scoring of each REIT on all seven principles which are then used to measure BEE score.

The study's hypothesis (H1) is not related to the SA REITs that do not comply with the BEE; only to those SA REITs that comply and have BEE certificates. Even though the five top-performing SA REITs are BEE-compliant, further investigations on the non-compliant BEE REITs and their performance are needed to determine whether there is a relationship or not. The BEE has been linked with readdressing inequalities and improving social ills (Ntim et al., 2012a).

One of the agency problems is that shareholders are concerned about pursuing growth and value maximisation, and Jensen (1986) discussed how to mitigate this problem. This study finds that a company's liquidity has been linked with value maximisation, similar to Downs and Zhu (2022). To mitigate this problem was to manage liquidity through effective investment that could maximise the worth of the company.

Compliance with disclosure policies, like the BEE, is used as an instrument by corporations to achieve the informational needs, reflecting similar findings to Ntim and Soobaroyen (2012) as one of the theories applied in this study.

It can be concluded that the BEE has a positive influence on SA REITs' liquidity. SA REITs that are also cross-listed are likely to influence the liquidity of SA REITs; this also applies to those that are audited by the Big 5 auditing companies in SA.

The conclusions confirm a definite relationship concerning the BEE and SA REIT liquidity and have critical implications for REIT executives and investors. Compliance with the BEE may assist with profit maximisation (Sibeta, 2013). Complying with the BEE also assists firms to have access to multiple opportunities that would not be available to non-compliant firms (Seate et al., 2016). A firm's liquidity has been associated with the firm's strong financial standing (Fang et al., 2009). SA REITs that comply with the BEE are likely to achieve better liquidity compared to non-compliant REITs. SA REITs are likely to seize better investment opportunities, as evidenced by Cheung et al. (2023). This paper's findings have major implications for SA REITs and how they view BEE compliance.

This essay has closed the gap in the body of knowledge with regards to the BEE and SA REIT liquidity. Evidence from the literature was discussed above on the BEE and REITs, but not

liquidity. As addressed here, liquidity is an important measure for a firm's financial standing. Financially healthy REITs are more inclined to have access to more investment opportunities (Dermirci et al. (2023), and compliance with BEE has been linked to a firm's performance (Nguyen and Muniandy, 2020; Ntim and Soobaroyen, 2013; Thomas, 2017).

The study proxied BEE-compliant SA REITs, and non-complaint REITs were not included. Further research can study the non-compliant firm and its relationship to firm liquidity. In addition, future research could undertake a comparative analysis of both compliant and non-compliant SA REITs.

This paper has not investigated liquidity and investment as one of the gaps identified in the literature in SA context. This aspect has been studied by various authors; these include a study by Brockman and Chung (2003), who argued that liquidity enhances investment activity. On the other hand, Cheung et al. (2023) argued that liquidity management may influence future investment. Liquidity has been deemed important in the literature (Fang et al., 2009), but these kinds of studies are not available in the African context in general and in SA in particular.

REIT stock and liquidity has also been identified as well as a gap in the literature in the South African context. Primarily, there is some indication on the pricing of REIT stock from the works of DiBartolomeo and Gatchev (2021), Downs and Zhu (2022), and Clayton and Mackinnon (2000). These studies were conducted outside the African context and not in SA. These studies emphasise how to improve the pricing of a REIT, and this kind of knowledge is required in SA literature. Companies with pronounced disclosure practices are associated with improved liquidity.

CHAPTER FIVE

SYNOPSIS OF THE RESEARCH ENDEAVOUR

5.1 Background

While research on corporate governance has been conducted globally, empirical evidence is still limited on REIT literature in emerging economies. According to this thesis' central argument, South Africa's CG is unique and complex, it draws from the Anglo-American and UK styles, and incorporates South Africa's unique attributes such as affirmative action, employment equity, and other characteristics that are unique to SA. South Africa's CG structure has changed over time since its inception in 1994, due to the introduction of the Companies Act 71 of 2008 and the Employment Equity Act, 55 of 1998. This study considered the King III report applicable until 2016 and the King IV report applicable from 2017 to date. Worthy of note is that the disclosure policies studied were also influenced by the changes in SA's CG framework. This hypothesis has increased the study's understanding of REITs and the ever-complex CG. The three essays are the first of their type on South African real estate investment trusts.

5.2 Summary of the Main Findings

The first essay examines the relationship between CG and performance for commercial property assets utilising a sample of publicly listed equity real estate investment trusts (REITs). The focus is on REITs because they function in parallel markets, they grow funds in the capital market, and they invest in the real estate market in a portfolio setting. This distinctive structure assists in evaluating CG and REITs' performance using a balanced panel data to control for time-invariant components in the model. The issue is that a theoretical approach to the study of CG in SA does not exist focusing on REITs. This current study includes 75 principles extracted from the King III report and 17 principles from the King IV report as the main independent variable, while CSR is the second independent variable. There is no evidence of previous work on REITs and CG performance. Studies on the developed nations context cannot be generalised to SA because the CG structure and compliance is not the same. Previous SA studies did not sample REITs. This study evidenced a positive and significant relationship between all CG principles and firm-level performance and profitability. A fundamental hypothesis related to CSR and the genesis of the REIT performance is also tested.

