Master Thesis

Introduction of REITs in East African Financial Markets

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"The introduction of REITs is expected to encourage and mobilize savings into the real estate sector of the economy with housing as a priority area […] and make available additional capital markets instruments for both retail and institutional investors to invest in and diversify their risks."

- Muthaura, Acting Chief Executive of the Capital Market Authority of Kenya, 2013 -

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List of Abbreviations

ADF	Augmented-Dickey-Fuller
AFFO	Adjusted Funds from Operations
AG	Aktiengesellschaft
AIC	Akaike Information Criterion
BAT Kenya	British American Tobacco Kenya Ltd
Bln	Billion
CAD	Canadian Dollar
CMA	Capital Market Authority
CMBS	Commercial Mortgage Backed Securities
CMSA	Capital Markets and Securities Authority
DAX	Deutscher Aktienindex
DIMAX	Deutscher Immobilienaktienindex
DSE	Dar es Salaam Stock Exchange
E&G	Ellwanger und Geiger
E.g.	Exempli gratia
EPRA	European Public Real Estate Association
EU	European Union
EUR	Euro
FBI	Fiscale Beleggingsinstelling
FFO	Funds from Operations
FFI	Fundo de Investimento Imobiliári
FIBRA	Fondos de Inversión en Bienes Raíces
FTSE	Financial Times Stock Exchange
GAAP	General Accepted Accounting Principles
GDP	Gross Domestic Product
GHC	Ghanaian Cedi
IFRS	International Financial Reporting Standards
IPO	Initial Public Offering

I.a.	Inter alia
HFB	Housing Finance Bank
JLL	Jones Lang LaSalle
JSE	Johannesburg Stock Exchange
KPSS	Kwiatkowski-Philipp-Schmidt-Shin
KSH	Kenyan Shilling
LAPF	Local Authority Pension Fund
LLP	Limited Liability Partnership
Log	Logarithmic
Ltd	Limited
LTV	Loan to Value
Mln	Million
NAREIT	National Association of Real Estate Investment Trusts
NAV	Net Asset Value
NGN	Nigerian Naira
NHC	National Housing Corporation
NIC	National Insurance Corporation
NMB	National Microfinance Bank
NSE	Nairobi Securities Exchange
NSSF	National Social Security Fund
PP	Phillips-Perron
PIE	Portfolio Investment Entities
PLS	Property Loan Stock
PUT	Property Unit Trust
PSPF	Public Service Pension Fund
REIC	Real Estate Investment Company
REIT	Real Estate Investment Trust
SA	South Africa
SC	Schwarz Information Criterion
SEC	Securities Exchange Commission

SICAFI	Societe d'Investissement a Capital fixe en Immobiliere
SIF	Specialised Investment Fund
SIIC	Les Societes d'Investissements Immobilier Cotees
SIIQ	Società di Investimento Immobiliare Quotate
SIMBA	Tanga Cement Company Limited
SOCIMI	Sociedades Cotizadas de Inversión en el Mercado Inmobiliario
Sqm	Square Meter
UAE	United Arabic Emirates
UGX	Uganda Shilling
UK	United Kingdom
UN	United Nations
UNCTD	United Nations Conference on Trade of Development
USA	United States of America
USE	Uganda Securities Exchange
TBA	Tanzania Building Agency
TBL	Tanzania Brewery Limited
TCC	Tanzania Cigarette Company
TMRC	Tanzania Mortgage Refinance Company
TRC	Tanzanian Railways Corporation
TWIGA	Tanzania Portland Cement Company Limited
TZS	Tanzanian Shilling
VAR	Vector Autoregression
VAT	Value Added Tax
VEC	Vector Error Correction
WHC	Watumishi Housing Company

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1. Introduction

The East African financial and real estate markets have been evolving during the last years. However, the capital markets are still underdeveloped and the banking sector has in fact been expanding, but still lacks maturity. Inappropriate financing tools and the limitation of investment instruments inhibit the East African real estate market development. The real estate investment sectors are predominantly ruled by institutional investors and governmentally owned corporations.

The concept of Real Estate Investment Trusts (REITs) was firstly introduced in the USA in 1960. Regarding sustainable implementation of REIT regimes in Sub-Saharan Africa, Nigeria and South Africa have been first movers. They already established REIT frameworks in 2007 and 2013. The introduction of REITs has achieved substantial progress in the maturation of the real estate industries. The REIT structure provides efficient real estate financing opportunities. Investors benefit from potentially high returns coupled with low and predictable risks. Hence, REITs are of crucial importance to improve the real estate sector. As a consequence, the investigation of the feasibility and viability of REITs is of major significance.

This thesis analyses the relevance of the introduction and the implementation of the REIT concept in East African financial markets. It accentuates the positive impact of this indirect real estate investment vehicle on the East African capital and real estate markets. Primarily, the essential attributes of REITs, the specific characteristics of global REIT regimes and their performance are presented. Following, the underlying East African financial markets are comparatively investigated. Due to the market sizes and transparency this study concentrates on the real estate industries of Kenya, Tanzania and Uganda. The heterogeneity of the countries and the different degrees of real estate market maturity must be identified separately in order to draw a meaningful comparison. The empirical integration test, developed by Johansen, outlines the stage of East African capital market integration as an indicator of financial development. The emerging real estate industries and the inadequacy of the real estate financing conditions originate the importance of the introduction of REITs. In this regard, the REITs' investment opportunities are contrasted to their potential risks. The outstanding benefits from REITs emphasize the necessity of the sustainable implementation of REITs in East African financial markets.

2. Characteristics of Real Estate Investment Trusts

The following chapter presents the general concept of REITs by contrasting different forms of REITs and analyzing their legal and tax structure. Based on their fundamental characteristics the structures of REITs are evaluated. Due to the different types of REITs special features of international REITs are illustrated in order to draw a comparison between them. Moreover, the international REIT market is investigated focusing on the American, European and Asian sub-segments. Subsequently, African REITs are examined according to their structure and performance.

2.1 Value of REITs

A REIT is a corporation which pools real estate properties and mortgages. More specific, a REIT's principal business contains the ownership, acquisition or management of real estate properties or loans. Real estate is owned in form of shares by investors. REITs raise funds by redeeming shares in order to invest in properties. The structure of REITs aims at building and strengthening real estate investment portfolios. Hence, a REIT constitutes a public indirect real estate investment product.[1]

The REIT's value derives from the value of its traded shares on the stock exchange based on the performance of its underlying assets.[2] The unique concept of funds from operations is the most widely used income measurement to determine the REIT's profitability as illustrated below.

Table 1: Calculation of Funds From Operations

GAAP Net Income
+ Real Property Depreciation and Amortization
- Gains or Losses from Sales of Property
+ Adjustment for unconsolidated partnerships and joint ventures
= **Funds from operations (FFO)**

Source: Block, R. (2006), p. 143, Pfeffer, T. (2009), p. 41, Geltner, D. (2007), p. 593.

GAAP does not account for depreciation of real properties for the taxable income and is therefore an insufficient profitability measure. Changes in real property values caused

[1] Cf. Geltner, D. et al., (2007), p. 585.
[2] Cf. Pfeffer (2009), p. 24.

by depreciation may constitute a significant amount concerning the REITs' cash flows. On the contrary, funds from operations reflect more sufficiently the REITs' earnings. FFO equals to the REIT's net income, excluding gains or losses from sales of property, and adding back real estate depreciation Hence, FFO represents the more suitable cash flow measure at company-level. Since FFO is not intended to be a dividend-payment indicator, the adjusted FFO (AFFO) was introduced as fundamental income determination.[3]

2.2 Types of REITs

Real estate investment trusts' principle business contains the management of income-generating real estate properties and loans. According to the range of investments, REITs can be classified into three different categories. In general, REITs are categorized into equity, mortgage and hybrid REITs. In addition to an asset type distinction, REITs can be classified into two primary types, publicly traded or listed and non-listed REITs, which are presented in the following sub-chapter.[4]

2.2.1 Classification of REITs

Equity REITs predominately acquire and often manage real estate properties. They are subject to invest the majority of its income directly in real property.[5] Moreover, these corporations may develop properties. Equity REITs predominantly draw income from rents and sales of properties. They do not primarily invest in real estate loans.[6] The main business activity concentrates on the acquisition of commercial and residential properties such as offices, hotels and retail complexes apartment buildings, by pooling capital from numerous investors. In most cases, equity REITs' investment strategies focus on a specific property type. For instance, FTSE NAREIT equity REITs' portfolio mainly consists of industrial, office and retail properties. These sectors cumulatively account for 44 percent of the total portfolio, whereas 11 percent is invested in residential properties.[7] It has to be stated that the majority of operating REITs are equity REITs. Taking the US market as a representative example, 81 percent of the REITs are categorized as equity REITs.[8] In August 2014 equity REITs' total market

[3] Cf. Geltner, D. et al., (2007), p. 588.
[4] Cf. Geltner, D. et al., (2007), p. 585.
[5] Cf. Goddard, J., Marcum, B. (2012), p. 256.
[6] Cf. NAREIT (2014a), NAREIT (2014c).
[7] Cf. Appendix A: Figure 23.
[8] Cf. Appendix A: Figure 24.

capitalization accounted for USD 647.76 million. It tenfold exceeds the mortgage REITs' total market capitalization.[9]

On the contrary, mortgage REITs deal with investment and ownership of real estate loans. The investment focuses on real estate debt and security debt, both residential and commercial sector. These REITs may directly lend or purchase property mortgages or mortgage backed securities, such as commercial mortgage backed securities. They derive income from interests on these investments as well as from sales of mortgage loans.[10]

Thirdly, hybrid REITs pursue both investment strategies, investments in real estate equity and real estate debt. The business activities include acquisition and management of properties as well as transactions in mortgages. At present, this specific REIT form is not popular. Due to the small number of hybrid REITs in the USA the FTSE NAREIT Hybrid REIT Index is not listed anymore.[11]

2.2.2 Listed REITs

Listed REITs' stocks are publicly traded on stock exchanges like any other publicly traded stock. Listing on a security market eases the access for private and institutional investors to buy and sell shares. Permanent redemption of shares ensures liquidity. Additionally, they offer informational transparency due to the requirement to publish information. The valuation of the stock market and the discounted future cash flows determine the REITs' value.[12] The purchase of shares causes front-end underwriting fees and brokerage commission fees. The REITs' income is distributed to the shareholders at the end of a year based on specific distribution requirements. Listed REITs usually execute an initial public offering (IPO) when they already have a stock of assets.[13] Listed REITs dominate the global REIT market.

2.2.3 Non-Listed REITs

Public non-listed REITs offer shares, which do not trade at the stock exchanges. They are officially registered with the executing stock exchange commission (SEC). In general, shares are sold with the aid of broker-dealer commissions.[14] The redemption of

[9] Own calculation, referring to: NAREIT (2014d), p. 4.
[10] Cf. Goddard, J., Marcum, B. (2012), p. 258.
[11] Cf. NAREIT (2014d), p. 20.
[12] Cf. Geltner et al. (2007), p. 286.
[13] Cf. Green, R./ Rhea, R. (2013).
[14] Cf. Green, R./ Rhea, R. (2013).

shares is limited and depends on the corporation's strategy. If the formal secondary market lacks formality the supply of share is limited. The deficit leads to difficulties in pricing of shares. Moreover, non-listed REITs require a minimum holding period of the shares. This holding requirement and the absence of a formal secondary market cause higher risk of illiquidity for share owners.[15] Non-listed REITs as well as the publicly traded counterpart have to keep disclosure requirements of the corresponding SEC, such as publishing of quarterly filings and annually reports.

On the contrary, private REITs, as a specific type of REITs, are neither listed on a public exchange nor registered with SEC. As a main rule private REITs acquire a much higher investment amount compared to the other types of REITS. As well as non-listed REITs the shares' redemption is irregularly and limited. The redemption is only based on the value of the underlying asset. Shares must be held for a fixed time before they can be sold. After a set time the REITs earning are distributed. Consequently, private and non-listed REITs avoid stock exchange risks, but they suffer from liquidity deficit.[16]

2.3 Structure of REITs

The real estate investment trust regime was firstly introduced by the Congress in 1960 in the United States through the legislation of the Real Estate Investment Act.[17] The federal law targeted the expansion of the investment environment in order to increase liquidity and fungibility. It eliminates corporate income taxation at company level. REITs are obligated to pay out income in form of dividends. The income taxation is thereby passed through to the shareholders.[18] The tax-exempt status aims at easing the access for small-scale investors to large-scale real estate investment in diversified portfolios of commercial real estate.[19] The tax exemption constitutes the major difference to other common publicly traded real estate corporations.[20] However, the granted tax advantages require several regulatory obligations and restrictions on investment policy. The following sub-section deals with the fundamental legal and tax conditions for publicly traded, listed REITs. Due to the fact that REIT structures vary in

[15] Cf. Hussen, T. / McCann, C. / Taveras, C. (2012).
[16] Cf. Geltner, D. et al. (2007), p. 130. Cf. NAREIT (2014b).
[17] Cf. Block, R. (2006), p. 42.
[18] Cf. Bone-Winkel, S. et al (2008), p. 26.
[19] Cf. Geltner, D. et. al. (2007), p. 586.
[20] Cf. Kohl (2009), p. 49.

detail from country to country, the following part covers the mutual basic requirements for REITs. Consequently, the resulting advantages and disadvantages are comparatively highlighted.

Federal REIT laws require a minimum quantity of shareholders. Taking the US REIT market as an example, REITs are subject to a minimum number of 100 shareholders. Moreover, at least five shareholders' proportion is prohibited to exceed 50 percent of the REIT stock. As a consequence, the requirement of a widely held corporation ensures a sufficient distribution of shares and avoids a dominating control by a minor number of shareholders. Furthermore, real estate assets must account for the majority of the REITs' total assets. The investments may include, in addition to real estate properties, mortgages, cash and federal government securities. The SEC requires in most cases a minimum share capital as listing condition. The amount varies significantly from country to country. The majority of the REITs' gross income must be gained from property rents, mortgage interest, sales of properties and shares of other REITs. Additionally, an active trade of properties is excluded. This means that properties must be kept in the stock for a minimum holding period before they can be sold. Hence, REITs' investment strategy is intended to focus on long-term real estate investment.[21]
REITs are subject to distribution regulations. They are obligated to pay out at least 80 up to 100 percent of the annual taxable net income to the shareholders as dividends depending on the specific REIT law. In most cases, the grant of tax exemptions at corporation level is linked to the mandatory listing requirement on a stock exchange.[22]

2.4 Advantages and Disadvantages of REITs

REITs as indirect real estate investment vehicles offer several advantages compared to direct investments and other forms of indirect investment instruments, such as closed- and open end real estate funds. The following sector opposes advantages and disadvantages of REITs from the corporation's and the investor's perspective. Based on the evaluation, benefits and risks of investments in REITs are underlined.
From the corporation's perspective REITs benefit from the tax exempt status. Income derived from the rents and interests is not taxed at corporation level if the corporation meets the REITs regulations. The income tax is passed through to the investor. Hence,

[21] Cf. Bone-Winkel, S. et al (2008), p. 26., Geltner, D. et. al. (2007), p. 586.
[22] Cf. EPRA (2013).

the tax exemption offers an attractive legal structure for real estate companies and represents one of the main benefits.

From the investor's point of view the small lot size of REIT shares enable small-scale investors to enter the market easily. The shares trade daily at an organized stock market at a comparably small price. For instance, the actual German REIT (G-REIT) share prices vary from EUR 4.96 to EUR 10.15. [23] The minimum investment volume is limited to the share price of a REIT. Due to the influence of the stock market REIT share prices show a high degree of volatility. Compared to other direct or indirect real estate investments the lot size is smaller and enables risk diversification at the investor's level. Investors may buy shares of different REITs in order to diversify their investment. Moreover, the REITs' management is subject to frequent obligation to publicly disclose performance reports. Traded shares are daily adjusted to market developments and integrate incoming information immediately. REITs are therefore characterized by a high degree of transparency and informational efficiency. Furthermore, REITs are managed by professionals, who have expertise in doing real estate business. The experienced management reflects an additional reason for individuals to invest in REITs.[24]

REITs are typically property type specialized investment vehicles. They basically concentrate on one type of property use. In most cases, the investment strategy targets on specific geographical region. Hence, REITs tend to suffer from cluster risk. Investors should therefore diversify their investments regionally and sectorally. [25]

Short transaction time and low transaction costs represent additional advantages of REITs. By definition perfect liquidity is present if an investment can be traded at any time and in any volume at a fair price. More precisely, it is characterized by the ability of the immediate transfer of securities other assets avoiding loss in value.[26] Shares can be purchased and sold daily. The purchase of shares does not entail a minimum holding period. Share prices can be therefore characterized as highly liquid. They are based on the interaction of supply and demand as well as on the value of the underlying properties.[27] As a consequence, the development of the stock exchange and its volatility influence the share pricing. Performed stock market analyses indicate that in short to

[23] Cf. Appendix A: Figure 25.
[24] Cf. Sebastian, S./ Steininger, B./Wagner-Hauber, M.(2012), pp. 6.
[25] Cf. Bone-Winkel, S./ Pfeffer, T. (2008), p. 169, Block (2006), p. 240.
[26] Cf. Oesterhelweg, O./ Schiereck, D. (1993), p. 390.
[27] Cf. Just, T./ Sebastian, S. (2013) p. 27.

medium term real estate shares correlate more significantly with the stock market than in long run.[28] A comparison of the German property stock index DIMAX and the German stock index DAX supports this thesis. In the period of consideration from 1989 to 2014 these indices show a correlation of 50.52 percent. This means that the DIMAX reflects around 50 percent of the DAX dependencies. However, the medium run correlation from 2007 to 2014 accounts for 71.18 percent.[29] A comparison of the index total returns provides similar result. In long term consideration, the DIMAX and DAX total returns correlate less than in medium run.[30] According to Sebastian, REIT investments may function as an inflation protection. Due to the potential volatility of the share price caused by the interdependence with the stock market, the investment horizon should be long term.[31] Furthermore, REITs feature a high leverage ratio because debt capital is cheaper than equity capital. REITs use real estate properties as underlying assets in order to increase its debt ratio. Consequently, investments in REITs lead to a higher return on equity and a higher risk. [32]

Table 2: Evaluation of REITs

Advantages/ Benefits	Disadvantages/ Risks
• Diversification potential • Tax exemption • Low transaction costs • Short transaction period • Informational efficiency and transparency • Liquid and daily trade • No holding periods • Increased investment attractiveness • International integration • Strong long-term returns	• Volatility of share prices • Correlation with stock market in short to medium term • Diversification just at investor level

Source: Own illustration.

2.5 International Comparison of REITs

The following section treats the development of REITs and compares the structure of international REIT regimes. Based on the main differences, it illustrates selected REIT

[28] Cf. Sebastian, S./ Steininger, B./Wagner-Hauber, M.(2012), p. 11., Striewe, N./ Streckel, T. (2008), p. 204.
[29] Cf. Appendix A: Figure 26.
[30] Cf. Appendix A: Figure 27.
[31] Cf. Sebastian, S./ Steininger, B./Wagner-Hauber, M.(2012), p. 18.
[32] Cf. Chan, S. H./ Erickson, J./ Wang, K. (2003) p. 140.

regimes in a more detailed way. Subsequently, their performances are analyzed. All undertaken currency translations of this study are undertaken at the reporting date of 11 September 2014.[33]

2.5.1 Evolution of REITs

The REIT regime was initially introduced in the USA in 1960 by the Real Estate Investment Trust Act.[34] In the first two decades the REIT industry's growth was inhibited by legal conditions. The legislation constituted the prohibition of real estate property ownership so that REITs were limited to invest indirectly in real estate. The Tax Reform Act in 1986 and the Real Estate Investment Trust Modernization Act in 1999 improved the US REIT market's opportunity to grow and promoted further maturation.

Table 3: Evolution of REITs

1960	USA						
1969	Netherlands						
1971	Australia						
1972	Puerto Rico						
1989	Chile						
1993	Brazil						
1994	Canada						
1995	Turkey	Belgium	Argentina				
1997	Costa Rica						
1999	Greece						
2000	Japan						
2001	South Korea						
2002	Malaysia	Singapore					
2003	France	Hong Kong	Taiwan				
2004	Bulgaria	Mexico					
2006	Israel						
2007	UK	Germany	Italy	Luxembourg	Thailand	New Zealand	Colombia
2008	Lithuania	Pakistan	India				
2009	Spain	Finland	Bahrain	Philippines			
2012	Uruguay						
2013	Ireland						

Source: Own illustration, referring to: EPRA (2013), KPMG (2013), PWC (2013a).

These acts can be viewed as cornerstones for the REIT boom in the 1990s resulting in increasing market capitalization.[35] Referring to the US REIT regime, several real estate

[33] Cf. OANDA (2014), p. Appendix B: Table 16.
[34] Cf. Block, R. (2006), p. 42.
[35] Cf. Brounen, D./ de Koning, S. (2012), p. 199.

industries throughout America, Europe and Asia, introduced REITs or implemented REIT-like structures as figured in the timeline above. It is noticeable that in the late 1990s and the early 2000s REITs became more popular. Within 20 years more than ten European countries adopted the REIT system in order to extend and deepen their investment market. At present 35 countries, excluding African states, introduced REITs or REIT-like investment vehicles. However, their characteristics in terms of legal and tax structures differ in some cases significantly.

2.5.2 Comparison of the Structures

In general, the international REITs differ regarding requirements in terms of profit distribution, minimum share capital requirement, debt ratio and listing requirements. Moreover, they operate under different legal forms such as of joint stock companies, unit trust and limited corporations.[36]

The majority of REITs have to list on an organized stock market. In this respect i.a. the US-REIT and the Dutch REIT form exceptions. They are not subject to listing. In addition, in most cases corporations have to show a minimum share capital to meet the REIT requirements. This amount differs widely from country to country. For instance, US-REITs are not subject to a minimum share capital, whereas the Italian SEC demands for EUR 40 million as share capital to form a SIIQ.

Most of the international REITs have to meet minimum number of shareholders and maximum participation requirements. UK REITs must not be structured as closed companies. UK-laws prohibit shareholders to own 20 percent or more of the total share capital, so that at least six investors hold UK-REIT shares. Additionally, corporate investors are restricted to hold less than ten percent of the shares.[37] However, US-REITs are subject to the regulation of at least 100 shareholders. Five or less of these are limited to hold cumulatively 50 percent of all shares. To achieve G-REIT status, more than ten shareholders are required who are restricted to own ten percent or more of the total share capital.

Many REIT regimes face a leverage ratio limitation. The leverage ratio measures the relationship of liabilities and market capitalization.[38] The leverage effect caused by a high loan to value ratio is linked to an increasing investment risk and return on equity due to a smaller amount of invested equity. REITs which constitute for a debt to total

[36] Cf. Appendix B: Table 17.
[37] Cf. EPRA (2013), p. 154.
[38] Cf. Block (2006), p. 188.

asset ratio of 40 to 55 percent are categorized as moderately leveraged.[39] A LTV ratio of 40 percent and less signifies a rather conservative level of leverage, whereas more than 60 percent suggests an aggressive debt financing. The leverage limitation differs significantly in international comparison ranging from ten percent in Thailand to remission of limitation. E.g. US-REITs are not bounded to a legal limitation. However, G-REITs' equity must constitute 45 percent of the assets' fair value.[40] On average European REITs account for a LTV ratio of 41.2 percent.[41]

Country legislations determine the distribution of the majority of the annual net income to the shareholders.[42] In general, REITs pay out between 80 and 100 percent of the tax-exempt income. Chile, Greece and Turkey have a lower distribution obligation ranging from 20 to 50 percent. Costa Rica, Lithuania, Luxembourg and New Zealand are not subject to distribute a definite percentage of annual income. It is noticeable that REITs' pay outs are based on different benchmarks. Most of them are referred to the annual income. UK-REITs pay out at least 90 percent of its tax-property rental profits.

The international REIT regimes vary in terms of tax treatment on individual and corporate investor level. If a corporation meets the requirements to operate as a REIT, they benefit from tax exemption. Investors receive dividends and derive income from disposals. They form part of the total income and are therefore taxable, but in some cases they are treated fiscally. The underlying amount of withholding tax is retained by the REIT and paid to the tax authorities. The tax treatment of capital gains, such as sales of shares, and dividends on investor level vary among the countries.

REITs are committed to specific investment and asset restrictions. For example, mandatory restrictions of US-, UK- and G-REITs to meet the tax REIT statuses are highlighted.

US-REITs must hold at least 75 percent of its assets in real estate, government securities or cash. Additionally, US-REITs are restricted to own securities of taxable REIT subsidiaries, which exceeds 25 percent of its assets' value at the end of a quarter. Moreover, real estate property rental and interest on mortgages must account for at least 75 percent of the gross annual income. 95 percent or more of the income must originate from income producing real estate as well as from dividends and interests. Income

[39] Cf. Block, R. (2006), p. 190.
[40] Cf. Appendix B: Table 18.
[41] Cf. FTSE (2014a).
[42] Cf. Appendix B: Table 18.

derived from other business activities is fully taxable. These activities comprise i.a. trade of shortly held properties if its value accounts for more than ten percent of the REITs' assets.[43]

However, at least 75 percent of the UK-REITs' net profit must exclusively derive from rents of real estate properties. Furthermore, at least 75 percent of the UK-REITs' assets must consist of minimum three different income producing real estate properties and cash. Each of them has to fall below 40 percent of the REIT's total assets. Therefore interests are taxable. UK- and US-REITs are both not limited according to its regional or asset investment horizon. They have the ability to invest in every type of property in any region worldwide. UK-REITs have the permission of property trade, but it does not belong to the tax- exempt business activity.[44]

G-REITs are subject to invest at least 75 percent in real estate and 75 percent of the earnings must arise from real estate income. It includes income derived from rents, leases and sales of immovable properties. But the G-REIT legislation excludes profits from extensive property trade.[45] A specific feature represents the prohibition of acquisition and holding of residential properties, which are built before January 2007 and located in Germany.[46]

2.5.3 Global REIT Market

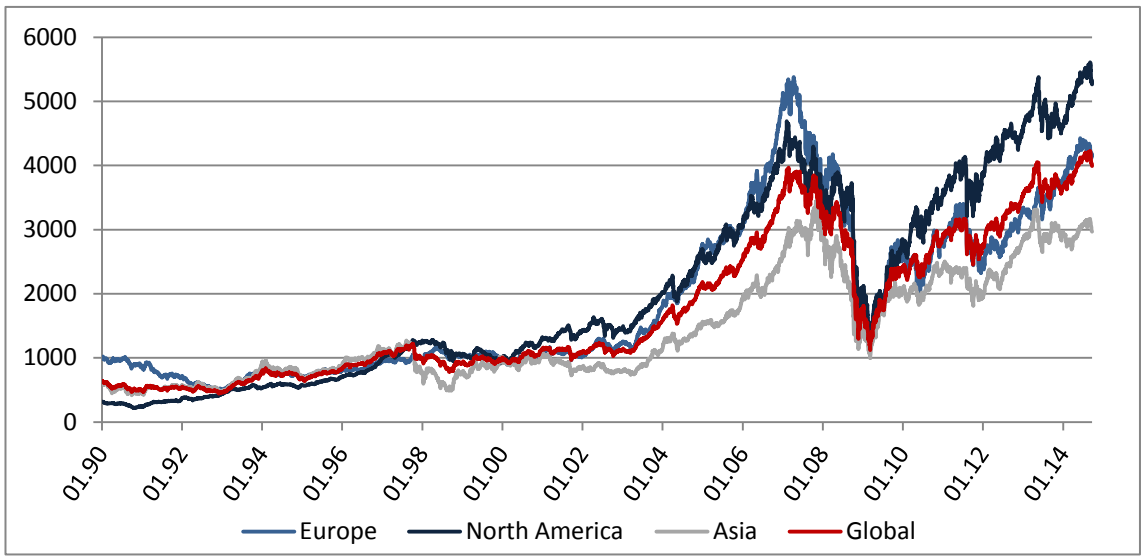
The international REIT performances can be demonstrated by two similar indices. Firstly, the FTSE EPRA/NAREIT Developed Index illustrates the trends and the performances of REITs and listed real estate companies. Prices and total returns provide the data basis for the index. In August 2014 this index listed 306 constituents, recording a total market capitalization of USD 1,218,324 million. The US-REITs alone contribute around 50 percent of the total market capitalization.[47] They make up six of the top ten performing constituents.[48]

As depicted in Figure 1, the index reached a minimal turning point in 2009 caused to the global financial crisis which affected all international markets. Since then, European, Asian and North American REIT markets recovered and the index performances

[43] Cf. Geltner, D. et al. (2007), p. 587. , EPRA (2013), p. 230.
[44] Cf. Deloitte (2013), EPRA (2013), p. 155.
[45] Cf. Beer, F. (2013), p. 967.According to Section 14 (2) German REIT Act, property trade is not present if a property accounting for more than half of the property portfolio is sold after a holding period of five years.
[46] Cf. EPRA (2013), p. 52.
[47] Cf. Appendix A: Figure 28.
[48] Cf. FTSE (2014a), p. 2, EPRA (2014) p. 2.

increased. The global index's value increased by 3.1 percent in August and reached a value of 4,031 in the middle of September 2014.

Figure 1: FTSE EPRA/ NAREIT Developed Total Return Index



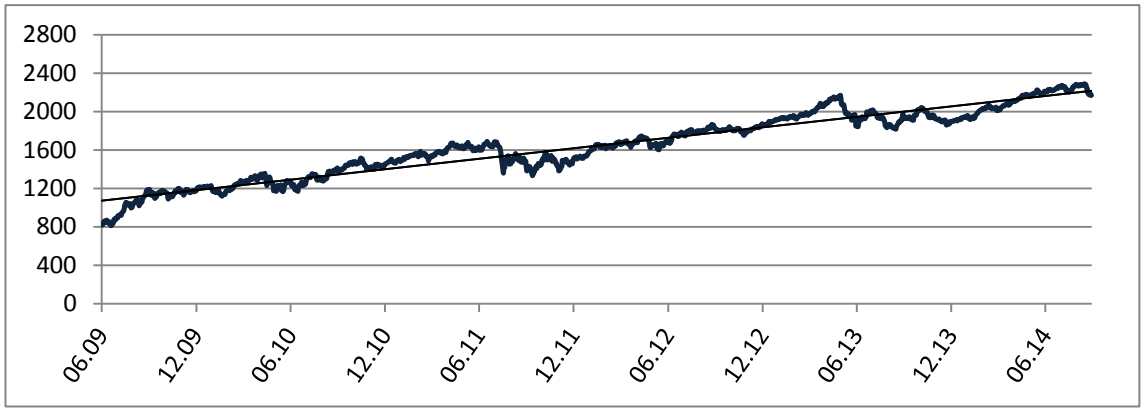
Source: Own illustration, referring to: Datastream.

It is noticeable that North American REITs show the market dominating performance. The North American Real estate market constitutes a year to date total return of 25.9 percent, whereas the European real estate market amounts to a return of 18.5 percent. However, the Asian-Oceania market yields a return of 10.9 percent.[49] It has to be stated that Australia is the performance leading Asian-Oceania real estate market accounting for a year to date return of 20.9 percent.[50]

Secondly, the FTSE EPRA/NAREIT Global REITs Index indicates the international REIT trends separately, because it only includes REIT constituents in its calculation. It comprises 258 worldwide REITs. This index represents a subset of the FTSE EPRA/NAREIT Global index and it functions therefore as a more specific REIT performance measurement. Like the FTSE EPRA/NAREIT Developed Index, the index is "free-float adjusted, liquidity, size and revenue screened".[51] The FTSE EPRA/NAREIT Global REITs Total Return Index understandably also shows a positive trend line since 2009 reaching a level of 2,169 in the middle of September 2014.

[49] Cf. EPRA (2014), p. 1.
[50] Cf. EPRA (2014), p. 7.
[51] FTSE (2014b), p. 1.

