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REIT IMPLEMENTATION AND CONVERSION IN SOUTH AFRICA

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A research report submitted to the Faculty of Engineering and the Built Environment, University of the Witwatersrand, in fulfilment of the requirements for the degree of Master of Science in Building (Property Development and Management).

Johannesburg, 2017

DECLARATION

I declare that this research report is our own unaided work. It is being submitted to the degree of Master of Science in Building (Property Development and Management) to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.

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(Signature of Candidate)

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ABSTRACT

In 2013 new legislation was introduced allowing for the creation of a new listed property entity called a Real Estate Investment Trusts (REIT). Previously the listed property sector was dominated by two main types of property which were Property Unit Trusts (PUT) and Property Loan Stock Companies (PLS). The introduction of the REIT entity allowed existing listed property companies to convert to REIT status and for new companies to list on the Johannesburg Stock Exchange as REITs.

The purpose of this study is to evaluate the impact of REIT implementation and the conversion of PLS and PUT to REIT status on shareholder wealth in South Africa. The study evaluates the change in shareholder wealth through the use of abnormal return calculations during events that led up to the implementation of REITs and conversion to REIT status.

The findings show that implementation and conversion to REITs did not result in significant industry gains in shareholder wealth. The events leading to the implementation of REITs however showed positive abnormal returns out lining positive sentiments in the market. For the companies that converted to REIT status their shareholder wealth had negative performance returns. Immediate gains in shareholder wealth are not present. This indicating that the use of REITs as an investment will have to be monitored in the long term.

ACKNOWLEDGEMENT

I would like to express their sincere gratitude to all those individuals who took part in this research study and made it possible for the completion of the study. I would like to specifically thank my supervisor Dr. Kola Akinsomi for his guidance throughout my research. I would also like to thank my family, friends and colleagues for supporting me throughout this research.

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SECTION 1

1 INTRODUCTION

1.1 Context

A vast majority of REIT research has focused on stock performance following new information much like stock splits, public offerings, dividend announcements and implementation of legislation. This research has relied on information being used by investors/shareholders to gain an advantage in predicting and determining stock prices. Therefore the researchers have explored the efficiency of the markets. Market efficiency is determined by the correlation between changes in stock prices and information available in the market. Highly efficient markets are those which react to information swiftly causing instant price adjustments in shares and correctly reflecting the nature and effect of the information.

As of 1st of April 2013 the REIT legislation of South Africa was implemented. The South African REIT structure was developed to follow the international best practice structures (Boshoff and Bredell, 2013). These best practice principles aim to create an investment vehicle with tax certainty, capital flexibility, transparency of governance, and ultimately a globally recognized property investment structure. Prior to the REIT structure listed property shares in South Africa existed as Property Loan Stocks Companies and Property Unit Trust. Under the new structure PLS companies can convert into Company REITS and PUTs can convert to Trust REITS (South African REIT Association, 2015a). The new REITs will now offer stock under the REIT regulations.

The need to convert to a REIT structure in South Africa was driven by a number of problems arising from the management structure, investor accountability, dividend pay-out policies and taxation of Property Loan Stocks and Property Unit Trusts. Andrew Brooking of Java Capital pointed out that the PUT structure was old and had a management model that was not up to date (Wilson, 2013). On PLS's Brooking pointed out the presence of tax ambiguity as a contributing factor for the need to form REITS (Wilson, 2013). The sentiments of Brooking were shared amongst industry role players. Norbert Sasse and Eistenne de Klerk of GrowthPoint Properties both felt that a change to the listed property sector was needed as to

create a listed property vehicle that has simpler capital structures and a distinct taxation of debentures and dividends. On the other hand Grant Alexander, a director at Private Client Holdings and Estienne de Klerk, chairman of the Property Loan Stock Association expected the change to a REIT structure to enable increased foreign investment because it is a globally recognised property investment structure (Boshoff and Bredell, 2013).

The perceptions of the effect of REIT implementation were based on the tax incentives which were expected to increase shareholder returns. De Klerk in 2013 had said that for investors the transactional cost would be reduced with the exclusion of securities tax payable (Boshoff, 2013). Another point was that the shifting of tax payable on distributions to shareholder from companies would have a minimal effect because tax on distributions was always paid at the shareholders marginal rate. This means that the removal of company distributions tax would increase returns to investors (Boshoff, 2013)

Globally REIT's have been implemented in different countries with the United States of America being the pioneer in the early 1960's. Currently there are more than 800 REITs listed on the various stock exchanges (Botlhale, 2015; Edwards, 2015; Schoonvliet et al, 2015; Wahbah, 2015). Data published by the European Public Real Estate Association (EPRA) has shown that North and South America (Americas) have the greatest number of REITs listed within the continents (FIGURE 1). Figure 1 shows that there distribution of REITS by continent. The distribution of REITs sees the Americas having the greatest number of REITS followed by the Asian-Pacific continents then Europe and Africa having the second lowest and

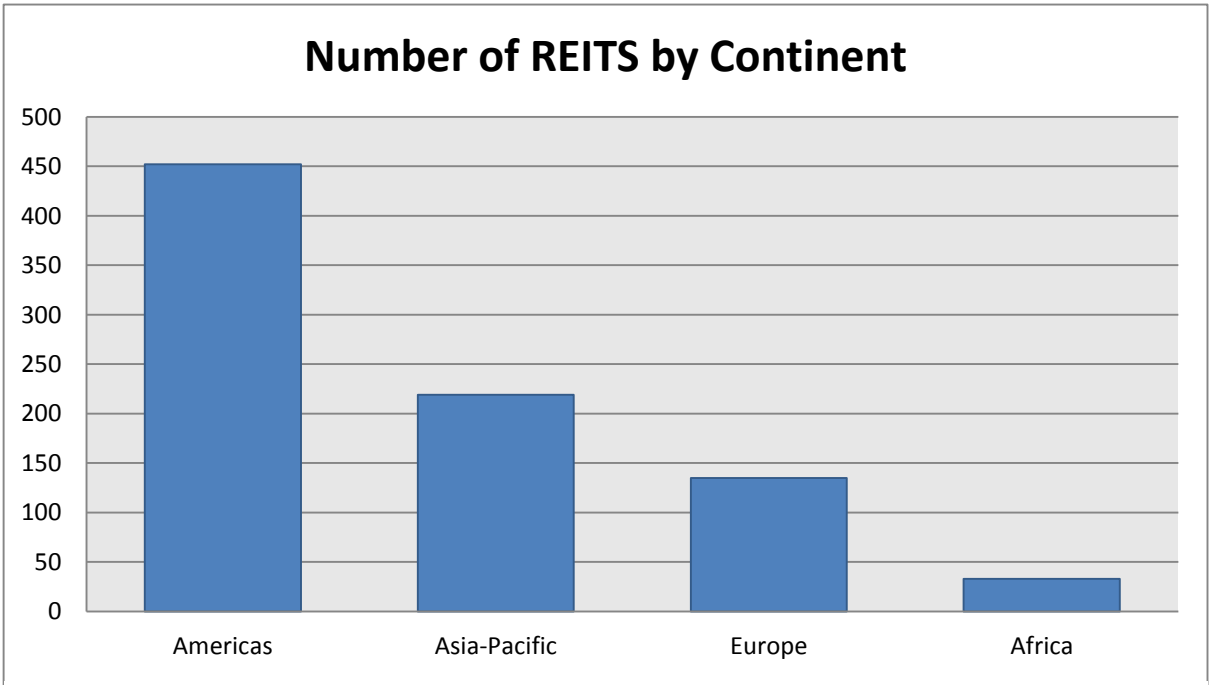


Figure 1: Number of REITs by Continent

lowest number of REIT respectively. However the continental distribution of REITs is distorted by the fact that of the USA contributes over 400 of the 450 REITs found within the Americas. What EPRA (Figure 2) showed through their global REIT survey was that there are still countries whose REIT market are still emerging and there for do not have a large number of listed REITS. This further illustrates the development of the USA's REIT market followed by that of Canada, Australia, Thailand, Japan, Singapore, Turkey, United Kingdom, and South Africa the only African Country with a recognised and functioning REIT market.

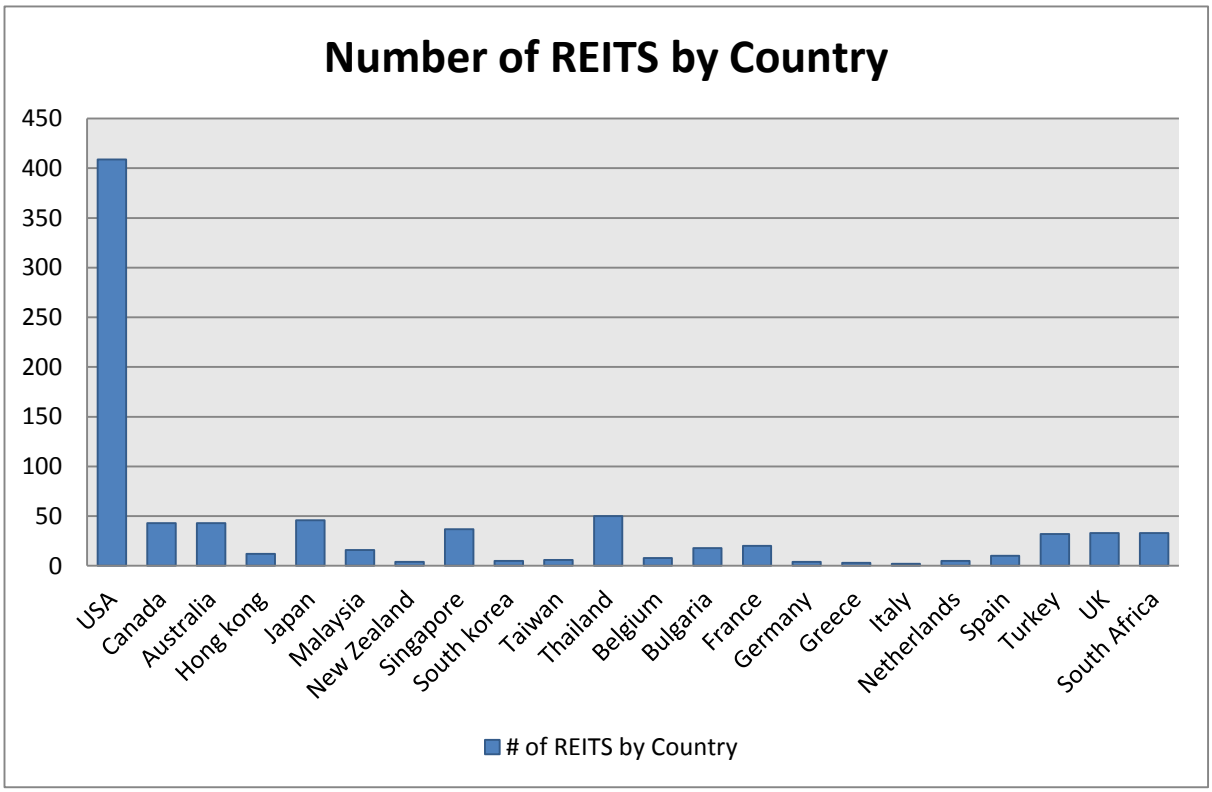


Figure 2: Number of REITs by Country

The adoption of REIT structures and the resultant growth of the REIT market have been influenced by a number of factors dependent on both the investment environment and the legislation put in place. Research on global REIT markets through the last 50 years (Broughton and Koning, 2012) found that tax exemptions for REITs were offset by the distribution requirements but however REITs became popular to investors. The popularity was due to the ability for REITs to take part in property development. Broughton and Koning (2012) additionally found that REITs on aggregate outperformed national aggregates and were less volatile to market conditions when compared to other stocks. Researchers have found evidence of

contradicting performance of REITS with regards to new legislation and stock offerings.

A study done by Howe and Jain (2004) found evidence of increases in shareholder wealth and a reduction in systematic risk when the REIT modernization act of 1999 was passed in the US. Another US study was done on the effect of the passing of the SARBANES OXLEY ACT of 2002 aimed at correcting accounting regulation on the listed market (Kishore and Demas, 2011). Kishore and Demas (2011) found that the act had increased the operational cost of listed property. This led to a reduction of returns therefore reducing the shareholder wealth in property stocks. While attempting to correct existing accounting measures the act had a negative effect on the investors it sought to protect through transparency. The studies of Brounen and Koning (2012), and Kishore and Demas (2011) showed the differing effects of new legislation on listed property stock.

A number of studies on listed stock Initial Public Offerings and Seasonal Equity Offerings performances have been done by authors such as Chan et al (2013), Deng et al (2014), and Wang et al (1992). These authors have found positive returns pre offering and negative returns post offering of the new stock. Among these findings they were anomalies of contradicting returns which were presented in the paper of Gosh et al (2013).