The findings on CSR and SA REITs' performance close the gap in the literature that currently exists, using the unique index to capture CSR compliance. Not much work was conducted after Westermann's (2018) review which found that there is limited literature on CSR and firm performance. The index used in this study shows a positive relationship with the firm's performance (Khan et al., 2023). This implies that CSR is likely to improve a firm's performance with higher magnitude. CSR and equity ratio have a sizable positive connection with firm performance. Chung et al. (2005) argued that firms with superior CSR have better access to capital because of reduced agency costs, with greater stakeholder engagement. REITs with reduced agency problems experience enhanced firm performance.

The second essay assesses the CG and SA REIT foreign investment trading using a balanced panel data to control for time-invariant components in the model. The issue is that traditional foreign investment theories fail to explain what attracts foreign investors. Carstens and Freybote (2018) confirmed that the introduction of REITs increased foreign investment attractiveness in SA, in the US (Clayton and Mackinnon, 2000), and in the UK (Brounen et al., 2009) and, in Japan, Ooi et al. (2006) proved the same. Cosby and Zhang (2020) mentioned attractive tax laws and Marfatia et al. (2021) mentioned political climate, although Carstens and Freybote (2018) posited that foreign investment improves firms' revenue. There is a lack of evidence in SA and in other emerging economies as to what drives or influences foreign investment (Marfatia et al., 2021; Ooi, Newell, and Sing, 2006). The foreign investment in this study adopted the BSI previously employed by Kumar and Lee (2006) and Carstens and Freybote (2018). The findings document a positive and substantial relationship between all SA CG principles and foreign investment activity, reflecting findings from previous literature (Adelopo et al., 2009; Alregab, 2023). The study also provides evidence, for the first time, of a positive link between leadership/boards and board size with foreign investment activity of an SA REIT. This further proved that firms with highly structured CG and boards are likely to influence foreign investment activity, as reported by Wang et al. (2012). The study notes that risk governance has no significant relationship while compliance governance influences foreign investment activity; therefore, it is expected that compliance with laws and taxes is likely to improve foreign investment activity, supporting the findings of Adelopo et al. (2009).

The third essay examines the relationship between BEE and liquidity of SA's firms using a sample of publicly listed equity real estate investment trusts (REITs). The issue is that the literature is silent on SA REITs' liquidity and its relationship to BEE, even though firm liquidity

has been associated with a firm's good financial standing by Yun et al. (2009). The SA BEE score variable is extracted from the company's BEE certificates. These display the scoring of each REIT on all seven principles and are then used to measure BEE score. The research documents a positive and significant relationship between all BEE principles' scores and SA REIT liquidation, similar to previous studies by Sartorius and Botha (2008), Ntim and Soobaroyen (2012), and Thomas (2017), although these studies did not proxy REITs in their analysis.

5.3 Practical Implications

The SA CG Index is extracted from the King III and IV reports. This study's unique indices feature 17 principles from the King IV report and 75 principles from the King III report to measure CG. The findings support a positive relationship between CG and firm performance and have important implications for REIT managers and investors. The SA CG principles that influence the performance of SA REIT include the BOD, leadership, risk management, compliance governance, and stakeholder relationship principles which are significant contributors to SA REIT performance. First, BOD is known to be the most fundamental internal governance mechanism in CG; this may include the board's expertise and composition (Shahrier et al., 2020). In SA, board selection is stringent, and the selection process must be reported annually (Pamburai et al., 2015). Campbell et al. (2011) linked experienced boards with firm performance; this current study's result further confirms that SA REITs that comply with this principle will experience improved performance. Investors prefer such boards, and these ensure the effective management of a corporation by also combating corruption. Second, SA REITs that comply with risk governance are likely to improve performance.

The problem arises when managers enter high-risk projects that may fail. In this case, the costs will be borne by debt holders; however, if the project is successful, the shareholders will benefit. SA corporations are expected to have risk management plans in place as highly indebted SA REITs are risky to investors. Third, compliance governance includes compliance with laws, regulations, and tax laws. SA REITs that comply with this principle are likely to notice improved returns. Compliance laws include compliance with affirmative action and employment equity to assist in readdressing past inequalities on race, gender, and disability in SA. SA REITs that effectively comply with CG principles that are directly influenced by

employment equity and affirmative action will realise pronounced firm performance. Policy makers should factor these into their activities and understand the implications of these policies for firms. The last most influential CG principle is stakeholder relationship; however, this CG principle has an adverse relationship with SA REITs. The principle is still a relatively important one even though it is adversely associated with SA REITs' performance. A relationship with stakeholders will not influence returns as previously believed by managers from Ntim's (2013) study.