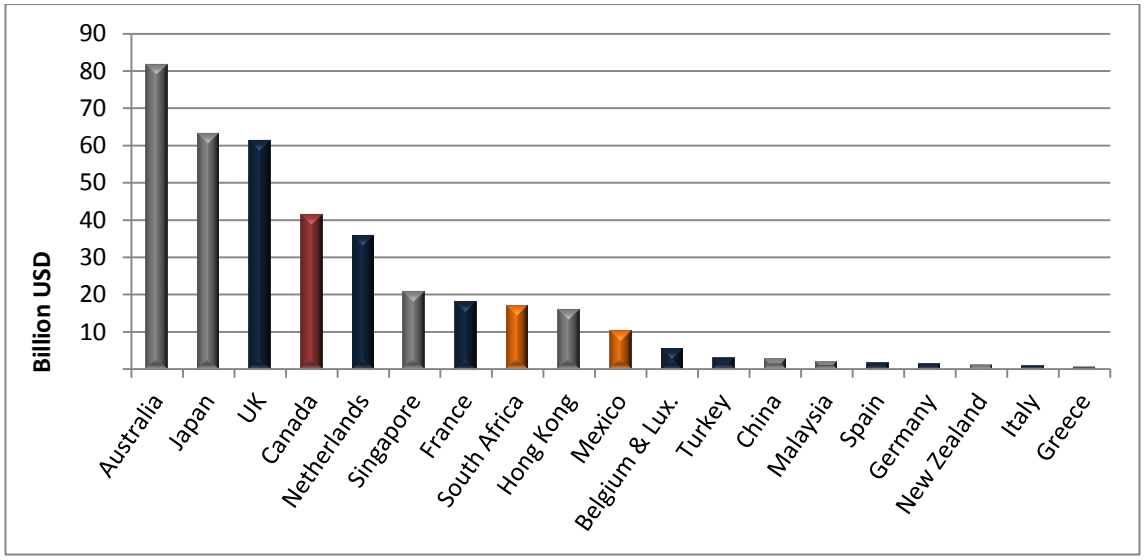
Figure 2: FTSE EPRA/NAREIT Global REIT Total Return Index



Source: Own illustration, referring to: Datastream.

The trend signifies a five years return of 111.8 percent and a year to date return of 19.2 percent thereby accounting for a volatility of nine percent.[52] The total market capitalization accounts for USD 989.6 billion.[53] The market capitalization of the 121 included US-REITs alone amount to USD 608.2 billion and represents 61 percent of the total market capitalization.[54] However, the Australian REIT market, ranking second position, features a capitalization of USD 81.4 billion:

Figure 3: International REITs' Net Market Capitalization



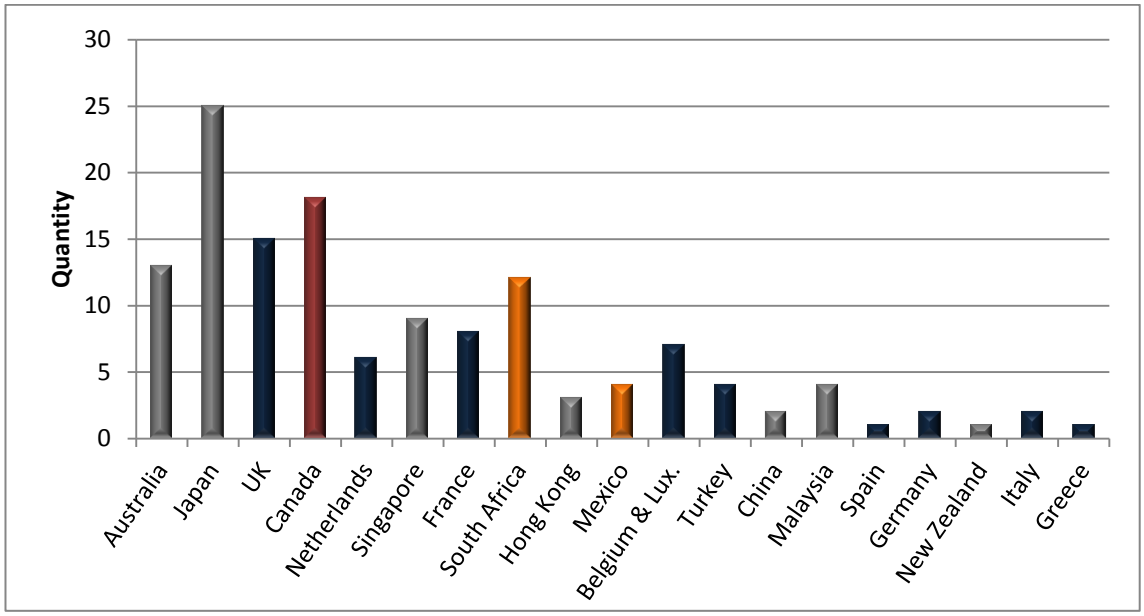
Source: Own illustration, referring to: FTSE (2014b).

Although Australian REITs records the second highest market capitlization, only 13 REITs are comprised to the index. Figure 4 displays the number of included

[52] Cf. FTSE (2014b).
[53] Own calculation,
[54] Cf. Appendix A: Figure 29.

constituents in the index arranged according to the maximum market capitalization at the beginning of 2014. The dominating US-REITs are excluded from the comparison in order to emphasize the remaining constituents' shares:

Figure 4: Number of REIT Constituents



Source: Own illustration, referring to: FTSE (2014b).

2.6 African REITs

The African REIT market has emerged during the past years. Several countries adapted to the global REIT regimes and introduced REIT structures. The following section presents the implemented REIT structures in South Africa, Ghana and Nigeria. The Kenyan and Tanzanian REIT schemes are investigated in more detailed manner in chapter five.

2.6.1 South African REITs

The REIT regime in South Africa was enacted in May 2013. The legislation formed two different types of REITs, namely Trust REITs and Company REITs. JSE listing requirements and rules regulate the SA-REITs according to global standards. Before the REIT system was introduced, the real estate market offered comparable investment instruments. PUTs and PLS companies dominated the investment environment.[55] PUTs are subject to transfer to a Trust REIT and to list on the JSE REIT Board, whereas PLS

[55] PUTs own real estate properties and shares in property companies. Investors only hold equity, whereas PLS unit investors also hold debenture, EPRA (2013), 389.

have the ability to incorporate the JSE regulations to list on the REIT board and to fit for the REITs' tax benefits. Therefore, companies are obligated to list on the JSE in order to meet the REIT status. [56]

At least 75 percent of the SA-REIT's annual earning has to derive from rental incomes. They i.a. comprise dividends from other REITs and distributions from subsidiaries. At the end of the year, at least 75 percent of the taxable income, which is not taxable, is paid out to the shareholders. Other income is taxable at 28 percent at company-level. Moreover, the assets worth must account for more than R 300 million which equals about USD 26,600. The leverage ratio must not fall below 60 percent of the gross value of the underlying assets. Corporate domestic unit holders' received dividends are taxed at an income tax rate of 28 percent.[57]. However, individual shareholders are subject to distributions taxation at a margin tax rate ranging from 18 to 40 percent.[58] South Africa does not collect withholding tax.

South Africa real estate market is characterized as highly mature real estate market compared to other African countries. It comprises 28 REITs amounting to a total net market capitalization of about R 260,000 million (USD 23.35 billion).[59] The prospect of the SA REIT total return and price index can be described as steady increasing. The year to date performance in August 2014 accounts for 11.7 percent.[60]

2.6.2 Nigerian REITs

The Nigerian SEC launched the Investment and Securities Act in 2007 regulating the REIT structure. N-REITs qualify as Asset Backed Securities and are structured as closed- or open-end trusts. To meet the tax exempt status, N-REITs must constitute for at least 100 unit holders and a minimum share capital of NGN 1 billion (USD 6.18 million) at initial public offering.[61] 70 percent of the open-end REITs must account for real estate or real estate related assets. However, the closed-end REITs' real estate asset must amount to at least 75 percent of the total asset value. Both are restricted to hold domestic real estate assets. At least 75 percent of the annual income must be gained from rents mortgages and property sales. Development activities are limited to 20

[56] Cf. Boshoff, D./ Bredell, E. (2008), p. 1.
[57] Capital gains on disposal leads to an effective taxation of 18.6 percent, because they are taxed at 66.6 percent of the gain (0.28 x 0.666 = 0.18648). Individual shareholders have to pay an effective tax rate ranging from 5.99 to 13.3 percent.
[58] Cf. EPRA (2013), p. 396.
[59] Cf. SA REIT Association (2014a), p. 17.
[60] Cf. SA REIT Association (2014a), pp. 2.
[61] Cf. The Nigerian Stock Exchange (2014), Rule 272, p 22.

percent of the asset values. 90 percent or more of it has to be paid out to the unit holders in form of dividends.[62] Currently three REITs list on the Nigerian stock exchange, namely the Skyshelter Fund PLC, the Union Homes REIT and the UPDC REIT. They amount to a total net market capitalization of around NGN 37.06 billion (USD 228.9 million).[63]

2.6.3 Ghanaian REITs

The Ghanaian SEC enacted the REIT law in 1994. HFC Bank has been the first company adopting the REIT framework in 1995. Since then the REIT market has not matured significantly in Ghana. The HFC REIT is structured in the style of an open-end fund and invests in the domestic commercial and residential real estate market. The REITs main business comprises the investment of pooled funds into development of real estate and into real estate companies' securities. The minimum initial investment is restricted to 50 GHC (USD 15). Real estate contributes around 75 percent to the investment portfolio. In 2013 it accounted for a net asset value of GHC 27.61 million (USD 8.359 million). It represents an annual growth rate of 45 percent. Land and investment properties only contribute 21 percent to the net assets' value.[64]

Concluding, the REIT system has reached the Sub-Saharan capital markets. Real estate investment trusts as a new investment vehicle become more popular. South Africa and Nigeria are dominating country which already introduced the REIT regime successfully. The implementation of REIT structures in East Africa will have a positive impact on the They can function as a role model for the East African region in terms of market deepening and international integration.

[62] Cf. Stooker, R. (2013), Chapter 23.
[63] Cf. The Nigerian Stock Exchange (2014b), p. 2, The Nigerian Stock Exchange (2014a), p. 10.
[64] Cf. HFC Bank (2014), All Africa (2014).

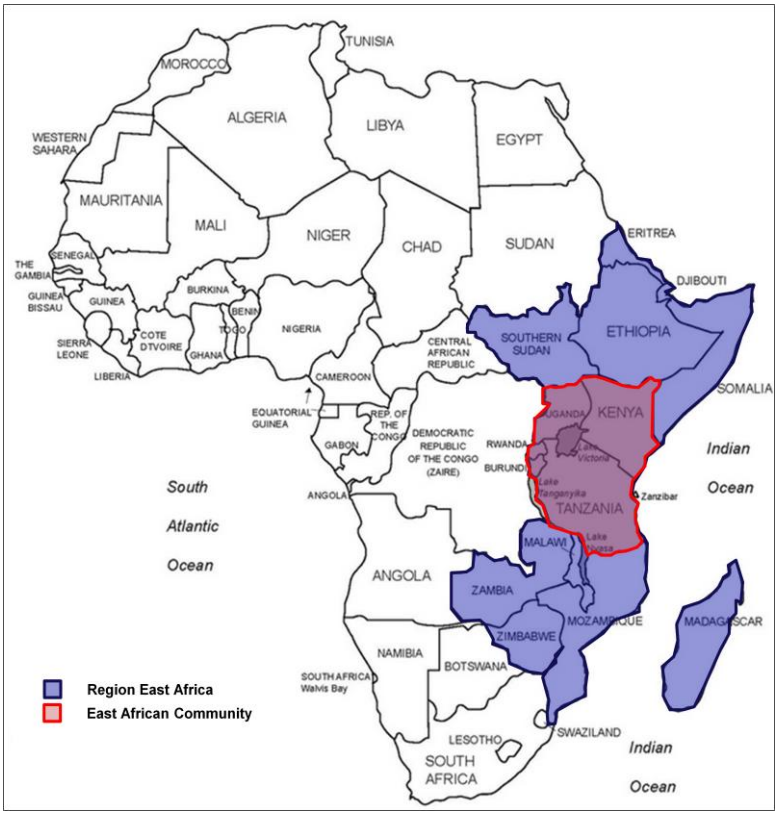
3. East African Financial Markets

This section treats the economic landscapes of selected East African countries by investigating their basic economic factors. Due to the heterogeneity of the countries the particular capital markets are analyzed in order to outline the degree of maturity of the entire East African economy. Based on this analysis the East African capital markets are empirically tested for financial integration. Financial integration serves as a basis for a consistent economic development of East Africa and therefore for its real estate industry.

3.1 East African Economy

According the UN definition, East Africa comprises the following 19 countries listed from North to South: Eritrea, Djibouti, Somalia, Ethiopia, Southern Sudan, Uganda, Kenya, Rwanda, Burundi, Tanzania, Malawi, Zambia, Mozambique, Zimbabwe and the islands Comoros, Seychelles, Mauritius, Mayotte and Madagascar:[65]

Figure 5: UN Definition of East Africa



Source: Own illustration, referring to: UN (2014), Bruce Jones Design Inc.

[65] Cf. UN (2014).

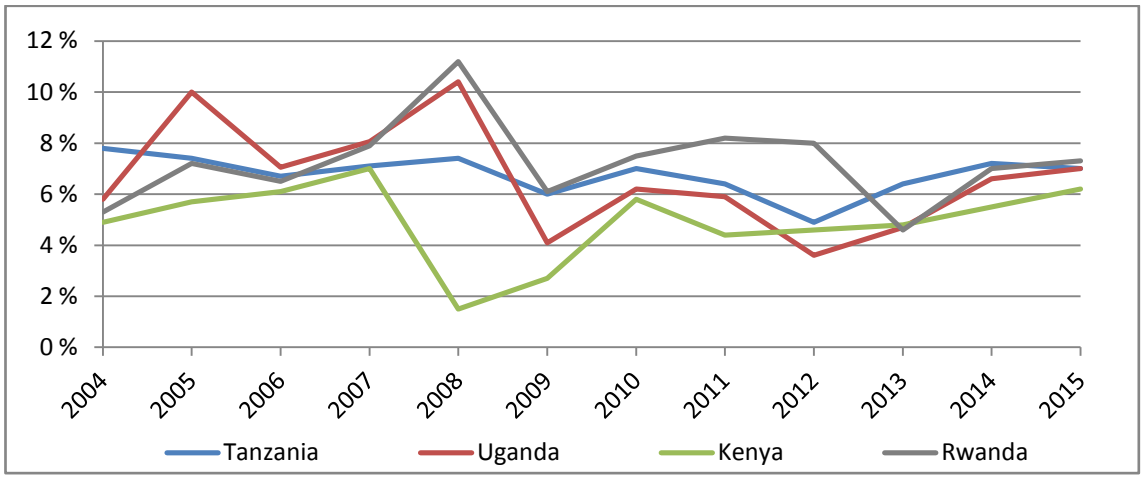
In July 2000, the East African Community (EAC) was founded by the Republics of Kenya, Tanzania and Uganda. In 2007, the Republics of Rwanda and Burundi joined this interstate organization. The intergovernmental organization, led by the EAC Secretariat, aims at economic, political, legal and cultural integration and strives for the increase of transparency and professionalism to build up a supporting entity. In this regard, the member states introduced the Customs Union in 2005 and the Common Market in 2010 in order to harmonize, unite and strengthen the East African financial landscape. More precisely, the establishment of the Common Market treats the free movement of goods, labour, capital services in terms of intergovernmental cooperation. In November 2013, the protocol for the establishment of the Monetary Union was signed by the member parties. It targets at the implementation of a single currency until 2024. The forth and ultimate step regarding the completion of the East African union represents the creation of the Political Federation striving for further deepening of the capital markets and political stability. [66]

In a broad sense, basic factors, like the Gross Domestic Product (GDP) and the inflation rate indicate economic maturity and long term potential. The East African Community counts in total 143 million people and records a GDP of USD 143.5 billion which is based on market prices. Due to the market maturity, transparency and data availability this economic investigation focuses on the members of the East African Community except for the Republic of Burundi. During the last decade the GDP growth rate has been at a positive high level. The ratio measures the percentage change of nominal or real GDP in country currency from one period to another.[67]

Referring to Figure 6 the four investigated countries account for a stable real GDP growth rate ranging between 5.5 and 7.2 percent. On the contrary, the entire Sub-Saharan African region shows a GDP growth rate of five percent.[68] On the one hand Tanzania has been the fastest growing East African economy since 2013 constituting a growth rate of 7.2 percent, whereas Kenya's economy is growing at 5.5 percent. The prospects of the East African economies are forecasted to grow steadily at high ratio.

[66] Cf. East African Community (2014a), East African Community (2013), Protocol on the Establishment of the East African Common Market.
[67] Cf. East African Community Statistic Portal (2014b), p. 6.
[68] Cf. Deloitte (2014), p. 5.

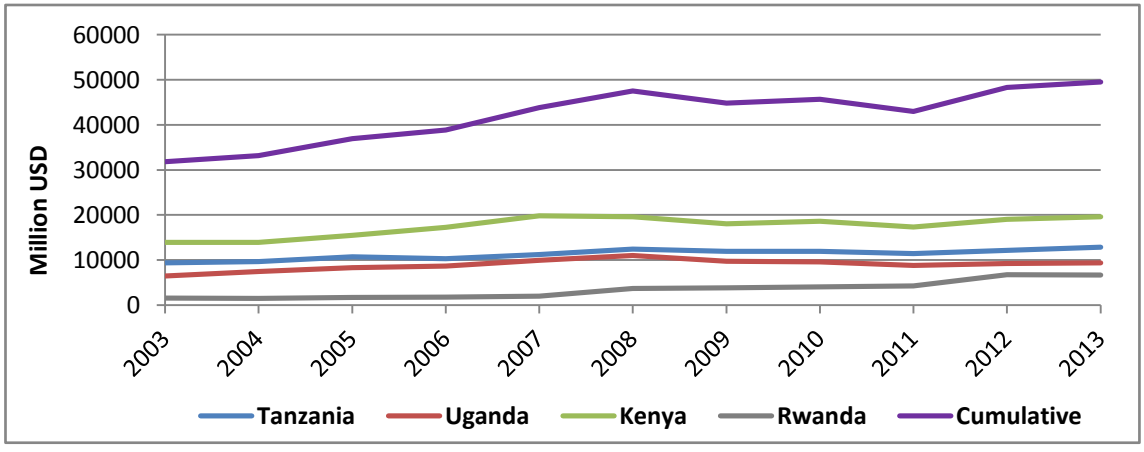
Figure 6: Real GDP Growth Rates of Selected East African Countries



Source: Own illustration, referring to: East African Community Statistic Portal (2014b), East African Community Statistic Portal (2014c), African Economic Outlook (2014).

On the other hand, Kenya represents the region's economically dominating country by recording the highest inflation adjusted real GDP of USD 19.6 billion as illustrated in Figure 7. Uganda and Tanzania feature a real GDP of USD 9.3 billion and USD 12.8 billion. In 2013 the real estate sector contributed only 4.4 percent to the Kenyan GDP; the construction sector amounted to 4.1 percent.[69] By contrast, the Uganda real estate sector contributes 5.8 percent to the GDP growing annually at a rate of 6 percent.[70] Tanzanian real estate and business services contributed 10.2 percent to the GDP. Nevertheless, this statistic does not provide separated real estate data.[71]

Figure 7: Real GDP of Selected East African Countries



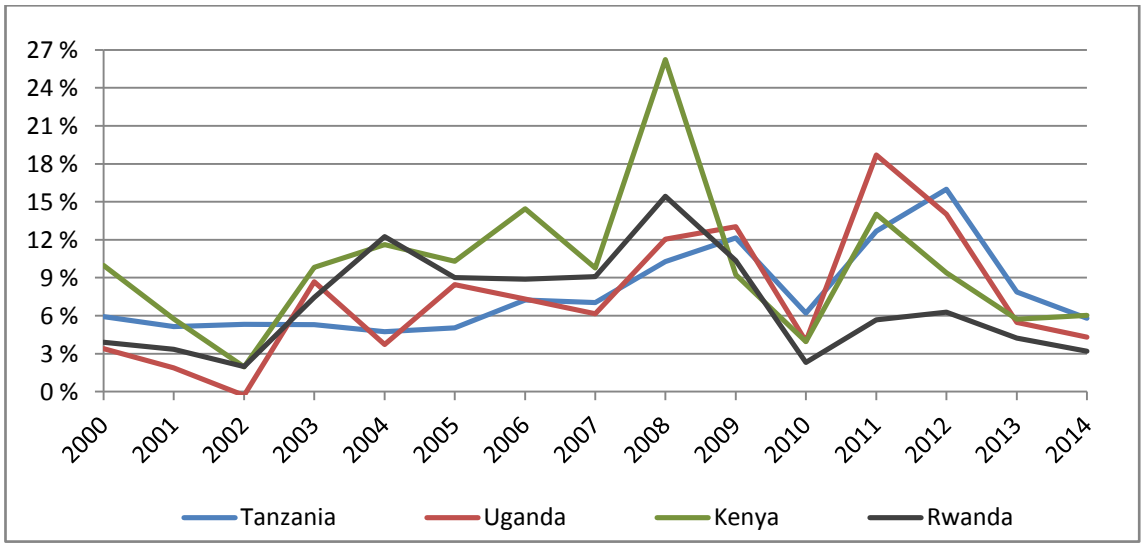
Source: Own illustration, referring to: East African Community Statistic Portal (2014b), East African Community Statistic Portal (2014c).

[69] Cf. Kenya Bureau of Statistics (2014), p. 8.
[70] Cf. Bank of Uganda (2014), p. 28.
[71] Cf. Bank of Tanzania (2014a), p. 2.

The Kenyan economic rise is i.a. driven by current infrastructure developments. They demand for investments of about USD 5 billion.[72] Improvements in fundamental infrastructure might be the key factor for a future economic sustainable success. The economy of Rwanda is still at infancy stage. Despite a remarkable growth rate the GDP merely values USD 6.6 billion. The variation of the real GDP emphasizes the different stages of economic maturity. The leading position of Kenya's economy is supported by the trends of the nominal GDP.[73] Is has to be stated that the GDP varies significantly among the countries, but in total all economies are at lower stage of development in international comparison.[74] Additionally, member states of the EAC feature a low GDP per Capita in international comparison. It averages USD 687.[75] Its past trend shows a significant increase in all of the analyzed countries.[76] Nevertheless, the weak East African purchasing power inhibits economic improvements.

The inflation rate as a measure of changing prices functions as a significant indicator for an efficient economy. Since 2012 the inflation rate in the EAC has fallen sharply and stabilized. At present Kenya features a rate of 602 percent, whereas Rwanda accounts for 3.2 percent:

Figure 8: Inflation Rates of Selected East African Countries



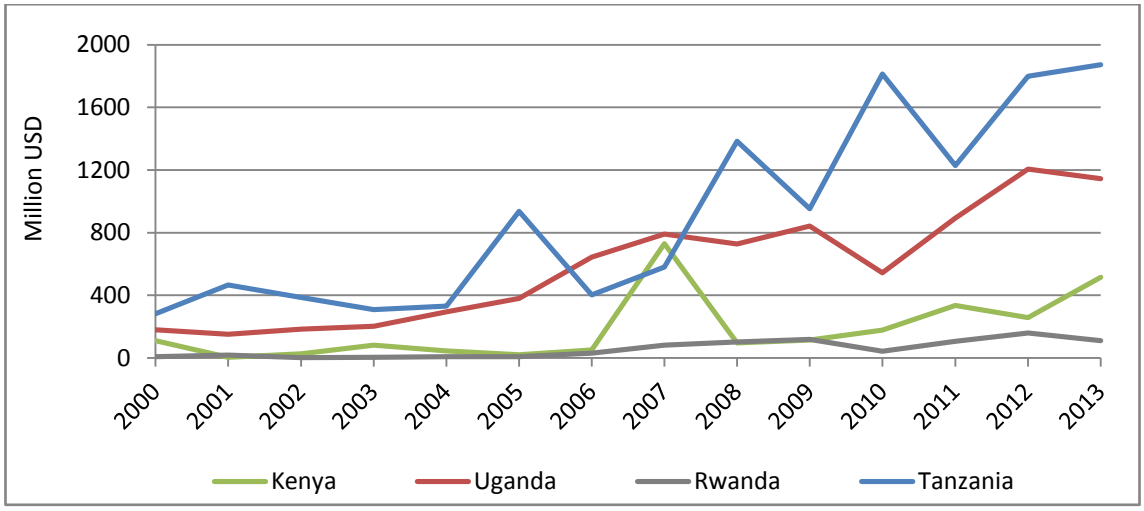
Source: Own illustration, referring to: Datastream.

[72] Cf. Deloitte (2014), p. 9.
[73] Cf. Appendix A: Figure 30.
[74] In 2014 USA records a GDP of USD 16,800 billion; Germany counts a GDP of 3,643.
[75] Own calculation, referring to: East African Community Statistic Portal (2014b), p. 31, Germany GDP per Capita amounts to USD 38,291.
[76] Cf. Appendix A: Figure 31.

The development of the inflation rate is directly linked to the development of the interest rates. Decreasing interest rates attract investors borrowing money and being active on the domestic market. This would lead to stimulation of the economic development. The positive prospect of the inflation rate will have a significant impact on the monetary development and therefore on the economic future. Economic experts expect the inflation rate to lower down over the next years and to be less volatile.

The positive economic development is i.a. catalyzed by increasing foreign direct investments.[77] According to the UNCTD, Tanzania received foreign direct capital investments of around USD 1.9 billion. Compared to other members of the EAC it represents the highest share to the total amount of USD 6.2 billion which flew into East Africa in 2013. In total the East African FDI inflows increased by 15 percent.[78]

Figure 9: FDI Inflows to Selected East African Countries



Source: Own illustration, referring to: UNCTD (2014b).

Intra-Africa FDIs account for around 50 percent of the total FDI inflow in the EAC. In this regard Kenya and South Africa represent dominating investors.[79] In East African comparison Kenya attract low FDI. Inflows of around USD 0.5 billion only made up 0.8 percent of the GDP. It has to be stated that the underlying data only comprise the net flows of FDI capital. It includes equity capital, reinvested earnings and loans, which are granted between companies.[80] The increasing intra-Africa FDI ratio indicates that domestic companies reinvest their profits into East Africa. In 2013, 23.8 percent of the

[77] Cf. The World Bank (2013), p. 203.
[78] Cf. UNCTD (2014a), p.11.
[79] Cf. UNCTD (2014a), p.11.
[80] Cf. The World Bank (2013b).

FDI projects have been intra African investments. Since 2007 the investments has risen by 31.5 percent. Tanzania increasingly attracts foreign investors and becomes an emerging investment hotspot. Especially telecommunication, consumer products, financial services and infrastructure represent leading investment.[81] In 2011, on Tanzania only USD 12 million of FDI were invested into the real estate industry.[82]
Summarizing, the East African economy is expected to sustain growth momentum in terms of GDP and FDIs. A robust GDP growth and a simultaneously decreasing inflation rate fund the basis for catalyzing economic expansion and promotion of regional and global integration.

3.2 Capital Markets

This chapter investigates the particular East African capital markets and focuses on the stock and bond markets. Based on the analysis, the underlying countries are tested for financial integration. Capital markets are basically categorized into private and public sectors, which can be sub-divided into equity and debt assets. This study concentrates on public equity markets. The impact of REITs on the East African capital market and their fucntion for the East African financial infrastructure are of main interest. Well performing capital markets serve as an engine for real estate markets. They comprise all types of indirect investment which list on a stock exchange.[83]

Table 4: Definition of Capital Markets

Capital Market	Public	Private
Equity Assets	• REITs • Mutual Funds • Stocks	• Real Properties • Private Equity
Debt Assets	• Bonds • Mortgage Backed Securities	• Bank loans • Mortgages

Source: Own illustration, referring to: Geltner, D. et al. (2007), p. 11.

Public markets are characterized by the trade of shares of assets which takes place in public exchanges. Share pricing ensures the immediate implementation of current information and developments. Compared to public markets, the private sector features

[81] Cf. Ernst & Young (2014b), pp. 7.
[82] Cf. TIC (2012), p. 21.
[83] Cf. Rottke, N (2008), pp. 35.

a higher degree of illiquidity due to longer transaction times and the risk of fair pricing.[84]

3.2.1 Stock Markets

In the following section the Nairobi Securities Exchange (NSE), the Dar es Salaam Stock Exchange (DSE), Uganda Securities Exchange (USE) and Rwanda Stock Exchange (RSE) are compared. Currently, a uniform East African stock market index remains a fairly abstract approach. The so called S&P East Africa Index only comprises the performance of listed Kenyan companies and does thereby not provide an entire east African performance measure.[85] The idea of implementing an East African index is desirable against the background of the establishment of a Common East African Market. The index would promote transparency and increase attractiveness of the stock market. Consequently, East African Stock markets are contrasted by analyzing its particular price indices.

At present, 61 companies list on the NSE. The underlying NSE20 index comprises the 20 best performing Kenyan listed companies.[86] BAT Kenya features the highest share price of KSH 702 (USD 8.07), but Safaricom Ltd. traded 304 million shares.[87] In August 2014 the total market capitalization accounts for KSH 2,217 billion (USD 25.45 billion). Around 45 percent of the traded equity investments have been undertaken by foreign investors. In 2008, NSE has introduced the FTSE NSE Kenya 25 share index which includes the 25 most liquid stocks, such as Safaricom Ltd. The index series provide a steady increase index and shows an annual volatility ratio of 12 percent. [88]

In June 2013, 21 companies listed on the DSE, including two companies which recently entered the market. The total market capitalization of the Tanzanian equity market constituted for TZS 21,044 billion (USD 12.96 billion) and accounted for a total turnover of TZS 370 million (USD 0.23 million) derived from a trade of 86,050 shares.[89] The significantly high annual market capitalization growth rate of 48 percent shows the maturing development of the Tanzanian capital market.[90] The domestic market capitalization growth rate supports this result by a quarterly growth rate of 47.15 percent in quarter three in 2014. Best performing domestic market players are NMB,

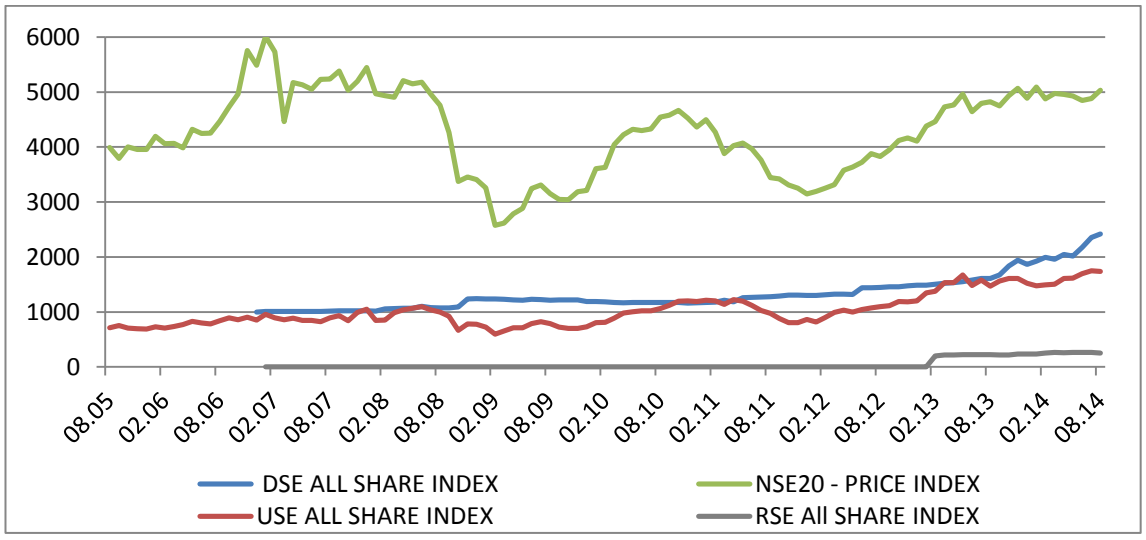
[84] Cf. Geltner, D. et al. (2007), p. 11.
[85] Cf. Appendix A: Figure 32.
[86] Cf. Appendix A: Figure 33, NSE (2014a).
[87] Cf. Appendix A: Figure 34.
[88] Cf. Appendix A: Figure 35.
[89] Cf. DSE (2014a), p. 1.
[90] Cf. Appendix A: Figure 36, own calculation.