1.2 Problem Statement

The implementation of new acts and issuing of new stock by firms in the listed property sectors has been noted to result in the reduction (Kishore and Demas, 2011) and in some cases the increase (Howe and Jain, 2004) in stock performance. In South Africa the REIT legislation has led to a new listed property stock vehicle of which based on global REIT research has the potential to increase Shareholder. Shareholder wealth is determined by the value of a par share and the overall number of stocks issued. Studies done by Howe and Jain (2004) and Kishore and Demas (2011) have been done to measure the net effect of the passing of legislation on REIT performance through the shareholder wealth effect. The shareholder wealth effect of the conversion of PUT's and PLS's in to Real Estate Investment Trusts however, is currently unknown in the South African. The South African scenario is exceptional case, as of the top 9 global REIT markets South Africa, USA, France

and the United Kingdom are the only countries that allow for conversion of listed property companies to REIT status. From these countries that allow REIT conversion South Africa is the only country that represents the developing world economies. Boshoff and Bredell (2013) noted that the introduction of the South African REIT did not mean a complete departure from the previous regime and its economic impact would be difficult to evaluate. The South African property market already existed in a large scale therefore the actual growth effects of REIT introduction into the market stands to have a less significant effect as that of developing countries.

1.3 Research Question

What impact has the Implementation and conversion of Property Loan Stock (PLS's) and property Unit Trust' (PUT's) companies to REITS had on shareholder wealth?

1.4 Research Objectives

1. To evaluate the effect of conversion of PLS's and PUT's on Shareholder wealth
2. To evaluate the effect of the implementation of the REIT act on listed property firms.

1.5 Consequences of the Problem Statement

The lack of understanding of the effect is that firms looking to convert to REITs are unaware as to how the market reacts to the change into REITs. This change in regulation has a major effect on dividends as well as tax benefits to the shareholders which may deter potential investments or encourage them. The changes that occur can therefore be used to test how efficient the Stock Market is. The efficient market was hypothesised by Fama (1970). He stated that a market is efficient is based on whether the stock prices fully reflect the available information available (Fama, 1970). On the side of the new REITs the value of their stock after converting will indicate the new value of their stock and whether the benefits of converting have been beneficial. The shareholders also hold an interest in the efficiency of the market. When a firm announces its intentions to convert to REIT status investor reactions can determine whether the shareholder wealth increases or decreases. Fama (1970) points out that the probability of long term return anomalies can be attributed to chance while on the other hand short term return anomalies more

accurately reflect the market conditions. The market reaction further indicate the competitive advantage gained or lost by the new REITs to the PLS and PUT's.

Market timing theory involves the strategy to making buy or sell decisions of financial assets (stocks) by attempting to predict future market price movements. The effect of the decisions of firms to convert to REITS has an effect on the company and the shareholders. Shareholder that seize good investments earlier than others stand a chance to reap the most benefit. In the case of REIT conversion the market timing for investors relates to the decision to buy new REIT stock or Sell the REIT stocks that they held through the conversion of old stock to REIT stocks. The timing therefore allows the shareholders to determine whether their current wealth will be negatively affected by REIT conversion therefore allowing them to sell their stocks. The investor is also in a position to increase their wealth by purchasing stocks before the companies convert to REITs. This allowing them to benefit of potential future increases in stock value after conversion. A Lack of understanding on how firms performed and when they converted to REITs will leave a knowledge gap in future strategies when implementing new structures. This then affects the capital structure of listed firms.

Lastly a comparison has to be made between SA REITS and global REITS to ascertain whether the structure is performing to the standards of the developed REIT markets and outline any anomalies that lie within South Africa.

1.6 Research Questions

1. Is there abnormal returns in REIT stock
2. How do REIT regulations affect REIT returns
3. Is the effect of abnormal returns short term or long term

1.7 Importance of Study

This research is important as it will provide information on the impact of legislative changes to the South African Property Stocks industry. The introduction of new legislation changed the regulation of property stocks. The new REIT structure

effectively changed the operating requirements of property stocks. It is therefore important to assess the link between the elimination of income tax and the increase of dividend pay-out requirements in relation to the change in shareholder wealth. REITs are a new concept in South Africa. The initial performance of REITs is essential as to determine whether the structure implemented is as effective in South Africa as it has been in global listed property markets. The effectiveness of SA REITs is of further importance as new REITs are composed of companies which converted from PLS and PUT property investment vehicles. The initial benefit of conversion will be necessary to other property companies that are considering the conversion to REITs. Companies list on the public market to source equity funding from investors to fund operations in property markets. The change in share price therefore becomes crucial in decision making because it indicates a growing number of investors and value. Einhorn (1998) found that with the implementation of REITs, companies that convert to REIT status gain advantages that non REIT property companies do not have. It is therefore important to understand if difference in REITs stock performance are based on the implementation of the REIT structure.

1.8 Definition of Terms

The following key terms will be used to conduct the literature review

1.8.1 Listed Real Estate Markets and Regulations

Listed real estate market began in the United States as defined by (Broughton and Koning, 2012). The implementation of the REIT structure is found mainly in developed countries covering North America, Europe, Asian and Australia. African countries have not adopted the REIT structure to its full potential however South Africa, Nigeria and Ghana have REIT like structures in place. REIT structures are regulated by the stock exchange as well as the governing acts.

In terms of REIT adoption the USA were the earliest adopters as early as 1960. As an individual country it carries the greatest market capitalization. Figure 3 shows the major REIT markets as well as some emerging markets. As of 2015 the last country to implement a REIT like structure is Belgium. What Figure 3 further illustrates is that the adoption of REIT structures spread predominantly from the American continent to the Asian-Pacific region then the European continent before Africa which can be noted as a late adopter. Listed REITs cannot be defined under a specific set of

regulations and legislation. The REITs therefore are group according to their characteristics. Figure 3 shows that the same legislation was not used for all adopters of the REIT structure. The REIT structure is therefore a property investment vehicle which offers tax incentives for both the company and its investors. However the way in which the taxation is dealt with differs from country to country with REITs being recognized as Company REITs, Corporate Entities, Trusts REITs or Fund REITs. Market Capitalization shows the monetary value of the REIT markets. Figure 4 shows the individual market capitalizations of the major REIT markets globally. Much like the ranking determined by the number of REITs in each country, the ranking through market capitalization shows roughly the same order of countries. The USA, Malaysia, Japan, UK, France, Singapore, Australia, Canada and then South Africa. Due to the fact that South Africa converted most of their pre-existing property stocks when converting to a REIT structure unlike other countries they have managed to perform better that other countries that implemented the REIT structure before South Africa. For example Germany, Spain, Netherlands, Hong Kong, Thailand and Turkey all implemented REIT structures before 2013.

GLOBAL REIT COMPARISONS							
Country	**Year**	**Abbreviation**	**Type of REITS**	**Legislation**	**Year of Introduction**	**# of REITS**	**Capitalisation by Country (million EURO)**
USA	2015	United States REIT (US-REIT)	Corporate	Internal Revenue Code	1960	409	827 676.00
Netherlands	2015	Fiscal Investment Institution regime (FBI)	Corporate	Dutch Corporate Income Tax Act 1969	1969	5	28 145.00
Australia	2015	Unit Trust (esp. listed Property Trust); Public Trading Trust.	Trust	Unit trust and Equity Law, Trust income, Public Trading Trusts, Tax Administration Act 1993	1985	43	100 455.00
Canada	2015	Mutual Fund Trust (MFT)	Trust type	Income Tax Act	1994	43	58 825.00
Turkey	2015	Real Estate Investment Companies (REICs)	Corporate	Capital Markets Law	1995	32	6 697.00
Singapore	2015	Singapore REIT (S-REIT)	Trust	Securities and Futures Act, Code on Collective Investment Schemes, Income Tax Act	1999	37	104 708.00
Greece	2015	Real Estate Investment Company (REIC)	Corporate	Law 2778/1999 (REIC Law)	1999	3	1 873.00
Japan	2015	Japanese REIT (J-REIT)	Trust or Corporate	Investment Trust and Investment Corporation Law	2000	46	277 835.00
South Korea	2015	Real Estate Investment Company (REIC)	Corporate	Real Estate Investment Company Act.	2001	5	1 364.00
France	2015	Listed real estate investment companies (SIIC)	N/A	Article 11 of the Finance Act for 2003	2003	20	113 125.00
Hong Kong	2015	Honk Kong REIT (HK-REIT)	Trust	Code on Real Estate Investment Trusts	2003	12	26 064.00
Taiwan	2015	Taiwan REIT/REAT.	Trust	Real Estate Securitisation Act	2003	6	2 615.00
Bulgaria	2015	Special Investment Purpose Companies (SPIC)	Corporate	Special Purpose Investment Companies Act (SPICA)	2004	18	400.00
Malaysia	2015	Unit Trust	Trust	Capital Markets and Services Act 2007, Malaysian Income tax Act 1967	2005	16	323 008.00
Thailand	2015	Property Fund for Public Offering (PFPO), Real Estate Investment Trusts (REIT)	Fund/Trust	Securities and Exchange Act B.E. 2535, Trusts for Transactions in the Capital Market Act B.E. 2550, Securities and Exchange Act B.E. 2535	2007	50	8 079.00
UK	2015	United Kingdom REIT (UK-REIT)	Corporate	Finance Act 2006, and subsequently issued regulations. Legislation re-written with enactment during Spring 2010.	2007	33	201 959.00
Germany	2015	German REIT (G-REIT)	Corporate	Law on German real estate joint stock companies with publicly quoted shares	2007	4	38 010.00
New Zealand	2015	Unit trust, Portfolio Investment Entity (PIE)	Trust/Corporate	The Trustees Act 1956, Unit Trust Act 1960, Companies Act 1993, Income Tax Act 2007	2007	4	37 105.00
Italy	2015	Italian listed real estate investment companies (SIIQs), non-listed Italian real estate investment companies (SIINQs)	Corporate	Law No. 296 of 2006 and subsequently issued regulations and guidance Amended by the Law No. 164 of 2014	2007	2	5 520.00
Spain	2015	Sociedades Anónimas Cotizadas de Inversión en el Mercado Inmobiliario (SOCIMI)	Corporate	Act 11/2009	2009	10	46 336.00
South Africa	2015	REIT	Trust/Company	Part V of the Collective Investment Schemes Control Act No. 45 of 2002 ("the CISA"). Companies Act No. 71 of 2008 ("the Companies Act"). Income Tax Act No. 58 of 1962 ("the Income Tax Act"). JSE Limited ("JSE") Listing Requirements.	2013	33	51 404.00
Belgium	2015	SICAFI, SIR	Corporate type	Royal Decree of December 07, 2010. Law of April 19, 2014. Law of May 12, 2014. Royal Decree of July 13, 2014.	2014	8	8 054.00
SOURCE: EUROPEAN PUBLIC REAL ESTATE ASSOCIATION							
http://www.epra.com/regulation-and-reporting/taxation/reit-survey/							