The other major agency problem is financing the organisation. When a firm does not have sufficient equity, they may use debt to finance projects (Georgen, 2006). SA REITs that comply with the governance of risk (principle 4 of the King III report) are likely to realise improved performance. Ramachandran et al. (2018) also concluded similar results—that all three performance measures (ROE, ROA, ROI) were positively correlated. However, it is also important to note that highly indebted SA REITs are risky to investors. The problem arises when managers enter high-risk projects that may fail, in which case the costs will be borne by debt holders. However, if the project is successful, the shareholders will benefit. The risk management CG principle places emphasis on the corporation to comply with it to assist minimising potential risks that the organisation may encounter; this is applicable to SA REITs that comply with risk governance.

From the second essay, the practical implication was that empire building is one of the agency problems. Anderson et al.'s (2020) finding suggests that REITs should engage in cross-border property investments to gauge excess return. It can be concluded that CG has a positive influence on SA REITs' foreign investment, and that SA REITs that are also cross-listed are likely to influence foreign investment; this also applies to those that are audited by the top five auditing firms in SA. REITs' foreign investment is influenced by governance compliance. This principle includes several SA policies like AA and EE. The policy requires more foreign investment as this helps with economic growth and other positive aspects to the economy, also evidenced by Carstens and Freybote (2018).

The findings give backing for a positive relationship between BEE and SA REIT liquidity and have important implications for listed real estate managers and investors. One of the agency problems is that shareholders are concerned about pursuing growth and value maximisation. Jensen (1986) discussed how to mitigate this problem. The current study finds that a company's

liquidity has been linked with value maximisation, as reported by Downs et al. (2022). Moreover, a way to mitigate this problem was to manage liquidity through effective investment that could maximise the worth of the company. The SA's BEE policy directly influences the REITs' liquidity, and the aim of this policy was to readdress equalities and increase economic participation from previously disadvantaged groups. Some of these policies directly affect firms' liquidity and, thus, policy makers should take these into consideration.

5.4 Limitations and Future Research

This research opens the door for future studies on the CG and REIT performance, determinants, and outcomes related to CG and REIT performance. The first hypothesis H1 from Chapter 2/ essay 1 is not related to the concept of internal and external management—SA REITs are either managed internally or externally which can influence CG compliance level. The five top-performing SA REITs are internally managed, whereby the internal mechanisms include an effectively structured board, compensation contracts that encourage a shareholder orientation, and concentrated ownership holdings that lead to active monitoring of executives. The study did not focus on management structure or on different industries, only on the top-performing industries at the time. The present study will assist SA REITs to comply with reporting and improving their compliance each year if they are to witness higher returns.

CSR compliance has become mandatory in SA, so it should be relatively easy to trace and capture compliance in the coming years. Such a study could capture CSR in earlier years from 2013 until 2016. However, from 2017, reporting improved and this trajectory is expected to continue year on year. In his 2012 study in the SA context, Ntim used word count at the time as the compliance reporting was difficult to trace, and his data were very limited compared to richer data available in more recent years. CSR has been highly linked with performance for SA REITs. This encourages firms to improve the CSR reporting on their annual reports if they are to realise promising returns. Ntim (2013) constructed an index formulated from older King reports, which did not focus on management structure or on different industries but on top performing industries at the time.

The second essay did not focus on returns; however, foreign investment has been proven to gauge the negative effects of empire building. This result was isolated on publicly traded shares.

This study has further expanded on this. Furthermore, this essay did not test the concept of internal and external management. The five top-performing SA REITs are internally managed; the internal mechanisms include a successfully structured board, rewarding deals that inspire a shareholder orientation, and concentrated ownership holdings that lead to active supervising of corporate executives. Furthermore, this study only focused on listed REITS that are inherently more inclined to foreign portfolio investment. The present study has filled the gap in the literature on CG and foreign investment. Further studies can revisit FDI and FPI on other listed firms in SA. In addition, a comparative analysis of both FPI and FDI and investor sentiments is timely as this was not covered in this study. Other studies can also expand on the existing variables considered and proxy other listed firms in SA. The present study used various proxies mentioned in Chapter three, which adds rigour to the study's findings. Future research can focus on SA policies and foreign investment to establish whether the changes in policies have encouraged or discouraged investors. Carstens and Freybote (2019) already reported that the introduction of REITs in SA improved foreign investment activity that quadrupled, but their report is unique to SA.