SIMBA, TBL, TWIGA, TCC and SWISSPORT.[91] E.g. TBL counter had 1,610 shares traded at a weighted average price of TZS 13,710 (USD 8.45) per share in 6 deals.[92] It has to be stated that in 2013 foreign investors participated in 63 percent of all equity trading.[93]

In August 2014, the Ugandan equity market listed 16 companies and constituted a total market capitalization of UGX 24,063 billion (USD 9.36 billion). USE is dominated by three companies, which feature more than UGX 5,000 (USD 1.95 billion) each. The activities on the USE are limited. In 2013 only 4,538 shares traded which only traded in the secondary market. The markets turnover increased significantly more than ten times to USD 97.77 million. BATU, UMEME and SBE represent the largest counters in terms of domestic market capitalization. The domestic market capitalization only contributes 13.65 percent to the total amount. The majority of the investors originate from Uganda, followed by Kenyan investors.[94]

The following figure illustrates the selected East African stock market indices:

Figure 10: Comparison of Selected East African Share Indices



Source: Own illustration, referring to: Datastream.

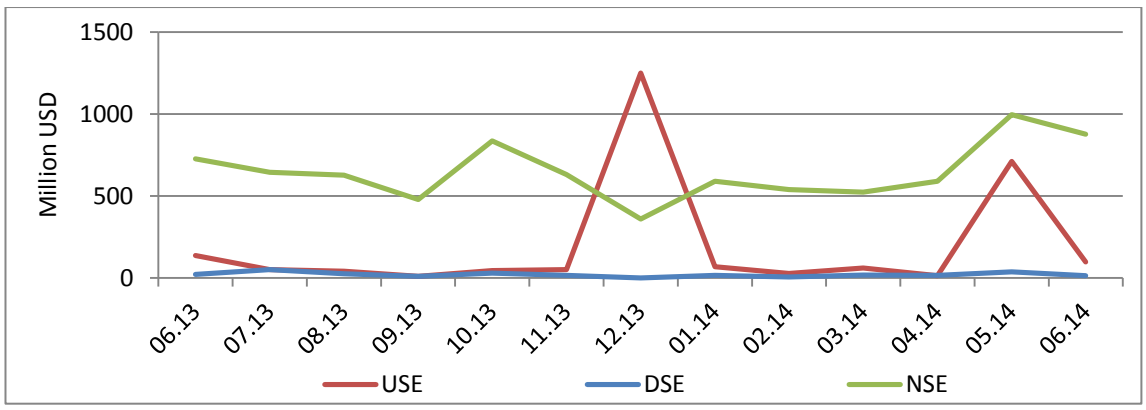
For three years the NSE20 has sharply increased and values at 5,033 at the end of August 2014. Its value is more than twice as high as the other indices. The DSE All Share Index and the USE All Share Index currently amount to levels of 2,417 and 1,740. The DSE and USE All Share Index show a similar positive trend line, but the

[91] Cf. Appendix A: Figure 37, Dar es Salaam Stock Exchange (2014b), p. 2.
[92] Cf. DSE (2014a).
[93] Cf. DSE (2014b), pp. 4.
[94] Cf. USE (2014a), p. 1, CMA Uganda (2013), pp. 11, CMA Uganda (2014a), p. 4.

DSE All Share index appears to be less volatile. Compared to the DSE and USE All Share Index, the NSE20 recorded a high degree of volatility during the last decade. It is obvious that all three index series have developed significantly positively since 2012. This trend underlines the positive economic development of the East African financial markets. The Rwandan RSE was founded in 2005.[95] Due to a weak performance of the RSE All Share index, the Rwanda capital market does not form part of the further analysis.

The East African Stock markets are dominated by limited numbers of companies which make up the majority of the total traded shares.[96] The circumstance is reflected in the NSE structure. More than 50 percent of the actual trade counters is undertaken by the Safaricom Ltd.[97] Moreover the stock markets are volatile. This thesis is underlined by the comparison of traded share volume. The USE and DSE show share volume of less than 100 million traded shares. But the USE shows two significant peaks in December 2013 and May 2014. The trends are difficult to estimate. NSE share trade exceeds the DSE and USE trade volume by far.

Figure 11: Traded Share Volume



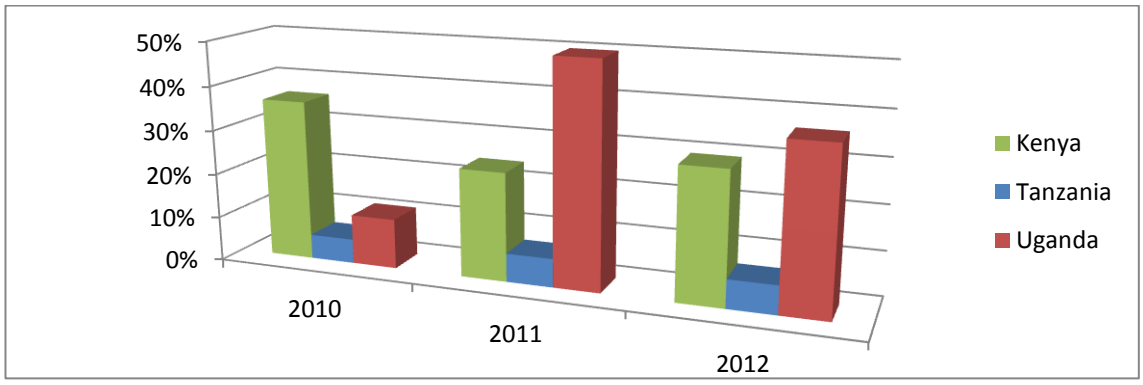
Source: Own illustration, referring to: CMA Uganda (2014).

Figure 12 illustrates the stock market's impact to the GDP. It demonstrates the importance of the stock market for the economy. In 2012 NSE20 and USE contributed 29.4 and 36.4 percent to the GDP. From 2010 to 2012, the NSE20 features a constant and high GDP contribution. The comparison of the stock markets contribution the GDP indicates that the DSE is performing very weakly recording 6.4 of the GDP. The

[95] Cf. RSE (2014).
[96] Cf. Deutsche Bank (2013), p. 3.
[97] Cf. Appendix A: Figure 34.

Ugandan and Tanzanian GDP are nearly at the same level as outlined in chapter 3.1.The following figure confirms the volatility of the USE.

Figure 12: Stock Market Capitalization in Proportion to the nominal GDP



Source: Own illustration, referring to: The World Bank (2014a).

Summarizing, the Stock markets in the investigated East African countries are emerging. They feature high growth rates. The analysis emphasizes the leading position of Kenya's stock market which possesses the highest degree of maturity. The DSE and the USE are growing based on a low level. Moreover, the USE indicates remarkable volatile trends.

3.2.2 Bond Markets

Due to the equity markets focus, this section gives a brief overview of the bond market of the selected East African countries because the priority of this study is set on the public equity market.

The East African bond markets are at nascent stages, but they remain still at a low level. As already outlined in section 3.2.1, Kenya is the leading economy of the analyzed countries in terms of capital market maturity. The FTSE NSE Kenyan Shilling Government Bond index illustrates the performance of Government Securities which list on the NSE.[98] It covers the total returns of bonds maturing in more than one year and exceeding a notional amount of KSH 5 billion (USD 57.4 million). The index includes 24 constituents amounting to a market capitalization of KSH 360,000 billion (USD 4,131 billion). Since March 2013, the index series has been showing a strong positive sharp ratio and a low annual volatility rate of 3.21 percent.[99] In 2012 the Kenyan treasury bonds featured an outstanding amount of KSH 687 billion and

[98] Cf. Appendix A: Figure 38.
[99] Cf. FTSE (2014d), p. 1.

increased within one year to KSH 744 billion (USD 8.54 billion). The yield averaged 12.67 percent. In 2014 four corporate bonds list on the NSE, which have raised KSH 13.5 billion (USD 154.8 million). The treasury bonds have raised USD 89.1 billion.[100]

Tanzanian treasury bonds which are issued in the primary market, maturing in at least 2 years amount to a value of USD 2 billion in 2014. It signifies an increase of 11 percent compared to 2013. In 2013 the government implemented 15 year treasury bonds in order to extend the investment opportunities. The Tanzanian bond market is ruled by pension funds. Furthermore, six corporate bonds have been issued and listed on DSE, which value between TZS 8 (USD 4.93 million) and TZS 15 billion (USD 9.24 million). The weighted average yield to maturity varies from 14.83 to 17.41 depending on the bond's maturity duration.[101]

Currently, 35 bonds list on the USE valuing between USX 5 and USX 190 billion.[102] On average the bond's value amount to USX 79.57 billion (USD 30.99 million).[103] There is only one corporate bond listed on the USE.[104] Comparing African bond markets the proportion of East African issued treasury bonds is extremely weak.[105]

Eurobonds as an attractive financing tool entered the East African markets to facilitate the access to capital. In 2013 Uganda and Rwanda established its first Eurobonds. Rwanda firstly floated a Eurobond of USD 400 million of ten year notes in 2013 and plans a second USD 1 billion sovereign bond in 2015.[106] Due to a delay in credit rating Tanzania plans to issue its first Eurobond of up to USD one billion in 2015. [107] In 2014 Kenya sold its first Eurobond of USD 2 billion aiming at investments in infrastructure.[108]

3.3 Empirical Analysis of East African Equity Market Integration

The following empirical analysis investigates in a more detailed way the current degree of capital market integration based on the Kenyan, Tanzanian and Ugandan equity market employing the Johansen cointegration analysis.

[100] Cf. Bank of Kenya (2013b), p. 64, CMA Kenya (2013), p. 41.
[101] Cf. Bank of Tanzania (2014b), p. 40, Bank of Tanzania (2014a), p. 19, AFMI (2014).
[102] Cf. Uganda Stock Exchange (2015).
[103] Own calculation.
[104] Cf. CMA Uganda (2013), p. 11.
[105] Cf. Appendix A: Figure 39.
[106] Cf. Deutsche Bank (2013), p. 4, CNBC Africa (2014).
[107] Cf. The East African (2014).
[108] Cf. Bloomberg (2013).

3.3.1 Background

The particular East African equity markets have to deal with similar challenges, although their degree of maturity varies. They have to overcome low liquidity and capitalization. In order to unite and strengthen the East African financial landscape the East African Community strives to establish of an East African common market. The Treaty for the Establishment of the East African Community, which was lastly amended in 2007, aims i.a. at the free movement of capital between the partner states.[109] Article 86 treats the acquisition of any form if security and the right of investment within the community. The consolidation of financial areas targets the deepening of the capital markets and the establishment of an economic entity. Cross-listing of several companies like Kenyan Airways and East African Breweries Ltd indicates the ongoing progress of capital market integration. They both list on the USE and DSE. [110]According to Oxelheim, perfect or total financial market integration is achieved if the "law of one price is fulfilled".[111] Moreover, Yabara states that "returns of comparable assets should be equalized across economies, so long as there is no difference in country risks and exchange risks".[112] On the contrary, indirect financial integration means that the return on an investment in one country is indirectly connected to the return on investments in other countries. It may be realized e.g. through the exchange market.[113] The empirical investigation tests the status quo and stage of the East African stock market integration.

3.3.2 Data

This capital market analysis investigates the selected stock exchanges. The DSE All Share Index, the NSE 20 Index and the USE All Share index found the basis for the cointegration model. The sample period extends from January 2007 to August 2014. As presented in section 3.2.1 the indices represent monthly averaged price indices. The underlying data are characterized as in level data which are taken from Datastream. Moreover, the level data are transferred into logarithmic data in order to run the Johansen cointegration test.

[109] Cf. Protocol on the Establishment of the East African Common Market., Treaty for the Establishment of the East African Community, Article 86.
[110] Cf. African Executive (2006).
[111] Oxelheim, L. (1990), p. 34.
[112] Yabara, E. (2012), p. 3.
[113] Cf. Yabara, E./ Elly, D. (2014), p. 3.

3.3.3 Unit Root and Stationarity Tests

In order to conduct the Johansen Cointegration Test, the underlying time series must be tested for stationarity. Stationarity is defined as constant variances and expected values of the test distribution over time. [114] The existence of a unit root or non-stationarity data is one of the compulsory conditions for testing for cointegration. The data should have a unit root at their level and should be stationary at their differences.[115] There exist several different tests for stationarity. This study concentrates on the following three major and mainly used methodologies: Augmented-Dickey-Fuller Test (ADF), Kwiatkowski-Philipp-Schmidt-Shin Test (KPSS) and Phillips-Perron Test (PP).[116]

The following regression equation constitutes the basis for the ADF stationarity test: [117]

$\Delta y_t = y_t - y_{t-1} = (\alpha - 1) y_{t-1} + \varepsilon_t$, with:

$\alpha = regression\ coefficient$

$\varepsilon_t = error\ term$

The null hypothesis H_0 is: y_t is non-stationary, $\alpha = 1$.

The alternative hypothesis H_1 is: y_t is stationary, $0 < \alpha < 1$.

The t-statistic for the coefficient $(\alpha - 1)$ serves as the underlying test statistic. This means that if the critical value, which commonly ranges between one and ten percent, exceeds the t-statistic the null hypothesis H_0 is rejected and therefore the data sample is stationary. According to the ADF Test, the lag length is 0, which is proved by Schwarz Information Criteria (SC).

Running the ADF Test the following critical value result for the particular stock market series presented in Table 5. The t-statistics exceed the critical values of each significance level. Consequently the null hypotheses are rejected and the stock market level data are non-stationary.

[114] Cf. Schröder, M. (2002), p. 15.
[115] Cf. Kaijage, E/ Nzioka, O. (2012), p. 13.
[116] Cf. Schindler, F., Winker, P. (2012), pp. 227.
[117] Cf. Schindler, F., Winker, P. (2012), p. 235.

Table 5: Summary of the Augmented Dickey Fuller Test

Index	T-Statistic	Critical Values			Result
		1%	5%	10%	
NSE20 Index	-1.834293	-3.503049	-2.893230	-2.58740	H_0 not rejected
DSE All Share Index	4.320323	-3.503049	-2.893230	-2.58740	H_0 not rejected
USE All Share Index	-0.318233	-3.503049	-2.893230	-2.58740	H_0 not rejected

Source: Own illustration, referring to: Appendix B, Table 19-21.

Literature specialized in statistics attributes a validity limitation to the ADF Test. It is recommended to review the ADF results by conducting further unit root or stationarity tests, like the KPSS or PP Test.[118] The KPSS Test can be characterized as an opposed unit root test because its null hypothesis tests for stationarity:[119]

$Y_t = c + at + \varepsilon_t$, with:

$a = regression\ coefficient$

$\varepsilon_t = error\ term$

The null hypothesis H_0 is: Y_t is stationary.

The alternative hypothesis H_1 is: Y_t is non-stationary.

The KPSS test provides the following results:

Table 6: Summary of the KPSS Test

Index	LM-Statistic	Critical Values			Result
		1%	5%	10%	
NSE20 Index	0.208131	0.739000	0.463000	0.347000	H_0 not rejected
DSE All Share Index	1.041881	0.739000	0.463000	0.347000	H_0 rejected
USE All Share Index	0.873622	0.739000	0.463000	0.347000	H_0 rejected

Source: Own illustration, referring to: Appendix B: Table 22-24.

[118] Cf. Schindler, F., Winker, P. (2012), p. 238.
[119] Cf. Kugler, P. (2002), p. 275.

Solely the null hypothesis of the NSE20 Index cannot be rejected at all significance levels. The result indicates that this index appears to be stationary. Due to the fact that the KPSS Test is an opposed unit root test, the likelihood of identifying stationarity is high.[120] Hence, a third test is conducted to verify the result. The PP Test is based on the ADF Test and implies the same hypotheses:[121]

Table 7: Summary of the Phillips-Perron Test

Index	Adj. T-Statistic	Critical Values			Result
		1%	5%	10%	
NSE20 Index	-1.919732	-3.503049	-2.893230	-2.583740	H_0 not rejected
DSE All Share Index	5.243175	-3.503049	-2.893230	-2.583740	H_0 not rejected
USE All Share Index	-0,300586	-3.503049	-2.893230	-2.583740	H_0 not rejected

Source: Own illustration, referring to: Appendix B: Table 25-27.

The result of the PP Test outline that the underlying data sample does not suffer from stationarity because the adjusted t-statistics exceed the critical values at all investigated significance levels. Concluding, the conducted unit root and stationarity tests give evidence for non-stationary time series, although one of the nine tests does underlay stationarity. Its validity is comparably weaker and additionally the other statistical methods disprove the result. Furthermore, the stock market data are stationary at their first differences. If the same unit root and stationarity tests are conducted with log returns instead of level returns opposing results are provided as required for the Johansen Cointegration Test:

Table 8: Unit Root and Stationarity Test Based on Log Returns

	Test Statistic	Critical Values			Result
		1%	5%	10%	
ADF Test	**T-Statistic**				
NSE20 Log Returns	-9,042652	-3,503879	-2,893585	-5,583931	H_0 rejected
DSE All Share Log Returns	-8,829189	-3,503879	-2,893589	-2,583931	H_0 rejected
USE All Share Log Returns	-9,748498	-3,503879	-2,893589	-2,583931	H_0 rejected

[120] Cf. Schindler, F., Winker, P. (2012), p. 239.
[121] Cf. Schindler, F., Winker, P. (2012), p. 241.

KPSS Test	LM-Statistic				
NSE20 Log Returns	0,217799	0,739000	0,463000	0,347000	H_0 not rejected
DSE All Share Log Returns	0,674329	0,739000	0,463000	0,347000	H_0 not rejected at 1 %
USE All Share Log Returns	0,103657	0,739000	0,463000	0,347000	H_0 not rejected
PP Test	**Adj. T-Statistic**				
NSE20 Log Returns	-9,075459	-3,503879	-2,893589	-2,583931	H_0 rejected
DSE All Share Log Returns	-8,827102	-3,503879	-2,893589	-2,583931	H_0 rejected
USE All Share Log Returns	-9,751960	-3,503879	-2,893589	-2,583931	H_0 rejected

Source: Own illustration, referring to: Appendix B: Table 28-36.

As a consequence, the variables are non-stationary and integrated of the same first order. Therefore, the underlying data are characterized as first order variables I (1) and the presumptions for the Johansen Cointegration Test are satisfied.[122]

3.3.4 Johansen Cointegration Test

The Johansen Cointegration Test is a multivariate method investigation for a long term cointegration relation between more than two variables.[123] Due to its sensitivity to the lag length, this multivariate analysis firstly requires conducting a vector-autoregression-process in order to identify the optimal number of lags. Thu, the following Vector-Autoregression model is run in level based data:[124]

$y_t = A_1 y_{t-1} + \ldots + A_p y_{t-p} + Bx_t + \mu + \varepsilon_t$, with:

$y_t = endogeneous\ vector\ of\ non-stationay\ stock\ indices\ at\ time\ t$

$x_t = deterministic\ vector\ of\ exogeneous\ variables$

$\varepsilon_t = error\ term$

$p = lag\ length\ of\ the\ VAR\ process$

Based on the estimated VAR model, the VAR lag order selection criteria are estimated. The output indicates the optimal lag length, which should be chosen for the VAR model. It is marked by a "*".

[122] Cf. Schindler, F. , Winker, P. (2012), p. 251.
[123] Cf. Kugler, P. (2002), p. 284.
[124] Cf. Schindler, F. , Winker, P. (2012), p. 251.

Table 9: VAR Lag Order Selection Criteria

VAR Lag Order Selection Criteria
Endogenous variables:
DSE ALL SHARE PRICE INDEX; NSE20 PRICE INDEX; USE ALL SHARE PRICE INDEX
Exogenous variables: C
Date: 08/27/14 Time: 17:22
Sample: 2006M12 2014M08
Included observations: 85

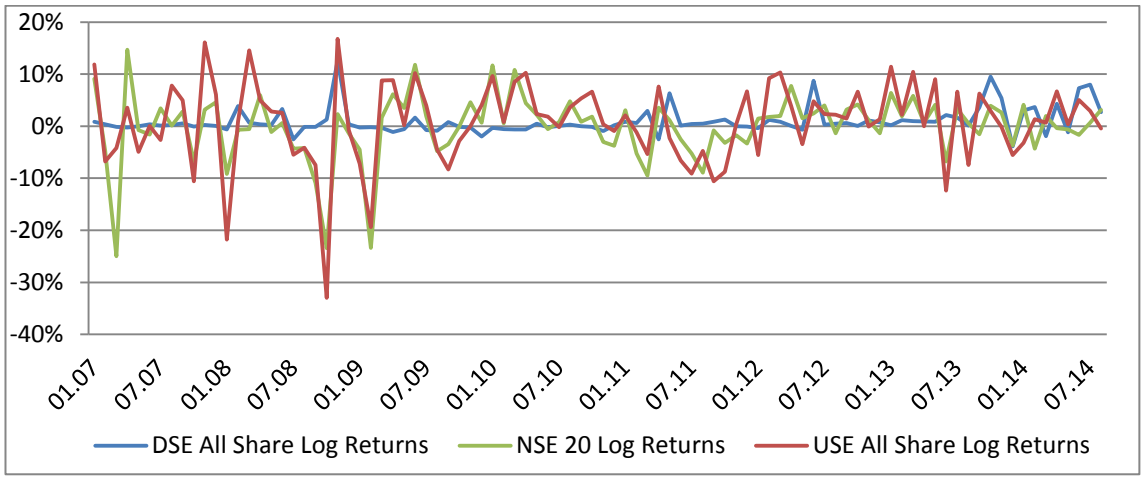
Lag	LogL	LR	FPE	AIC	SC	HQ
0	-1813.346	NA	7.30e+14	42.73756	42.82377	42.77224
1	-1459.875	673.6744*	2.20e+11*	34.63236*	34.97720*	34.77106*
2	-1451.549	15.28141	2.24e+11	34.64821	35.25169	34.89094
3	-1442.911	15.24382	2.27e+11	34.65672	35.51883	35.00349
4	-1439.533	5.721782	2.60e+11	34.78902	35.90976	35.23981
5	-1431.658	12.78623	2.68e+11	34.81547	36.19485	35.37030
6	-1425.690	9.267992	2.91e+11	34.88681	36.52483	35.54567
7	-1419.120	9.738962	3.12e+11	34.94399	36.84064	35.70688
8	-1408.366	15.18222	3.05e+11	34.90272	37.05800	35.76963

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Source: Own illustration, referring to Eviews, based on: Appendix B: Table 37.

All different information criteria, like the most common SC and AIC, suggest the same optimal lag length of 1 to minimize the information criteria. In order to conduct the Johansen cointegration test, the lag length reduces by one because the underlying data are suggested to be log returns.[125] The stock returns are computed as log differences:

Figure 13: Stock Market Log Returns



Source: Own illustration and calculation, referring to: Datastream.

The VAR model is transformed into a VEC model by subtracting y_{t-1}:

[125] Cf. Schindler, F., Winker, P. (2012), p. 257.

$$\Delta y_t = \prod y_{t-1} + \sum_{i=1}^{p} \Gamma_i \, \Delta y_{t-1} + Bx_t + \varepsilon_t$$

$$y_t = endogeneous\ vector\ of\ non - stationay\ stock\ indices\ at\ time\ t$$

$$\prod = parameter\ matrix$$

$$\varepsilon_t = vector\ of\ error\ terms$$

The matrix π ranks the degree of cointegration by determining the number of cointegration sectors. The trace test as well as the test for maximum eigenvalue is likelihood ratio tests measuring the cointegration relation. If the trace or the maximum eigenvalue statistic exceeds the critical value, the underlying variables feature a cointegration relation.[126]

Table 10: Excerpt from the Johansen Cointegration Test Output

Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments
Trend assumption: Linear deterministic trend
Series: DSE_ALL_SHARE_LOG_RETURN NSE_20_LOG_RETURNS USE_ALL_SHARE_LOG_RETURN
Lags interval (in first differences): No lags
Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value
None *	0.651385	211.8251	29.79707
At most 1 *	0.525200	115.9305	15.49471
At most 2 *	0.410865	48.14802	3.841466

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value
None *	0.651385	95.89462	21.13162
At most 1 *	0.525200	67.78244	14.26460
At most 2 *	0.410865	48.14802	3.841466

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level

Source: Own illustration, referring to Eviews, based on: Appendix B: Table 38.

[126] Cf. Schindler, F., Winker, P. (2012), pp. 251.

The output demonstrates that the values of the trace statistics exceed the critical values at a significance level of five percent.[127] The analysis of the maximum eigenvalue statistics provides the same result. The critical values fall below the maximum eigenvalue statistics. Consequently, the output gives evidence that the NSE, DSE and USE stock markets have a long-run integration relation at the East African stock markets. It is taken as a pars pro toto for the equity markets.

3.3.5 Results

In 2012 Yabara and Kaijage identified an absence of a long-run integration of the East African stock markets. The analysis was based on the identical underlying data set.[128] In 2014 M. Yabara rerun his equity market cointegration test. Compared to this investigation his analyses provide similar cointegration relations. The results of his test give clear evidence for a long run cointegration relation. The conducted convergence tests, which do not form part of this analysis, indicate that the degree of integration lacks perfection. The markets suffer from arbitrage opportunities by creating cross-country portfolios.[129] Concluding, the Johansen cointegration analysis proves the integration of the NSE, DSE and USE in long-run. But the markets not characterized as perfectly integrated.

It can be argued that the integration of East African stock markets is proceeding but has not been fully accomplished. Moreover, the low stage of market maturity which is i.a. indicated by small number of listed companies may also be an error term leading to biased results. On the one hand an extended sample period would lead to a more significant statistical result. But on the other hand the extension would come together with even smaller capitalization and further statistical uncertainty and statistical bias. In summary, the analyses of the past years demonstrate a distinct progress of arising cointegration development of the East African Community. In order to create the East African Community Common Market, further market integration must be pursued. In November 2013, the EAC member states signed the Monetary Union Protocol. It aims at the establishment of a single monetary policy and the introduction of a single currency. Thus it represents a further cornerstone for the implementation of a united financial landscape.[130] The financial market maturity founds the basis for the

[127] Cf. entire output table: Cf. Appendix 38.
[128] Cf. Yabara, E. (2012), p. 17, Kaijage, E/ Nzioka, O. (2012), p. 17.
[129] Cf. Yabara, E./ Elly, D. (2014), p. 9-15.
[130] Cf. Central Bank of Kenya (2013a), p. 51.

establishment of indirect real estate vehicles. Therefore, an effectively operational East African integrated equity market works as a catalyst for the development of REITs. Kenya, as the economically leading country, may serve as a role model and engine in terms of total market unity.

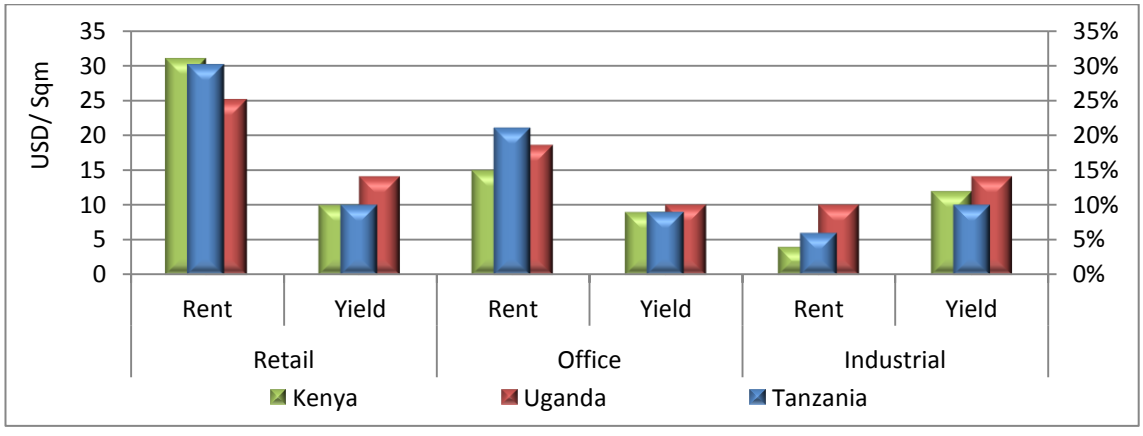
4. East African Real Estate Markets

The following section presents the current developments of the real estate markets of the selected East African countries by considering important market variables. Hereafter, real estate investment and financing vehicles and their performance are analyzed in order to draw the conclusion of the current stage of maturity of the East African real estate markets. In general, the term real estate market analysis is not clearly defined. The interpretive approach varies because several aspects can be taken into account. The most widely used definition treats the quantitative investigation and forecast of the supply and demand conditions of the real estate sector. Indicators and market parameters, like rent level and stock statistics, characterize the particular market condition. These are comparatively contrasted in the following sub-chapter.[131]

4.1 Market Indicators

It is complex to analyze the East African property markets due to low market transparency and limitation of provided data. Reports of domestic and foreign market participants rarely cover rural areas. Hence the investigation concentrates on the major East African economic centers Nairobi, Dar es Salaam and Kampala. According to Knight Frank's Africa Report 2013, the obtained retail prime rents in the analyzed countries range between USD 25 in Uganda and USD 31 in Kenya. Office prime rents amount between USD 15 in Kenya and USD 21 in Tanzania. The prime rent level is approximately as high as in European metropolises:

Figure 14: East African Comparison of Prime Rents and Prime Yields



Source: Own illustration, referring to: Knight Frank (2013).

[131] Cf. Geltner, D. et al., (2007), p. 104.

Real estate returns are at high level. E.g. Industrial projects yield between ten and 14 percent. Office yields range between eight and ten percent.[132] Is has to be stated that these underlying market data mainly refer to selected analyzed prime regions and properties within the East African economic hubs. Hence the illustrated rents level does not perfectly reflect the overall market prime rent average.

A decreasing supply in Grade A space characterizes the Kenyan office market. The office market is dominated by a total space demand of around 400 thousand sqm striving for bridging the lacking supply. In 2014 the Nairobi's overall averaged prime rent accounts for USD 12. [133] Additional market reports expect the same trend of a persistent stable office demand.[134] The office market report of Mentor Management Limited foresees a contrary prospect. It expects an arising oversupply caused by highly increased construction activities. At the same time the vacancy rate is expected to rise up to 20 percent.[135] The increase of vacant office space indicates the upcoming oversupply.

The Tanzanian office market features a high demand in mid to high quality office space, especially in the Dar es Salaam and Arusha. The currently offered Grade A office rents, like the NHC house in Dar es Salaam, range between USD 16 and USD 30 per sqm.[136] At present, the CBD is under construction and several projects are in the pipeline caused by an increasing trend of urbanization and administrative activities.[137] In Uganda prime office rents for Grade A range from USD 15 up to USD 17. However, Grade B office space realizes prime rents of USD 11 up to USD 14. In Uganda office prime yields range from nine to 11 percent. [138] Grade A office space features high vacancy rate of around 40 percent. The ratio is even higher for Grade B rental areas:

Table 11: Office Vacancy Rates in Uganda

Office Space	Stock (sqm)	Vacancy (sqm)	Vacancy Rate (%)
Grade A	42,406	4,582	10.81
Grade AB	121,705	68,652	56,41
Grade B (Prime)	56,383	12,032	21,34
Total	**220,494**	**85,266**	**38,67**

Source: Own illustration, referring to: Knight Frank (2014b).