Figure 3: Major Global REIT Markets

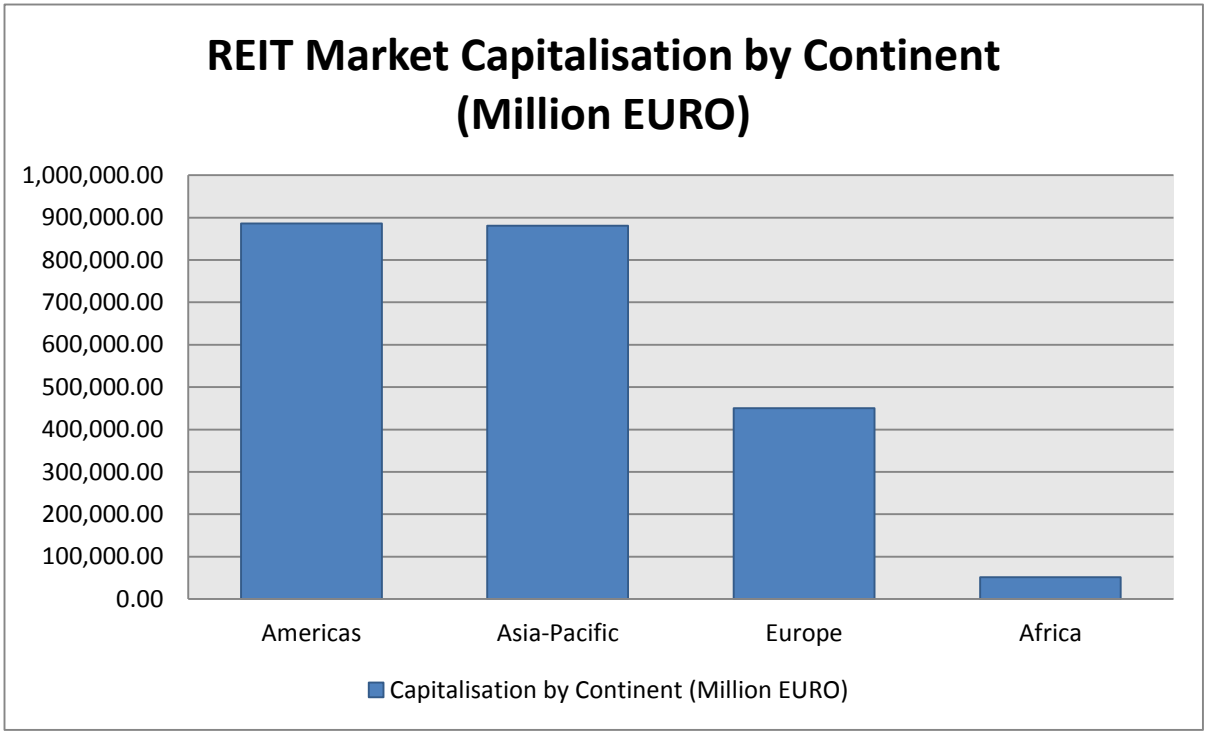


Figure 4: REIT Market Capitalisation by Continent

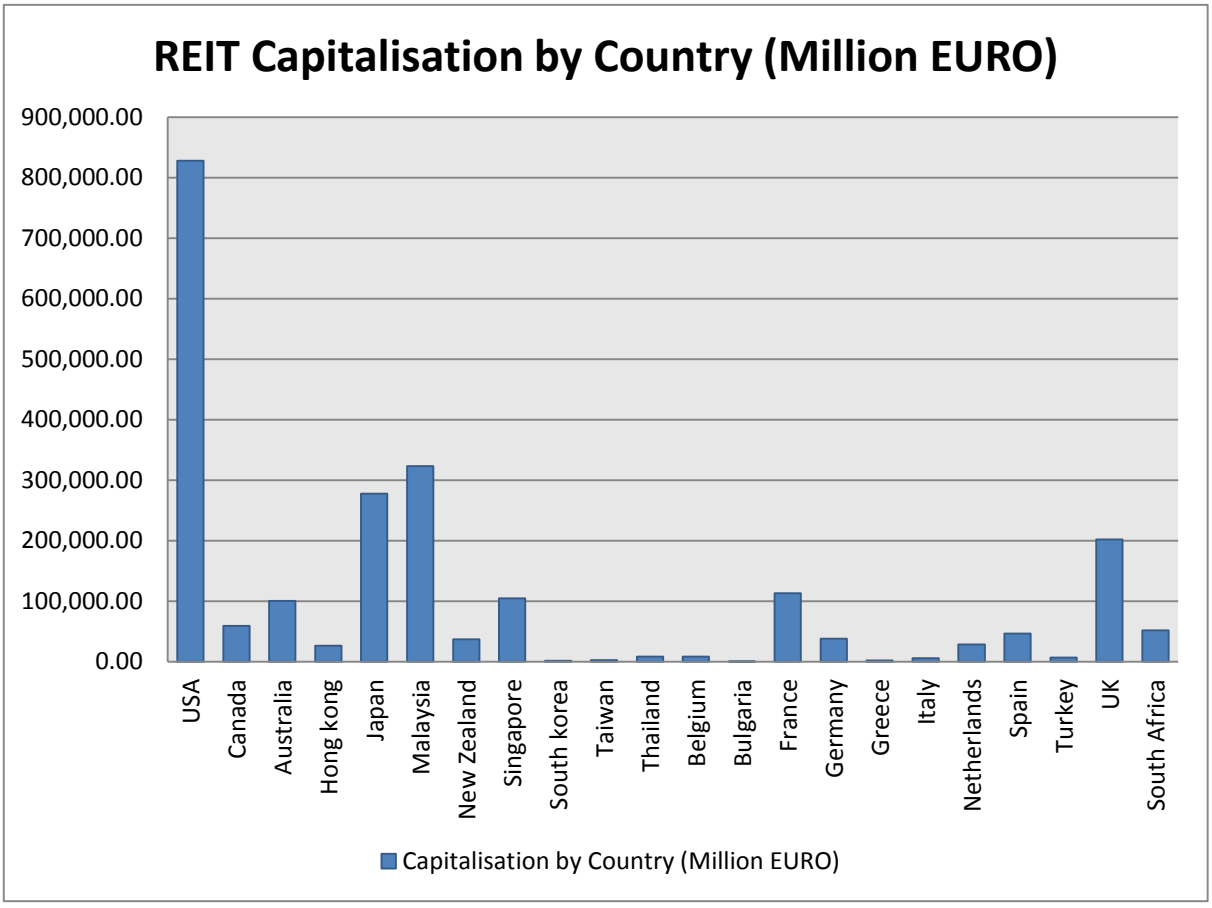


Figure 5: REIT Market Capitalisation by Country

Shareholder Wealth Maximisation

One of the earlier works on shareholder maximisation was done by Auerbach (2009). The author defined shareholder wealth maximisation as the primary goal for firms in decision making. Shareholder wealth maximisation has more specifically defined as the "process that increases the current net value of business or shareholder capital gains, with the objective of bringing in the highest possible return". The wealth maximization strategy generally involves making sound financial investment decisions which take into consideration any risk factors that would compromise or outweigh the anticipated benefits.

1.8.2 Capital Structure

Capital structure speaks of the manner in which firms finance their assets through debt, equity or hybrid securities. The introduction of the REIT structure offered PLS and PUT firms the chance to convert and thus change their capital structures.

When assessing the capital structuring model to issue new equity Howton et al (2003) evaluate the three capital structure theories which are:

1.8.3 Pecking Order Model

Howton et al (2012) defines the pecking order model as a firms choices being based on the increasing cost of financing. Therefore the firms will choose financing methods in order of their costs, beginning with the methods that cost less. Issuance of equity in listed markets will then be the last resort after the less costly debt financing is chosen.

1.8.4 Agency Cost Model

In agency cost model the choices are based on the benefit to the managers of the firms. Howton et al (2012) states that debt and equity issuance is based on the opportunities available to the firms. High investment opportunities are meet with debt issuance and firms with low investment opportunities issue equity as a funding source. The cost of issuing debt is lower than that of issuing equity.

1.8.5 Timing Model

Sah and Seagraves (2012) mention the concept of market timing when dealing REIT decision to initiate Initial Public Offerings (IPOs) or Seasoned Equity Offerings (SEO's). The authors point out that a marginal firm may time markets in order to take

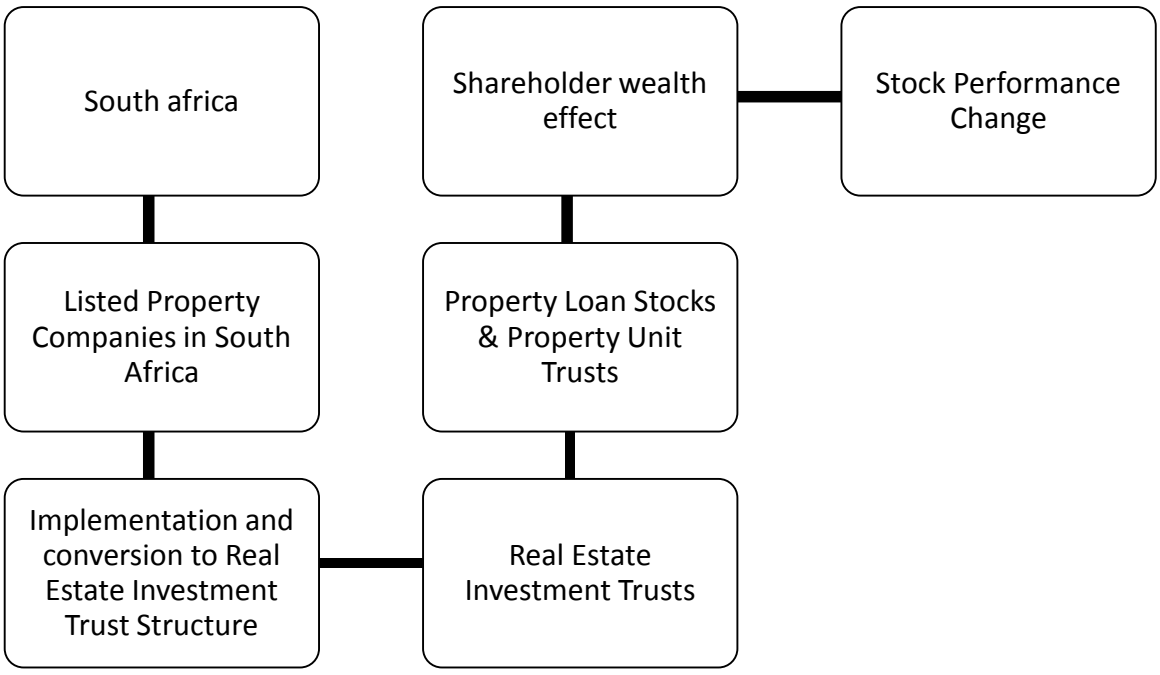
advantage of weak industry conditions (Sah and Seagraves, 2012). The weaker conditions coupled with clustered stock offerings and high investor sentiments may allow smaller firms to gain. However this may result in lower aggregate returns for firms due to clustering. Howton et al (2003), Lee et al (2011) and Boudry et al (2010) further elaborate on market timing to include the overvaluation of stocks in the market. This means that new shareholders may be buying stock at an overvalued price however existing shareholder will gain considerably due to the higher returns in the market.

1.9 Limitations

- There is a limited number of research articles that have been done on the South African REITs therefore inference will have to be drawn from global markets

1.10 Delineation

- The research will be focused on the South African Listed Property Market
- Study will look at the Real Estate Investment Trusts on the Listed market



1.11 Assumptions

- The SA REIT structure was seen to be a positive change to the listed property market. Therefore the South African REIT should create positive effects for shareholders

- The inference drawn from the listed property market will apply to both listed and unlisted property companies due to the listed market having a greater sensitivity to changes in the market.

1.12 Organisation of Study

The research paper is structured in 4 parts. Section 1 of the paper introduces the research topic, research problem, research problem and the scope of the research taking into consideration the limitations and assumptions of the study. Section 2 covers the literature review on REIT adoption, implementation and the effects of legislative and regulatory change on listed property stocks. Section 3 deals with the chosen methodology to undertake this study. It outlines the research design which deals with the method of data collection, sorting and analysis. Section 4 will cover the data collection, results from the analysis and provide a conclusion on the results

SECTION 2

2 Literature Review

The literature review is done is done to understand REITs in the global environment and further evaluate the stage at which the South African REIT market is at. This further assists in noting the relevant research areas for a developing REIT market such as the one found South African context.

The literature review analyses research and literature done on Real Estate Investment Trusts (REIT) with emphasis on their implementation and legislative changes in existing REIT markets.

The review primarily aimed to understand the effects of REIT implementation and legislative changes on the performance of the stock. The performance measures will focus on the shareholder wealth effect of the two scenarios regarding REITs.

The review additionally aimed to gain knowledge on the methodologies used to research shareholder wealth effect changes in listed stocks in both developed and emerging markets.

The first step of the review was the analysis of research literature on the research area. The literature focuses on studies done mainly in developed markets. The analysis of the problem entails markets with significant REIT presence creating relevant data on which research can be done. The review aims at literature directly related with legislative change and the implementation of REITs. Due to the vast amount of research on stock performances focusing immediately on the two areas will ensured that the literature questions are answered as effectively and accurately as possible.

The overall aim of the literature review is to provide information and possibly answer the following literature questions

1. What are the differences between PLS and PUT's
2. What are the regulations for the new SA REIT structure
3. How do the regulations for REITS affect the performance of the new REITS?
4. What are the characteristics of SA firms that converted to REITS?

5. What is the link between REIT performance and Shareholder wealth?
6. Which global markets have experienced reactions to legislative change that are unique to their market?

2.1 Global REIT History

Broughton and Koning (2012) state that the development of the REIT structure begun in the USA in the 1960. The creation of the REIT structure was due to the US governments desire to create a more attractive investment vehicle and expand on the limited investment options that were available at the time. REITs upon creation in the United States were never intended to be the active real estate of which they have become in modern times. Initially REITs were planned and to be passive real estate entities that would primarily receive income from mortgage interest and rents in properties managed (Einhorn, 1998). By doing so the investors would be protected from business risk and active real estate companies would be prevented from taking advantage of the tax incentives provided to REITs (Einhorn, 1998).

The evolution of the initial REIT between its inception and the late 1990's has been the most influential factor to its growth globally. Many of the changes that took place within the first 30 years were contradictory to the initial restrictions of REITs.

Boudry et al (2010) and Einhorn (1998) have noted the implementation of the Real Estate Investment Act of 1960, Modernisation Act of 1999, and the Sarbanes-Oxley Act of 2002 as major steps in introducing and refining the REIT structure.

The authors have stated that the initial introduction of these acts had differing effects on the performance of Real Estate stocks.

Broughton and Koning (2012) state that the introduction of the REIT structure in the US was initially not received with great adoption. The initial reasons for slow growth of REITs were misuse of debt financing by managers, the decline of stock market in the 1970 during the "Bear Market" stock meltdown, and the restriction of REITs to passive real estate (Broughton and Koning, 2012). Passive real estate referred to investment in real estate only through holding of income producing properties. This means that earlier REITs in the US were not able to manage or operate their properties or furnish or render services to its tenants other than through an

independent contractor from which the REIT did not derive any income (Einhorn, 1998).

Regulations on REITs had two differing effects. The first being the increase of operating costs which reduce stock returns and secondly the increase of REIT income which in turn increased stock returns (Howe and Jain, 2004 and Kishore and Demas, 2011). In the implementation of the REIT Modernisation Act, Howe and Jain (2012) found that there was a positive impact on shareholder wealth.

The REIT Modernisation Act was implemented in 1999 in the US stock market. The Act allowed REITs to create a taxable REIT subsidiary (TRS) to provide services to its tenants (Howe and Jain, 2004). A taxable REIT subsidiary is effectively a company owned by the REIT, through direct or indirect stock ownership that allows it to provide services to the property in the form of landscaping or cleaning of which the REIT owns. By doing this the REIT is therefore able to increase its revenue income and compete with other real estate owners. Other major changes were the reduction of mandatory dividend pay-out, allowing hotel REITs to lease out its hotels to a TRS, change in calculation of personal property rents and lastly a change in distribution requirements of pre-REIT earning and profit (Howe and Jain, 2004). Some authors like Einhorn (1998) have debated the unintended advantages that were created by the passing of laws which allowed REITs to expand their business capabilities. Before the passing of the REIT Modernisation Act the tax benefits and distribution requirements kept REITs and other Taxable Real Estate Companies on an even setting. Einhorn (1998) explained that the inability of a REIT to collect income from property ownership and provide services to tenants through independent contractors while still enjoying corporate tax benefits and distributing over 90% of their taxable income limited the REITs growth potential in both income and profits.