The third essay did not test SA REITs that are not compliant with BEE, so these are excluded from the study. Further investigations can be undertaken on the non-compliant BEE REITs and their performance to determine whether there is a relationship or not. Moreover policy influence on REITs needs to be studied in depth along with other policies like Affirmative Action and Employment Equity. The SA's BEE policy directly influences the REITs' liquidity, and this policy's aim was to readdress equalities and increase economic participation from previously disadvantaged groups. Some these policies directly affect firms' liquidity and, thus, policy makers should take these into consideration.

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CHAPTER SIX

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Appendices

A Corporate Governance Indices

A.1 KING III_ Compliance Checklist_SA

(1) Corporate citizenship, leadership, integrity & responsibility.

- (a) Whether the board gives successful leadership through an established ethical foundation
- (b) Whether the corporation is seen as an accountable corporate citizenship
- (c) Whether the corporation's ethics are supervised successfully.

(2) Board and directors.

- (d) The board must act in the best interest of the corporation and act as a principal point for guardian of corporate governance, by having a charter with a set of responsibilities, by meeting at least 4 times a year, and guaranteeing that the company thrives.
- (e) The board will not separate the company's plan, risk, performance, and sustainability.
- (f) Whether the board gives successful leadership centred on ethical foundation.
- (g) Whether the board is seen as liable corporate citizens, by reporting on corporate social responsibilities initiatives during the year in annual reports.
- (h) Whether the company's ethics are supervised successfully, provide good leadership based on ethics foundation.
- (i) Whether the board has functions that are well structured audit committees, and exhibiting in mind that audit committees have legislative functions in terms of the Companies Act 2008, this committee must have a formal term of reference as a minimum cover.
- (j) Whether the board can guarantee that there is a successful internal based audit function
- (k) Whether the corporation has information technology (IT) governance in place
- (l) Whether the board guarantee that the corporation observes with appropriate laws and regulations
- (m) Whether there is an efficient risk based internal audit.
- (n) Whether the board is aware that stakeholders' perception affects the corporation's status
- (o) Whether the board confirms that the truth of the corporation's integrated report is not compromised.
- (p) Whether the board reports on effective corporation's system internal controls
- (q) Whether the board and its executives act in the best benefit for the company

- (r) Whether the board considers enterprise salvage procedures as soon as the corporation is financially disturbed.
- (s) Whether the board elects a chairman who is a standalone non-executive director, and the CEO of the enterprise should not execute this function.
- (t) Whether the chief executive officer is assigned and determine a structure for re-allocation of authority.
- (u) Whether the board has a balance of power, with at least one third of the non-executives should switch annually.
- (v) Whether the directors are assigned through a formal process
- (w) Whether there are formal measures in place for the continuing training and development of management
- (x) Whether the company has a skilled, suitably capable, and experienced corporation secretary.
- (y) Whether the board provides evidence of evaluation of individual directors and committees.
- (z) Whether certain functions are delegated without abdicating the board's own responsibilities.
- (aa) Whether there is a governance structure agreed upon involving group and the subsidiary boards.
- (bb) Whether payment of the directors is according to the remuneration policy.
- (cc) Whether the compensation of each particular director and stipulated officers is disclosed
- (dd) Whether the shareholders have accepted the remuneration policy.

(3) Audit committees.

- (ee) Whether the corporation has a standalone audit committee.
- (ff) Whether audit committees are appropriately skilled and standalone non-executive directors, there should be a entry level of qualification agreed upon.
- (gg) Whether the audit committee is chaired by an independent non-executive director
- (hh) Whether the audit committees supervise financial reporting and integrated reporting statement on whether the audit committee suggested the integrated report for board approval.
- (ii) Whether the audit committee has a joint assurance model and it's applied in all assurance activities.

- (jj) Whether the audit committee has a statement that it has satisfied itself with the capability, reserves, and capability of business's investment function.
- (kk) Whether the audit committee has a statement that the audit committee conformed with its legal, regulatory, and other responsibilities.
- (ll) Whether the audit committee is an integral part of the risk procedure, this must appear in the statement.
- (mm) Whether the audit committee is accountable for suggesting the employment of the external auditor and overseeing external audit processes.
- (nn) Whether the audit committee has made a statement available for adoption of recognized terms of reference and that are authorized by the board and whether the committee is satisfied with its terms of reference.

(4) risk management.

- (oo) Whether the board has risk policies and plans in position.
- (pp) Whether the board has verified the levels of risk lenience and risk appetite annually.
- (qq) Whether the risk committee or audit committee to ensure that the board is keeping out its risk responsibilities
- (rr) The board must assign to management the obligation to design, implement and supervise risk management plan.
- (ss) Whether the board ensures that risk assessment is carried out annually.
- (tt) Whether the board confirms that structures and methodologies are employed to increase the probability of predicting unpredictable risks.
- (uu) Whether the board guarantees that managers have appropriate risk responses, and these are implemented.
- (vv) Whether the board guarantees that there is persistent risk observing is adhered to by management.
- (ww) Whether the board receives assurance regarding the effectiveness of risk management process.
- (xx) Whether the board guarantees that there are processes in place enabling complete, timely, relevant, accurate and accessible risk disclosure to stakeholders.