[132] E.g in 2014 office prime yields in Munich averaged at 4.1 percent.
[133] Cf. Knight Frank (2014a), p. 2.
[134] Cf. Broll (2014), p. 1.
[135] Cf. Daily Nation (2014).
[136] Cf. Knight Frank (2014c).
[137] Cf. Kusiluka, M. (2012), p. 107.
[138] Cf. Knight Frank (2014b), p. 3.

The Kenyan residential property market constitutes a high demand for mid income accommodation, whereas the prime sector decreased compared to the beginning of 2014. The construction of smaller residential apartments becomes the main business of developers.[139] The Kenyan housing market still records a huge deficit of two million units. According to the Kenyan Property Developer Association, the government does not achieve the aim of meeting the demand. At present around 15,000 housing units are under construction. Recording a population growth from currently 3.5 million up to 5.5 million in 2020, Nairobi will have to cope with an enormous housing gap for the middle income population of 1.6 million units.[140] The residential property market in Uganda as well shows similar prospects compared to Kenya. It features a high demand for middle standard houses shifting from a focus on prime residential space. The annual increase of housing deficit is estimated to 200,000 units.[141]. Due to declining lending rates the mid income residential space has risen during the last years.[142] The Ugandan property market faces a housing lack amounting to more than 500,000 units. The market demands annually rises by around 200,000 units.[143] Referring to the NHC, Tanzania has to deal with an estimated housing deficit of around three million units and an annual deficit growth rate of 200,000 units. Out of the 200,000 units the rural area lacks 135,000, whereas the urban region demands for 65,000. The shortage is caused by a rapid population growth of 3.5 percent and the increasing urbanization. In 2011 26.7 percent of the population lived in urban areas representing the highest share since the last five decades. In 2020 30 percent of the population is expected to live in urban areas.[144] According to the Ministry of Housing and Urban Development, the construction rate of affordable houses amounts to 40,000 housing units in the rural and 20,000 in urban region. Consequently, the housing gap cannot be bridged and an annual deficit of 135,000 is created. Moreover, this lack does not comprise the basic deficit of 1,600,000 housing units.[145]

Housing shortages lead to a complex challenge for the real estate sector with simultaneous high population growth rates and significant trends of urbanization.[146] In addition to increasing demands of the aspiring middle class, the real estate markets and

[139] Cf. Knight Frank (2014a), p. 3.
[140] Cf. CAHF (2014), p. 89, Hass Property Index (2014a), p. 4.
[141] Cf. AfDB (2013), p. 4.
[142] Cf. Knight Frank (2014b), p. 2.
[143] Cf. CAHF (2014), p. 185.
[144] Cf. Ministry of Education and Vocational Training (2012), p. 14.
[145] Cf. Ministry of Land Housing and Urban Development (2013), p. 18.
[146] Cf. AllAfrica (2013a).

its future development are predominantly driven by the stage of infrastructure. The current underdeveloped infrastructure of the East African countries represents one of the main barriers for extending the real estate sector.[147] Improving infrastructure results in territory development and consequently in increasing demand for properties in every sector. Kenya invests KSH 75 billion in the construction and maintenance of the road network.[148] The limitation of supply in residential areas led to a simultaneous increase of the demand for land and of the land values. The East African markets are driven by high demands of the growing middle class, urbanization and enormous population growth.

4.2 Real Estate Investment Market

In a broader sense real estate investment vehicles are financial products which pool the investors' capital. In general, investment vehicles vary by investment strategies which are directly linked to the underlying asset. Real estate investments can be categorized into direct and indirect real estate investment. On the one hand, direct real estate investments comprise the ownership of a real property. This investment strategy requires a large-scale investment which investors often cannot effort. On the other hand, indirect real estate investments aim at unclosing the real estate sector for small-scale investors. The property's features and its risk-return profile categorize the investment horizon into the following classes: Core, Core-plus, Value-added and Opportunistic.[149] It is difficult to apply the common definition of investment classes to the East African investments. Real properties' characteristics may differ from the underlying classification. REITs, CMBS, commercial mortgages and funds represent typical indirect real estate investment instruments. E.g. mutual funds collect investment capital in order to invest in stocks, bonds or money instruments to build up diversified portfolios. Commercial mortgages, as a debt investment product are loans which are secured by the real property as a senior claim.[150] The following section illustrates the major real estate investors and their performances within the particular East African investment markets.

[147] According to the World Economic Forum's Global Competitiveness Report 2013-2014 in terms of infrastructure the countries globally take the following positions out of 148: Kenya ranks 102, Tanzania ranks134, and Uganda ranks 133.
[148] Kenya Bureau of Statistics (2014), p. 62.
[149] Cf. Schulte, K.-W./ Holzmann, C. (2005), p. 30.
[150] Cf. Geltner, D. et al. (2007), pp. 129.

The Sub-Saharan real estate industry increasingly attracts international investors. In 2014 Grosvenor intends to invest about USD 400 million in the real estate sector. Moreover Actis LLP plans to undertake commercial, retail and industrial real estate investments at a value of USD 1.5.[151]

Kenya's investment market shows a larger spectrum of investment instruments compared to other East African countries. The collective investment instruments comprise unit trusts, funds and investment clubs. Governmentally run corporations and funds dominate the investment environment. The establishment of a REIT regime in 2013 indicates its market expansion and maturation.

The Kenyan National Housing Corporation is one of the leading market players. The NHC is fully owned by the government and possesses a capital of KSH 8.5 billion (USD 97.5 million). Main business activities comprise the development, management and transaction of urban and rural housing and their underlying performance requirements.[152] NHC's spread investment horizon ranges. The agency serves as the major implementer of the governmental housing policy. It treats the construction of 150,000 housing units of different standards.

Kenya is the East African pioneer in launching a REIT regime. At present the following six REITs managers have already been licensed by the CMA under the REIT Collective Investment Scheme, which have been gazetted on 16 June 2013: Home Africa Ltd, Centum Asset Managers Ltd, UAP Investments Ltd, Stanlib Kenya Ltd, Fusion Investment Management Ltd and CIC Asset Management Ltd. The companies supply real estate management services to the real estate investment trust. Currently the Housing Finance Company Limited, the Co-operative Bank of Kenya Ltd and the KCB Group Moreover are the only REIT licensed trustees.[153] Currently they do not trade at the NSE, but the CMA set the stage for listing. The Kenyan CMA provides the REITs with credits for the construction 200,000 units annually.[154]

Home Africa Ltd has been the only listed real estate company having a yearly revenue growth of 46 percent. At present around 900 acres are under construction targeting at the provision of middle to high standard housing units. The five years strategic plan of the developer treats the completion of ten major projects valuing at KSH 20 billion.[155] However, Centum Asset Managers represents the largest investment company in East

[151] Cf. Jones Lang LaSalle (2014), p. 42.
[152] Cf. NHC Kenya (2012), p. 5.
[153] Cf. CMA Kenya (2014).
[154] Cf. CMA Kenya (2013), p.7.
[155] Cf. Home Africa Ltd (2013).

Africa and lists on both the NSE and the USE. In December 2013, its shares traded at KSH 13,000 (USD149.19) and its investment values in the purpose of real estate and infrastructure has grown significantly from KSH 36 million (USD 0.41 million) in 2010 to KSH 5.1 billion (USD 58.5 million) in 2013. The strategic plan "Vision 2030" issued by the Kenyan Investment Authority plays a key role in the real estate related investment market. It aims at the improvement of the infrastructure by i.a. developing the railway, highway and port network. It demands for investments of several billion USD. [156]

In Tanzania pension funds and governmental owned companies dominate the commercial real estate investment industry NHC and TBA are two of the biggest players in the market. TBA is a semi autonomous Agency operating under the Ministry of Works. TBA undertakes a special housing project targeting at the provision of 10,000 units. TBA's housing project comprises the construction of 2,500 units.[157] On the contrary, the NHC, which is a governmentally owned corporation established, a five year strategic plan aiming at affordable housing provision. More precisely, it treats the construction of 15,000 housing units of different standards.[158] In 2012 the NHC had 181 joint venture projects in the pipeline. Moreover, NHC strives for partnerships in terms of public private partnerships in order to deliver large-scale housing projects. Further major Tanzanian institutional investors comprise NIC, NSSF, LAPF, PSPF and TRC. NSSF and PSPF represent the market leading funds. In 2011 NSSF alone recorded a real estate investment portfolio of TZS 251.5.billion (USD 154.7 million) composing 21 percent of the total investment portfolio.[159] Since PSPS records 370,000 members and a fund asset value of TSZ 1.25 trillion (USD 770.6 million). Real estate investments contributed 18.74 percent of all undertaken investments recording very high returns on investments exceeding the inflation rate.[160] Although the presented pension funds investments undertake indirect real estate equity investments they also undertake real estate debt investments mainly in form of government borrowing. To the present, the property market lacks open-ended or closed-ended property funds. Furthermore, the

[156] Cf. Centum Asset Managers (2013), NSE (2013), p. 123, Kenya Investment Authority (2014).
[157] Cf. TBA (2014).
[158] Cf. NHC Tanzania (2011), p. 8.
[159] Cf. NSSF (2011), p. 9.
[160] Cf. PSPS (2013), pp. 8.

real estate does not play a major role at the capital markets according fund raising with mean of initial public offerings.[161]

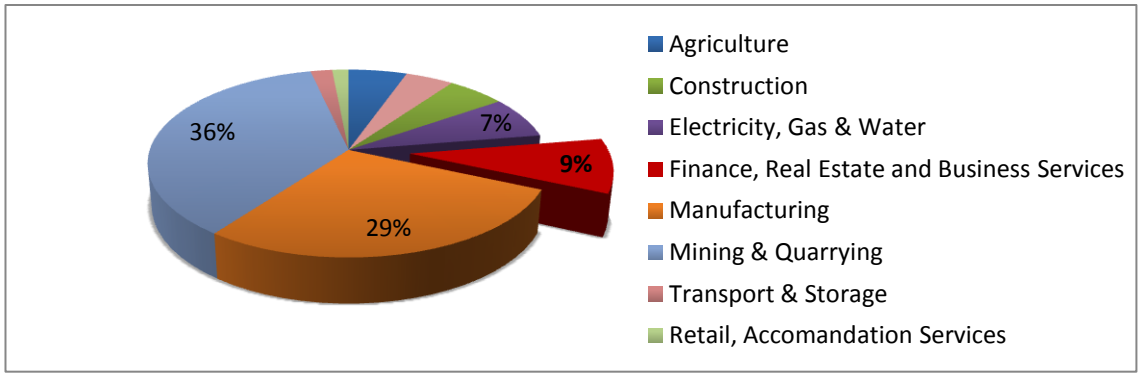
In 2011 the Capital Market and Securities Authority (CMSA) of Tanzania has formulated the Capital Market and Securities (Collective Investment Schemes Real Estate Investment Trusts) Rules of 2011, a regulatory framework for the introduction of REITs. In November 2014, the Watumishi Housing Company (WHC) firstly introduced a private REIT in Tanzania. The fund manager, which was founded in 2013, recently launched and now operates the first Tanzanian REITs. WHC draws REIT shareholders from funds and governmentally run corporations like the NHC. Consequently, the REIT does not trade at the DSE. But the REIT management aims at listing after a three years introduction period depending on its performance. Due to recent authorization the REIT's performance cannot yet be measure. The basic REIT's structure and its market implementation will be discussed in the next chapter. Currently, the WHC serves as the main implementer the Tanzania Public Servant Housing Scheme. It targets the development of 50,000 low cost housing units within the next four years.[162] The government, functioning as a development partner, raised funds of USD 48.24 million to support the first 1,500 unit of the construction project. The units are sold under special mortgage financing condition. The entire project comprises 12 regions in Tanzania.[163] At present, Tanzania lacks further public real property companies in and open-end or close-end property funds. The Unit Trust of Tanzania (UTT) had planned to establish a public REIT. Implementation plans were deferred i.a. caused by a lack of knowledge regarding REITs. UTT offers an open-ended fund but does not invest in real estate.[164] The investment conditions offer great potential in joint venture partnerships for pension funds and the governmentally owned corporations. According to the Tanzania Investment Centre (TIC), the country possesses high potential for further real estate projects. The agency targets five large size projects amounting to an estimated value of USD six billion. TIC refers to the following project focusing on housing and commercial building construction: Uptown Kawe Satellite City, Usa River Satellite City, Safari City, Salama Creek and Morroco Square Project.[165] The governmentally run corporation and the pension funds vary distinctly in terms of direct real estate

[161] Cf. Kusiluka, M. (2013), p. 101.
[162] Cf. WHC (2014).
[163] Cf. TanzaniaInvest (2014).
[164] Cf. Kongela, S. (2013), p. 130, UTT (2014).
[165] Cf. TIC (2013), p. 41.

allocation. In 2011 pension funds allocated on average 12.2 percent to direct real estate investment. However, e.g. NHC's allocation accounted for nearly 100 percent. Besides domestic investors, foreign investors already entered the Tanzanian real estate investment market. Predominantly real estate investors from the UK and South Africa, but also Chinese and Indian investors continue to position in the market.[166] The property investment market shows a remarkable demand for an efficient real estate investment vehicle in order to broaden the investor spectrum.

In Uganda the real estate investment sector represents one of the main attractive investment destinations, but remains still at a low level. The lack of transparency causes difficulties in analyzing the investment market in detail.

Figure 15: Proportion of Planned Real Estate Investments in Uganda



Source: Own illustration, referring to: Uganda Investment Authority (2014).

The main investors originate from India, China and Uganda itself. In 2012 the Uganda Investment Authority listed 48 real estate projects averaging an investment volume of USD 3.5 million. The total investment volume comprised USD 167 million. The aggregate of the finance, real estate and business services sector annually grew by 59 percent. Planned investments were estimated at USD 190.5 million. The increase underlines the emerging business and investment environment.[167] One of the leading market players is the National Housing and Construction Company Ltd structured as a private limited company registered under the Companies Act. The main business activity targets the increase of housing stock and the professionalization of the real

[166] Cf. Kusiluka, M. (2012), p. 117.
[167] Cf. Uganda Investment Authority (2014), p. 21f, Uganda Bureau of Statistics (2012), pp. 14.

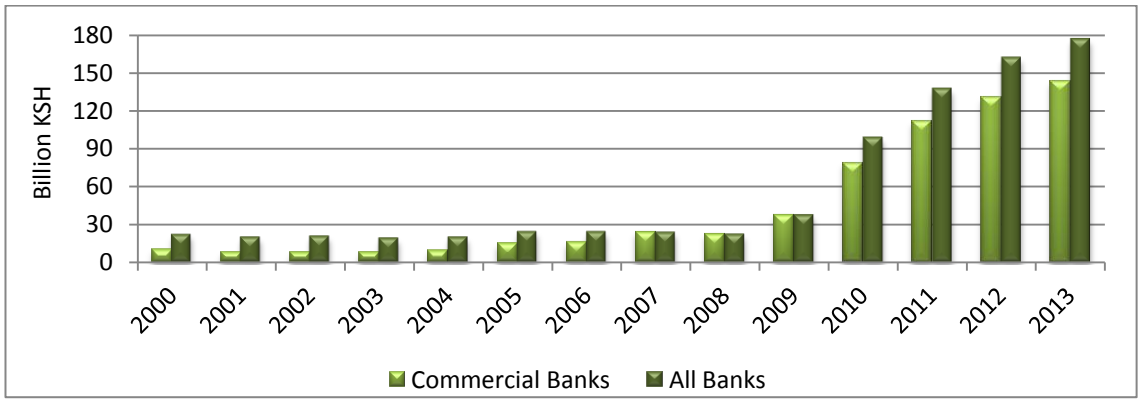
estate landscape. According to the company, around 3,000 housing units of different standards are being constructed.[168]

The East African real estate investment markets are emerging and developing i.a. caused by a demand of a growing middle class. The increase of entering foreign investors outlines the emerging attractiveness of East Africa as a real estate investment destination. But still, a real estate investment in the East African region is perceived to be at high risk due to low market transparency. The more extended investment landscape in Kenya provides investors with asset diversification possibilities. Tanzania's and Uganda's investment markets still suffer from the inefficiency of the property market. The established REITs works as a major catalyst in terms of investment market maturation and development imperfection. Expanding the property markets by additional institution would help to realize the full market potential.

4.3 Real Estate Financing Vehicles

The Central Bank of Kenya functions as the regulatory authority for the subordinated banks. 44 banking institutions and nine microfinance banks are operating in the market. 43 out of 44 are commercial banks comprising three publicly held banks. There is only one mortgage finance company. 30 commercial banks represent local financial institutions. [169] The banks granted loans in total KSH 52 billion (USD 598 million) for the purpose of real estate merely accounting for 1.7 percent of all loan accounts. Moreover, the real estate sector contributes 14.1 percent to the entire gross loans.[170]

Figure 16: Bank Financing of the Real Estate Sector in Kenya

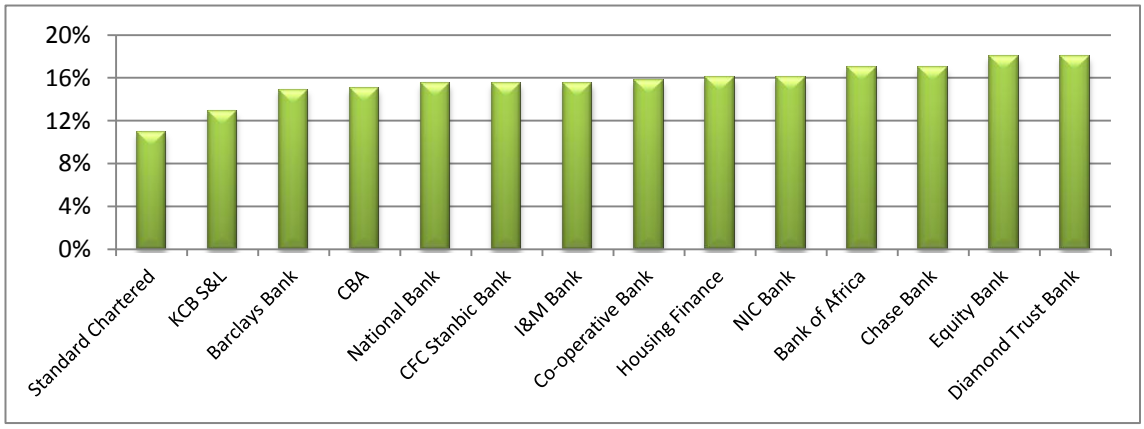


Source: Own illustration, referring to: Central Bank of Kenya (2013b).

[168] Cf. NHCC (2014).
[169] Cf. Central Bank of Kenya (2013a), p. 1.
[170] Cf. Central Bank of Kenya (2013a), p. 29.

During the last decade the amount of banking loans in the purpose of real estate activities has significantly increased most notably since the recovery of the banking crisis in 2009. As Figure 16 illustrates, commercial banks dominate the real estate financing sector. In 2013, the average lending rate of commercial banks lowered to 16.99 percent.[171] Within 2014 average mortgage lending rates declined from 17 percent to 16.3 percent. The Standard Chartered Bank offers the cheapest mortgage interest rate of 10.9 percent. Reason for the decrease is the downward reference rate to 9.13 percent.[172]

Figure 17: Mortgage lending rates in Kenya 2014



Source: Own illustration, referring to: Hass Property Index (2014b).

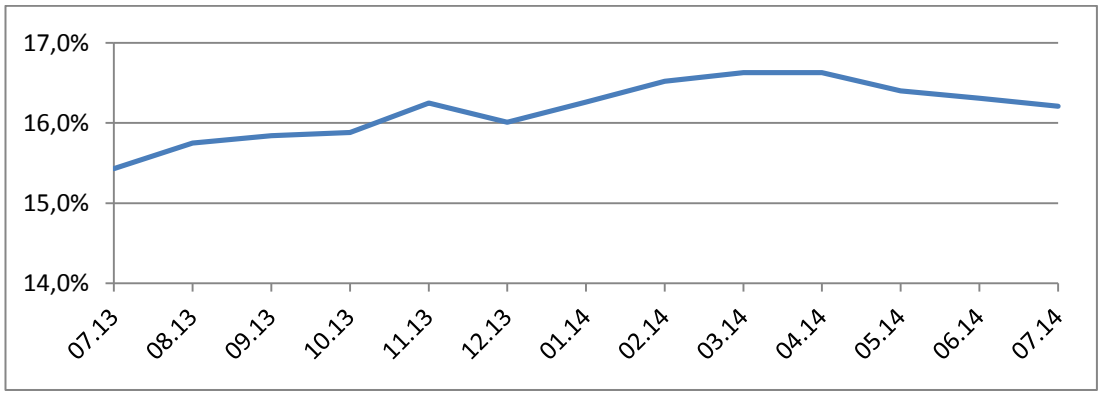
The decline is a key factor for further mortgage market viability. The establishment of a reference rate is a catalyst for vibrant mortgage markets. It promotes stability for financiers and reduces market volatility and may be a sufficient parameter for the remaining East African mortgage markets. The underlying mortgage lending rates covers loans in KSH. Mortgage financing in USD is much cheaper. The value of the outstanding mortgage loan assets increased by 15.5 percent and amounts to KSH 138 billion (USD 1.5 billion), but still the Kenyan mortgage market is underdeveloped. It contributes only 2.5 percent to the GDP.[173] Around 20,000 mortgage loans with an average size of KSH 6.9 million (USD 79,000) were granted. But the proportion of non-performing loans increased to KSH 8.5 billion (USD 97.5 million). Five banks are ruling the mortgage market. The Kenya Commercial Bank Ltd (KCB) and the Housing

[171] Cf. Central Bank of Kenya (2013a), p. 26.
[172] Cf. Hass Property Index (2014b), p. 3.
[173] Cf. AfDB (2013), p. 3, e.g. the South Africa's mortgage market values at 26 percent of the GDP. In European countries mortgage debt outstanding contribute on average 50 percent to the GDP.

Finance Company Ltd are dominating the mortgage market.[174] They are responsible for about 70 percent of the all mortgage loans. Although the mortgage market is emerging the interest rates remain high. The strengthening middle class and the further professionalism of the financial sector, achieved by regional and international integration, will lead to a further maturation of the mortgage market and the entire financial landscape.

In Tanzania the banking sector is constituted by 53 financial institutes. It includes 34 commercial banks which are supervised by the Bank of Tanzania. Like Kenya the banking system is ruled by commercial banks. Construction and building activities solely contribute 5.5 percent to of commercial banks' credits. This represents an annual increase of more than 30 percent. [175] The interest rates are on a high level of more than 16 percent. The interest rate is connected to the economic development. A decline in the lending rate would attract more investors the borrow money. Consequently the inflation rate would increase.

Figure 18: Tanzanian Average Interest Rate



Source: Own illustration, referring to: Bank of Tanzania (2014d).

The Mortgage Finance Act, launched in 2008, determines the beginning of the sharply growing but small sized Tanzanian mortgage market. In 2014 it recorded a significant annual growth of 46 percent. Nevertheless, the mortgage debt contributes less than 0.5 percent to the GDP.[176] According to the first published mortgage market report the total number of 2,784 outstanding mortgage loans valued at USD 96.8 million with an average size of USD 38,000. 19 institutions provide mortgage financing. But three banks dominate the steadily growing market. They hold more than half of the total

[174] Cf. Central Bank of Kenya (2013a), p. 81.
[175] Cf. Bank of Tanzania (2014c), p. 38.
[176] Cf. CAHF (2014), p. 172.

market shares.[177] Besides commercial banks pension funds provide their members with mortgage financing. The mortgage interest rates stand on a very high level and range between 18 percent and 21 percent. The market cannot respond adequately to the increasing housing finance demand.[178] The introduction of Tanzania Mortgage Refinance Company (TMRC), which offers pre- and refinancing opportunities, will deepen the mortgage market by providing lower the interest rates to their member banks. The business activities target the support of banks in the terms of mortgage lending.[179] The TMRC provides its member banks interest rates of 11.5 percent.[180] The mortgage market is less efficient compared to Kenya. It remains at infancy stage underlined by the low contribution to the economy and its inadequate financing conditions.

The banking landscape of Uganda is dominated by 25 operating commercial banks. In total 23.3 percent of all loans are granted for the purpose of real estate activities including mortgage, acquisition and developments. [181] Nevertheless, 20 percent of the construction and building loans are non-performing loans. On average the interest rates for housing projects stand at 17 percent. The Ugandan mortgage market features similar characteristics compared to Tanzania. The mortgage market represents only 1 percent of the GDP.[182] It is dominated by a few banks. HFB is leading and holds more than 50 percent of the total shares. Commercial mortgages account for 21 percent of the construction credits. The mortgage interest rate averages 15 percent.[183] At the end of 2012 commercial banks recorded outstanding mortgage loans of USD 256 million, which records a share of 14.2 percent of all total lending. The residential sector contributed 6.2 percent. However commercial mortgage loans contributed 5.5 percent.[184]

Summarizing, the banking sectors are growing and expanding. Referring to the Strength of legal rights index, the East African banking environment still has to provide further investor protection. The parameter measures the level borrower protection based on collateral and bankruptcy laws in international comparison. In 2014 Kenya, Tanzania

[177] Cf. Appendix A: Figure 40.
[178] Cf. Bank of Tanzania (2013), p. 3.
[179] Cf. Kusiluka, M. (2011), p. 110.
[180] Cf. CAHF (2014), p. 172.
[181] Cf. Bank of Uganda (2014), p. 28.
[182] Cf. Bank of Tanzania (2013), p. 4.
[183] Cf. CAHF (2014), p. 183.
[184] Cf. Uganda Bureau of Statistics (2013).

and Uganda score in a range of five to seven out of 12 points.[185] Hence, the countries do not provide fully efficient financing conditions. Moreover, the mortgage markets of Tanzania and Uganda are underdeveloped and remain at a low level. Kenya's mortgage finance sector is more mature and offers more adequate financing opportunities. Consequently, the real estate sectors show a need for adequate financing.

4.4 Maturity of East African Real Estate Markets

Due to the heterogeneity of the East African real estate markets the stage of maturity and attractiveness is comparatively illustrated in the following section. Market maturation is predominantly influenced by its attractiveness. According to Lieser, the attractiveness of real estate market is i.a. determined by economic activities, investment opportunities, the level of investor protection, the administration system and political stability.[186] The markets are investigated with regard to these criteria.

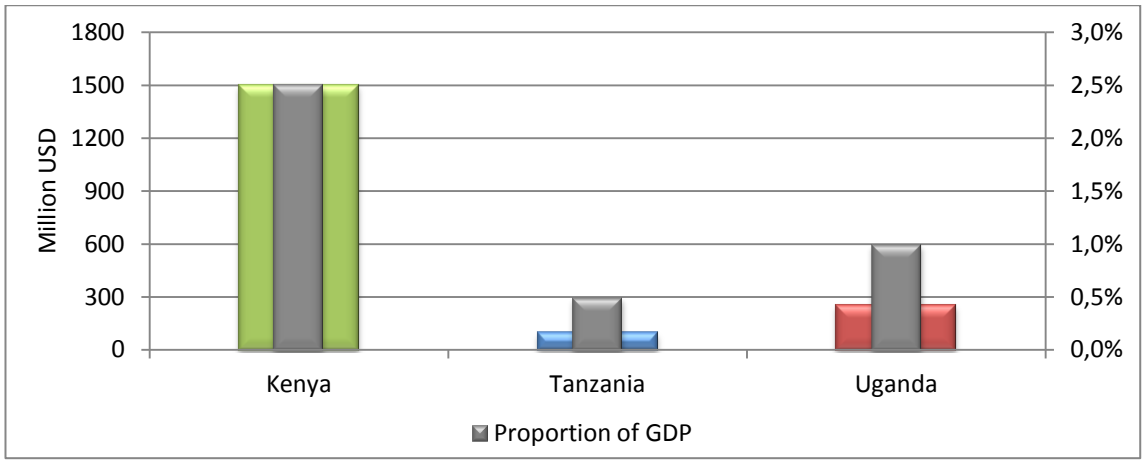
The spectrum of real estate investment vehicles and its sufficiency represent catalysts for the strength and competitiveness of real estate markets. Until the end of 2014, Kenya has been the only East African country, which had already implemented a REIT system. By offering small size shares the real estate market is unlocked for smaller-scale investors. Recently, Tanzania launched its first REIT. It trades share on the secondary market and does not list on the DSE. The launching at the stock exchange is a major step for a successful prospect. The extension of the investment sector leads to further regional and international cointegration and the upgrade of the investment market's attractiveness. At present, the three underlying real estate investment markets are dominated by a limited number of investors. Predominantly funds and governmentally managed corporations operate in the market. Additionally, the markets are deficient in fundamental investment performance indices.

Adequate real estate financing represents a key indicator for the degree of market maturity. A comparison of the outstanding mortgage loans and its contribution of the mortgage market to the GDP underline the differences in the activity of the mortgage markets. Figure 19 demonstrates that Kenya is in the leading position. The reference interest rates led to a decline in the banks' lending rates and hence to further grants of mortgage loans. The investors are provided with a more efficient financing opportunity.

[185] Cf. Appendix A: Figure 41.
[186] Cf. Lieser, K. (2012), p. 67.

But still, the contribution of the mortgage financing to the GDP emphasizes the underdeveloped regional stage of the mortgage markets.

Figure 19: Comparison of Outstanding Mortgages and Contribution to GDP



Source: Own illustration, referring to chapter 4.3.

Although Kenya's shows a higher degree of maturity it still remains on a remarkably low level. Mortgage financing in EU member states contributes on average 50 percent to the GDP.[187] The Tanzanian and Ugandan mortgage markets are at infancy stages and demand for further improvement in order to facilitate real estate financing and promote the maturation process.

Market transparency still forms a major constraint for improvement in the real estate sector. The lack of transparency has a negative impact on the real estate business and on the attractiveness as a potential investment destination.[188] The widely used Global Real Estate Transparency Index serves as a maturity indicator. It compares and ranks 102 real estate markets based on the commercial real estate industry. Referring to the JLL's report on market transparency, transparency is i.a. defined as absent information asymmetries, a sufficient regulatory framework and fair market interaction and connectivity. It outlines that Ireland has significantly improved its position by successfully implementing a REIT regime. Thus, the establishment of REIT structures in East Africa can be the next step in encouraging maturity of the real estate markets. Market transparency and the ranking is i.a. based on the degree of market robustness, cross-border investments and corruption scandals. Additionally, adequate access and consistency of market data constitute further measurement parameters. Relating to this

[187] Cf. Bank of Tanzania (2013), p. 4.
[188] Cf. Goddard, J./ Marcum, B. (2012), p. 269.

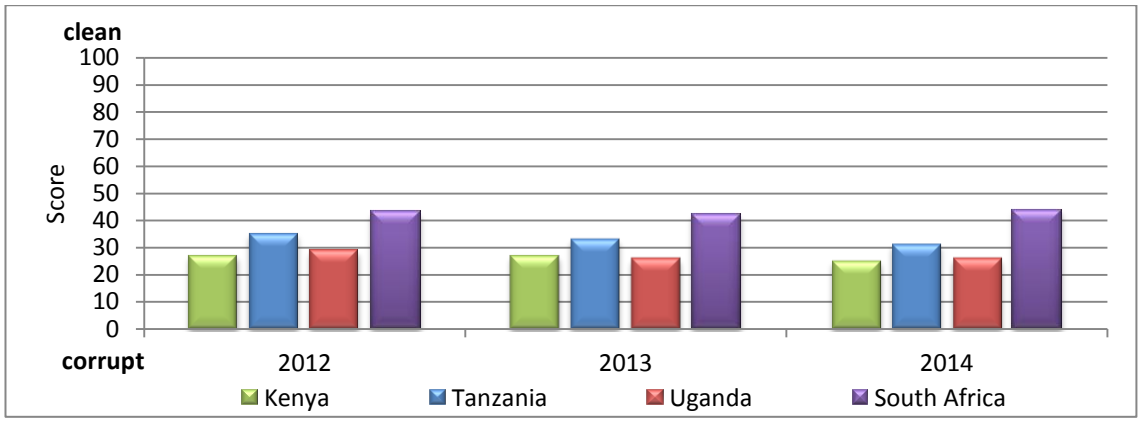
report the Sub-Saharan region has achieved a significant performance upgrade and represents a hub of improved transparency. From 2013 to 2014 the performance increased by 32 percent. In general, the degree of transparency is divided into the following categories: high transparency, transparency, semi-transparency, low transparency, opaque transparency. Kenya has moved into the global top ten countries, which have made the best progress in real estate market transparency.[189] In 2012 Kenya took rank 67. This year the Kenyan real estate sector has reached semi-transparency level and ranks position 55. Compared to 2013 the performance improved by 50 percent. The success is i.a. caused by the introduction of a REIT structure and the increased interest from international investments. However, Uganda is listed for the first time ranking position 82. The real estate market is characterized as low transparent.[190] Taking South Africa as a prototype in terms of African real estate markets, South Africa occupies the 20th position in global comparison. However, Tanzania is not yet included in the report. Hence, the Tanzanian real estate market transparency can be characterized as opaque.[191] It is notable that since 2012 more than 80 percent of all markets have recorded improvements. The Sub-Saharan real estate markets are expected to achieve further progress in transparency.[192] In order to provide consistent information in East Africa the Ministries of Lands target to install a professional and systematic land rent database. The progressive integration into international real estate markets and the entering of foreign investors demands for information provision and market transparency.