Kishore and Demas (2011) produced differing results when assessing the impact of the Sarbanes Oxley Act on the shareholders wealth in REITs. Their findings were that REITs were affected by the act to a greater extent when compared with other stocks. The Sarbanes Oxley (SarbOx) act was implemented to increase the level of transparency through stringent auditing methods which therefore increased operational cost for listed firms. As a result the study pointed out the SarbOx as one

of the reasons some public REITs chose to delist and become private REITs (Kishore and Demas, 2011).

These acts combined have created what is now a tax exempt, flexible, transparent and globally recognized property investment vehicle which has been used as a template for other countries implementing REIT structures.

2.2 REIT Stock Performance

Stock performance is measured by the change in stock prices over a predetermined number of days. The change in stock performance is determined by the behaviour of investors in relation to information they would have gathered in the market. This then means that the stock prices are a reflection of how much information is available to the investor, in other words the efficiency of the market. Fama (1970) publication on the concept of the Efficient Market Hypothesis (EMH) outlined that that EMH can be found in weak form, semi-strong form and strong form. According to Fama (1970) weak form efficiency is when a market is always at equilibrium as all current information is reflected in current stock prices. Weak form efficiency is present when there is no dependency in day to day stock prices. This is also referred to as random walk hypothesis. Random walk hypothesis states that stock market prices change in no specific trend and therefore cannot be predicted. Semi-strong efficiency is present when current stock prices full reflect the public information available at that point in time. Strong form efficiency is present when share prices reflect all public and private information available at that time.

Research on the efficiency of property stock markets, mainly REITs, has shown that REIT markets have weak form efficiency notwithstanding a few anomalies in a few studies. Jirasakuldech and Knight (2005) found that real estate securities tend to follow a non-random walk and weak efficiency pattern in a study of Malaysian REIT's (MREIT's), Huntingdon REIT's (HREIT's) and (EREIT's).

Ooi et al (2006) in a study that examined the growth of REITs in the Asian markets found that one of the demand driving factors for REITs was the need for a stocks that carry little risk but still produce yields higher than bonds. The ability of REIT shares to offer high dividend yields with risk avert stock returns allowed investors to receive increased shareholder wealth maximisation at low risk and higher yields.

Deng et al (2014) further elaborate on investor's view on investments in an investigation to evaluate the impact of investor sentiment on REIT seasoned equity offerings (SEO's). The authors found that high investor sentiment is associated with higher first day returns post SEO issuance. In the case of existing shareholders, firms that issue during high investor sentiment periods have been noted to receive significant growth in wealth due to the greater returns following issuance. Thus the concept of market timing is important for new REITS to increase shareholder wealth by capitalizing on investor sentiments.

Kishore and Demas (2011) noted that REITs behave like small stocks in the listed market. By this they were pointing out that REITs are more sensitive to increases in operational costs when compared to other lager stocks in the market. Howton et al (2003) describes company decisions to enter external equity markets as a choice in the type of security issuance. The decision is based on a choice of capital structure model of which there are three namely Pecking Order, Agency Cost and Timing models. Cook et al (1999) cited by Sah and Seagraves (2012) state that REIT firms raise public equity when the firm finance requirements are high in conjunction with lower costs of equity issuance compared to debt financing and high investor sentiments.

Huang and Uchida (2015) point out investor sentiment as a major influence on stock performance and mispricing of stocks. The announcements made by firms regarding the returns and dividend pay-outs to investors is noted as being a major driver to investor sentiments dependent on the nature of the information relayed to investors.

Of the above Capital Structure models the timing model will be applied to the study as it is the best suited to the concept of REIT application in the South African situation. This is based on the research of Boudry et al (2010) of which assessed the decision making process of REITs. The authors found in this case that REITs are more prone to use market timing models and utilize public equity financing before debt financing. Boudry et al (2010) examined the security issuance of 93 REITs between 1997 and 2007. The findings of the research showed that REITs mainly offered new securities in two scenarios. The first scenario is when they have experienced high past returns and the second is when the price to net asset value

ratio is high. The second scenario would then allow firms to time the price differentials between private and public equity markets while the first scenario is based on stock performance timing (Boudry et al, 2010). These finding therefore have relevance to the South African context.

2.3 REIT Tax

One of the dominant features of a REIT structure is the tax incentives provided to the companies. Income tax is reduced to companies by transferring the tax to the shareholders. REITs are exempt from corporate income tax due to high dividend pay-out requirement. Boudry et al 2010 state that the tax exemption of REITs at a corporate level renders tax motivations for REIT investments inapplicable. This view was also expressed by Einhorn (1998). Einhorn pointed out that in the US when the removal of corporate tax on REITs created a situation where by the investment decisions were not purely based on the avoidance or reduction of tax but on the economic factors of investment decisions. The economic decisions therefore now rest on the returns and benefits perceived by the investor based on the performance of the stock.

2.4 The South African Listed Property market

Before REITs at the end of 2012 the South African listed property sector was one of the most attractive sector among all share listed on the Johannesburg Stock Exchange (JSE). It had a market capitalisation of over R210 Billion and produced the greatest returns in out of the four asset classes which included cash, bonds, and equities (Cardo and Moja, 2013). Prior to the SA REIT legislation the property stocks were PLS's and PUT's (Boshoff and Bredell, 2013; and South African REIT Association, 2015a).

2.4.1 Property Unit Trust

In terms of structure and operational methods available the PUT is the closest comparable property vehicle to a REIT (McDonald, 2013). The PUT is an equity fund consisting of a portfolio of pooled investment grade properties (McDonald, 2013 and Potelwa, 2013). Before the implementation of REITs in South Africa they were 6 listed unit trusts that had a combined market value of R46 million as stated by the Association of Property Unit Trusts cited by McDonald (2013).

The regulations for PUT's were formed through the Unit Trust Control Act of 1968. The first PUT was then formed in 1969 which was followed by the listing on the JSE. The Unit Trust Control Act of 1968 was then amended by the Collective Investment Schemes Act of 2002. The new Collective Investment Schemes Act would regulate the PUT's in conjunction with the Financial Services Board (McDonald, 2013). The motivation behind the creation of PUT's was to create a property investment vehicle that had high levels of liquidity and available to small private investors and pension fund (McDonald, 2013). The reason for the creation of PUT's is in line with that of the United States motivation in the creation of REITs in the 1960's.

Under the Collective Investments Schemes Act PUT's attained three beneficial changes as out lined by Still (2003) cited in McDonald (2013) and Potelwa (2013)

1. PUT's are able to sell buildings without paying capital gains tax. This is through them being allowed to hold property as well as property companies
2. PUT's are able to purchase their own shares. Previously they were prohibited from this practise. Allowing them to purchase their own share was especially beneficial to situations when their shares were extremely discounted. Therefore they are able to regulate their shares once they are in the open market.
3. PUT under the Collective Investments Schemes Act were permitted to bond their properties when sourcing borrowings from financial institutions. This then allowed them to source more favourable and borrowing terms with high gearing ratios.

The income for PUT's is based on rental income which further affects their market value. On formation PUT sell their shares through an Initial Public Offering (IPO) after which the shares are traded on the stock market like all other ordinary shares.

2.4.2 Property Loan Stocks

Property Loan Stocks (PLSs) are companies that hold direct investments in commercial, retail or industrial property (Potelwa, 2013). Formed and governed under the Companies Act 61 of 1973. Property Loan Stock has a different structure to that of a Property Unit Trust.

A PLS's manage the properties on behalf of the shareholders who hold linked units which consist of debentures and shares. The uses of debentures by Property Loan Stocks have been noted as a tax implication by government and the South African Revenue Service. McDonald (2013) notes that with PLS's the shareholders shares may contain a debenture to equity ratio of 999:1. The structure of a PLS means that the returns for investors are therefore paid out as interest on the debenture. This then means that interest paid to shareholders is tax exempt/deductible as it is considered to be interest incurred by the company in generating income through debt financing.

In summary Boshoff and Bredell (2012) explained the major defining aspects of PLS's and PUT's as:

1. PLS pays tax for capital gains while PUT's is only liable for capital gains tax on undistributed profits
2. PUT's can invest in listed companies
3. PLS gearing ratio limited to amount stated in company articles and PUT's limited to 30% of underlying assets
4. PLS is regulated by the Companies Act while the PUT's are regulated by the Investment Schemes Act (Rampersad,2010 cited in Boshoff and Bredell, 2013)

2.5 The South African REIT

The South African REIT structure has been modelled on the global standards to ensure that the SA REIT is a globally recognized investment vehicle. The South African REIT Association (SAREIT) defines a REIT as "a company that owns, and often operates, income-producing property" (South African REIT Association, 2015b).

The South African REIT Association defines a SA REIT as "a listed property investment vehicle that is similar to internationally recognised REIT structures"

(South African REIT Association, 2015b). The SAREIT therefore has to meet the JSE regulation to list on the stock exchange. The requirements as per SAREIT are that the company must;

1. own at least R300 millions of property
2. Keep its debt below 60% of its gross asset value
3. Earn 75% of its income from rental or from owned or investments income from indirect property ownership
4. Have a committee to monitor risk
5. Not enter into derivative instruments that are not in the ordinary course of business
6. Pay at least 75% of its taxable earnings available for distribution to its investors each year (South African REIT Association, 2015b).

Under the new regulation PLS and PUT can convert to the new SAREIT's. A PLS will become a Company REIT and a PUT will become a Trust REIT under the new SAREIT structure.

Company REITS will defined by the following:

1. Shareholders are active participants protected by the Companies Act and Takeovers Regulation Panel
2. REIT structure is recorded in the memorandum of incorporation
3. Directors are responsible for compliance with the JSE listing requirements and the Companies Act
4. Companies can have external or internal management and /or property administration (South African REIT Association, 2015a)

The Trust REITS are defined by the following;

1. PUT becomes a SAREIT upon application to the JSE, compliance with the JSE listing requirements and verified registration with the Registrar of Collective Schemes

2. Investor interests are protected by the trust deed and the trustee

3. Trustees to report to the Registrar of Collective Investments Schemes

The Trust REIT must have external asset and property managers in terms of the Collective Investment Schemes Act (South African REIT Association, 2015a)

The SA REIT regime carries a lot of similarities with the more established REIT regimes in the world. Table 1 shows the comparison of the South African REIT regime with that of USA, Canada, Australia, Singapore and the UK. These countries represent the diversity in global REITs and the major REIT markets in the world.

In terms of listing and operating requirements South Africa requires that its REITs earn at last 75% of its income from rentals or indirect property ownership. This requirement is also requested by Singapore, UK and USA, with Canada requiring an 80% property income level.

	South Africa	USA	Canada	Australia	Singapore	United Kingdom
REIT Type	Trust REIT. Company REIT.	Corporate	Trust	Trust	Trust	Corporate
Legislation	Collective Investment Schemes Control Act No. 45 of 2002 ("the CISA"). - Companies Act No. 71 of 2008 ("the Companies Act"). - Income Tax Act No. 58 of 1962 ("the Income Tax Act"). - JSE Limited ("JSE") Listing Requirements.	Internal Revenue Code	Income Tax Act	Public Unit Trust and Equity law. - 'Trust Income', Division 6, ITAA 1936. - 'Public Trading Trusts' Regime, Division 6C, ITAA 1936. 'Managed investment trust', Subdivision 12-H of Schedule 1 of the Tax Administration Act 1953.	Securities and Futures Act - Code on Collective Investment Schemes - Property Fund Guidelines - Income Tax Act	Finance Act 2006, and subsequently issued regulations. Legislation re-written with enactment during Spring 2010.
Leverage	Debt financing is limited to 60% of the gross value of the underlying asset value.	N/A	N/A	Unlimited, but the extent to which interest is deductible is limited by the general thin capitalisation rules.	Single-tier leverage limit of 45%.	Interest cover test.