(5) Governance of information technology

- (yy) Whether the board is accountable for information technology (IT) governance, they have the governance structure.
- (zz) Whether the IT is affiliated with performance and sustainability objectives of the company

(aaa) Whether the board has assigned full obligation for the execution of IT governance charter.

(bbb) Whether the board checks and assess substantial IT investments and spending.

(ccc) Whether the board ensures that IT governance with assistance risk and audit committees.

(ddd) Whether the board confirms that knowledge about assets is managed efficiently.

(eee) The board to ensure that the risk and audit committee assist IT in applying out its duties.

(6) Compliance with laws, regulations, rules, and standards.

(fff) Whether the board guarantees that the corporation conforms with relevant laws and reflects obedience to non-binding rules, codes, and guidelines.

(ggg) Whether the board of every director has a operational interpretation of the influence of applicable laws, rules, codes and standards on the enterprise and business.

(hhh) Whether the board has compliance risk and is part of the corporation's integral executives procedure.

(iii) Whether the board has assigned to executives the execution of an successful conformity structure and processes.

(7) Internal audit.

(jjj) Whether there is an effective audit risk basic function in place.

(kkk) Whether the risk-based approach plan is followed.

(lll) Whether there is a in print evaluation of the success of the corporation's system of internal control and risk management.

(mmm) Whether the audit committee oversees internal audit

(nnn) Whether their internal audit is advantageously set to achieve its objectives.

(8) Managing stakeholder relationships and

(ooo) Whether the board appreciated stakeholders' perception, and this affects the business's reputation.

(ppp) Whether the board assigns to management to proactively deal with stakeholders' associations.

(rrr) Whether the board endeavours to realize appropriate balance relating to its various stakeholders' groupings, in the best interest of the corporation.

(sss) Whether the board proves equitable treatments of shareholders.

(ttt) Whether the board is clear and successful interaction with stakeholders is important for developing and preserving their trust and confidence.

(uuu) Whether the board must guarantee disagreements are solved successfully, effectively, and accelerate as possible.

(9) Integrated reporting and disclosure.

(vvv) Whether the board guarantees that the reliability of corporation's integrated report.

(www) Whether sustainability reporting and disclosure are incorporated with the corporation's commercial reporting, and these are prepared annually.

(xxx) Whether sustainability reporting and disclosure is separately assured.

A.2 KING IV_ Compliance Checklist_SA

1. **Leadership** – The governing body must lead ethically and successfully.

(i) Whether the board individually and mutually exhibits traits of integrity, capacity, culpability, accountability, fairness and transparency, the boards leadership results in the achievement of its strategy.

2. **Organisational Ethics-** The governing body ought to oversee the ethics of the organization in a way that promotes the enterprise of an ethical culture.

(ii) Whether the governing body should set direction on the ethics of the corporation, they must approve code of ethics, this code must be distributed to key stakeholders for authorisation, the social ethics and transformation committee affords on going oversight of ethical matters.

3. **Responsible Corporate Citizenship-** The governing body must confirm that the organization is and is seen to be a responsible corporate citizen.

(iii) Whether the board sets direction with conformity with laws, standards, policies, and procedures, the board oversees that this function is implemented by committees and management on various initiatives.

4. **Strategy and performance-**The governing body ought to appreciate that the organization's core purpose, its risks and chances, strategy, business model,

performance and viable development are all inseparable elements of the value creations process.

- (iv) Whether the board steers direction on, the strategy approved with reference to timelines; whether the application of the strategy has been delegated to management; whether the operational plans are delegated to management; and whether the implementation of both operational plans and strategy is monitored.
- 5. **Reporting**-The governing body must confirm that reports supplied by the organization qualify stakeholders to make learned reviews of the establishment's performance, and its short, medium, and long-term projections.
 - (v) Whether the board approves the reporting framework to be used with the help from audit and risk committees, whether the board oversees various reports, whether the board oversees the integrity of external reports.
- 6. **Primary Role and Responsibilities**-The governing body must perform as the principal point and guardian of corporate governance in the organization.
 - (vi) Whether the board gives leadership, accepts a board charter, terms of reference for its committees and has accepted processes and the responsibilities are discharged according to the charter.
- 7. **Composition of the Governing Body**-The governing body should involve the applicable balance of knowledge, skills, experience, diversity and independence for it to discharge its governance role and obligations objectively and successfully.
 - (vii) Whether the composition of the board is done with the assistance of nomination committees, they consider the appropriate size of itself taking into consideration optimal knowledge, skills, experience, diversity, independence. Whether one member retires the board has established a succession plan
- 8. **Committees of the Governing Body**- The governing body must make sure that its procedures for handing over within its own structures stimulate independent verdict and help with balance of power and the efficient discharge of its functions.
 - (viii) Whether the boards nomination and appointments are transparent and neutral, by considering previous board members experience, new board members are provided with appointment letter and induction is conducted and whether there are no conflicts, directors should declare all interests at each board meeting.
- 9. **Evaluation of the performance of the Governing Body**- The governing body must confirm that the appraisal of its own performance and that of its teams, its chair and its

individual participants, backing continued enhancement in its performance and efficiency.