Moreover, combating corruption becomes a key factor for easing real estate relating business activities. The reduction of corrupt structures is fundamental to exploit the entire real estate market's potential. Referring to the internationally accepted Corruption Perceptions Index, the underlying East African countries perform weakly and therefore possess a low rank. The index, illustrated in Figure 20, measures a country's perceived degree of corruption in the public sector.[193] In 2014 Kenya scores 25 and Uganda 26 points out of 100. However Tanzania features a value of 31. During the last three years the countries recorded a decline of score. South Africa, as an example for a more developed country, scores 44. The figure illustrates that the East

[189] Cf. Jones Lang LaSalle (2014), p. 2.
[190] Cf. Jones Lang LaSalle (2014), p. 11.
[191] Cf. Rothacher, N.(2013), p. 7.
[192] Cf. Jones Lang LaSalle (2014), p. 17.
[193] Cf. Transparency International (2014).

African countries have not yet successfully combated corruption. Corruption still remains a barrier for doing business effectively.

Figure 20: Corruption Perception Index



Source: Own illustration, referring to: Transparency International (2014).

But the governments are aware of the negative impact of corruption. Taking Tanzania as an example, the Prevention and Combating of Corruption Bureau established a new Act in 2007 which targets at the sensitization and reduction. Furthermore, the government's National Anti-Corruption Strategy and Action Plan aims at the further combating of negative effects of corruption.[194] According to a survey which covered 3,900 companies' political stability and integrity remain essentials in order to draw foreign investments.[195] Hence, corruption perception of potential real estate investor displays a critical factor for further attraction of real estate investments.

An efficient property registration system is a key factor for promoting market maturity. Information concerning property rights and undertaken transactions are fundamental to achieve full market transparency and consistency. Kenya shows high progress towards professionalization of land registration and administrative structures by i.a. adequately maintaining a rent data base and digitizing land records. Moreover, new constitutions have been implemented which oversee the transaction of public land to the private sector. The Ugandan real estate market has to deal with multilayered challenges. Titled land only accounts for 20 percent. 80 percent are logged in a tenure system. At present, only 18 percent of Uganda's land is listed in the registration system. This statistic reflects the inefficiency and inadequacy of the land administration system. More

[194] Cf. Kongela, S. (2013), p. 77.
[195] Cf. Henisz, W./ Zelner, B., p. 155.

specific, only 5 percent of the rural area is registered.[196] Referring to the Ministry of Lands, Housing and Urban Development, the administration system is not adequately funded, which leads to unprofessional execution. The real estate sector lacks qualified employees. Specialized workforce in professional disciplines like surveying, valuation and planning is rare.

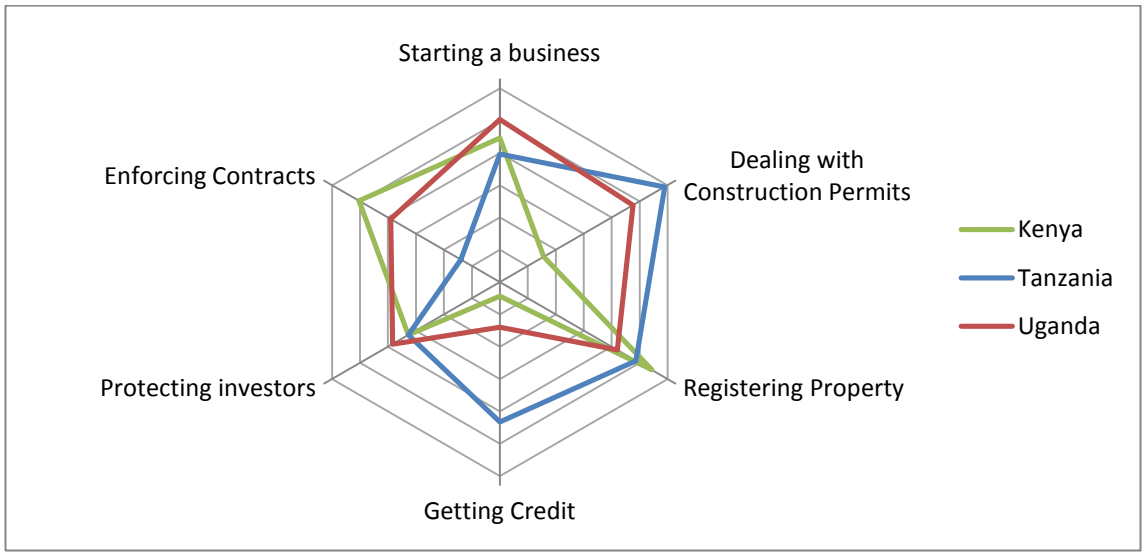
Bridging the annually increasing housing shortages and underdeveloped transport infrastructure become complex challenges for each of the particular investigated real estate markets. The East African community's real estate development suffers from lacks in fundamental transport infrastructure. Adequate transport networks are directly linked to demand conditions of the office space market.[197] Developed infrastructure works as an engine for the real estate sector. In 2012 the East African Community came up with a strategic infrastructure development plan. It targets the expansion and upgrade of the interstate road, railway and port network until 2020. The Plan i.a. projects the rehabilitation of the Central Line railway, which connects Tanzania with Uganda, Burundi and Rwanda. Furthermore the linkage of the Kenya-Uganda railway and the Tanzanian railway system are scheduled. The projects' investments, which are undertaken only within the region of the East African Community, are estimated at USD 14.4 billion.[198] Additionally several road projects are in the pipeline to upgrade the interstate road networks. According to the Tanzania National Road Agency (TANROADS), half of the Tanzanian trunk roads are paved, whereas unpaved regional roads account for around 95 percent. The Kenyan road network features a similar degree of development. 93 percent of the network is unpaved and in total 55 percent out of the total 160,000 km are at poor condition.[199] Only the key connective highways are in good conditions. In order to promote the East African integration, the World Bank grants credit of USD 1.2 billion. The investments are geared towards the improvement of the ports and inland waterways.[200]

Figure 21 reveals selected barriers in terms of real estate related business activities in the selected East African countries.[201] The underlying criteria are based on the Doing

[196] Cf. National Planning Authority Uganda (2014), p. 82.
[197] Cf. Imperiale, R. (2006), p. 154.
[198] Cf. East African Community (2012), p. 4f, the investment value is based on an own assessment of the underlying structure plan: East African Community (2012), pp. 4.
[199] Cf. Kenya Roads Board (2014).
[200] Cf. Reuter (2014).
[201] The size of the hexagons indicates complex constraints and barriers in the particular evaluation criteria.

Business Report 2014, published by the World Bank. The report draws the comparison of 189 countries by contrasting the ease of doing business.

Figure 21: Ranking of the Ease of Doing Real Estate Business in East Africa



Source: Own illustration, referring to: The World Bank (2014b).

The Kenyan real estate market performs well concerning dealing with construction permits and access to credits, even in international comparison. East African countries provide a sufficient legal framework to ensure investor protection. According to the report, shareholders are protected against improper personal benefits of corporations' managers.[202] But the East African countries indicate similar barriers in starting a business and investors' protection. Furthermore, property registration demands for long processes. Tanzania exhibits major weaknesses in the ease of taking loans and in the process of granting construction permits.

The East African real estate market potential is obvious and emerging. The remarkable attractiveness and opportunities of the East African real estate markets as an investment destination have to be spread to investors. The perception of the attractiveness diverges significantly by market participants. Potential investors, which already have business presence in Africa, attribute to East Africa higher investment potentials.[203] E.g. regionally involved real estate professionals perceive Tanzania as a very attractive real estate investment destination. However detached professionals regard Tanzania a less attractive.[204] Economically, the underlying countries are characterized as low income

[202] Cf. The World Bank (2014b), p. 46.
[203] Cf. Ernst & Young (2014), p. 63.
[204] Cf. Rothenberger, S. (2010), pp. 149.

non fragile countries, which merely draw low global competitiveness. Based on the GDP per capita the economy is factor-driven and at nascent level, but they develop at a sharp ratio.[205]

In summary, East Africa cannot be taken as a mutual investment destination. The countries vary by the stages of real estate market maturity and attractiveness. Kenya, as the first mover of REIT implementation, features comparatively highest developed market conditions. Still the countries have to cope with deficits in transparency and inadequacies in the property market and bureaucracy. These existing constraints inhibit investors' attraction. But the improvements during the last past years are remarkable and the region provides enormous potential in further maturation in the long term. The establishment of REITs will encourage market expansion and variability. The impact of REITs and the significance of introduction in the context of intended market maturation are presented in a more detailed manner in the following chapter.

[205] Cf. World Economic Forum (2013b), p. 6, p. 15.

5. Feasibility of Introduction of REITs in East Africa

The following chapter treats the viability of REITs in the underlying East African countries. The legislative property market environment is analyzed in order to outline the fundamental framework for the introduction of REITs. Subsequently, the Kenyan and Tanzanian REIT regimes are presented. Based on these and other international REIT structures a potential pattern for the Ugandan investment market is developed. Finally, the significance of REITs for the East African financial and real estate market is underlined by contrasting their market related opportunities and risks.

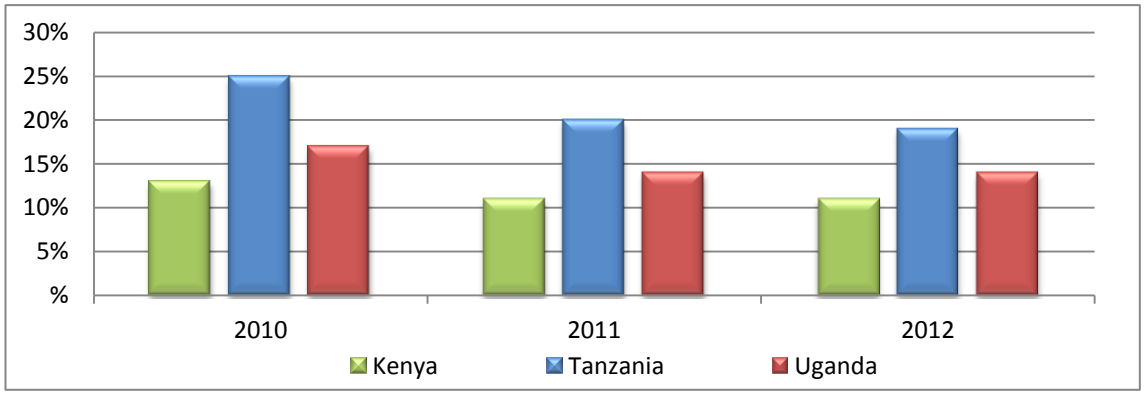
5.1 Implementation Framework

In order to integrate REIT schemes into the capital market environment, legal conditions and the potential investor landscape have to be identified and taken into account. The investors' requirements and preferences are of major interest. In general, individuals, domestic and international institutions comprise the REITs' main potential investors aiming at risk diversification and strong returns.[206] Considering the East African investment environment institutional, investors represent the main target group due to their status as leading market players. Especially funds, banks and governmentally owned corporations play key roles in the particular real estate market. The underdeveloped East African capital markets do not provide sufficient supply to exploit the full investment potential. In Uganda, the investment opportunities are limited and concentrated on stocks, treasury and corporate bonds and money instruments, whereas Tanzania recently implemented its first REIT. Kenya came in first place to lay down the regulatory fundaments for a successful integration of a REIT scheme. Since the establishment in 2013, the REIT market has been steadily growing indicated by the increasing number of REIT licenses granted. Hence, the concept of REITs is a powerful additional investment channel and a driver for the extension of the investment environment and its regional and global competitiveness.

The following figure which pictures the percentage contribution of the saving rate to the GDP illustrates that Tanzania recorded the highest saving rate even though its GDP falls much below the Kenyan counterpart.

[206] Cf. Schäfers, W. et al. (2008), p. 156.

Figure 22: Contribution of Savings to the GDP



Source: Own illustration, referring to: The World Bank (2014c).

Due to the low GDPs in Uganda and Tanzania, the amount of savings features a low level. Nevertheless, the proportion to the GDP has been stable between 2010 and 2012; simultaneously the GDP has significantly increased. As a consequence, the savings are growing leading to a favorable basis for the introduction of REITs. According to The World Bank, saving rates in private and public sectors must be increased in order to make way for investments in new real estate and infrastructure projects. I.a. improvements in property right legislation can produce successful changes in this regard.[207] The introduction of REITs in Kenya and Tanzania pursues this goal of encouraging savings for the purpose of residential real estate investments.

In general, REIT markets are predominantly influenced by the governmental intervention in terms of provision of supporting legal structures and political environment. In this context, foreign investors' attraction is based on a sufficient political and financial stability and transparent market activities. For example, the trend of FDI indicates the investment attractiveness.[208] As already analyzed, the East African region is nascent and is becoming a more competitive international investment destination. The arising attractiveness underlines the positive conditions for additional capital inflow into REITs which will help to establish the East African REIT regimes globally.

In Kenya, property rights are adequately secured and set stage for the ongoing maturation process of the real estate market. The sufficient legal and administrative environment boosts the success of the REIT scheme and its viability. In 2010 the new constitution of the National Land Policy was launched in order to encourage the land

[207] Cf. The World Bank (2013c).
[208] Cf. Goddard, J., Marcum, B. (2012), p. 268.

administration system. Moreover, the implementation of the National Land Commission and the Land Registration Act in 2012 promotes further stability and professionalization of the legal and administrative framework.[209] The Tanzanian property system has significantly improved during the last years. The real estate sector has become a booming investment destination. The attractiveness, especially for international investors, is i.a. based on the tax incentives and improvements of ownership legislation. Additionally, the Tanzania Investment Act (1997), The Unit Titles Act (2008) and the Financial Leasing Act (2008) represent cornerstones and drivers for the professionalizing, organizational, legal and administrative structure. These statues eased real estate activities of developers and made the property market accessible for retail investors. For instance, since the enactments Tanzanians are able to own separate title certificates for different units. Furthermore, the Property and Business Formalisation Programme targets the enhancement of property registration and the promotion of market efficiency. The changes in the legislation have already achieved great success. For example, half of the unregistered properties in Dar es Salaam have already been registered.[210]

The launched REIT schemes in Kenya and Tanzania can be seen as the outcome of the maturation of legal and financial structure. It strives for the attraction of major real estate market players to convert to a REIT. The establishment of the first Tanzanian REIT which does not yet list on the DSE indicates that the regulatory and market infrastructure found an appropriate basis for further REIT market penetration. The DSE is confident that the underlying legal framework coupled with the efficiency of the operative stock market is suitable and encouraging for the listing of REITs.[211]

However, Uganda is still lacking of a sufficient legal and regulatory environment. Nevertheless, the property market has achieved remarkable progress in the property administration system. The establishment of the Land Information Systems and the Land Sector Strategic Plan (2002-2012) increased the proportion of registered properties. The housing policy environment is emerging, though, but at a low stage. The government still works on the National Real Estate Policy and several other legislations, like the Land Acquisition Act and the Registration of Titles Act.[212] Their enactment is essential for an adequate property market fundament. It will lead to a more efficient

[209] Cf. CAHF (2014), p. 89.
[210] Cf. Kusiluka, M. (2013), p. 108.
[211] Cf. DSE (2014c).
[212] Cf. CAHF (2014), p. 186.

statutory framework for the feasibility of a REIT regime. In addition to appropriate REIT regulations, potential investors must be addressed in order to successfully implement the new investment product. The Ugandan CMA is very sensitive to the significance of REITs and the lack of adequate basic conditions: "The Ugandan market is ready for a diversity of products to widen the offering to investors. REITs can be among the products availed to investors in furthering this bid. However, for this to come to fruition, the necessary legal and regulatory framework has to be in place as well as sensitization of investors to raise the levels of awareness."[213]

5.2 Implemented and Potential REIT Structures

Kenya and Tanzania have already successfully established market tailored REIT schemes. The implementation indicates that the economic, legal and investor environment is able to deal with and benefit from the concept of REITs. In the following sub-section the particular REIT structures are presented. In addition to this investigation, potential REIT regulations for the Ugandan real estate market are proposed.

5.2.1 Kenyan REIT Structure

Kenya was the first East African country adapting REIT structures. In 2013 the government introduced The Capital Market Real Estate Investment Trust Regulations. The REIT is structured as an unincorporated law trust.[214] Main business activities determine the assignment of one of the two different regulatory forms. On the one hand, development REITs (D-REIT) concentrate on the development and the construction of real estate properties. On the other hand, investments REITs (I-REIT) pursue an income concentration strategy. The free float ratio must not exceed 25 percent of the total amount of securities. It represents the proportion of the publicly traded shares. A higher free float enables big transaction of share packets and leads to higher share prices.[215]

D-REITs can be structured either as an open-end as or as a closed-end fund. Closed-end funds issue a limited number of units. As opposed to open-end funds, unitholders cannot repurchase before the maturity of the units is expired. The REIT manager, the promoter and the trustee represent main involved parties in the REIT concept. The managers have

[213] CMA Uganda (2014b), p. 12.
[214] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Regulation 5 (a).
[215] Cf. Schäfers, W. et al (2008), p. 161.

to pay KSH ten million for licensing a REIT (USD 115,000).[216] The minimum value of the initial assets for D-REITs, required by the CMA, amounts to KSH 100 million (USD 1.15 million) which is provided by the trustee. Banks or any other licensed companies commonly constitute REIT trustees.

D-REITs are defined as restricted. The restriction determines the number of investors to at least seven professionals. A single shareholder is limited to a share capital of 50 percent of the REITs total assets. Moreover, other investors are obligated to hold a maximum proportion of 25 percent.

The D-REITs' objectives comprise residential and commercial real estate projects. More precisely, they deal with the development, purchase, holding and letting of real estate properties.[217] D-REITs' total development assets are prohibited to fall below 15 percent of the total assets. They can directly or indirectly invest in real estate i.a. by purchasing real estate properties or investing in domestic real estate companies.[218] During the first year after authorization at least 30 percent of the total asset value must directly be invested in development and construction or already completed income producing real estate. Residential real estate assets are determined to be held as freehold or at least 25 years of leasehold. Consequently, the D-REIT structure targets long term housing projects. Borrowings are limited to 60 percent of the total asset value. D-REITs do not face any distribution requirements. According to the regulations, the REIT trustee determines the distribution to the shareholders in consolidation with the manager.[219] If D-REITs generate capital gains, they must either be distributed to the shareholder or reinvested within the next two years.

I-REITs can either be restricted or unrestricted. Restricted I-REITs are able to be structured as open-end funds or closed-end funds, whereas unrestricted I-REITs are subjected to be formed as closed-end funds. I-REITs are defined as restricted if the issuance is only addressed to professional investors and if the REIT is not mandatory to be listed. However, unrestricted I-REITs are mandatory to list at the stock market. Due to the issue requirement of KSH 5 million (USD 57,400) the restricted D- and I-REIT strives for attraction of institutional investors like banks, insurance companies and funds.[220]

[216] Cf. Herbert Smith Freehill (2013), p. 12.
[217] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Regulation 10.
[218] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Regulation 82.
[219] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Regulation 76.
[220] Cf. Herbert Smith Freehill (2013), p. 7.

In general, I-REITs focus on ”the acquisition, for long-term investment, of income generating eligible real estate and eligible investments including housing, commercial and other real estate”.[221] At least 70 percent of the I-REITs' earning must derive from income producing real estate. The revenues comprise rents, license fees, usage rights and capital gains from sales of real properties. The total acquisition value for the purpose of development and the costs of construction is limited to 50 percent of the I-REITs' total asset value. This regulation targets the deduction of the development risk. Moreover, vacant land which has been acquired with intent of development is restricted to be held up to three years in order to ensure steady development activities.

I-REITs are subjected to distribute at least 80 percent of the annual income in form of dividends.[222] Furthermore, they are restricted to a LTV of 35 percent. The loans can be secured by the underlying real estate properties. In international comparison the Kenyan LTV requirement is strict. The majority of REIT regimes record a borrowing restriction of at least 50 percent. The I-REIT structure aims at limiting the debt capital risk. Liabilities are prohibited to exceed 60 percent of the total assets' value. The trustee can take up loan on behalf of the I-REIT, if the total borrowing falls below 35 percent of the total asset value.[223] If the D- and I-REITs meet all the requirements they are exempt from corporate and income tax at corporate level.

D-REITs are able to convert from a so called open REIT to a closed restricted or unrestricted I-REIT by application. Moreover, a conversion is executed if the value of the D-REIT's development assets falls below 15 percent of the total assets and additionally if 50 percent of the properties can be categorized as long term income producing. The D-REIT is allowed to offer a mortgage financing to a tenant or purchaser in order to buy a residential unit from the D-REIT. As a consequence the D-REIT converts to an I-REIT und is subjected to the I-REITs regulations.

On the contrary, a restricted I-REIT can transform into a restricted D-REIT.[224]

According to specific NSE requirements, converted I-REIT must be constituted of at least 1000 investors.[225]

[221] CMA Kenya: The Capital Markets REITs Regulation 2013, Regulation 11.
[222] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Regulations 69 (1), 72 (2).
[223] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Regulations 70, 71.
[224] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Part XII.
[225] Cf. Herbert Smith Freehills (2013), p. 15.

5.2.2 Tanzanian REIT Structure

In 2011 The Tanzanian Capital Markets and Securities Authority (CMSA) launched The Capital Markets and Securities (Collective Investment Schemes Real Estate Investment Trusts) Rules which precisely define the REIT structure. According to this scheme, the CMA only approves close-ended structured funds until open-ended structured funds are regarded as market applicable. The limitation solely represents a transitional solution.[226]

The management company of a REIT which has to be incorporated in Tanzania must be authorized by the CMSA. For example, banks, property development or investment holding can take the position of the management company. The company's business services comprise the establishment, organization and management of the REIT. Furthermore, the management company is subjected to hold at least 30 percent Tanzanian equity and account for at least TZS one billion (USD 0.62 million) shareholder funds. It is prohibited to outsource its main business responsibilities to a third foreign party if the fund has not yet undertaken any foreign real estate investments.[227] The REIT trustee which must be a Tanzanian corporation must as well be approved by the CMSA. The trustee is subjected to a minimum issued and paid-up capital determined by the Banking and Financial Institutions Act 2006.[228] Additionally, the CMSA demands for an investment committee functioning as an overseeing third independent party. The committee safeguards the proper fund management and suggests adequate investment strategies.
The minimum size of the Tanzanian REIT accounts for TZS ten billion (USD 6.17 million). The management company and the trustee have to pay an approval fee of TZS three million each, whereas the establishment approval requires TZS 15 million.[229]

According to rule 51 of the scheme, the REIT's investments in real estate and (or) single purpose companies have to exceed 50 percent of the total assets' value.[230] Acquired real estate properties are supposed to be fully tenanted or feature high letting potential. The fund aims at full or majoritarian ownership interest of the purchased real estate asset. The total value of purchased real estate under construction is limited to ten percent of the REIT's total assets. The proportion of investments in real estate related assets, non-real estate related assets, cash and money market instruments is restricted to

[226] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Regulation 3.
[227] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Part II.
[228] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Part IV.
[229] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Regulation 115.
[230] Single purpose companies do not list on the stock exchange and hold predominantly real estate assets.

25 percent.[231] Investments in securities which are offered by a single issuer are limited to five percent of the fund's total assets. The proportion of investments in securities of a group of companies shall not exceed ten percent of the total assets. The securities investment requirements do not imply governmental and Central Bank securities. The real estate investment activities are not limited to the domestic market, but potential barriers and risk have to be precisely taken into account in terms of ownership restrictions, foreign exchange and other constraints.

Real estate development investments are restricted to ten percent of the fund's total assets. However, the property development restriction does not imply refurbishments and renovation activities. Moreover, the fund is excluded from the acquisition of vacant land and property development if the property is sold within three years. In contrast to the D-REIT the Tanzanian REIT does not focus on real estate development projects. Due to the ten percent limitation and the required holding period of developed properties, Tanzanian REITs concentrate on long term real estate investments. Thus, the structure resembles the I-REIT framework.

The REIT is bounded by a LTV ratio of 50 percent and is subjected to distribute at least 90 percent of its annual net income after tax. Any failure to respect the real estate investment rules must be adjusted within one year.[232]

In order to ensure informational transparency the management company serves a detailed report treating the income distribution to the unit holder. More precisely, the statement covers the fund's total returns and the NAV per unit in the context of unlisted REITs. Moreover, the offer document and the annual and interims reports are provided. The annual report i.a. includes a financial statement, information about the performance as well as the manager's and trustee's report. [233]

5.2.3 Potential REIT Structure in Uganda

Uganda has not yet enacted REIT regulations. Characteristics of the Kenyan and Tanzanian REIT schemes can function as role model for the introduction of a REIT scheme in Uganda. In general, a REIT framework should allow corporations to convert to a listed and non-listed REIT in order to offer a wide spectrum of conversion opportunities.

[231] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Regulations 50, 51.
[232] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Regulation 59.
[233] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Regulation 105.

The REIT's objectives are supposed to meet the real estate market demands. Thus, the REIT structure has to be based on the underlying investment and property market conditions. As outlined in chapter four the real estate market faces similar housing deficits as the remaining East African countries. The lack of housing supply coupled with the annual increasing housing deficit represent major challenges. Due to that fact the REIT structure should be designed in the purpose to compensate the remarkable housing shortage. Hence, the introduction of development REITs would be applicable to promote the construction of residential properties. The entailed development costs must be considered in terms of borrowing limitation. The D-REIT is restricted to a LTV ratio of 60 percent. Compared to international REIT regimes, the borrowing regulation offers a potential to undertake real estate developments. On the contrary, listed REITs raise funds from the equity market and are therefore limited in debt capital. Hence, they finance growth internally. Development REITs are not listed and must therefore pool additional capital from borrowings.[234]

Table 12: Comparison of the Kenyan and Tanzanian REIT Structures

Requirements	D-REIT	Unrestricted I-REIT	Tanzanian REIT
Structure	Open-end fund Closed-end fund	Closed-end fund	Closed-end fund
Listing Mandatory	Restricted	No	No
Initial Assets	USD 1.15 mln	USD 3.44 mln for IPO	USD 6.17 mln
Assets	≥ 15% development assets ≥ 30 % in the first year	≤ 15% development assets Development properties must be held for ≥ 3 years	≥ 50% g real estate assets and/or single purpose companies ≤ 10% development assets Development properties must be held for ≥ 3 years
Income	No requirements	≥ 70% derived from income producing real estate assets	≥ 50% derived from income producing real estate assets and single purpose companies
LTV	≤ 60%	35%	50%
Distribution Requirements	none	80%	90%

Source: Own illustration, referring to: CMA Kenya: The Capital Markets REITs Regulation 2013, CMSA Tanzania: Collective Investment Schemes REITs Rules.

[234] Cf. Schäfers, W. et al (2008), p. 154.

The CMA of Uganda is supposed to determine the income and asset allocation. In addition to a development REIT, an investment REIT might be introduced which mainly draws income from real estate properties. Real estate assets should account for the majority of the investment REIT's total value. The investment REITs should be allowed to undertake investments in real property, other REITs and income securities related to property. Therefore, earnings must mainly derive from rents and sale of properties. In order to attract investors, the dividend distribution should be restricted to at least 80 percent.[235] The potential public listed REITs should account for at least 100 minimum shareholders in order to encourage the REITs' liquidity.

In international comparison the mandatory minimum value of publicly traded REITs differs according to their investment strategies.[236] REITs which are specialized in medium standard housing projects should have a lower required value than high quality focused REITs. The different REIT investment specializations, provided by different investment strategies, encourage investors to spread risk and diversify their portfolios. Moreover, the converting company is supposed to already possess real properties. Meeting all the requirements the REITs must achieve tax exempt status. The exemption shall refer to all taxes, including VAT, corporate and capital gains tax. Property investment companies must be attracted to convert to a REIT. That is why incentives may be offered. In addition to fiscal incentives, the company conversion must be attracted by further financial inducements. For example, the opportunity for the first sponsor to the majority ownership can be extended to more than 50 percent in order to provide the sponsor with extra revenue potential.[237] Furthermore, the introduction of a new investment vehicle demands for professionalism. To ensure a real estate professional board, managers should have experience and expertise in doing real estate business over years. Nevertheless, Uganda must create an appropriate legal and regulatory frame in terms of property markets first before a REIT system can efficiently be implemented.

[235] Cf. CMA Kenya (2008), p. 3.
[236] Cf. Appendix B: Table 17.
[237] Cf. CMA Kenya (2008), p. 3.

5.3 Assessment of Introduction

The following sub-sectors briefly treat the process and authorization regulations of REIT transformation in Kenya and Tanzania. In addition to the conversion the process of and benefits from a REIT's initial public offering are illustrated.

5.3.1 Transformation to a REIT

According to the Part III of The Capital Markets Act 2013 of Kenya, the promoter and the trustee have to apply for a REIT authorization. In addition to the name of the REIT and the specific REIT structure, the involved parties have to be transparently stated. In this context the promoter, or issuer, the transaction adviser, the trustee and the REIT manager have to be declared. Is has to be defined if the company applies for the conversion to an I- or D-REIT and if the REIT is structured as an open-ended or closed-ended fund. Furthermore, Table 13 lists further mandatory submission requirements.

Table 13: Additional REIT Authorization Requirement in Kenya

• Prescribed Application Fee
• Draft Trust Deed
• Draft Prospectus/ Offering Memorandum
• Draft Agreement with the Property Manager
• Draft Agreement with the Project Manager Certifier
• Copies of Valuation Reports of Properties (acquired and planned to be acquired)
• Reports of Experts
• Legal Opinion regarding the Title, Terms of Contracts and Status of Registration of the Real Estate Assets
• Audited Financial Statements of the REIT Manager for the Financial Year
• Audited Financial Statements of the Trustee for the Financial Year

Source: Own illustration, referring to: CMA Kenya: **Collective Investment Schemes Regulations, 2013.**

In Tanzania the conversion of a fund to a REIT demands similar requirements. The procedure closely resembles the application mode required by the Kenyan CMA. The statements i.a. report transparently scheduled real estate acquisition. They treat the profit and performance forecast for the first and or second year depending on the time of application. Additionally, the management company and the trustee need to declare their mutual independency.[238]

[238] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, p. 97.