Operating requirements	Distribute at least 75% of its taxable earnings available for distribution to its investors each year. - Earn 75% of its income from rental or from indirect property owned or investment income from indirect property ownership. - Owns at least R300 million worth of property. - Maintain its debt below 60% of its gross asset value. - Have a committee to monitor risk. - Not enter into derivative instruments that are not in the ordinary course of business.	At least 75% of its assets must be real estate, government securities or cash - 75% asset test and 75% and 95% income tests. - Cannot own more than 10% of another corporation's stock, other than in another REIT or a taxable REIT subsidiary (ownership of a 100% owned 'qualified REIT' subsidiary is ignored). - No more than 5% of the value of its assets can be represented by securities of any one issuer, other than another REIT or a taxable REIT subsidiary (ownership of a 100% owned 'qualified REIT' subsidiary is ignored). - Cannot own more 25% of its assets in securities of one or more taxable REIT subsidiaries.	At least 80% of its property consisted of any combination of: a. shares, b. any property that, under the terms or conditions of which or under an agreement, is convertible into, is exchangeable for or confers a right to acquire, shares, c. cash, d. bonds, debentures, mortgages, notes and other similar obligations, e. marketable securities, f. real property situated in Canada and interests in real property situated in Canada (which would include leasehold interests), g. rights to and interests in any rental or royalty computed by reference to the amount or value of production from a natural accumulation of petroleum or natural gas in	Public unit trusts and MITs investing in land, must do so for the purpose, or primarily for the purpose of deriving rent (eligible investment business). - Public unit trusts that carry on a trading business (i.e. a business that does not wholly consist of eligible investment business) are not accorded 'flow through' treatment and unit trusts that carry on a trading business will not qualify as a MIT. - May invest in a single property.	At least 75% of the REIT's deposited property should be invested in income-producing real estate. - No property development activities are allowed unless the REIT intends to hold the developed property upon completion. - Investments in vacant land and mortgages (except for mortgage-backed securities) are prohibited unless the vacant land has been approved for development or other uncompleted property developments. - Investments in property development activities and uncompleted property development (local and foreign) must not exceed 10% of its assets. This limit is can be increased to 25%, subject to the REIT meeting certain conditions. - Investments in permissible	At least 75% of a REIT's net profits must be derived from the property rental business (measured using financial statements). - At least 75% of a REIT's assets must be used in the property rental business (measured using financial statements). - The REIT must hold at least three separate assets. - No one asset may exceed 40% of the total assets. - May invest outside the UK in real estate wherever located.

			Canada, from an oil or gas well in Canada or from a mineral resource in Canada, and • not less than 95% of its income was derived from, or from the disposition of, investments		investments must not exceed 5% of its assets in any one issuer's securities or any one manager's funds. - Should not derive more than 10% of its revenue from sources other than rental and other specified sources.	

Shareholder requirements		At least 100 shareholders. - Five or fewer individuals or foundations may not hold more than 50% of the shares. - No restriction on foreign shareholders.	Minimum of 150 unit holders each of whom holds not less than one 'block of units' and having an aggregate fair market value of not less than CAN$ 500. - Generally, MFTs cannot be established or maintained primarily for the	N/A	At least 25% of the REIT's capital has to be held by at least 500 public unit holders (SGD-denominated REITs) / Spread of holders required (non-SGD denominated REITs).	Not a 'close company'. - A single corporate shareholder may not own 10% or more of the shares/voting rights. - No restriction on foreign shareholders.
REIT Tax Treatment	Subject to tax on income from a source in South Africa or which is attributable to a South African permanent establishment or immovable property.	Tax-exempt to extent distributed.	A MFT is entitled to deduct in a year all income determined for purposes of the ITA paid or payable to unit holders in the year so it may reduce its net taxable income to nil.	30% tax on share of the trust's worldwide taxable income including capital gains. - Capital gains on disposal of units taxed at 30% with no CGT discount available.	Taxed under normal Singapore tax rules.	Income from a property rental business is exempt from corporation tax. - Residual business income is taxable at the highest rate of corporation tax (currently 20%).

Individual Shareholder Tax treatment	Distributions are taxed at an individual's margin tax rate (between 18% and 40%) as if income was directly received. Note that Trusts are taxed at a different rate. - Taxation of capital gains on disposal (if not dealer) 33.3% of the gain is included in taxable income (resulting in an effective rate between 5.99% and 13.3%).	Capital gain dividends are taxed at the maximum 23.8% rate. - Return of capital is tax deferred.	Taxable	Tax at rates of up to 49% (including Medicare levy) on share of the trust's worldwide taxable income. - 50% CGT discount may be available to resident individuals on capital gains distributed and on disposal of units.	All distributions are generally not taxable. - Gains on disposal of units are not taxable if capital in nature.	20% tax on PIDs (collected by way of the withholding tax). - Higher rate tax payers pay additional tax (the amount of which depends on their personal tax position through their tax returns. - Capital gains on disposal of REIT shares taxable in ordinary manner.

Corporate Shareholder Tax Treatment	There is no tax on distributions. - Taxation of capital gains on disposal (if not dealer) 66.6% of the gain is included in taxable income (resulting in an effective rate of 18.6%).	Income, capital gains, and return of capital distributions are taxed at a rate of 35%.	Taxable	30% tax on share of the trust's worldwide taxable income, including capital gains. - Capital gains on disposal of units taxed at 30% with no CGT discount available.	17% corporate tax on tax transparent income. - Distributions out of capital gains and income taxed at REIT's level are not taxable. - Gains on disposal of units are not taxable if capital in nature.	Distributions out of property rental business income (PIDs) are treated as rental profits currently taxable at 20% (for a large company). - Distributions out of residual business profits (non-PIDs) will be tax-exempt. - Capital gains on disposal of UK REIT shares are taxable under normal capital gains rules.
Distribution of Income	Earn 75% of its income from rental, property owned or investment income from indirect property ownership.	At least 90% of its taxable ordinary income.	All income of the MFT for a taxation year is paid or payable to unit holders in the year so that MFT does not incur tax.	Typical distribution of 100% of trust's income as defined in the trust's constitution.	90% of tax transparent income.	90% of tax-property rental profits. 100% of PID from other REITs. Not included in the distribution

In terms of taxation of individuals there is a varying degree of maximum tax that can be paid. For example Singapore do not tax any distributions received by individuals but Australia tax up to 49% of distribution received. The USA imposes a maximum 23% tax rate which is the second most favourable taxation among the sample. The South African individual tax rate ranges between 18% and 40% based on the individual's tax bracket. This possibly causes disinterest from wealthy individuals for more tax friendly investments.

Investors are enticed to invest in REITs due to the potential distributions that will come. So as the table below shows, most REIT regimes seek to maximise distributions to investors by requiring above 90% distributions of the taxable ordinary income. South Africa how ever has the lowest required percentage at 75% of income from rentals, property owned or investment income from indirect property ownership.

As can be seen in the table the basis of the REIT regime structure is followed by most countries. The REITs all insure that the income derived from property rentals and income is not taxed dependent on whether the REIT distributes the required percentage to the shareholders. Failure to distribute income results in taxation along normal business tax rules.

2.5.1 REIT Implementation

They were five major events that led to the implementation of SA REITS.

1. REIT Convention 17 July 17 July 2006

Conversation into the implementation of a REIT structure in South Africa began as early as 2006 led primarily by the Property Loan Stock Association (PLSA) at a convention.

2. White paper on October REITs October 2009
3. National Treasury release Taxation Legislation Amendment Bill Section 8G 2011 25 November 2011 25 November 2011

The implementation of SA REITS was influenced by the passing of the Taxation Legislation Bill (TLAB) of 2013. The bill aimed to remove technicalities found within the Income tax laws which would in allow REITs to be formed. The bill made changes to section 25BA and section 25BB of the Income Tax Act of 1992.

4. NEW Taxation Legislation Amendment Bill released 28 February 201328 February 2013
5. JSE releases the amended Section 13 of listing requirements enabling REITS to be listed as of 1 May 2013

A comparison of REITs, PLS and PUT

ATTRIBITE	REIT	PUT	PLS
Investment Limitations	• Owns income producing property or finance income producing property	• Can invest in listed companies	• Direct Investments
Share Structure	• Stocks	• Stocks	• Debentures and Shares
Tax Treatment	• Exempt from income tax provided 75% of yearly taxable income is distributed to shareholders	• Income tax exempt if income is distributed to investors	• Capital Gains Tax • Interest paid out on debentures is exempt from tax unless it is not distributed
Regulation	• Income Tax Act of 1992, Johannesburg Stock Exchange, Collective Investment Schemes Act	• Collective Investment Schemes Act of 2002	• Companies Act 61 of 1973
Gearing Limit	• Debt to be kept below 60% of its gross asset value	• 30% of underlying assets	• Gearing ratio is limited to amount stated in the Company's articles of association

Figure 6: Comparison of REITs, PLS's and PUT's

Boshoff and Bredell (2013) produced research on the proposed implementation of REITs in South Africa. Their study aimed to determine the possible impact of the REIT structure as well as the industry perspectives. Boshoff and Bredell (2013) found that the new structure was seen as a positive change from the previous property stock structures. However they were some mixed reviews on the shareholder influence of the new structure.

2.6 Research methods used in this problem area

In research to evaluate the effects of an event or events on stock performances three performance indicators have been used.

Abnormal return

Abnormal returns are calculated by finding the sum of the actual returns and the expected returns on each separate event day. Expected returns are found by forecasting historical returns before the event window and form a benchmark for future returns.

Average Abnormal Return

Average abnormal Returns are the aggregate abnormal returns of all the firms on a daily basis divided by the number of firms recorded on each event day. The Average Abnormal Return therefore gives the abnormal return at each time interval within the event window period.

Cumulative Average Abnormal Returns

Cumulative Average Abnormal Returns is then the aggregate of the Average Abnormal Returns. Simply defined it is the sum of the daily averages throughout the event window period. This then shows the total effect of the event or events on stock performance

The most prevalent research method used in this problem area is the event study methodology. Event methodology seeks to understand the effect of an event or events on the value of a firm.

The adaption of event study to legislative changes to REITs was used by Howe and Jain (2004). The authors examined the two effects of the REIT Modernisation Act of 1999 (RMA). The RMA was created to allow REITs to own a taxable subsidiary to provide ancillary services to its tenants creating a secondary source of income for REITs, which was not previously possible. The two effects were on the REIT shareholder wealth and REIT systematic risk following the passing of the act. Of importance to the research problem is how the authors evaluated shareholder wealth effect following the event.

Shareholder wealth changes were evaluated through the abnormal returns found before and after each milestone in the passing of the REIT Modernisation Act of 1999. The period used was a 3 day cumulative average returns period. In attempting to evaluate the importance of the REIT type on the shareholder effect the authors categorized each REIT and measured the abnormal returns during each of the events.

The aim of their research was directed at the instances where legislative milestones occurred as these were the periods seen as to have the potential influence on wealth changes. The monitoring of multiple milestones in an event provided information as to ever changing perceptions of the effect of the imposed legislation.

In Kishore and Demas (2011) applied the event study methodology to assess the effect of the passing of the Sarbanes-Oxley Act 2002 (SarbOx). This act introduces new accounting and regulation measure in the stock market which in turn increased the cost of operations and reduced shareholder wealth. The research sought to quantify the negative impact of the act on shareholder wealth. The authors used a daily average returns to measure returns across all firms in the study. The returns of firms were compared with the expected returns had the event not occurred. Kishore and Demas (2011) validate their use of estimated normal returns through literature provided in previous studies pointing out the use of 100-300 day post event returns being sufficient enough to predict normal returns. In the Study they decided on a 7 working day window period.

In an effort to look at the market reactions to announcements of REIT dividend and the determining factors Sah and Zhou (2012) applied the event study methodology. Data collection was done through a combination of listed market data sites. The data was take over a 2 year period however the data for each dividend announcement was taken for a 6 day event period.

Brown and Warner (1984) outlined the potential problems that may occur in the use of daily stock returns in event studies. The authors pointed out non-normality of returns of individual stocks, biased ordinary least squares estimators (OLS) and the estimation of the variance use in hypothesis testing concerning mean excess returns

and more specifically the autocorrelation in daily excess returns and of variance increases in the days around the event.

2.7 Conclusion

REITS as pointed out by Ooi et al (2006) is driven by the ability to offer high reward, low risk investment returns. Deng et al (2014) and, Haung and Uchida (2015) further elaborate to Ooi et al (2006) stating that the performance of new REIT stock is reliant on investor sentiment before and after the announcement of new stock issuances. The volatility of REIT stocks makes market timing an essential part of new stock issuance. The Timing of the issuance by the company and the purchasing of stocks by the shareholders becomes an important phases of new REITs. Literature from Broughton and Koning (2012), Howe and Jain (2004), and Kishore and Demas (2011) clearly showed the varying effects of regulations and regulation changes to REIT performance. However the research was based on new regulations to implement REIT stocks and regulation changes to existing REIT stock in well developed markets. So far research has failed to show the effect on a developing market whose existing regime closely resembled that of a REIT market.

While some authors find REIT tax treatment beneficial to their performance growth Boudry et al (2010) and Einhorn (1998) argued that the removal of certain tax requirements creates more emphasis on other investment decision factors thus not creating an investment advantage for REITs. This is of particular importance when considering the South African property market whose investment vehicles were not vastly different from conventional REITs. In the South African market the similarities between the pre REIT regime and REIT structure would render the views of Boudry et al (2010) and Einhorn (1998) in applicable to the situation at hand.

Literature as well an analyses of the property stock vehicles before REIT implementation showed that there already existed a significant similarity between PUT’s and REITs. Much like the reasoning behind the creation of REITs in the USA stated by Boughton and Koning (2012) and Einhorn (1998), McDonald (2013) and Potelwa (2013) stated the same reason for the creation of PUT’s in South Africa. The question then becomes whether or not the implementation of REITs would cause a significant positive change in the South African property market. With the creation of REITs and PUT’s originating from a desire to increase property investments and

allow more people to invest in the stock market, the measurable change resulting from a switch from PUT/PLS to REITs is of importance.