- (ix) Whether the evaluation of the ability and independence of the corporation secretary is entered in the annual board assessment process.

10. Appointment and Delegation to Management- The governing body ought to safeguard that the selection of and handing over to management give to the roles clarity and efficient exercise of power and duties.

- (x) Whether the appointment of each committee is neutral, its composition, roles and responsibilities are complimentary with control by any individual, each committee must have a minimum of 3 members, any director may attend the committee as an observer. Committees should oversee internal and external reporting.

11. Risk Governance- The governing body must oversee risk in a way that backs the administration in appointing and realizing its strategic targets.

- (xi) Whether the board treats risk management has an integral part of outcome making and adherence to responsibilities. The board should delegate the execution of risk framework to management.

12. Technology and Information Governance- The governing body must oversee technology and information in a way to support the organization in appointing and realizing its strategic objectives.

- (xii) Whether the board with the assistance of the technology and governance committees' delegates to management effective technology and information implementation and oversees the results of management implementation.

13. Compliance Governance- The governing body must govern conformity with applicable laws and assumed, non-binding rules, codes and standards in a way that confirms the organization being ethical and a good corporate citizen.

- (xiii) Whether the governing body with support of the audit committee compliance of management, and constant monitoring of the regulatory environment

14. Remuneration Governance- The governing body must safeguard that the organization compensates fairly, reliably, and transparently to advance the achievement of strategic objectives and optimistic outcomes in the short, medium and long-term.

- (xiv) Whether the governing board sets direction and approach for remuneration for the corporation and grants the compensation policy that is transparent.

15. **Assurance**-The governing body must confirm that reassurance services and roles enable an successful control environment and that these backing the integrity of information for internal decision-making and of the establishment's external reports.
- (xv) Whether the governing body delegates board delegates the assurances services and roles to the audit committee, these committees to oversee the internal control environment, integrity of information for management decisions making and external reporting.
16. **Stakeholders**-In the implementation of its authority role and accountabilities, the governing body must adopt a stakeholder comprehensive method that equilibriums the needs, interests, and prospects of material stakeholders in the best interests of the group over time.
- (xvi) Whether the execution of its governance role and obligations, with adoption of a complete approach that totals the needs, interest, and expectation of material stakeholders in the best interest of the establishment.
17. **Responsibilities of Institutional investors**-The governing body of an institutional organisation ought to guarantee that liable investment is practiced by the organisation to endorse the good governance and the formation of value by the corporations in which it invests.
- (xvii) Whether the governing body ensures that institutional originations are sensible investment is experienced by the establishment to foster good governance and the origination of value by the corporations in which it finances in.

B Corporate Social Responsibility_Checklist_SA

The CSR areas are extracted from the King IV report.

The governing body must supervise and observe a continuing basis, how the effects of the organisation actions and output affect its standing as a liable corporate citizenship. This oversight and supervising must be accomplished against measures and targets agreed with management in the following areas.

1. Whether employment equity for compensation and dignity, health, safety, and development of staff is applied by ensuring that the board and all employees have representation from all races and both genders according to the demographics of South Africa, and whether their remuneration policy is fair and

in place and ensuring that occupational health and safety is in place and well reported on.

2. Whether the organisation has an anonymous fraud and corruption in place and transparent reporting, and whether the tax policy is published and in place.
3. Whether the organisation has initiatives in place to promote public health and safety, consumer protection and whether there are community development initiatives and implementation of policies to protect human rights.
4. Whether the organisation respects the environment it operates in, by ensuring that there is no pollution of air or land, and whether waste is disposed of responsibly and ensuring there are recycling bins marked an easily seen.

C Empirical results of King III and IV separate results.

C.1 Essay 1/ Chapter 2 of Thesis

Table C1.1 Estimation with various selection of variables: King III

	(1)	(2)	(3)	(4)	(5)	(6)
Outcome variable TSR		Fixed effect				
CSR index	0.765*	0.0423	-5.786	-5.786	-5.786	-5.786
	(0.402)	(11.86)	(16.13)	(16.26)	(16.26)	(16.26)
King III		0.129**	0.129**	0.129**	0.129**	0.129**
		(0.0564)	(0.0568)	(0.0572)	(0.0572)	(0.0572)
Total Asset			)			
			0.211	0.211	0.211	0.211
			(0.394)	(0.398)	(0.398)	(0.398)
Equity ratio				5.84e-05	5.84e-05	5.84e-05
				(0.00735)	(0.00735)	(0.00735)
o. Big 5 Audit					-	-
o. Cross-listing						-
Constant	0.750**	-8.022	-14.54	-14.54	-14.54	-14.54
	(0.374)	(13.24)	(18.03)	(18.17)	(18.17)	(18.17)
Observations	220	90	90	90	90	90
R-squared	0.018	0.073	0.077	0.077	0.077	0.077
Number of ID	22	22	22	22	22	22