5.3.2 Initial Public Offering

From the REIT's prospective different motives and considerations are associated with an initial or primary public offering. Listing on a stock market is connected to the possibility of acquisition of additional equity capital. Due to the LTV limitation by the particular CMA, equity capital plays a major role in the context of an IPO. I-REITs are only allowed to raise debt capital up to 35 percent of its total assets. The IPO pools additional capital from retail and institutional investors and provides a new channel to deepen and extent the shareholder structure. The company becomes more transparent and therefore may attract additional and different investors. The going public process i.a bounds the REIT to publish relevant information, like frequent reports, and to introduce international standardized accounting methods like the IFRS. As a consequence, an IPO encourages international comparability.[239]

To meet the investors' demand their preferences have to be identified. The particular demand may vary significantly from to country to country and from investor to investor. The strategic positioning and the equity story of the REIT are fundamental for a sustainable success after a public offering. The equity story covers the REIT's uniqueness and strength to attract potential investors of its prospective success.[240] As already mentioned in chapter 2.4 sectoral and geographical strategic concentrations define the most widely used REITs alignment. The specified REIT benefits from more competitive and outperforming market segments. This strategic concept promotes market penetration and competitiveness. [241] Shareholders are advised to diversify their portfolios by investing in different specialized REITs which possess a strong risk-return profile. Referring to the real estate market in East Africa is has to be stated that listed REITs will promote market competition. The benefitting investment structure is viable to survive in the markets. Shareholders will not suffer from a residential market specialization of East African REITs. Due to the outstanding investment opportunities a lack of asset class diversification will not have a negative impact on the shareholders returns.

Mandatory requirements to qualify for an IPO are i.a. a minimum share capital and a minimum number of shareholders. For example, the CMA of Kenya requires a

[239] Cf. Schäfers, W. et al (2008), p. 154.
[240] Cf. Weiler, L. (2001), p. 86.
[241] Cf. Schäfers, W. et al (2008), p. 160, Bone-Winkel, S./ Peffer, T. (2008), 169.

minimum initial asset of KSH 300 million (USD 3.44 million) as a listing condition.[242] However, if a REIT lists on the DSE the issue price of a unit is prohibited to fall below TZS 100 (USD 0.06). The IPO requires that the public shares account for at least five percent of the approved fund size of maximum TZS 500 million (USD 0.31 million). If the total asset value of the REIT exceeds TZS 500 million, the public offer portion has to amount to at least two percent of the approved fund size or an aggregate of ten million units.[243]

Moreover, key factors which have catalyzed previous global REIT introductions are essential for the East African REIT's successful IPO process. [244]

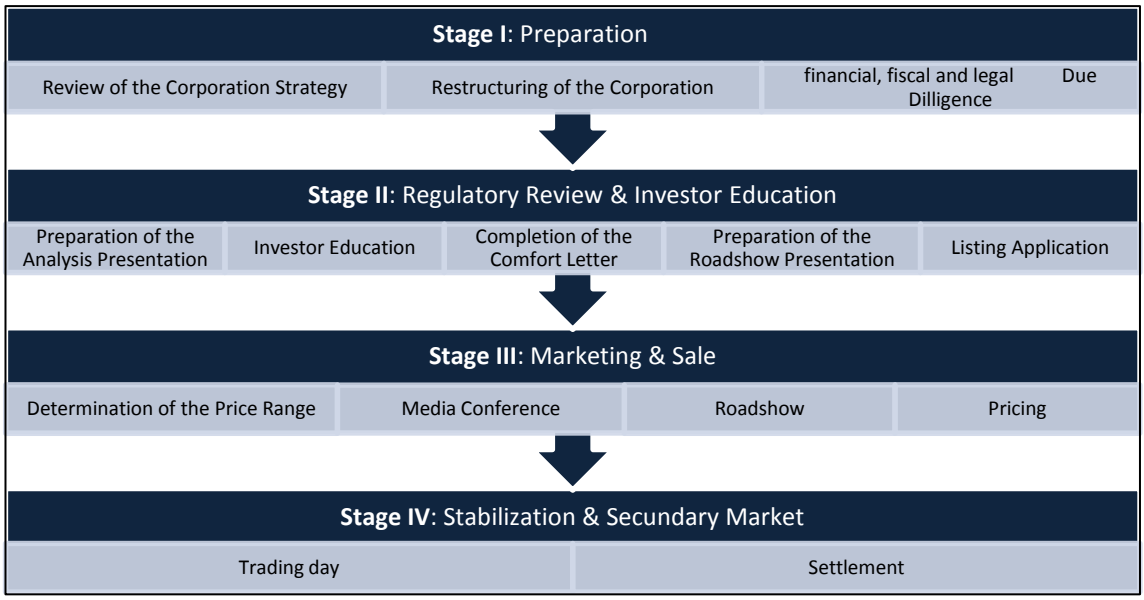
The choice of the optimal management concept geared towards the particular investment strategy is fundamental for the REIT's performance. In general, there are three different strategies to manage a REIT: internal, external or unregulated hybrid management. The global REIT history showed that internally managed REITs perform better than externally managed REITs. Relating to an investigation undertaken by the NAREIT in 2007, REITs with common management tasks are internally managed. REITs which operate in the office and residential sector predominantly feature internal managements.[245] Due to remarkable dividend distributions the REITs' success is predominantly based on the management performance regarding liquidity provision. Due to the fact that I- REITs and Tanzanian REITs are mandatory to pay out at least 80 percent and 90 percent of the annual income, the warranty of steady real estate properties' cash flow are significant. As a consequence, the managers' professionalism, expertise and credibility represent an important success driver. Additionally "initial public offering" literally demands for a transparent communication towards potential investors and the CMA. The establishment of the new, unknown investment vehicle intensifies the necessity of communication to potential investors in order to present their return opportunities. The provision of information to the investor contains i.a. the explanation of the REIT's investment market penetration strategy which aims at meeting the investors' preferences.[246] According to the CMSA of Tanzania the application for the listing of unlisted REITs on the DSE require specific information provisions concerning the purchase and ownership of the real estate assets. The

[242] Cf. CMA Kenya: The Capital Markets REITs Regulation 2013, Regulations 29.
[243] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, Regulation 87.
[244] Cf. Schäfers, W. et al (2008), p. 154.
[245] Cf. Farhat, R. (2008), p. 188, Goddard, J./ Marcum, B. (2012), p. 268.
[246] Cf. Moritz, G. (2008), p. 182.

application requires an accounting report and audited financial statements covering the last five years or since establishment. The accountant's report treats the fund's revenues and operating costs. Additionally, the application form must comprise a profit and performance forecast.[247]

A standardized initial public offering process of a REIT usually comprises four steps and follows the process illustrated in the next table:

Table 14: Typological IPO- Process of REITs



Source: Own illustration, referring to: Schäfers, W. et al. (2008), p. 162.

5.4 Significance of the Introduction of REITs

The introduction of REITs in East African financial markets provides several advantages and benefits for the REITs, the investors and the entire East African capital markets. Nevertheless, potential barriers and constraints must be taken into account. The impact of the implementation is analyzed in the following sub-chapters.

5.4.1 Necessities and Opportunities

From the corporations' perspective the conversion to a REIT offers the outstanding advantage of corporate tax exemption at corporation level. The CMAs play a key role for the viability of REITs. Fiscal incentives must be implemented and achieved by a

[247] Cf. CMSA Tanzania: Collective Investment Schemes REITs Rules, p. 98.

close cooperation with the government.[248] Corporate taxation in the underlying East African countries reaches 30 percent.[249] In addition to a corporate tax exemption Kenyan REITs avoid VAT. Moreover, Kenya does not charge any capital gains tax neither at investor nor at corporation level. Consequently, Kenya offers a supporting fiscal treatment to attract corporations to convert to a REIT. The Tanzanian REIT scheme also exempts the corporation from corporate income taxation. The tax is therefore passed through to the individual investors. The Tanzanian CMA deducts taxation for the issuer of a REIT in the context of IPOs. Additionally, the investors are provided with a fiscal incentive. Investments in Tanzanian listed REITs exempt the investors from paying capital gain tax of ten percent. Furthermore, the withholding tax is reduced from ten to five percents on income derived from dividends.[250] A similar tax treatment at corporations' and investors' level would promote the implementation of REITs in Uganda. For instance, Tanzania does not offer any additional tax efficient real estate investment instrument. Referring to Dr. Mpogole Kusiluka, Commissioner for Lands of Tanzania, the tax incentive provides opportunities for investors. Moreover, the REIT regime will attract foreign investors.[251]

Lower sensitivity to interest rate movements constitutes a further gain factor regarding real estate investments. According to the common investors' perception REIT returns are less attractive if interest rates increase or if they are at a high level and vice versa. In contrast, a NAREIT Equity index survey gives evidence that the index correlate less to an interest rate shift than government bonds. Hence, participants misinterpret market developments. REIT returns react less sensitively to changes in interest rates than bonds and stocks.[252] Relating to the Tanzanian banking sector, the average interest rate featured a volatile trend at a high level during the last years. Due to a strong risk-return profile REIT investments can offer a sufficient alternative in order to reduce risks in changing interest rates.

As analyzed, the East African financial markets are underdeveloped and demand for variability. Nevertheless, the financial landscape is characterized as nascent and fast growing. Especially Tanzania and Uganda require improvements in financial market adequacy. Their banking sectors lag behind the Kenyan i.a. in terms of adequate interest

[248] Cf. CMA Kenya (2008), p. 2.
[249] Cf. Appendix B: Table 39.
[250] Cf. Kongela, S. (2013), p. 243.
[251] Personal interview with Dr. Mpogole Kusiluka, Commissioner for Lands of Tanzania.
[252] Cf. Imperiale, R. (2006), p. 56.

rates. The introduction of REITs will support the process of financial maturation. Therefore REITs provide an attractive tool of real estate financing.[253] Thus, developers will enter the market and are able to closely cooperate with REITs to pool more capital for large-scale projects. The WHC main project serves as a good example for development cooperation. The REIT acts jointly with the government in order to achieve the mutual aim of housing provision. The government functioning as the development partner raised funds to promote the construction of the first 1,500 housing units.[254] Additionally, if Tanzanian property and mortgage developers, such as the major pension funds and the NHC, establish REITs they will offer other real estate developers more efficient real estate funding opportunities. The increasing capital market activities will result in more appropriate bank financing. As a consequence, costs of development, real estate properties and rents will decline.[255] The implementation of REITs can further reform East African property financing by improving the underdeveloped mortgage market. The REITs can provide institutional investors with more efficient mortgage financing. For example, the I-REIT offers mortgage loans to its investors which secure the underlying investment properties.

Common return comparisons of indirect investment products indicate that bond returns fall below stock returns. Their returns feature a comparatively low correlation. However, stock returns record a higher rate of volatility caused by the entailed stock market risk. The introduction of listed REITs will have a positive impact on the stock market. Due to the fact that REITs are long term strategic investments listing of REITs will lead to stock market stabilization. The stable REIT returns are predominantly based on the underlying income from portfolio properties. Thus, the long term returns are less volatile as stocks but fall merely slightly below the stock returns. Moreover, the REIT returns far exceed the bond returns and are only slightly more volatile.[256]

The correlation coefficients and the volatility rate of the South African Investment vehicles, presented in Table 15, significantly support these theses. Although East Africa introduced the REIT regime in 2013, the investment market has already benefitted from existing from listed real estate investment tool.[257] Hence, the analysis which covers the period from 2009 to 2014 forms a meaningful result.

[253] Cf. Block, R. (2006), p. 289.
[254] Cf. WHC (2014).
[255] Cf. DSE (2014c).
[256] Cf. Imperiale, R. (2006), p. 45, Block, R. (2006), p. 14.
[257] Cf. Chapter 2.6.1.

Table 15: Return Correlation Relation of South African Investment Products

Correlation Coefficient	SA REITs	All Stocks	All Bonds	Volatility
SA REITs	-	25,70 %	76,05 %	9,81 %
All Stocks	25,70 %	-	34,00 %	12,23 %
All Bonds	76,05 %	34,00 %	-	5,41 %

Source: Own calculation, referring to: SA REIT Association (2014b).

The SA REIT returns are more stable than stock returns but they are more volatile than bond returns. Between January 2007 and August 2014, the NSE20 and the USE returns record a remarkable volatility rate of 22.0 and 27.3 percent.[258] Compared to them the JSE return is more stable featuring a lower volatility rate of returns of 12.23.[259] As a result, the implementation and maturation of REITs in the South African have led to a stock market stabilization achieved by the expansion of the capital markets. The development of the South African capital market serves as a model for the East African prospect. Referring to Imperiale, the integration of five to 20 percent of REIT investments into portfolios optimizes the investment portfolio by declining risks and increasing returns. Summarizing, the REIT's strong risk-return profile provides outstanding opportunities.[260] Hence, risk-averse potential shareholders are attracted because they will get strong returns coupled with a predictable risk. The concept of REITs generates real estate market liquidity. REITs which focus on portfolio properties must finance growth internally because they are rather income focused stocks. The REITs are subject to raise predominantly equity capital.[261]

From the investors' perspective, the establishment of REITs eases the access to the capital markets. Due to the capital intensiveness of real estate investments small-scale investors are excluded from market activities. The lack of securitized investment instruments until the implementation of the first REITs remained a barrier for a more excessive growth and compensation of illiquidity of the East African real estate sector.[262] The introduction of REITs will open the capital markets for smaller-scale investors. The REITs' framework will expand the East African capital market investors' spectrum by smaller institutional investors as well as retail investors. Moreover, the

[258] Own calculation.
[259] Cf. Appendix A: Figure 42.
[260] Cf. Imperiale, R. (2006), pp. 44.
[261] Cf. Bone-Winkel, S./ Peffer, T. (2008), p. 172.
[262] Cf. Kusiluka, M. (2013), p. 121.

REIT will improve investment opportunities by raising funds from large-scale investors which already operate in the market. For instance, a Tanzanian REIT established by the NHC and property funds can open the capital markets to both individual and professional investors.

A market tailored REIT system meets both the real estate markets' and the institutional investors' demand. It is necessary to create a narrow connectivity between the capital markets and the investors. The institutional investors may be integrated in the property investments. For example, the REIT might enter joint venture partnerships in order to expand their business activities and unite financial and human capital. Additionally, the partnership has positive impact on the shareholder value caused by project partners' informational and financial synergy effects.[263] For instance, developers can use Kenyan D-REITs to finance new projects, especially in the residential sector. Ten percent of the investment must constitute for developer co-investments for the first two years.[264] These developers may take the position of owners of a REIT manager or of a development partner. Moreover, REIT investors benefit from inflation hedged investments. Increasing inflation results in rising real estate values. In contrast bonds and stocks tend to fall in periods of high inflation.[265] Kenya, Tanzania and Uganda feature a declining but still high inflation rate. Thus, REITs offer the opportunity to invest in rather inflation protected assets.

As already mentioned, a property sector specialization promotes the unique selling proposition of a REIT. Other indirect real estate investments vehicles diversify its portfolio by investing in different market segments like residential, office and retail sectors. Since the early 1990s the REITs showed a trend of specialization which led to strong dividends. REITs' investment strategy determines key factors for the rate of return potential, the profitability and the sustainable market penetration. Concentration business models benefit from limited requirements of market expertise. According to a survey by FERI, a REIT strategy's success is predominantly founded on the real estate portfolio, ratings and credibility of the management. The potential prospect of the focused asset class and its market development are essential for a sustainable success. The underlying supply and demand conditions are therefore of major significance.[266]

[263] Cf. Imperiale, R. (2006), p. 97.
[264] Cf. Herbert Smith Freehill (2013), p. 4.
[265] Cf. Imperiale, R. (2006), p. 59.
[266] Cf. Goddard, J., Marcum, B. (2012), pp. 261.

East African property markets are predominantly characterized by remarkable housing gaps. The investment sectors cannot compensate sufficiently the increasing housing demands. The real estate markets will profit by REITs which have experience in the particular asset class. Furthermore, the Tanzanian office market features a high demand in mid to high quality office space, whereas Kenya records lacks in Grade A office space. For instance, the operating pension funds in Kenya or Tanzania, like the PSPF, NSSF, already have expertise in doing real estate business, especially in the residential and office sector. They may promote the development of the housing sector by establishing residential and office focused REITs.

The success story of the Kenyan REIT introduction indicates the high potential of a sustainable REIT regime in Uganda. Although the real estate markets show a different stage of maturity the additional indirect real estate investment vehicle is viable in the investment landscape if the legal framework is founded. The enactment of a sufficient legal structure increases domestic and foreign investors' attraction and leads to further real estate market maturation. Muthaura, Acting Chief Executive of the Kenyan CMA, emphasizes the significance of REITs for the Kenyan real estate market. The implementation of REITs will contribute savings to the real estate industry and will ease the access of the capital markets for private and institutional investor.[267] Uganda significantly demands for the introduction of REITs in order to raise funds for the housing gap and improve the underdeveloped capital markets. The real estate markets are deficient of similar structured products, such as open-ended or closed-ended property funds. The structural concept of D-REITs can be applicable for the Tanzanian and Ugandan real estate investment market. On the one hand, the investment environment will be expanded. On the other hand, development activities will boom and more developers will operate in the market in order to overcome the housing shortages.

The implementation of REITs in East Africa will encourage the East African financial market integration. As the empirical analysis indicates, the NSE, DSE and USE do not feature perfect capital markets integration, but the already achieved great success during the last three years. REITs in the EAC will promote further union and integration of the capital markets. Referring to the EAC aim of unifying participating countries, REITs will support the connectivity of the capital markets and cross border relations. Additional cross listing and intra-East African real estate investment will lead to a

[267] Cf. CMA Forum Kenya (2013), p. 1.

capital market boom. The introduction of REITs has been fundamental for Kenya and Tanzania to become more competitive and improve international investors' attraction in the future. According to the transparency report by JLL absence of transparency remains a major constraint for investors. The East African real estate markets still suffer from lacks of transparency. The highly transparent concept of REITs will encourage informational efficiency. The REIT is subject to publish financial and strategic position for the purpose of providing shareholders and potential investors with necessary information. The increase in transparency of the Kenyan real estate market emphasizes the significance and necessity of the implementation of REITs.

Summarizing, the opportunities for the East African real estate markets and its participants resulting from REIT implementations are remarkable and outstanding. They underline the significance of this investment product in terms of variability, viability and further maturation of the real estate markets. The Kenyan and especially the Tanzanian real estate investment market demand for additional REITs in order to stimulate further market penetration and to compensate the markets' deficits. The Commissioner for Lands of Tanzania expects more private REITs to enter the market. He has already been requested to advise a group of 20 people in terms of starting off a REIT.[268] However, Uganda needs to create an adequate legal framework as a fundamental basis for a successful REIT scheme adaption.

5.4.2 Barriers and Risks

Despite the obvious benefits and opportunities in terms of REIT implementations in East Africa potential barriers and risks have to be identified in order to properly deal with and compensate them. In general, immature capital markets, the lack of real estate market expertise and transparency remain basic related barriers in East Africa. The awareness of specific constraints and risk-minimizing solutions are important to encourage the REITs' viability.

As outlined in the previous chapters, the underlying countries face similar fundamental constraints which slow down the introduction process of REITs. Referring to Dr. Mpogole Kusiluka, the introduction of REITs in Tanzania as well as in the remaining East African countries suffers from underdeveloped capital markets. The DSE, USE, but also the NSE are still at infancy stages und grow merely slowly. Additionally, the

[268] Personal interview with Dr. Mpogole Kusiluka, Commissioner for Lands of Tanzania.

lack of knowledge of and experiences with capital market based investment vehicles may lead to difficulties in fund raising from the public sector. Furthermore, the low level of real estate market transparency inhibits a more effective introduction process. Nevertheless, the Commissioner for Lands attaches great significance to the implementation of REITs.[269] Retail investors represent the biggest numerical REIT investor group in Germany.[270] In East Africa, private investors may not be on main focus due the low purchase power as investigated in chapter 3.1. The GDP per capita falls far below the German's. In addition to the low GDP per capita, the East African saving rate in private sectors is very low. Therefore, potential private shareholders may be limited to a small percentage of the middle to high income population. However, the majority of the potential retail investors do not have any experience in investing in indirect real estate products. They might be suspicious of the new investment vehicle coupled with the mistrust in ethical behavior of market participants. According to the Corruption Perception Index, the public sectors of all the underlying East African countries are considered to be rather as corrupt.

The East African REITs still do not list on the stock exchanges. Hence, they avoid stock market risk but suffer from lower liquidity. Listed REITs must finance growth internally because they are characterized as income focused stocks and LTV restricted. Pursuing growth strategies are supported by the REITs' access to the capital market. Otherwise, distribution requirements inhibit the expansion if REITs concentrate on underlying portfolio properties.[271] They are limited to raise further capital by investment partnerships or by borrowings. Due to the high interest rates borrowing represents a barrier, even in Kenya. Regarding these rates D-REITs aim at real estate projects with financially strong partners to compensate externally fund raising limitation. Similarly, the Tanzanian WHC REIT is about to cooperate with the government which raises funds for the construction of low standard residential areas. However, income focused listed I-REITs which do not yet exist in Kenya would derive equity capital from trading shares to finance their growth strategies.

In theory, focus strategies entail risks and uncertainties in terms of undersupply investment properties resulting in more volatile income flows. Additionally, this investment concept contains a higher investment specific, unsystematic risk associated

[269] Personal interview with Dr. Mpogole Kusiluka, Commissioner for Lands of Tanzania.
[270] Cf. Breuer, W. (2008), p. 223.
[271] Cf. Bone-Winkel, S./ Peffer, T. (2008), p. 172.

with the concentration on a particular property type. Asset class diversification can reduce this corporation specific risk leading to less variable investment returns.[272] For example, office focused I-REITs have to identify the suitable investment properties. The current conditions of the East African real estate markets show that the investment market is not yet saturated. Especially development REITs can benefit from the market environment. As analyzed in chapter 4.1 the residential markets show a high and increasing demand for new and affordable housing units. Several projects are under construction but the supply in the housing still lacks the demand. Hence, the potential risk related to focus strategies is predictable. The real estate market rather offers great opportunities for residential concentrated investment strategies. Due to the market conditions the risk of creating an oversupply is absent in medium term.[273]

Development projects entail investment specific risks which are exposed to D-REITs. They demand i.a. for profound expertise and experience. The limited number of experienced real estate developers in East Africa increase remains a further barrier. Furthermore, development projects feature several simultaneous risks like uncalculated or unpredictable costs. They may put the REITs' liquidity at risk. Moreover, dividends requirements might restrict the exploitation of the investment potentials. Dividend distributions and long construction periods of development projects can lead to financial liquidity shortages. In order to spread risks and raise funds, REITs can enter a joint venture partnership. Usually the real property transfers from the partner to the REIT at a fixed stage of development.[274] The CMAs try to limit development risks by restricting the listed I-REITs' and Tanzanian REITs' development assets to 15 and ten percent of the total assets. This requirement ensures dividend distribution and liquidity.

In summary, the investigation of the significance of the introduction of REITs in East African financial markets contrasted by its potential risks emphasizes that the particular real estate markets require a tax efficient indirect real estate investment vehicle. The capital markets have a high need of promoting growth and variability. The implementation of REITs will lead to further attraction of foreign investors. Risks associated with the introduction of REITs are predictable and manageable.

[272] Cf. Goddard, J., Marcum, B. (2012), p. 261f. , Bone-Winkel, S./ Peffer, T. (2008), p. 171.
[273] Cf. Block, R. (2006), p. 258.
[274] Cf. Bone-Winkel, S./ Peffer, T. (2008), p. 178.

6. Conclusion

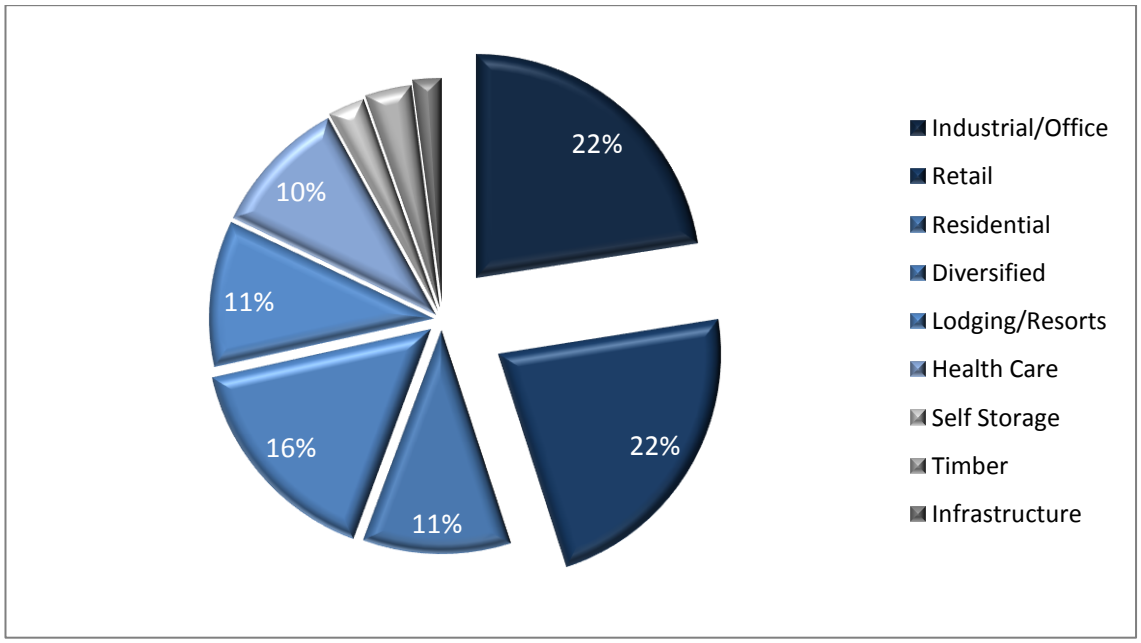
The underlying East African financial markets remain at a low level. More specific, the capital markets are at infancy stages recording small market capitalizations. Nevertheless, the capital markets have been slowly growing and have achieved nascent integration i.a. driven by the creation of a regulatory flexibility obtained by the EAC. A Strong, regional capital market integration serves as a catalyst for the viability of the introduction of REITs in East Africa. At present, the particular stock exchanges are absent of listed real estate companies and demand for further enhancement. The underlying real estate markets are characterized by a high demand for affordable residential units. Excessive population growth rates result in remarkable and increasing housing deficits. However, the real estate development sectors are lacking appropriate real estate financing conditions and sources. Small market sizes and high interest rates determine the inadequacy of the East African financial industry.

The successful, global history of REITs emphasizes the outstanding benefits from REITs relating to the real estate and capital market maturation process. Kenya and Tanzania have already formed an appropriate legal and regulatory basis for the efficient introduction of REITs. The frameworks enable institutional market players to raise funds for new development projects. Asset class focused REITs are qualified to boost the development market. In addition to the tax exemption at corporation level, the strong risk-return profile provides attractive investment opportunities for East African retail and institutional investors as well as for foreign investors. Currently, the licensed REITs in Kenya and Tanzania do not list at the respective stock exchanges. In the contrary, Uganda still lacks a sufficient legal structure for a feasible implementation of the REIT concept. The East Africa countries are aware of the importance of REITs in for the increase of the markets' attractiveness and competitiveness. Nonetheless, improvements in market transparency and investors' sensitization are of major significance encouraging the REITs' viability and market penetration. Additionally, the shortage of real estate professionals might lead to a slowed down implementation process of REITs.

This thesis gives clear evidence of the significance of the sustainable introduction of REITs in East Africa. Due to the recent establishment and limited number of REITs, the REITs' performance cannot yet be estimated. The prospective developments of REITs and potential IPOs in Kenya and Tanzania as well as the progress in the introduction of a REIT scheme in Uganda have to be researched by future studies.

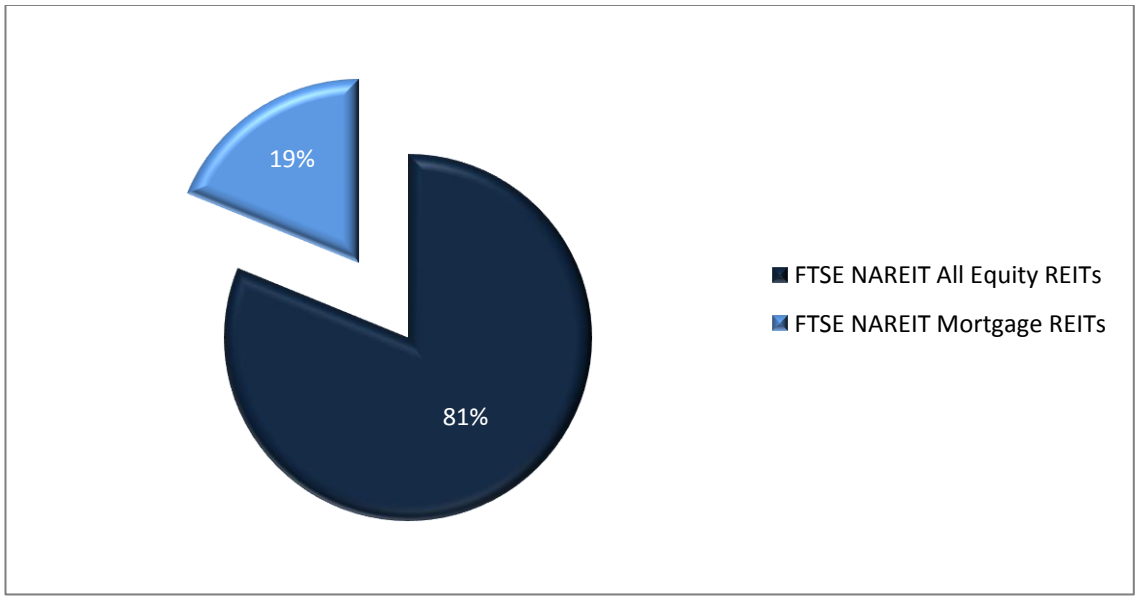
Appendix A: Figures

Figure 23: Composition of FTSE NAREIT All Equity REITs



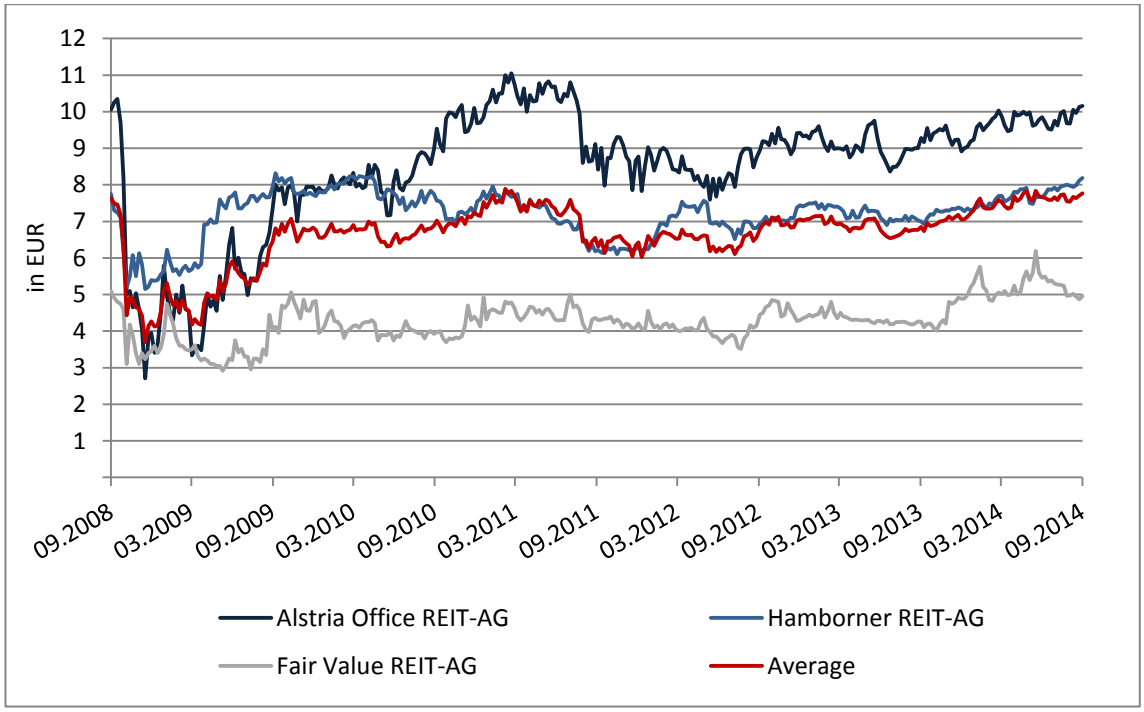
Source: Own illustration, referring to: FTSE (2014).