SECTION 3

3 Research Design

3.1 Research Philosophy and Approach

The research will take a quantitative positivist philosophy. The aim of my research is to evaluate the effect of the new REIT legislation on shareholder wealth. An abduction approach will be done through performing a statistical analysis of stock returns of listed property stocks from firms that converted to REITs. This is done to measure any abnormal returns created by first the implementation of the new REIT structure and secondly the conversion of a property firm from either a PLS or PUT into a REIT. An abduction links the observations of Abnormal returns the market timing theory as outlined in capital structure theory. This will then explain the why the AR's were present)

The approach is a variation of existing approaches done by studies evaluating the effects of new regulations and legislation on existing REITs in listed property markets. The first stage of the approach will entail the market reaction to the implementation of the REIT act. This approach has been used in previous research in direct relation to new legislation.

The second stage of the approach entails the change in shareholder wealth for firms who converted. This approach is mainly used in research regarding the issuing of new stocks through Initial Public Offerings (IPO's) and Seasoned/Secondary Equity Offerings (SEO's). The method evaluates the change in share prices caused by the increase of stocks offered by a firm. For my research this method has been adapted to suite the change of PLS's and PUT's. The change has the potential to increase demand for the stock thus increasing the stock price. The research will therefore seek to ascertain the degree of stock price change and compare it to the expected change in returns acquired from historical data. The use of abnormal returns has been used to measure the change to performance. Performance of stocks can be measured in numerous ways so to further define the performance indicator the shareholder wealth effect will be used. Shareholder wealth effect entails the change in value of an individual par value share. So by measuring the change in stock prices

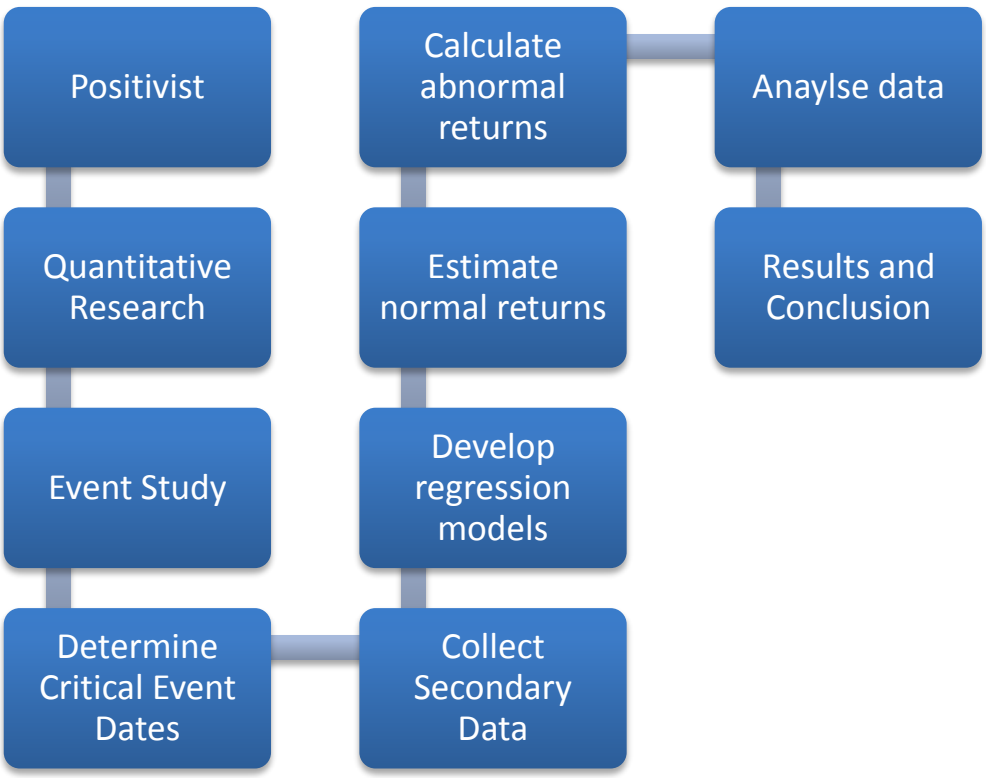
surrounding the implementation of the REIT legislation and conversion by firms through stock changes the shareholder effect will be ascertained.

3.2 Nature of Research

The methodological choice for my research is an Event study. An event study is defined as a statistical method to assess the impact of an event on the value of a firm. For my research there are two events which shall cover the listed property sector and the individual firms. The first event will be the date of implementation of the new REIT structure in the Johannesburg Stock Exchange. The second event will be the individual firm's date of conversion to the REIT structure.

The event study will use the listed property market as the population group to which the sample is taken. This group will further be reduced by using only the listed property firms that have become REITs under the new legislation.

3.3 Research Methodology



3.4 Quantitative Research

3.4.1 Design Limitations

Howe and Jain (2004) point out that the challenge in using an event study lies within the ability to identify the relevant event dates. Furthermore when dealing with legislative events the flow of information is more continuous and isolating specific dates can be complex. MacKinlay (1997) in a research paper to evaluate the use of event studies in economics and finance found two main factors that affect the use of event studies. The first factor was that the accuracy of identification of event dates was paramount which is in agreement as that stated by Howe and Jain (2004). The second point was that the use of an event study less useful when the event is highly anticipated. The anticipation of events has been found to be highly prevalent in events relating to regulatory change therefore caution has to be taken when using the event study in such cases (MacKinlay, 1997) .The use of an event study is most reliable when being applied to a short-horizon study.

In summary the design limitations are as follows:

1. Event Studies are more suited for short-horizon studies
2. Accurate identification of event dates is paramount to accurate application
3. Event studies are less useful when the event date is partially anticipated this creates a bias due to the lengthily process of REIT implementation Regulatory changes are often debated and lead to the effects not being focused on significant event dates but over a continuous period. This can therefore create biased research.

3.4.2 Population

The population for this research will be based on listed real estate companies on the Johannesburg Stock Exchange (JSE). The population is further refined to listed real estate companies that were categorised as a Property Unit Trusts (PUT's) or Property Loan Stock (PLS) prior to the implementation of the South African REIT Legislation. From the above mention population a further requirement will be that the listed firm has converted into a REIT post REIT legislation implementation.

Sampling Size

Due to REIT's being relatively new to South Africa there are a limited number of companies that have converted to the new REIT structure and listed on the Johannesburg Stock Exchange (JSE). There are currently (32) firms listed on the JSE as REITs. Due to the limited number of firms that converted to REITS the sample size has been predetermined by the population. The sample size will not be further reduced as this will affect the statistical relevance of the results when the performance of the stocks are analysed.

3.5 Quantitative Analysis of Stock Returns

3.5.1 Unit of Analysis

The unit of analysis will be listed property companies that converted to the South African REIT structure and were previously listed as either Property Loan Stocks (PLS) or Property Unit Trusts (PUT's) before the introduction of the REIT structure.

3.5.2 Data Variables

The announcements regarding the introduction of the South African REIT structure and the conversion by some listed property companies to REITs had an impact on the stock performances of listed properties. The perception of the resulting effect of the REIT structure creates a variation in stock performance of listed property shares.

The first data set will be on the announcements of the introduction of the REIT structure. This data will contain two variables namely the event dates and the stock price changes within the event window period.

The second data will be on the announcements by listed companies to convert to REITs. The variables will be the relevant announcement dates and the stock price changes within the window period of the announcement.

The data collected will be numerical data in nature set on a continuous data scale. It will be used to show price changes within the event window period.

3.6 Data Collection

Data is collected from stock return databases available. The first source to be used will be the INET BFA Expert (also known as McGregor BFA). This data base provides historical information on South African and International listed and unlisted companies covering preliminary and interim financials since 1971. The second data source is the JSE which regulates the stock market as well as publishes stock performance data daily.

The data collected will be on a 6- day window around the announcement date of the new RIET structure. Stock are more responsive to changes therefore changes in stock prices happen close to the event date, Sah and Zhou (2012), Kishore and Demas (2011), the date of REIT implementation and the date of announcement by former PLS's and PUT's of their approaching conversion to REITs. This is because stock are more responsive to changes therefore changes in stock prices happen close to the event date, Sah and Zhou (2012), Kishore and Demas (2011)

3.7 Data Analysis

The data collected will be in the form of daily stock returns. The stock returns will have to be analysed to find the Cumulative Abnormal Returns (CAR's). CAR's are the sum of the differences between the expected return on a stock and the actual return. The analysis of the data collected will be done through the use of econometrics. Specifically the market model for event study analysis will be applied. The market model is based on finding a correlation between a reference market and the firm's stock data. The correlation shows the relationship between the firm stock and market stock. This then allows firm or stock prices to be estimated. The analysis will be done through statistical methods aided by the use of STATA data analysis software.

In order to calculate the abnormal returns that show positive or negative effects of events by the presences or non-existence of abnormal returns a 5 step process will have to be followed.

Step 1

Calculate Benchmark (forecasted estimate return,$E(R_{i,t})$)

$$E(R_{i,t}) = b_0 + b_1.(E_{M,t})$$

Benchmark returns are the forecast of returns based on the historical returns produced by the sample. The benchmark returns are necessary to aid in evaluating the difference between returns had the event not occurred and the returns post event occurrence. Without benchmarking of returns finding the abnormal returns becomes unattainable. For the purpose of the research the benchmark used was the Johannesburg All Share Index J203.

Step 2

Calculate daily abnormal return (actual return – Predicted/expected return)

$$AR_{i,t} = R_{i,t} - E(R_{i,t})$$

Daily abnormal returns will be calculated on the returns of the participants in the sample taken within each day of the 6 day window period. The abnormal return is calculated by subtracting the actual return from the expected return which is determined by the benchmark

Step 3

Calculate Average Abnormal Return (Sum of abnormal returns/number of days)

$$AAR_t = \frac{1}{N}\sum_{i=1}^{N} AR_{i,t}$$

The Average Abnormal Returns are the consolidated daily abnormal returns of all the stocks in the sample. This will show the movement of abnormal returns through each day within the event window.

Step 4

Calculate the Cumulative Average Abnormal Returns (sum of average returns over days)

$$CAAR_T = \sum_{t=1}^{T} AAR_t$$

The Cumulative Average Abnormal Returns will be the sum of all the Average Abnormal Returns for each day in the event window. This is done to show the aggregate effect of the abnormal returns. Due to the possibility of positive and negative returns on the Daily Average Abnormal Returns the Cumulative Average Abnormal Returns will provide a better sense of the result of the abnormal returns throughout the event window. The Daily Average Abnormal Returns will aid in showing when the event had an effect on the stocks and at which period, post or pre event.

Step 5

Calculation of T-score significance of AAR and CAAR. T-score will be used to assess the significance of the calculated returns and test the research hypothesis. The research points out to the presence of abnormal returns due to the change in legislation thus a hypothesis will be tested. The null hypothesis state that there are no abnormal returns within the event window.

For the AAR's the hypothesis is as follows:

$$H_0: AAR = 0$$

$$H_1: AAR \neq 0$$

Where the Cross-sectional test t_{AAR_t} is:

$$t_{AAR_t} = \sqrt{N}\frac{AAR_t}{S_{AAR_t}}$$

S_{AAR_t} Is the standard deviation across firms at time *t*,

For the CAAR's the hypothesis is as follows

$$H_0: CAAR = 0$$

$$H_1: CAAR \neq 0$$

Where the Cross-sectional test t_{CAAR_t} is:

$$t_{CAAR_t} = \sqrt{N}\frac{CAAR_t}{S_{AAR_t}}$$

S_{CAAR} Is the standard deviation across firms at time t

Upon gathering the t-values the values are tested against stated values on the students T distribution table. The test involves determining the likelihood of observing an extreme statistic in the direction of the alternative hypothesis than the observed. The t-values are tested for the type 1 error which checks that the null hypothesis is not incorrectly rejected for the alternative hypothesis. In this paper the null hypothesis is that there are no abnormal returns in the event window while the alternative hypothesis states that there are positive and negative abnormal returns in the event window. Type 1 errors are checked at three levels of significance. These are 1%, 5% and 10%. The significance level represents the probability that a type 1 error is committed. For the purpose of the research the all three significance levels will be checked however the 5% significance level will be used to determine the presence of abnormal returns.

Therefore in checking the Average Abnormal Returns and Cumulative Average Abnormal Returns the following rules will apply.

$$P < \alpha, or\ P = \alpha$$

$$The\ null\ hypothesis\ will\ be\ rejected\ in\ favour\ of\ the\ alternative\ hypothesis\ due$$

$$to\ the\ presence\ of\ abnormal\ returns$$

$$when\ \alpha = 0.05\ or\ 5\%$$

$$P > \alpha$$

$$The\ null\ hypothesis\ is\ not\ rejected\ meaning\ that\ abnormal\ returns\ are\ not\ present$$

3.8 Reliability and Validity Explicitly Clear

Literature reviewed has shown the use of CAR's as an effective measure for the effect of news on stock performance. CAR's have been used extensively in event

studies dealing with REITs. Most notably Howe and Jain (2004), Broughton and Koning (2012), and Kishore and Demas (2011) have used this methodology.

3.9 Ethical Consideration

This research does not propose and ethical concerns. This research shall follow a purely quantitative direction therefore there is no potential harm to participants as it is based on published stock performance data. Use of data from the McGregor data base is authorised and carries an adequate amount of reliability. To ensure the quality and integrity of the research the data collected from the McGregor data base will be checked against JSE historical Data. When applying to the JSE for historical data the intended use for the data is a prerequisite and consent is given once application is granted.