Standard errors in parentheses:*** p<0.01, ** p<0.05, * p<0.1

Table C.1.1 presents the effect of different variables the total stock returns. Column (1) shows that corporate social responsibility has a significant positive impact on the firm performance. However, inclusion of Kings III in column (2), reveal that while corporate social responsibility has an insignificant positive impact of the firm performance. Compliance with Kings III improve the firm performance significantly. Column (3) to (6) shows that kings III has a significant positive contribution to the firm performance. The impact are same (they are not different) even with the various inclusion of different variables.

Table C1.2. Estimation with various selection of variables: King IV

	(1)	(2)	(3)	(4)	(5)
Outcome variable TSR	Fixed effect				
CSR index	0.267 (1.451)	0.266 (1.449)	0.489 (1.436)	0.489 (1.436)	0.489 (1.436)
King IV	-0.0185 (0.264)	0.0379 (1.555)	0.377 (1.546)	0.377 (1.546)	0.377 (1.546)
Total Asset		-0.0565 (0.0507)	-0.0152 (0.0544)	-0.0152 (0.0544)	-0.0152 (0.0544)
Equity ratio			1.964* (1.014)	1.964* (1.014)	1.964* (1.014)
o. Big 5 Audit				-	-
o. Cross-listing					-
Constant	2.691 (22.46)	0.630 (22.51)	-5.848 (22.48)	-5.848 (22.48)	-5.848 (22.48)
Observations	132	132	132	132	132
R-squared	0.000	0.012	0.046	0.046	0.046
Number of coycode	22	22	22	22	22

Standard errors in parentheses:*** p<0.01, ** p<0.05, * p<0.1

Table C.1.2 presents the effect of Kings IV with different variables on the total stock returns. Column (1) shows that corporate social responsibility has an insignificant positive impact on the firm performance. While kings IV has an insignificant negative impact on the measure of firm performance. With the inclusion of Kings IV and total asset in column (2), the findings show that corporate social responsibility and Kings IV have an insignificant positive impact of the firm performance. The compliance with Kings IV present an inconclusive increase in the

firm performance (see column (3) to (5)). However, the impact of Kings IV are not different even with the various inclusion of different variables.

C.2 Essay 2/ Chapter 3 of the Thesis

Table C.2.1: Foreign Investment and Corporate Governance-index for years 2013 till 2022

VARIABLES	(Normal-Clustered)	(Time-Clustered)	(ID-Clustered)
CGI	3.16*** (0.002)	3.21*** (0.002)	2.47** (0.014)
DebtEquity	0.03 (0.978)	0.03 (0.977)	0.04 (0.965)
Crosslist	0.01 (0.995)	0.00 (0.999)	-0.05 (0.964)
Market To Book Value	2.18** (0.03)	2.18** (0.03)	0.064* (-0.819)
CPI	-0.28 (0.778)	-0.23 (0.817)	0.775 (-1.4)
Interest Rate	0.08 (0.939)	-0.10 (0.917)	0.06 (0.951)
GDP	-0.17 (0.861)	0.16 (0.22)	-0.19 (0.852)
Employment	-0.21 (0.832)	0.22 (0.824)	-0.16 (0.875)
Total Assets	-0.41 (0.681)	-0.41 (0.68)	-0.31 (0.754)
M Capitalisation	0.96 (0.338)	0.88 (0.38)	0.90 (0.368)
Tobin Q	0.58 (0.56)	0.62 (0.514)	0.56 (0.578)
Constant	-258.85 (0.642)	-386.599 (0.959)	-256.128 (0.63)
Observations	220	220	220
Adj. R-Squared	0.3	0.3	0.3

*** $p < .01$, ** $p < .05$, * $p < .1$

To further analyse the CG, the study focuses on CG compliance from 2013 to 2016 to ascertain if there is any variation in the results, SA REITs compliance reporting has changed over time and, thus, it is imperative that we understand this result. Table C.2.1 shows the relationship between foreign investment and CG-King III. The CG shows the SA REITs compliance for 2013 until 2016. There is a significant positive relationship between CG derived from King III. In the first run of results, * $p < 0.1$ when the time-clustered CG and foreign investment relationship becomes more significant with ** $p < .05$.