Figure 24: Composition of US REITs



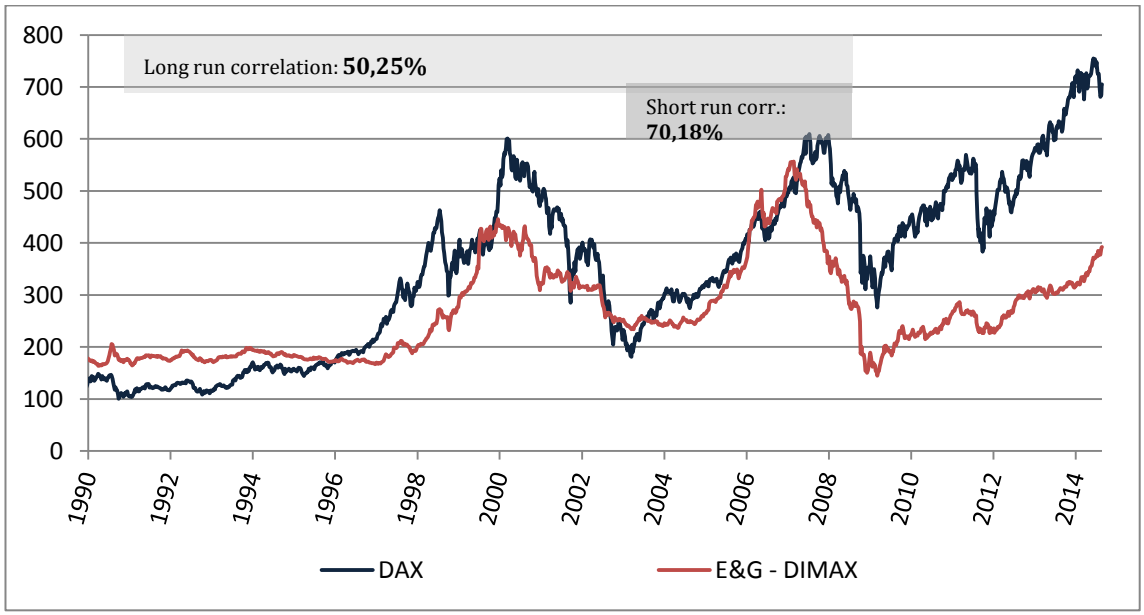
Source: Own illustration, referring to: FTSE (2014).

Figure 25: G-REITs' Share Prices



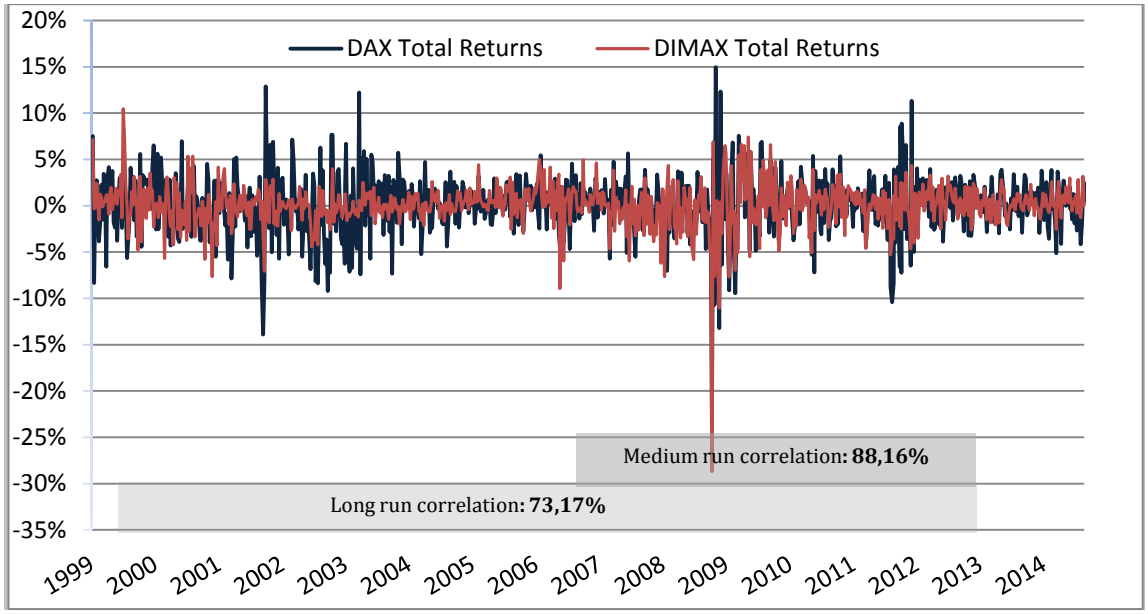
Source: Own illustration, referring to: Datastream.

Figure 26: Comparison of DAX and E&G DIMAX



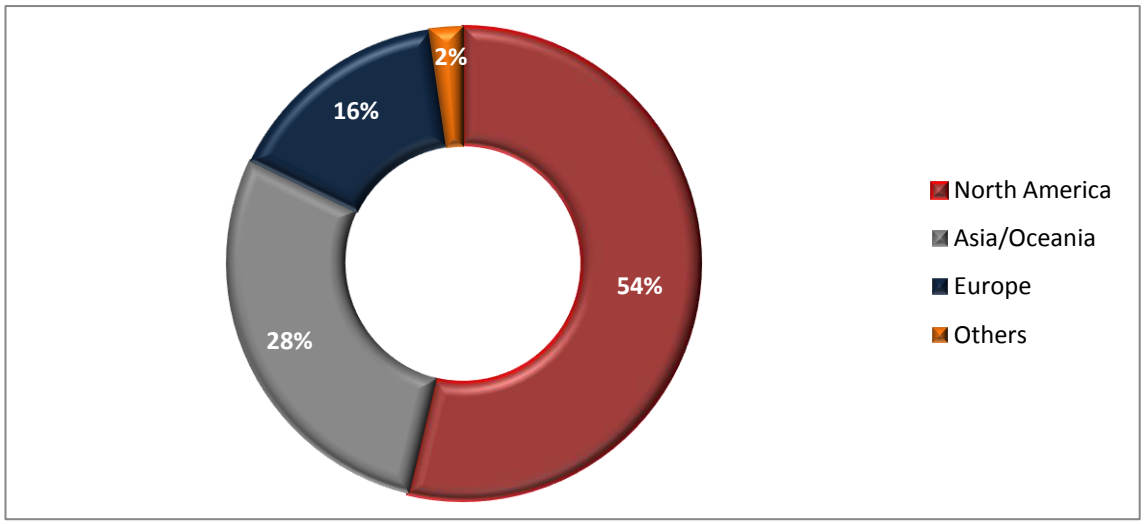
Source: Own illustration, referring to: Ellwanger und Geiger (2014), Datastream.

Figure 27: Comparison of DAX and E&G DIMAX Total Returns



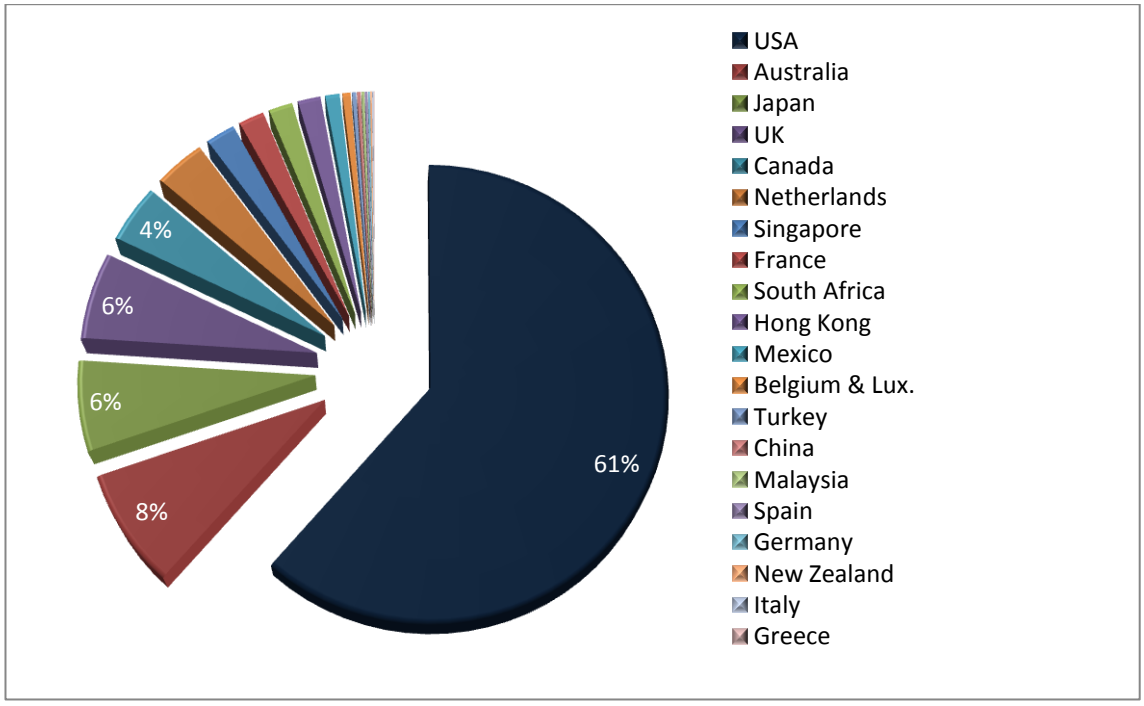
Source: Own illustration, referring to: Ellwanger und Geiger (2014), Datastream.

Figure 28: FTSE EPRA/ NAREIT Proportion of the Market Capitalization



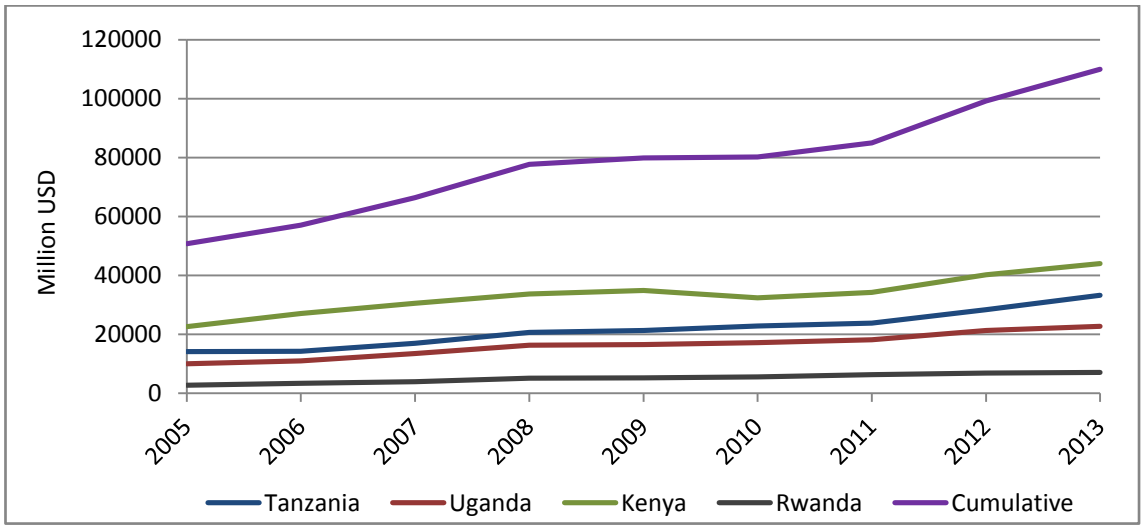
Source: Own illustration, referring to: EPRA (2014).

Figure 29: International REITs' Proportion of the Total Market Capitalization



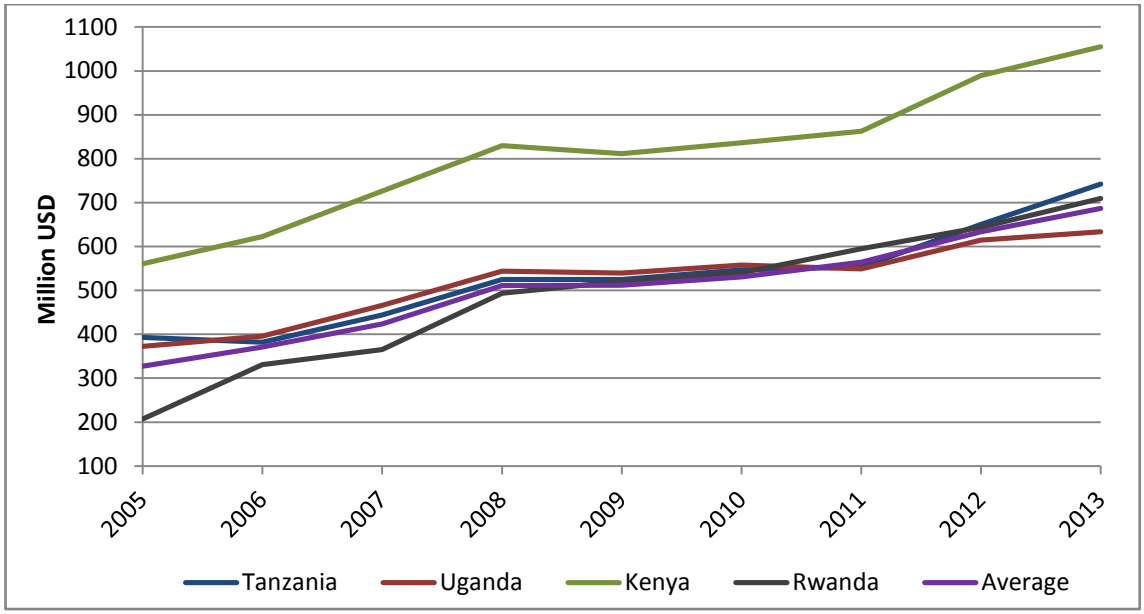
Source: Own illustration, referring to: FTSE (2014b).

Figure 30: Nominal GDP of Selected East African Countries



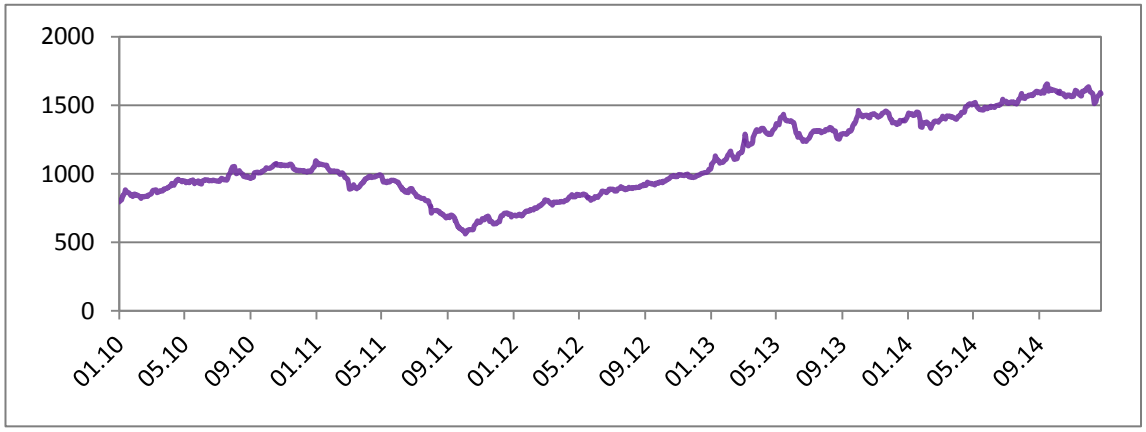
Source: Own illustration, referring to: East African Community Statistic Portal (2014b).

Figure 31: GDP per Capita of Selected East African Countries



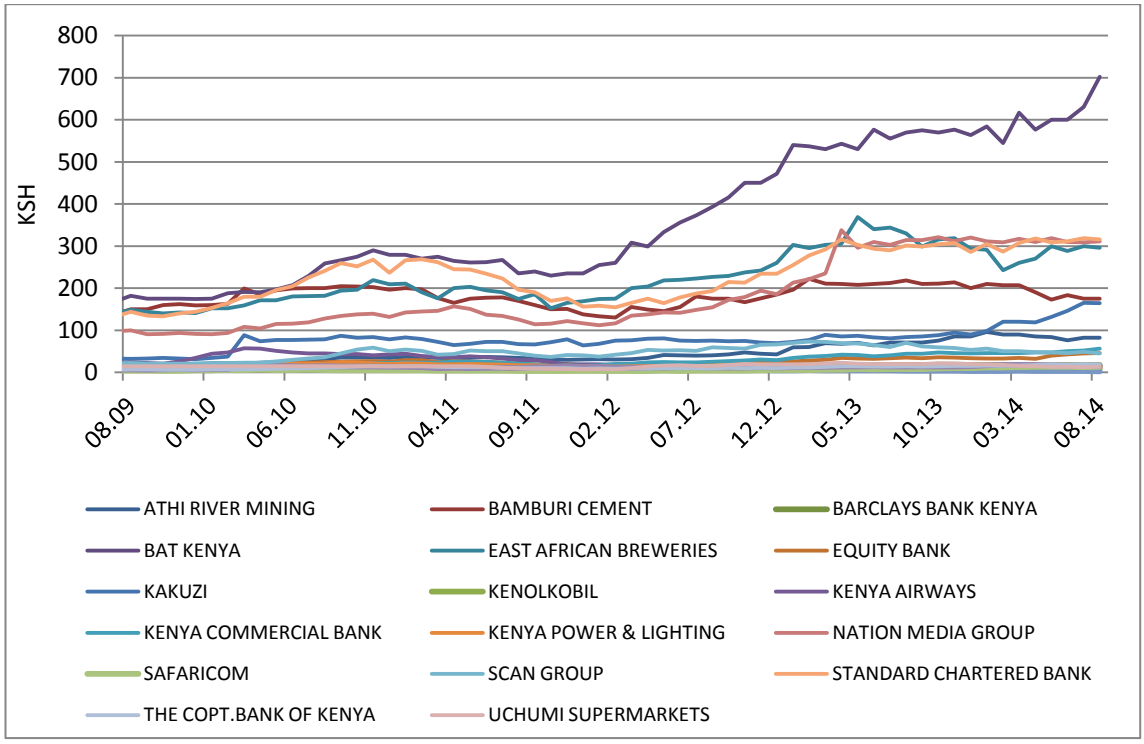
Source: Own illustration, referring to: East African Community Statistic Portal (2014b), East African Community Statistic Portal (2014c).

Figure 32: S&P East Africa Index



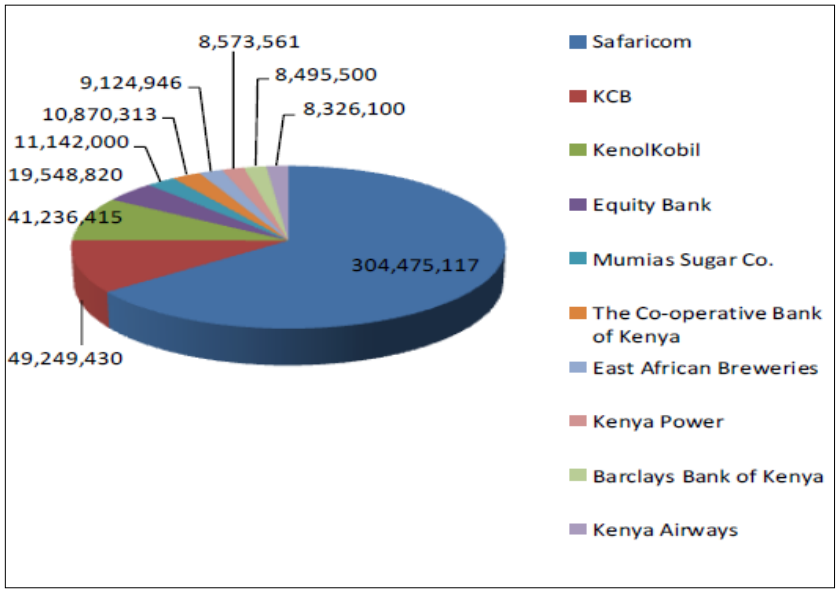
Source: Own illustration, referring to: S&P Dow Jones Indices LLC.

Figure 33: NSE 20 Composition



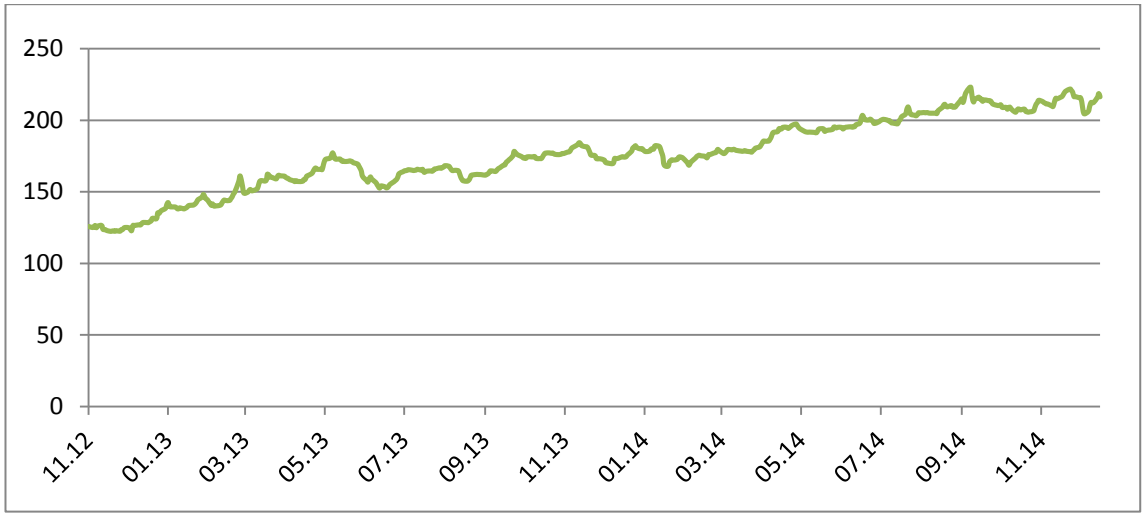
Source: Own illustration, referring to: Datastream.

Figure 34: Actively Traded Counters at NSE



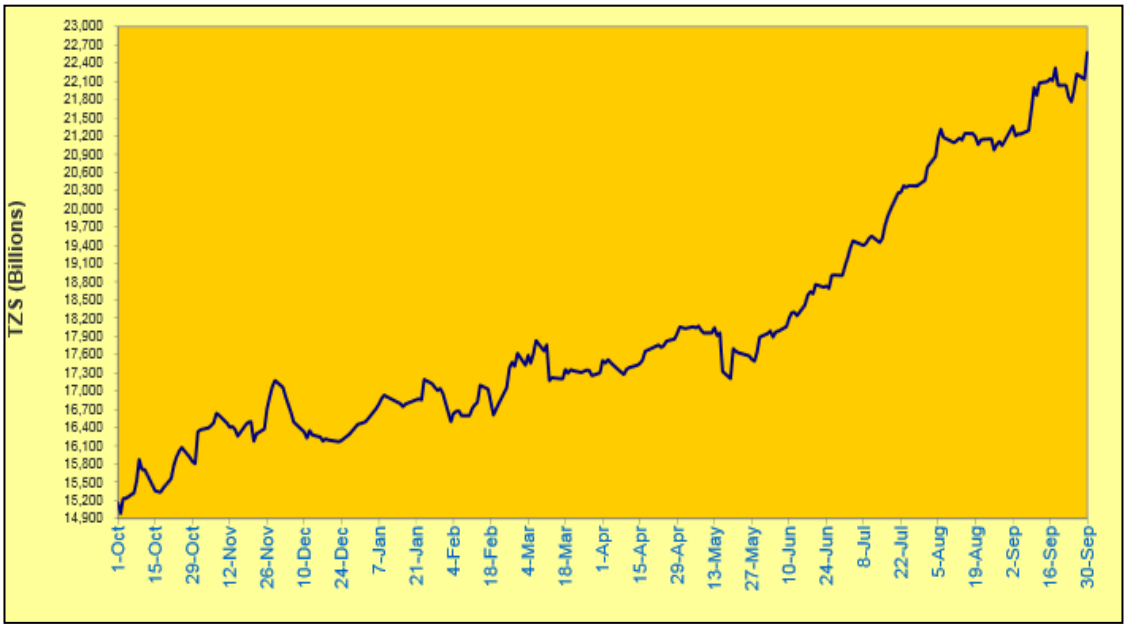
Source: Nairobi Securities Exchange (2014b), p. 2.

Figure 35: FTSE NSE Kenya 25



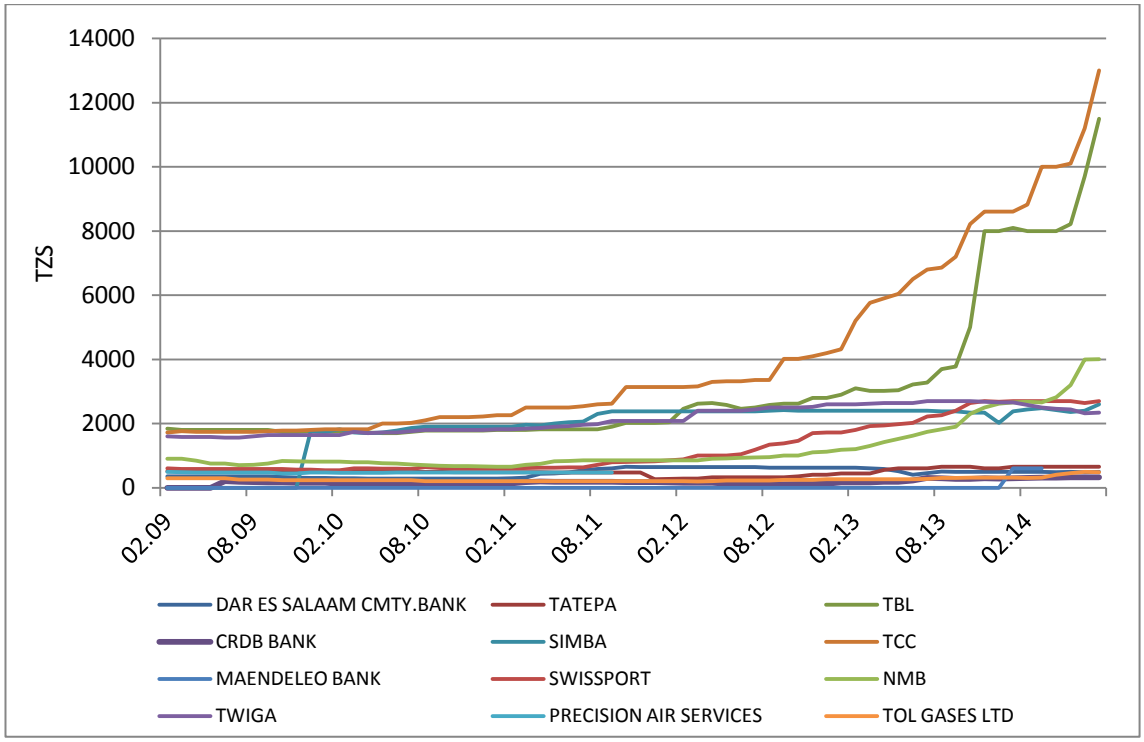
Source: Own illustration, referring to: Datastream.

Figure 36: DSE Total Market Capitalization Oct. 2013 – Sept. 2014



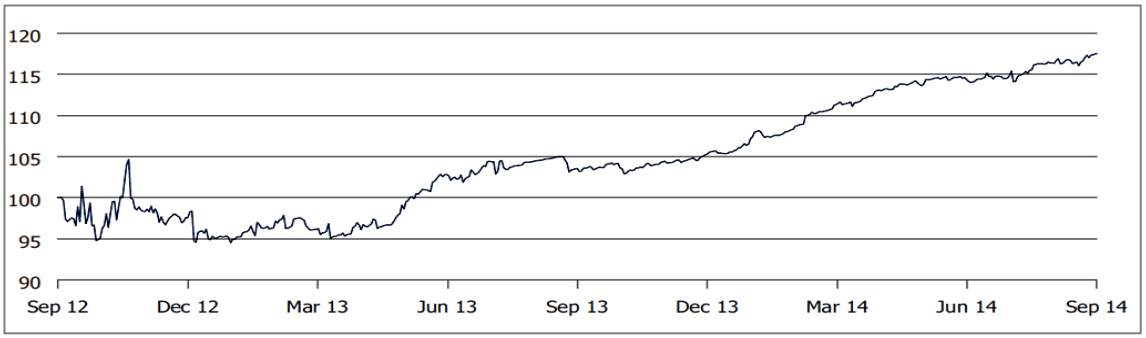
Source: Dar es Salaam Stock Exchange (2014b), p. 2.

Figure 37: DSE All Share Composition



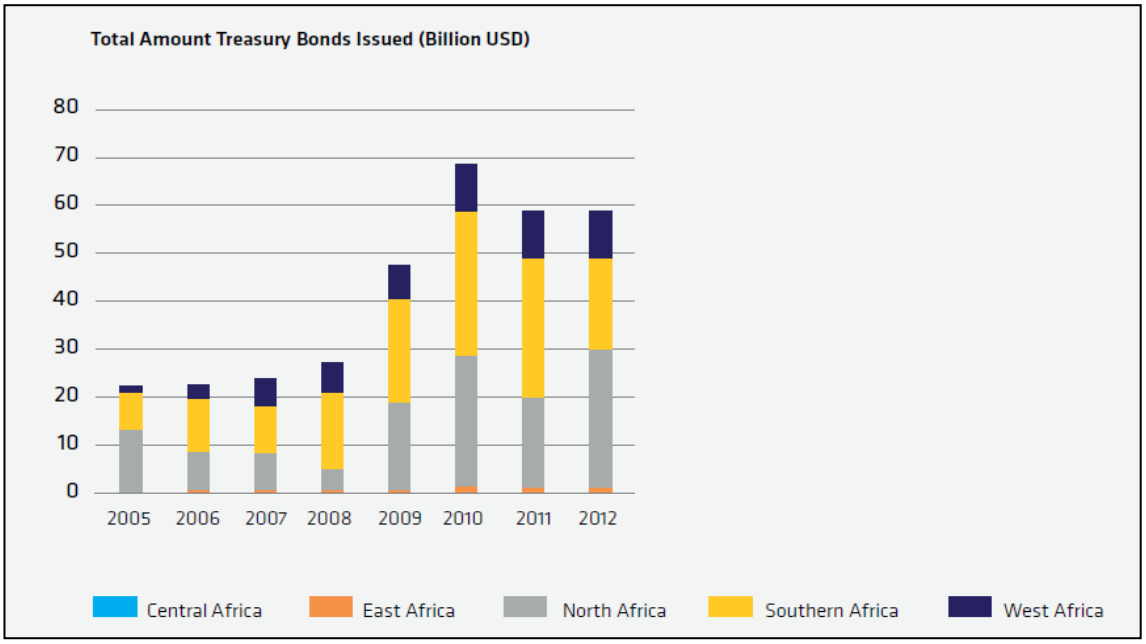
Source: Own illustration, referring to: Datastream.