SECTION 4

4 Data Collection, Analysis and Results

Through the use of INET BFA electronic database a survey was done to determine how many Property Loans Stock and Property Unit Trust were listed on the JSE before the implementation of REITs on the JSE. The Initial survey found 79 Real Estate companies that were listed on the JSE between 2012 and 2015.

Listed Property Companies 2012-2015

Accelerate Prop Fund Ltd	Emira Property Fund Ltd	Lodestone Reit Limited	Redefine international Conv Security	Vividend Income Fund Ltd
Acsion Limited	Equities Prop Fund Ltd	Mara Delta Prop Holdings Ltd	Resilient Reit Limited	Vukile Property Fund Ltd
Acucap Properties Ltd	Fairvest Property Holdings	Mas Real Estate Inc.	Rockcastle Global Real E	
Adrenna Property Group Ltd	Fortress Inc Fund Ltd A	Merchant & Ind Prop Ltd	S And J Land Holdings	
Annuity Properties Ltd	Fortress Inc Fund Ltd B	New Europe Prop Inv Plc	Sa Corp Real Estate Ltd	
Ardor SA Ltd	Fountainhead Prop Trust	New Frontier Prop Ltd	Sable Holdings Ltd	
Arrowhead Properties B	Freedom Prop Fund Ltd	Newpark Reit Ltd	Safari Investments Rsa L	
Arrowhead Properties Ltd	Green bay Properties Ltd	Oasis Crescent Prop Fund	Schroder European Reit Plc	
Ascension Prop Ltd A	Growthpoint Prop Ltd	Octodec Invest Ltd	Sirius Real Estate Ltd	
Ascension Prop Ltd B	Hospitality Prop Fund A	Orion Real Estate Ltd	Stenprop Limited	
Attacq Limited	Hospitality Prop Fund B	Pangbourne Prop Ltd	Stor-Age Prop Reit Ltd	
Balwin Properties Ltd	Hyprop Investments Ltd	Pinnacle Point Group Ltd	Sycom Property Fund	
Bonatla Property Holdings	Hyprop Invest Ltd Conv	Premium Properties Ltd	Synergy Inc Fund Ltd A	
Capital & Counties Prop Plc	Indluplace Properties Lt	Putprop Ltd	Synergy Inc Fund Ltd B	
Capital & Regional Plc	Ingenuity Property Inv	Quantum Prop Group Ltd	Texton Property Fund Ltd	
Capital Property Fund Lt	Inter. Hotel Group Ltd	Rebosis Property Fund Lt	The Pivotal Fund Ltd	
Delta Property Fund Ltd	Intu Properties Plc	Redefine International P	Tower Property Fund Ltd	
Dipula Income Fund A	Investec Australia Prop	Redefine Prop International Ltd	Tradehold Ltd	
Dipula Income Fund B	Investec Property Fund	Redefine Properties Ltd	Visual International Holdings	

This event study entails 4 different events that have to be measured leading from implementation of REIT legislation to the conversion to REITs by existing listed companies

The reaction of the stock prices of the listed real estate companies is measured at each relevant event date. Thus there were filters to disregard any companies that would not be able to provided stock reaction data. Two key attributes have to be attained by the stock to be included in the study. The first attribute is that the stock had to be listed on the JSE during the event. Secondly the stock has to have been listed for a minimum of 100 trading days before the event. This is done to insure that the stock had sufficient historical stock prices in order for benchmarking to be done accurately. As stated earlier benchmarking is the process by which normal returns are forecasted using historical returns. From the initial 79 listed companies 49 will be used for the event studies.

Sample Used for Event Study

Acucap Properties Ltd	GrowthPoint Property LTD	Resilient Property Income Fund LTD
Adrenna Property Group Ltd	Hospitality Prop Fund LTD A	Rockcastle Global Real E
Annuity Properties Ltd	Hospitality Prop Fund B	SA Corporate Real Estate Fund LTD
Ardor Sa Ltd	Hyprop Investments LTD	Sable Holdings Ltd
Arrowhead Properties B	Ingenuity Property Inv	Sycom Property Fund
Arrowhead Properties Ltd	Intu Properties PLC	Synergy Income Fund LTD A
Ascension Prop LTD A	Investec Property Fund LTD	Synergy Inc Fund Ltd B
Ascension Prop Ltd B	Mas Real Estate Inc.	Texton Property Fund LTD
Bonatla Property Holdings	New Europe Prop Inv Plc	Tradehold Ltd
Capital & Counties Prop Plc	Oasis Crescent Prop Fund	Vividend Income Fund Ltd
Capital Property Fund LTD	Octodec Investments LTD	Vukile Property Fund LTD
Delta Property Fund LTD	Orion Real Estate LTD	
Dipula Income Fund A	Pinnacle Point Group Ltd	
Dipula Income Fund B	Premium Properties Ltd	
Emira Property Fund LTD	Putprop Ltd	
Fairvest Property Holdings	Quantum Prop Group Ltd	
Fortress Inc Fund LTD A	Rebosis Property Fund LTD	
Fortress Inc Fund Ltd B	Redefine Prop International Ltd	
Fountainhead Property	Redefine Properties LTD	

The sample of listed real estate companies used for the event study contained 37 companies that listed as REITs between 2013 and 2015.

JSE Listed REITs 2013-2015

Accelerate Property Fund LTD	Lodestone REIT Limited
Arrowhead Properties B	Newpark
Ascension Prop LTD A	Oasis crescent Prop Fund
Capital and Regional PLC	Octodec Investments LTD
Capital Property Fund LTD	Orion Real Estate LTD
Delta Property Fund LTD	Rebosis Property Fund LTD
Dipula Income Fund A	Redefine International PLC
Emira Property Fund LTD	Redefine Properties LTD
Equities Property Fund LTD	Resilient Property Income Fund LTD
Fairvest Property Holdings	SA Corporate Real Estate Fund
Fortress Inc Fund LTD A	Safari Investment RSA LTD
Fountainhead Property	Schroder European Real Estate Investment Trust PLC
Growthpoint Property LTD	Stor-age Property REIT Ltd
Hospitality Prop Fund LTD A	Sycom Property Fund
Hyprop Investments LTD	Synergy Inc Fund LTD A
Indluplace Properties LTD	Texton Property Fund LTD
Intu Properties PLC (British REIT)	Tower Property Fund LTD
Investec Australia Property Fund	Vukile Property Fund LTD
Investec Property Fund LTD	

The next step is an elimination of REITs that listed on the JSE through initial public placements. Some of these are REITs that were already registered on international stock exchanges and did not go through the conversion process in order to register on the South African stock exchange. These REITs were not listed on the JSE during the implementation of REIT legislation. Therefore they do not have JSE data pre-dating the implementation of REIT legislation. This acted as a secondary filter to those REITs that were not listed as PLS or PUT on the JSE. This filter reduced the list of acceptable REITs to 23.The firms which were not previously listed on the JSE do not have data pre dating the REIT implementation. Therefore historical data is unavailable and forecast on returns based on historical data cannot be done. Data collection was then done to this reduced list of REITs.

Data collected will have to allow for at least 120 day before event windows to allow for an adequate number of pre event window dates for forecasting to be as accurate as possible. The amount of data gathered was affected by the date at which the REITs were listed on the JSE as PLS's or PUT's. Some REITs had not been active long enough for the 120 day estimation window to be used therefore less days were used.

The data collected included daily stock prices at opening, closing, highest daily price and lowest daily price. As the research design stated the use of stock prices only, only the closing day stock prices were of importance and would be used in the analysis of the REITs during the events. Data collected was based on a 5 year historical time period from December 2015. This was to insure that all possible events were covered for the REITs as well as the estimation window periods.

The event study requires set event date to which stock changes can be measured on. Research on events leading up to the implementation of REIT legislation and the conversion to REITs by property companies were compiled. The research started with the legislative history of REIT implementation.

Event	**Date**	**Description**
Omitted	17/08/2006	REIT Convention
Omitted	03/12/2007	Discussion paper on reforming the listed property investment sector in South African released by the national Treasury
Omitted	XX/10/2009	REIT White Paper
Omitted	25/10/2011	National Treasury release Taxation Legislation Amendment Bill containing the proposed Section 8G dealing with perpetual debentures
1	01/02/2013	National Treasury Taxation Laws Amendment Act, 2012
2	28/03/2013	JSE releases the amended Section 13 of listing requirements enabling REITS to be listed as of 1 May 2013
3	01/05/2015	JSE allows for new REITs to be listed on the stock exchange.
4	01/05/2013 – 12/12/2015	Conversion by listed property stock companies (PLS and PUT) to REIT status

Above are the crucial events that led to the implementation of the REIT legislation. These steps outline South African REIT history from the initial talks among listed property members to the passing of listing requirements by the Johannesburg Stock Exchange. The first event was the REIT convention held in 2006 which was attended by industry participant to discuss the need of REITs in South Africa. This event was

omitted from the event study as it happened 5 years before REIT implementation. Following the REIT convention was the discussion paper on reforming the listed property investment sector in South African released by the national Treasury. This paper was published for public comments as to determine what factors would need to be considered in drafting legislation to support REITs in South Africa. This event is also omitted as it would have little influence on investors. In 2011 the National Treasury released the Taxation Legislation Amendment Bill containing the proposed Section 8G dealing with perpetual debentures. As taxation of listed property companies and shareholders had been highlighted as points of importance in REIT discussions. This event was omitted from the study because as a bill of proposed changes to taxation it didn't contain any assured changes to listed property stocks.

The first event to be included in the study is the National Treasury Taxation Laws Amendment Act, 2012 (event 1) which was promulgated on the 1 February 2013. This Act contained the description of REITs, the taxation guidelines for REITs on distributions, income and share transactions. This act paved the way for REIT introduction in the JSE.

The second event is the release of the amended Section 13 of listing requirements by the JSE that enabled REITS to be listed as of 1 May 2013. This gave investors information as to what types of property stocks would be able to meet the listing requirements.

The third event included is the date when JSE allowed new REITs to be listed on the Johannesburg Stock Exchange. At this point companies that had meet the requirements released in event two and had received REIT status through application listed on the JSE. This event day happened to be on a weekend of which the Johannesburg Stock Exchange does not work on. Therefore for the purpose of this study the event day will be moved to the next working day which was the 2nd May 2013.

The last event for the study is the conversion to REITs by the property stock companies. Events 1-3 are based on a cross-sectional study of the firms. The fourth event will be done on a single event study. The firms converted at different points in time therefore the conversions form multiple events. Through a survey of listed REIT

sample compiled, the dates at which they listed as REITs on the JSE were gathered. Table 1 shows the list of REITs to be used in the event studies.

Table 1: List of South African REITs Converted PLS and PUT's

Ascension Prop LTD A	Synergy Income Fund LTD A
Delta Property Fund LTD	Arrowhead Properties B
Fairvest Property Holdings	Dipula Income Fund A
Fortress Inc. Fund LTD	Emira Property Fund LTD
Investec Property Fund LTD	Fountainhead Property
Oasis Crescent Prop Fund	Growth Point Property LTD
Octodec Investments LTD	Hospitality Prop Fund LTD
Orion Real Estate Ltd	Hyprop Investments LTD
Rebosis Property Fund LTD	Resilient Property Income Fund LTD
Redefine Properties LTD	Texton Property Fund LTD
SA Corporate Real Estate Fund LTD	Vukile Property Fund LTD
Sycom Property Fund	

Table 2: Average Abnormal Returns Event 1

AAR for Event 1

Date	Day	AAR	Std. Dev.	t-score (AAR)	p-value
29/01/2013	-3	0.25%	0.08	0.03	0.97
30/01/2013	-2	0.08%	0.02	0.05	0.96
31/01/2013	-1	-0.24%	0.02	-0.12	0.91
01/02/2013	0	-0.13%	0.02	-0.09	0.93
04/02/2013	1	-0.56%	0.06	-0.10	0.92
05/02/2013	2	-0.01%	0.02	-0.01	0.99
06/02/2013	3	0.27%	0.02	0.11	0.91

* - significant at 90%	1.645
**- Significant at 95%	1.96
***- Significant at 99%	2.574

Table 2 shows the results of Event 1 of the study. Event 1 was the effect of the National Taxation Amendment Act of 2012 that was promulgated on the 1st February 2012. A cross sectional analysis of firm stock returns around the event date through calculations of the Average Abnormal Returns (AAR's) of all the firms on each day of the event window. The table shows that on the day of the event there was a negative

-0.13 effect among the sample of firms. However at a p-value greater than 0.10 the statistic calculated fails to reject the null hypothesis.

Table 3 shows the cumulative effect of the returns throughout event 1 window period. This is done through the cumulative sum of the AAR's. This is the Cumulative Average Abnormal Return (CAAR). The table shows that between day -3 and day 3 of the 7 day window period there was a significant -0.35% return on the 23 firms in the sample. The table further shows that among the 23 firms there were negative CAAR's from the event day to the last day of the window period (0, 3). This shows that there were negative post event abnormal returns.