Table C.2.2 : Foreign Investment and Corporate Governance index from King III from 2013 until 2016

VARIABLES	(Normal Clustered)	(Time-Clustered)	(ID-Clustered)
CGI_KingIII	1.92* (0.56)	2.00** (0.47)	1.44 (0.152)
DebtEquity	0.22 (0.829)	0.16 (0.871)	0.20 (0.841)
Crosslist	-0.09 (0.939)	-0.10 (0.922)	-0.17 (0.869)
Market To Book Value	2.19** (0.29)	2.17 (0.31)	1.66* (0.99)
CPI	-0.11	-0.17	-0.16

	(0.91)	(0.863)	(0.871)
Interest Rate	-0.21	-0.06	-0.18
	(0.83)	(0.95)	(0.86)
GDP	-0.17	-0.17	-0.19
	(0.868)	(0.863)	(0.847)
Employment	0.65	0.20	0.55
	(0.519)	(0.843)	(0.581)
Total Assets	-0.30	-0.29	-0.14
	(0.766)	(0.771)	(0.891)
M Capitalisation	0.86	0.92	0.78
	(0.389)	(0.357)	(0.439)
Tobin Q	0.43	0.42	0.42
	(0.671)	(0.673)	(0.677)
Constant	-398.382	-386.376	-364.587
	(0.815)	(0.933)	(0.976)
Observations	220	220	220
Adj. R-Squared	0.4	0.4	0.4

*** $p < .01$, ** $p < .05$, * $p < .1$

In 2017, all listed companies were required to comply with CG from the King IV report in SA, and this applies to SA REITs. Table C.2.2 shows the results of foreign investment and CG–King IV. The significance level is higher when time clustered with $p^{***} < 0.1$, this shows a higher assumption of H1 but when the results are normally clustered, the significance is lower at $p < 0.1$, which means that there is a lower assumption of H1.

Table C.2.3: Foreign investment and Corporate Governance-index extracted from King IV, from years 2017 till 2022.

VARIABLES	(Normal Clustered)	(Time-Clustered)	(ID-Clustered)
CGI_KingIV	1.67*	3.59***	1.16
	(0.96)	(0)	(0.247)
DebtEquity	0.46	0.52	0.38
	(0.649)	(0.604)	(0.702)
Crosslist	0.15	0.49	0.01
	(0.88)	(0.624)	(0.995)
Market To Book Value	2.24	2.34	1.67*
	(0.26)	(0.02)	(0.96)
CPI	-0.27	-0.21	-0.28
	(0.79)	(0.832)	(0.784)
Interest Rate	-0.43	-0.09	0.30
	(0.671)	(0.927)	(0.766)
GDP	-0.22	-0.18	-0.23
	(0.829)	(0.854)	(0.818)
Employment	-0.81	0.36	-0.52
	(0.419)	(0.717)	(0.60)
Total Assets	-0.43	-0.74	-0.23
	(0.688)	(0.461)	(0.821)
M Capitalisation	1.04	0.71	0.90
	(0.299)	(0.479)	(0.369)
Tobin Q	0.25	0.58	0.28
	(0.805)	(0.565)	(0.78)
Constant	-188.646	-393.507	-215.338
	(0.316)	(0.993)	(0.387)
Observations	220	220	220
Adj. R-Squared	0.4	0.4	0.4

*** $p < .01$, ** $p < .05$, * $p < .1$

For our sensitivity analysis we use generalized least squares to ascertain the relationship between CG and Foreign Investment. Table 8 below proves that we accept H1, the relationship between CG and foreign investment when normally and time clustered is highly significant with *** $p < 0.1$.

Table C.2.5: Foreign Investment and CG-Index (FGLS regression) 2013 till 2022

VARIABLES	Normal Clustered	(Time-Clustered)	(ID-Clustered)
CGI	3.25*** (0.001)	3.31*** (0.001)	2.55** (0.11)
DebtEquity	0.03 (0.978)	0.03 (0.977)	0.05 (0.963)
Crosslist	0.01 (0.995)	0.00 (0.999)	-0.05 (0.963)
Market To Book Value	2.24 (0.25)	2.25 (0.024)	1.92* (0.055)
CPI	-0.29 (0.772)	-0.24 (0.811)	-0.29 (0.768)
Interest Rate	0.08 (0.937)	-0.11 (0.914)	0.06 (0.949)
GDP	-0.18 (0.857)	-0.17 (0.866)	-0.19 (0.847)
Employment	-0.22 (0.827)	0.23 (0.819)	-0.16 (0.871)
Total Assets	-0.42 (0.672)	-0.43 (0.67)	-0.32 (0.746)
M Capitalisation	0.99 (0.323)	0.91 (0.364)	0.93 (0.352)
Tobin Q	0.60 (0.548)	0.64 (0.522)	0.57 (0.566)
Constant	-247.565 (0.633)	-372.377 (0.955)	-244.03 (0.619)
Observations	220	220	220
Chi-square	19.130	19.624	19.816

*** $p < .01$, ** $p < .05$, * $p < .1$