Table 3: Cumulative Average Abnormal Returns Event 1

CAAR for Event 1

Days	CAAR	Std. Dev.	t-score (CAAR)	p-value
(-3,3)	-0.35%	0.04	-0.40	0.69
(-2,2)	-0.87%	0.05	-0.84	0.41
(-1,1)	-0.93%	0.04	-0.93	0.37
(0,1)	-0.69%	0.04	-0.70	0.49
(0,2)	-0.70%	0.04	-0.69	0.50
(0,3)	-0.43%	0.03	-0.56	0.58

The effect of the JSE release the Section 13 of listing requirements for all prospective REITs (event 2) is shown in Table 4. On the event day (Day 0) when the listing requirements were released there was a -0.13% AAR among the 23 firms in the sample. This showed that there was a marginal difference between expected returns and actual returns at the time of the event. This fact is further emphasised by the t-score which showed that the AAR at Day 0 was statistically insignificant to draw inference on what happened in the property market on the event day.

Table 4: Average Abnormal Returns Event 2

ARR for Event 2

Date	Day	AAR	Std. Dev.	t-score (AAR)	p-value
25/03/2013	-3	-0.01%	0.00	-0.03	0.97
26/03/2013	-2	-0.06%	0.01	-0.08	0.93
27/03/2013	-1	0.05%	0.01	0.08	0.94
28/03/2013	0	-0.13%	0.00	-0.39	0.70
02/04/2013	1	0.03%	0.00	0.10	0.92
03/04/2013	2	0.10%	0.00	0.27	0.79
04/04/2013	3	0.32%	0.01	0.50	0.62

* - significant at 90%	1.645
**- Significant at 95%	1.96
***- Significant at 99%	2.574

Within the window period of the event the companies had positive post event returns as can be seen in Table 5. Between days 0 and +3 there was a total cumulative average abnormal return of 0.32% for the firms. However of significance within the results is that during the window period positive abnormal returns were experienced by firms at a high significance rate. This is further corroborated by the findings of table 4 which showed progressively increasing abnormal returns between the pre and post event day.

Table 5: Cumulative Average Abnormal Returns Event 2

CAAR for Event 2

Days	CAAR	Std. Dev.	t-score (CAAR)	p-value	
(-3,3)	0.30%	0.02	0.72	0.48	
(-2,2)	-0.01%	0.01	-0.04	0.97	
(-1,1)	-0.05%	0.01	-0.38	0.70	
(0,1)	-0.10%	0.00	-0.95	0.35	
(0,2)	0.00%	0.00	-0.04	0.97	
(0,3)	0.32%	0.01	1.65	0.11	

* - significant at 1%

***- Significant at 10%

The 3rd Event results are presented in Table 6. These results outlined the date when the JSE allowed for the listing of new REITs on the stock Exchange. This day is represented by day 0 in the table. As previously stated the event date was moved to fall within a business working day. The table shows a positive 0.54% AAR for the event day however it is statistically insignificant as with a p-value of 0.43. Following

the event day what can be seen are consecutive days of negative AAR's towards the end of the estimation window.

Table 6: Abnormal Average Returns Event 3

ARR for Event 3					
Date	**Day**	**AAR**	**Std. Dev.**	**t-score (AAR)**	**p-value**
25/03/2013	-3	0.46%	0.01	0.58	0.57
26/03/2013	-2	-0.01%	0.00	-0.03	0.97
27/03/2013	-1	0.14%	0.01	0.21	0.84
28/03/2013	0	0.54%	0.01	0.80	0.43
02/04/2013	1	-0.05%	0.01	-0.07	0.94
03/04/2013	2	0.33%	0.01	0.34	0.74
04/04/2013	3	-0.23%	0.01	-0.30	0.77
* - significant at 90%		1.645			
**- Significant at 95%		1.96			
***- Significant at 99%		2.574			

The overall effect of the event was however a positive 1.18% CAAR as can be seen in Table 7. The table shows a significant positive CAAR at the 1% level. The Table shows that throughout the event window the sample experience positive returns that decrease through the event day and to the end of the post event period. However the (-3, 3) and (-1, 1) window periods are the only values that carried statistical significance

Table 7: Cumulative Average Abnormal Returns Event 3

CAAR for Event 3				
Days	**CAAR**	**Std. Dev.**	**t-score (CAAR)**	**p-value**
(-3,3)	1.18%	0.02	2.77	0.01
(-2,2)	0.95%	0.02	2.40	0.03
(-1,1)	0.63%	0.01	2.68	0.01
(0,1)	0.49%	0.01	1.87	0.08
(0,2)	0.82%	0.02	1.88	0.08
(0,3)	0.59%	0.02	1.40	0.18

* - significant at 1%

***- Significant at 10%

Event 4 assessed the effect of conversion into a REIT by existing property companies. Table 8 shows the results of the individual firm's event study analysis. For individual firms the daily abnormal returns (AR) are captured then the cumulative

abnormal return (CAR) is computed through the summation of the daily AR's. In the same manner as events 1, 2 and 3 the test statistic is calculated for each firms CAR.

Table 8 shows the result AR and CAR for the 20 REITs that were included in the event study. The results show a varying degree of responses to the conversion to REITs. Out of the 23 companies 13 companies showed a negative around the date of conversion. While in the other hand 10 of the 23 companies displayed a positive CAR.

Table 8: Cumulative Abnormal Returns for 23 REITs in Event 4

REIT	CAR	t-score (CAR)	p-value (CAR)
Ascension Prop LTD A	-1.01%	-0.14	0.89
Delta Property Fund LTD	-1.96%	-0.46	0.66
Fairvest Property Holdings	-4.82%	-0.84	0.43
Fortress Inc. Fund LTD	-4.49%	-1.14	0.30
Investec Property Fund LTD	-1.97%	-0.57	0.59
Oasis Crescent Prop Fund	-0.23%	-0.53	0.61
Octodec Investments LTD	-0.09%	-0.01	0.99
Orion Real Estate Ltd	-20.37%	-0.84	0.43
Rebosis Property Fund LTD	-1.07%	-0.08	0.94
Redefine Properties LTD	-0.79%	-0.10	0.92
SA Corporate Real Estate Fund LTD	-0.43%	-0.12	0.91
Sycom Property Fund	-1.77%	-0.76	0.48
Synergy Income Fund LTD A	-2.83%	-1.67	0.15
Arrowhead Properties B	1.40%	1.20	0.28
Dipula Income Fund A	0.06%	0.16	0.88
Emira Property Fund LTD	4.60%	0.63	0.55
Fountainhead Property	1.08%	1.51	0.18
Growth Point Property LTD	6.00%	0.83	0.44
Hospitality Prop Fund LTD	4.43%	1.00	0.35
Hyprop Investments LTD	4.58%	0.57	0.59
Resilient Property Income Fund LTD	5.00%	0.89	0.41
Texton Property Fund LTD	0.21%	0.17	0.87
Vukile Property Fund LTD	1.48%	0.51	0.63

As a collective the performance of the REITs is shown in Table 9 with the combined effect on the day of conversion being -0.16% with a high insignificance at 94%. From

the table it can be seen that the highest AAR was the day before the event which was +1.00% but a day after the event the AAR had dropped to -0.56%.

Table 9: Average Abnormal Returns for Event 4

Day	AAR	Std. Dev.	t-score (AAR)	p-value
-3	-0.41%	0.05	-0.08	0.94
-2	-0.19%	0.02	-0.13	0.90
-1	1.00%	0.03	0.39	0.70
0	-0.16%	0.02	-0.07	0.94
1	-0.56%	0.01	-0.40	0.69
2	-0.14%	0.01	-0.10	0.92
3	-0.11%	0.01	-0.08	0.93

The returns nevertheless did experience a CAAR through the event window at 0.33% as can be seen in Table 10. The table further shows that the CAAR was negative post event. Within the period of (0, 1) there was a CAAR of -0.72% which did not achieve a high statistical significance. The two periods (0, 2) and (0, 3) both attained negative CAAR's of -0.86% and -0.97% however only days (0, 3) were significant at 10%. This outlines that on an aggregate level the firms had achieved negative returns post event.

Table 10: Cumulative Average Abnormal Returns for Event 4

CAAR for Event 4

Days	CAAR	Std. Dev.	t-score (CAAR)	p-value	
(-3,3)	-0.56%	0.06	-0.44	0.67	
(-2,2)	-0.05%	0.02	-0.08	0.93	
(-1,1)	0.28%	0.02	0.63	0.54	
(0,1)	-0.72%	0.02	-1.40	0.18	
(0,2)	-0.86%	0.02	-1.54	0.14	
(0,3)	-0.97%	0.02	-1.84	0.08	***

** - Significant at 5%

***- Significant at 10%

In summary the results of the 4 event relating to the conversion and implementation of REITs in South Africa are shown on Table 11.

Table 11: Cross-sectional variation in CAAR for Event 1, 2, 3 and 4

Cross-sectional variation in CAR

Variable	7-Day CAR (%)	t-score	p-value
Event 1	-0.35%	-0.40	0.69
Event 2	0.30%	0.72	0.48
Event 3	1.85%	2.59	0.02**
Event 4	-0.56%	-0.44	0.67

** - Significant at 5%

***- Significant at 10%

The first event carried no significant result as to conclude that the event had caused significant abnormal returns to the sample data. The second event provided an overall negative returns on the firms. The CAR showed that there was a no significant level of negative returns which may have been the result of the event. Event 3 signalled the date at which new REITs could be listed on the JSE and this had a positive significant abnormal return on the firms. The last event was the conversion my listed property to REIT status. This event had positive abnormal returns but failed to prove that these were significant enough to show a divergence form the population.

5 Conclusion

This event study looked at the change in stock returns for property companies prompted by the introduction and implementation of REITs in the South African property market. The purpose of this study was to first evaluate the effect of the implementation of the REIT act on listed property firms. This is important as it shows the link between investor sentiments and legislative changes to stocks. Having been highly declared as favourable to the South African property market, the REIT legislations effect on listed property stocks had to be assessed. The second objective was to evaluate the effect of conversion of PLS's and PUT's on shareholder wealth. This follows on from the first objective and seeks to assess the immediate impact of conversion. The change in performance by converted companies will then give an early indication as to the advantage gained by new REITs over those that are still operating as PLS's and PUT's.

Using a sample of 49 listed property stock companies the study aimed to analyse the stock returns caused by events leading up to, and including, the conversion of PUT's and PLS's to REIT's. The Study began by assessing the events that led up to the implementation of the REIT legislation on the Johannesburg Stock Exchange (JSE). The study explored 4 events. The First 3 events explored the effect of the new REIT legislation on the selected property stocks.

In assessing the event 1 the passing of the National Taxation Amendment Act of 2012 Tables 2 and 3 showed the changes in returns for the sample. On the day of the event the stocks had a decrease in returns which also lead to negative post event cumulative returns. This shows that there may have been reaction to the event but the data carried very low significance for that conclusion.

The study then went on to analyse event 2 which was the release by the JSE of the Section 13 listing requirements for all prospective REITs. This event was the first indication of how REITs will be regulated in terms of capital structure, management, taxation and shareholders. These factors are those that have the critical effect on investor sentiments. This event, analysed in Table 4 and 5, displayed negative returns 3 out of 7 event window days. Days (-1, +1), (0, +1), (-2, +2). The whole window period saw a positive return of 0.30%. This data showed that at the point of release of the listing requirements the market had a positive reaction however at a

low significance. This may be attributed to previous REIT research that found that REITs are highly volatile to changes that affect operating cost. In this case investors may have been reacting to the potential gains in returns to be caused by the tax benefits.

The introduction of REITs became official when the JSE allowed REITs to list on the JSE. The results of this analyses was done Tables 6 and 7. As earlier stated there were positive returns experienced during this event at a 1% significance level. The data gathered in this event showed that the day of the event was had the biggest gain in returns. The event actually experienced negative post event returns which were proceeded by positive returns. This event was not an influential event due to the fact it only affected those shareholders who were part of the companies that listed as REITs following the event. Thus this positive returns could have been affected by other factors not included in this study.

The second objective of this study was to evaluate the effect of conversion of PLS's and PUT's. Decision made by firms have a potential effect on the shareholders in terms of affecting stock returns. This brings in the concept of market-timing. The study revealed that there was no definite pattern in the effects of conversion in the 7 day windows for each individual company as show in Table. Daily AAR's were used to see any significant data that may appear for the data. Although the results showed a negative trend in returns on the day of the event and the days that followed the data was insignificant. The results on the CAAR's (Table 10) further iterated this finding when the 7 day window period showed insignificant positive returns and negative post event period returns at a significant level. In an alternative hypothesis the findings showed that unlike the expected positive returns following conversion post event returns were increasing negatively.

From a short term view of the effects of REITs in South Africa the results of the research showed that the effect on shareholders wealth is not immediately experienced. The benefits for shareholders will be seen in the medium to long term as the companies and shareholders start to reap the tax benefits and the high distribution requirements imposed on REITs. The research did not show a highly significant gain in shareholder wealth. The introduction of REITs did show a positive

market reaction which is a good sign for the growth of the REIT market in South Africa.

In converting to REIT status the listed stocks did not experience a significant increase in their stock prices. This could be the possible reflection of investor's sentiments as they approach their investment decision with caution. The continued conversion by property companies to REIT status is however a good indication. Of the 79 companies in the research population 38 have converted/listed on the JSE as REITs of which include foreign REITs. Investors are now able to invest directly on foreign property.

RECOMMENDATIONS

To further understand the topic of Real Estate Investment Trust further studies can be done taking a longitudinal approach to the research. Tracking the performance of SA REITs over time and compared to other conventional stocks. As stated in the literature review other countries have been changing laws which affect REITs. There is an opportunity to assess how the South African Legislation on REITs measures up to current global standards.

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