Figure 38: FTSE NSE Kenyan Shilling Government Bond Index



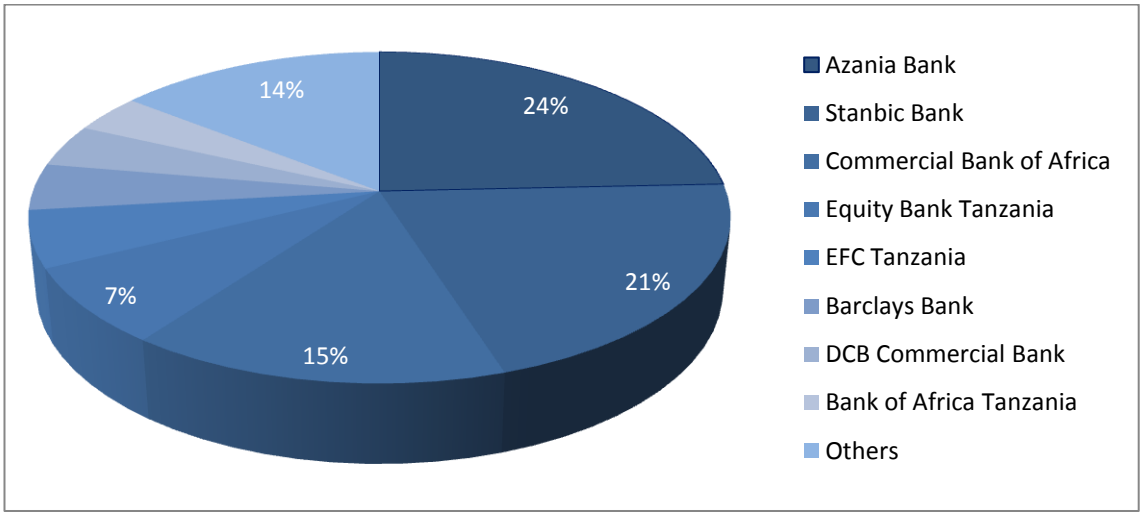
Source: FTSE (2014d).

Figure 39: Comparison of African Treasury Bond Markets



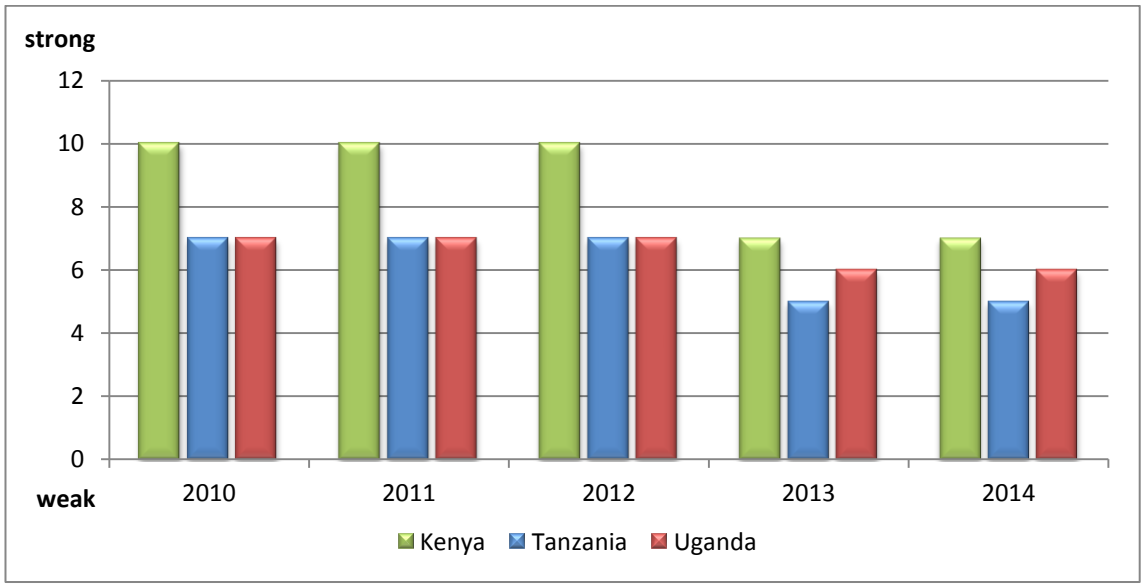
Source: African Development Bank Group (2014), p. 76.

Figure 40: Tanzanian Mortgage Lenders



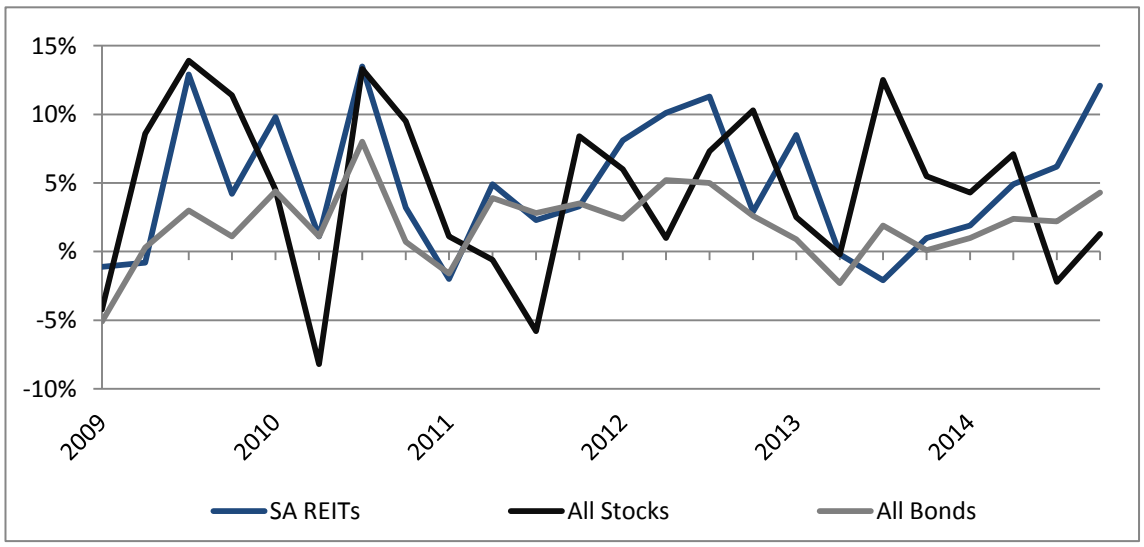
Source: Own illustration, referring to: Bank of Tanzania (2013).

Figure 41: Strength of Legal Rights Index



Source: Own illustration, referring to: The World Bank (2014d).

Figure 42: Comparison of South African Investment Products' Performance



Source: Own illustration, referring to: SA REIT Association (2014b).

Appendix B: Tables

Table 16: Currency Translation

Currency	USD
Kenyan Shilling (KSH)	87,14
Tanzanian Shilling (TZS)	1,622.79
Uganda Shilling (UGX)	2,567.5
Rwanda Franc	677.96

Source: OANDA (2014): effective date: 11.09.2014.

Table 17: Comparison of international REIT Structures I

Country	Legal Name	Legal form	Listing Mandatory	Investor requirement	Minimum share capital
America					
Brazil	FII	No legal entity, closed-held fund	Optional	-	No
Canada	Canadian REIT	Mutual fund trusts (open-end and closed-end fund	Yes for closed-end funds	≥ 150 unitholder holding ≥ CAD 500	CAD 4mln (USD 3.61mln)
Chile	FI	Unincorporated body	No	≥ 50 investors	No
Costa Rica	REIF	Corporation of foreign fund manager company	Yes	≥ 50 investors	CRC 120 mln (USD 240,000)
Mexico	FIBRA	REIC	Yes	≥ 10 investors, ≤ 20 % held by one investor	No
Puerto Rico	REIT	Corporation, partnership, trust	No	≥ 50 investors	No
USA	US-REIT	Corporation, trust, limited partnership	No	≥ 100 shareholders, ≤ 5 shareholders hold ≤ 50% of the shares	No
Europe					
Belgium	SICAFI	Public limited liability company, limited partnership	Yes	No	EUR 1,25 mln
Bulgaria	BG-REIT	Public joint-stock company	Yes	> 30% held by institutional investor	BGN 500,000 (EUR 255,000)

Country	Legal Name	Legal form	Listing Mandatory	Investor requirement	Minimum share capital
Finland	FIN-REIT	Public limited company	Yes	> 10 shareholders	EUR 5 m
France	SIIC	Joint stock company	Yes	≤ 60% of share capital held by shareholders,	EUR 15 mln
Germany	G-REIT	Joint stock corporation (AG)	Yes	< 10% held by one shareholder, 15% of shares must be widely held	EUR 15 mln
Greece	REIC	REIC or REMF	Yes, for REICs	No	EUR 25 mln
Ireland	Green REIT	Incorporated company	Yes	<10% held by one corporate shareholder	Max. EUR 38,092
Israel	REIF	Public company	Yes	≥50% held by more than 5 shareholder	No
Italy	SIIQ	Joint Stock corporation	Yes	Max 51% held by one shareholder	EUR 40 mln
Lithuania	REIT	Joint stock company or investment fund	No	No	LTL 150,000 (EUR 43,000), LTL 431,600 (EUR 125,000) for the management company
Luxembourg	SIF	Contractual or corporate form	No	Institutional investors	EUR 1.25 mln
Netherlands	FBI	Private or public company, limited liability company, mutual investment fund,	No	Listed: ≤ 45% held by corporate entity, ≥ 4 individual shareholders	EUR 45,000 public limited company EUR 18,000 private limited company
Spain	SOCIMI	Stock corporation	Yes	No	EUR 15 mln
Turkey	REIC	Joint stock corporation	Yes		TRY 30 mln (USD 13,600)
UK	UK-REIT	Listed closed-end company	Yes	> 5 shareholders, < 10 % held by corporate shareholders	GB 50,000 (USD 80,600)
Oceania					
Australia	A-REIT	No specific REIT rules	No	No	No
New Zealand	PIE	Unit trust or company, Portfolio Investment Entity	No	No	No
Asia					
Hong Kong	HK-REIT	Unit trust	Yes	No	No
India	REMF	Trust	Yes	≥ 20 investors, ≤ 25% held by one investor	No

Country	Legal Name	Legal form	Listing Mandatory	Investor requirement	Minimum share capital
Japan	J-REIT	Investment Trust, Investment Corporation	No	No	JPY 100 mln (USD 0,94 mln)
Malaysia	M-REIT	Property Trust Fund	Yes	No	MYR 100 mln (EUR 25.2 m)
Pakistan	Pakistan REIT	Closed-end trust	Yes	No	25% of REIT scheme
Philippines	REIT	Stock corporation	Yes	≥ 1,000 investors holding ≥ 50 shares each	PHP 300 mln (USD 6.82mln)
Singapore	S-REIT	Unit trust	Yes	≥ 500 investors holding ≥ 25% of the share capital	USD 20 mln
South Korea	K-REIT, CR-REIT,	Stock corporation	Yes, optional for CR-REIT	≤ 30% held by one shareholder	KRW 10 bln (USD 9,65mln)
Taiwan	REIT/ REAT	Trust Asset	No	≥ 50 investors, ≤ 5 investors own ≤ 50% of the capital	NTD 300 mln – 2 bln (USD 9.99mln – 66,6mln)
Thailand	REIT	Closed-end fund	Yes	≥ 250 investors for IPO	BAHT 500 mln (USD 15,56 mln)
UAE	Dubai REIT	Public property Fund	Yes	N/A	No

Source: Own illustration, referring to: KPMG (2013), PWC (2013a), EPRA (2013), CMS(2008), Deloitte (2004), NAREIT (2014e), Brounen, D./de Koning, S. (2012).

Table 18: Comparison of international REIT Structures II

Country	Leverage limitation	Distribution requirements	Number	Withholding taxes on distributions (residents)	Tax treatment at investor level (individual)	Tax treatment at investor level (corporation)
America						
Brazil	None	95% of the income	27	20%	Income taxation at 20%	Capital gains and dividends taxation: corporate income tax at 34%
Canada	Not limited by legislation	100% of the income	34	No	Income tax	Dividends and Capital gain taxation
Chile	50%	30% of the profits	N/A	No	Income tax	No dividend taxation
Costa Rica	20%	None	N/A	N/A	No taxation	No taxation

Country	Leverage limitation	Distribution requirements	Number	Withholding taxes on distributions (residents)	Tax treatment at investor level (individual)	Tax treatment at investor level (corporation)
Mexico	50%	95 % of the income	6	No	No capital gains tax, income taxation on dividends	Capital gains taxation
Puerto Rico	None	90% income	N/A	10%	Capital gains taxation	Capital gains taxation
USA	Not limited by legislation	90% of the taxable ordinary income	186	No	Income tax at 39,6%	Capital gains taxation at 20%
Europe						
Belgium	65%	80% of net profits	17	15%	Taxation of capital gains at 33%, No taxation on dividends	Corporate income tax at 33,99% on dividends, no capital gains taxation
Bulgaria	20%	90% of operative income	58	5%	No capital gain tax on sales of shares	Corporate income taxation at10%
Finland	80%	90% of the net income	0	30%	Dividends and Capital gains tax at 30%	Corporate income tax at 24,5%
France	Unlimited, Thin capitalization rules for interest deductibility	85% of the operative income	46	10-25%	Income taxation Capital gains and dividends with progressive rate up to 45%	Corporate income taxation on dividends and capital gains if gains > 15% participation
Germany	45% equity of the properties' fair value	90% of the net income	3	25% plus 1,375% solidarity surcharge	progressive income tax on disposal or 26,4% if purchased before 2009	Corporate tax at 15,8% for dividends and capital gains
Greece	50%	50 % the net profits	2	no	No dividends taxation, Capital gain tax at 20%, if shares have been purchased after July 2013	Corporate income tax at 26% for dividends Capital gain tax at 20%, if shares have been purchased after July 2013
Ireland	20%	85% of the	1	20%	Income	Dividend

Country	Leverage limitation	Distribution requirements	Number	Withholding taxes on distributions (residents)	Tax treatment at investor level (individual)	Tax treatment at investor level (corporation)
		property income			taxation on dividends and capital gains	taxation at 25% and capital gains tax at 33%
Israel	60%	90% of the income	1	25-30%	Income tax at max 48%, capital gains tax at 25% /30%	Corporate tax at 25% and capital gains tax at 25%
Italy	Not limited by legislation	85% of the income	1	20%	Income taxation on dividends and capital gains with progressive rates up to 43%	Corporate income tax on dividends and capital gains
Lithuania	75%	None	7	20%	Dividend and capital gains taxation at 15%	Dividend and capital gains taxation at 15%
Luxembourg	None	None	0	No	Income tax at max 43.6%	Corporate income tax at max 22.47%
Netherlands	60 % of property fiscal book value	100% of the profits	8	15%	Shares >5%: income taxation, <5%: 1,2% taxation	Corporate income tax at 25% on dividends and capital gains
Spain	70%	90% of the income	0	No	Income taxation on dividends and capital gains	corporate income taxation at 30%
Turkey	20%	20% of the profits	30	0%	No taxation of capital gains, Income taxation on 50% of dividends taxed at 15% - 35%	Capital gains and dividends taxation: corporate tax at 20%
UK	Yes, interest cover	90% of the rental profits	21	20%	Income taxation on dividends and capital gains	Dividends and Capital gain taxation
Oceania						
Australia	75%	100% of the income	52	15-30% depending on investor	Income tax	Capital gains and dividends taxation: corporate tax at 30%

Country	Leverage limitation	Distribution requirements	Number	Withholding taxes on distributions (residents)	Tax treatment at investor level (individual)	Tax treatment at investor level (corporation)
New Zealand	None	None	8	Up to 33%	Income tax on dividends up to 28%	Corporate income tax on dividends
Asia						
Hong Kong	45%	90% of the income	8	No	No taxation	No taxation
India	20 %	By offer document	0	No	Capital gains taxation	Capital gains taxation
Japan	None	> 90% of the profits	41	Participation > 3%: 20,4% participation > 3%: 10,15%	Income taxation on dividends Capital gain tax at 10,147%	Corporate income tax at 42%
Malaysia	50%	90% of the income	16	10%	No capital gains and income taxation	No capital gains and dividends taxation
Pakistan	60 %	90% of the income	0	10%	Withholding tax on dividends and capital gains	Withholding tax on dividends and capital gains
Philippines	35%	90% of the income	-	10%	Dividend taxation at 10%	No dividend taxation
Singapore	35-60%	90% of the income	26	No	No taxation	Dividends taxation: corporate tax at 17%
South Korea	10 times REIT's net worth	90% of the income	8	15,4%	Depending on participation 6,6-38,5%	Capital gains and dividends taxation: corporate tax at 24,2%
Taiwan	50 %	by REIT contract	8	10%	Withholding tax on dividends	Income taxation on dividends
Thailand	10%	90% of the income	40	0-10%	Income taxation at 10-37%	Income tax on capital gains at 23%
UAE	70%	80% of the income	1	-	-	-

Source: Own illustration, referring to: KPMG (2013), PWC (2013a), EPRA (2013)CMS(2008), Brounen, D./ de Koning, S. (2012), Ernst & Young.

Table 19: ADF Test NSE 20 Index Output

Null Hypothesis: NSE20_PRICE_INDEX has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.834293	0.3619
Test critical values:	1% level	-3.503049	
	5% level	-2.893230	
	10% level	-2.583740	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(NSE20_PRICE_INDEX)
Method: Least Squares
Date: 08/27/14 Time: 14:34
Sample (adjusted): 2007M01 2014M08
Included observations: 92 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NSE20_PRICE_INDEX(-1)	-0.063259	0.034487	-1.834293	0.0699
C	264.7019	149.5577	1.769899	0.0801

R-squared	0.036038	Mean dependent var	-4.935217
Adjusted R-squared	0.025327	S.D. dependent var	267.6851
S.E. of regression	264.2736	Akaike info criterion	14.01335
Sum squared resid	6285648.	Schwarz criterion	14.06817
Log likelihood	-642.6139	Hannan-Quinn criter.	14.03547
F-statistic	3.364632	Durbin-Watson stat	1.940726
Prob(F-statistic)	0.069915		

Source: Eviews.

Table 20: ADF Test DSE All Share Index Output

Null Hypothesis: DSE_ALL_SHARE_PRICE_INDE has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		4.320323	1.0000
Test critical values:	1% level	-3.503049	
	5% level	-2.893230	
	10% level	-2.583740	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DSE_ALL_SHARE_PRICE_INDE)
Method: Least Squares
Date: 08/27/14 Time: 14:29
Sample (adjusted): 2007M01 2014M08
Included observations: 92 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DSE_ALL_SHARE_PRICE_INDE(-1)	0.058150	0.013460	4.320323	0.0000
C	-61.10699	18.15091	-3.366607	0.0011

R-squared	0.171768	Mean dependent var	15.40793
Adjusted R-squared	0.162565	S.D. dependent var	41.65616
S.E. of regression	38.12016	Akaike info criterion	10.14086
Sum squared resid	130783.2	Schwarz criterion	10.19568
Log likelihood	-464.4797	Hannan-Quinn criter.	10.16299
F-statistic	18.66519	Durbin-Watson stat	2.094544
Prob(F-statistic)	0.000040		

Source: Eviews.

Table 21: ADF Test USE All Share Index Output

Null Hypothesis: USE_ALL_SHARE_PRICE_INDE has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.318233	0.9170
Test critical values:	1% level	-3.503049	
	5% level	-2.893230	
	10% level	-2.583740	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(USE_ALL_SHARE_PRICE_INDE)
Method: Least Squares
Date: 08/27/14 Time: 14:35
Sample (adjusted): 2007M01 2014M08
Included observations: 92 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
USE_ALL_SHARE_PRICE_INDE(-1)	-0.008825	0.027732	-0.318233	0.7510
C	19.10223	30.67978	0.622633	0.5351

R-squared	0.001124	Mean dependent var	9.676630
Adjusted R-squared	-0.009975	S.D. dependent var	76.34638
S.E. of regression	76.72620	Akaike info criterion	11.53986
Sum squared resid	529821.8	Schwarz criterion	11.59468
Log likelihood	-528.8337	Hannan-Quinn criter.	11.56199
F-statistic	0.101272	Durbin-Watson stat	2.077538
Prob(F-statistic)	0.751046		

Source: Eviews.

Table 22: KPSS Test NSE 20 Index Output

Null Hypothesis: NSE20_PRICE_INDEX is stationary
Exogenous: Constant
Bandwidth: 7 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.208131
Asymptotic critical values*:	1% level	0.739000
	5% level	0.463000
	10% level	0.347000

*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

Residual variance (no correction)	637747.2
HAC corrected variance (Bartlett kernel)	4128497.

KPSS Test Equation
Dependent Variable: NSE20_PRICE_INDEX
Method: Least Squares
Date: 08/27/14 Time: 14:32
Sample: 2006M12 2014M08
Included observations: 93

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4270.728	83.25885	51.29458	0.0000

R-squared	0.000000	Mean dependent var	4270.728
Adjusted R-squared	0.000000	S.D. dependent var	802.9192
S.E. of regression	802.9192	Akaike info criterion	16.22508
Sum squared resid	59310494	Schwarz criterion	16.25231
Log likelihood	-753.4662	Hannan-Quinn criter.	16.23608
Durbin-Watson stat	0.109978		

Source: Eviews.

Table 23: KPSS Test DSE All Share Index Output

Null Hypothesis: DSE_ALL_SHARE_PRICE_INDE is stationary
Exogenous: Constant
Bandwidth: 7 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		1.041881
Asymptotic critical values*:	1% level	0.739000
	5% level	0.463000
	10% level	0.347000

*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

Residual variance (no correction)	99149.92
HAC corrected variance (Bartlett kernel)	652597.3

KPSS Test Equation
Dependent Variable: DSE_ALL_SHARE_PRICE_INDE
Method: Least Squares
Date: 08/27/14 Time: 14:31
Sample: 2006M12 2014M08
Included observations: 93

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1327.665	32.82859	40.44233	0.0000

R-squared	0.000000	Mean dependent var	1327.665
Adjusted R-squared	0.000000	S.D. dependent var	316.5875
S.E. of regression	316.5875	Akaike info criterion	14.36377
Sum squared resid	9220942.	Schwarz criterion	14.39100
Log likelihood	-666.9153	Hannan-Quinn criter.	14.37477
Durbin-Watson stat	0.019493		

Source: Eviews.

Table 24: KPSS Test USE All Share Index Output

Null Hypothesis: USE_ALL_SHARE_PRICE_INDE is stationary
Exogenous: Constant
Bandwidth: 7 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.873622
Asymptotic critical values*:	1% level	0.739000
	5% level	0.463000
	10% level	0.347000

*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

Residual variance (no correction)	87108.89
HAC corrected variance (Bartlett kernel)	585778.7

KPSS Test Equation
Dependent Variable: USE_ALL_SHARE_PRICE_INDE
Method: Least Squares
Date: 08/27/14 Time: 14:37
Sample: 2006M12 2014M08
Included observations: 93

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1075.239	30.77070	34.94361	0.0000

R-squared	0.000000	Mean dependent var	1075.239
Adjusted R-squared	0.000000	S.D. dependent var	296.7419
S.E. of regression	296.7419	Akaike info criterion	14.23430
Sum squared resid	8101127.	Schwarz criterion	14.26153
Log likelihood	-660.8948	Hannan-Quinn criter.	14.24529
Durbin-Watson stat	0.066538		

Source: Eviews.

Table 25: PP Test NSE 20 Index Output

Null Hypothesis: NSE20_PRICE_INDEX has a unit root
Exogenous: Constant
Bandwidth: 4 (Newey-West automatic) using Bartlett kernel

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-1.919732	0.3220
Test critical values:	1% level	-3.503049	
	5% level	-2.893230	
	10% level	-2.583740	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	68322.26
HAC corrected variance (Bartlett kernel)	77453.42

Phillips-Perron Test Equation
Dependent Variable: D(NSE20_PRICE_INDEX)
Method: Least Squares
Date: 08/27/14 Time: 14:33
Sample (adjusted): 2007M01 2014M08
Included observations: 92 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NSE20_PRICE_INDEX(-1)	-0.063259	0.034487	-1.834293	0.0699
C	264.7019	149.5577	1.769899	0.0801

R-squared	0.036038	Mean dependent var	-4.935217
Adjusted R-squared	0.025327	S.D. dependent var	267.6851
S.E. of regression	264.2736	Akaike info criterion	14.01335
Sum squared resid	6285648.	Schwarz criterion	14.06817
Log likelihood	-642.6139	Hannan-Quinn criter.	14.03547
F-statistic	3.364632	Durbin-Watson stat	1.940726
Prob(F-statistic)	0.069915		

Source: Eviews.

Table 26: PP Test DSE All Share Index Output

Null Hypothesis: DSE_ALL_SHARE_PRICE_INDE has a unit root
Exogenous: Constant
Bandwidth: 4 (Newey-West automatic) using Bartlett kernel

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		5.243175	1.0000
Test critical values:	1% level	-3.503049	
	5% level	-2.893230	
	10% level	-2.583740	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	1421.557
HAC corrected variance (Bartlett kernel)	1040.013

Phillips-Perron Test Equation
Dependent Variable: D(DSE_ALL_SHARE_PRICE_INDE)
Method: Least Squares
Date: 08/27/14 Time: 14:30
Sample (adjusted): 2007M01 2014M08
Included observations: 92 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DSE_ALL_SHARE_PRICE_INDE(-1)	0.058150	0.013460	4.320323	0.0000
C	-61.10699	18.15091	-3.366607	0.0011

R-squared	0.171768	Mean dependent var	15.40793
Adjusted R-squared	0.162565	S.D. dependent var	41.65616
S.E. of regression	38.12016	Akaike info criterion	10.14086
Sum squared resid	130783.2	Schwarz criterion	10.19568
Log likelihood	-464.4797	Hannan-Quinn criter.	10.16299
F-statistic	18.66519	Durbin-Watson stat	2.094544
Prob(F-statistic)	0.000040		

Source: Eviews.

Table 27: PP Test USE All Share Index Output

Null Hypothesis: USE_ALL_SHARE_PRICE_INDE has a unit root
Exogenous: Constant
Bandwidth: 2 (Newey-West automatic) using Bartlett kernel

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-0.300586	0.9197
Test critical values:	1% level	-3.503049	
	5% level	-2.893230	
	10% level	-2.583740	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	5758.933
HAC corrected variance (Bartlett kernel)	5667.448

Phillips-Perron Test Equation
Dependent Variable: D(USE_ALL_SHARE_PRICE_INDE)
Method: Least Squares
Date: 08/27/14 Time: 14:36
Sample (adjusted): 2007M01 2014M08
Included observations: 92 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
USE_ALL_SHARE_PRICE_INDE(-1)	-0.008825	0.027732	-0.318233	0.7510
C	19.10223	30.67978	0.622633	0.5351

R-squared	0.001124	Mean dependent var	9.676630
Adjusted R-squared	-0.009975	S.D. dependent var	76.34638
S.E. of regression	76.72620	Akaike info criterion	11.53986
Sum squared resid	529821.8	Schwarz criterion	11.59468
Log likelihood	-528.8337	Hannan-Quinn criter.	11.56199
F-statistic	0.101272	Durbin-Watson stat	2.077538
Prob(F-statistic)	0.751046		

Source: Eviews.

Table 28: ADF Test NSE 20 Log Returns Output

Null Hypothesis: NSE_20_SHARE_INDEX_LOG_R has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.042652	0.0000
Test critical values:	1% level	-3.503879	
	5% level	-2.893589	
	10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(NSE_20_SHARE_INDEX_LOG_R)
Method: Least Squares
Date: 08/27/14 Time: 10:04
Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NSE_20_SHARE_INDEX_LOG_R(-1)	-0.947349	0.104765	-9.042652	0.0000
C	-0.001880	0.006656	-0.282494	0.7782

R-squared	0.478830	Mean dependent var	-0.000657
Adjusted R-squared	0.472974	S.D. dependent var	0.087446
S.E. of regression	0.063483	Akaike info criterion	-2.654362
Sum squared resid	0.358676	Schwarz criterion	-2.599178
Log likelihood	122.7735	Hannan-Quinn criter.	-2.632098
F-statistic	81.76955	Durbin-Watson stat	1.964055
Prob(F-statistic)	0.000000		

Source: Eviews.

Table 29: ADF Test DSE Log Returns Output

Null Hypothesis: DSE_ALL_SHARE_INDEX_LOG_ has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-8.829189	0.0000
Test critical values:	1% level	-3.503879	
	5% level	-2.893589	
	10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(DSE_ALL_SHARE_INDEX_LOG_)
Method: Least Squares
Date: 08/27/14 Time: 17:30
Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DSE_ALL_SHARE_INDEX_LOG_(-1)	-0.936355	0.106052	-8.829189	0.0000
C	0.009014	0.002883	3.126240	0.0024

R-squared	0.466921	Mean dependent var	0.000204
Adjusted R-squared	0.460931	S.D. dependent var	0.035146
S.E. of regression	0.025805	Akaike info criterion	-4.454774
Sum squared resid	0.059264	Schwarz criterion	-4.399591
Log likelihood	204.6922	Hannan-Quinn criter.	-4.432511
F-statistic	77.95458	Durbin-Watson stat	1.996455
Prob(F-statistic)	0.000000		

Source: Eviews.

Table 30: ADF Test USE Log Returns Output

Null Hypothesis: USE_ALL_SHARE_INDEX_LOG has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=11)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-9.748498	0.0000
Test critical values:	1% level	-3.503879	
	5% level	-2.893589	
	10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(USE_ALL_SHARE_INDEX_LOG)
Method: Least Squares
Date: 08/27/14 Time: 17:35
Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
USE_ALL_SHARE_INDEX_LOG(-1)	-1.021768	0.104813	-9.748498	0.0000
C	0.006744	0.008290	0.813540	0.4181

R-squared	0.516392	Mean dependent var	-0.001355
Adjusted R-squared	0.510958	S.D. dependent var	0.112509
S.E. of regression	0.078679	Akaike info criterion	-2.225139
Sum squared resid	0.550949	Schwarz criterion	-2.169955
Log likelihood	103.2438	Hannan-Quinn criter.	-2.202876
F-statistic	95.03321	Durbin-Watson stat	1.964156
Prob(F-statistic)	0.000000		

Source: Eviews.

Table 31: KPSS Test NSE 20 Log Returns Output

Null Hypothesis: NSE_20_SHARE_INDEX_LOG_R is stationary
Exogenous: Constant
Bandwidth: 3 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.217799
Asymptotic critical values*:	1% level	0.739000
	5% level	0.463000
	10% level	0.347000

*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

Residual variance (no correction)	0.004002
HAC corrected variance (Bartlett kernel)	0.004551

KPSS Test Equation
Dependent Variable: NSE_20_SHARE_INDEX_LOG_R
Method: Least Squares
Date: 08/27/14 Time: 10:27
Sample: 2007M01 2014M08
Included observations: 92

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.000939	0.006632	-0.141543	0.8878

R-squared	0.000000	Mean dependent var	-0.000939
Adjusted R-squared	0.000000	S.D. dependent var	0.063612
S.E. of regression	0.063612	Akaike info criterion	-2.661225
Sum squared resid	0.368228	Schwarz criterion	-2.633814
Log likelihood	123.4163	Hannan-Quinn criter.	-2.650161
Durbin-Watson stat	1.869092		

Source: Eviews.

Table 32: KPSS Test DSE Log Returns Output

Null Hypothesis: DSE_ALL_SHARE_INDEX_LOG_ is stationary
Exogenous: Constant
Bandwidth: 3 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.674329
Asymptotic critical values*:	1% level	0.739000
	5% level	0.463000
	10% level	0.347000

*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

Residual variance (no correction)	0.000647
HAC corrected variance (Bartlett kernel)	0.000731

KPSS Test Equation
Dependent Variable: DSE_ALL_SHARE_INDEX_LOG_
Method: Least Squares
Date: 08/27/14 Time: 17:32
Sample: 2007M01 2014M08
Included observations: 92

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.009598	0.002666	3.600180	0.0005

R-squared	0.000000	Mean dependent var	0.009598
Adjusted R-squared	0.000000	S.D. dependent var	0.025572
S.E. of regression	0.025572	Akaike info criterion	-4.483853
Sum squared resid	0.059506	Schwarz criterion	-4.456442
Log likelihood	207.2572	Hannan-Quinn criter.	-4.472790
Durbin-Watson stat	1.868343		

Source: Eviews.

Table 33: KPSS Test USE Log Returns Output

Null Hypothesis: USE_ALL_SHARE_INDEX_LOG is stationary
Exogenous: Constant
Bandwidth: 1 (Newey-West automatic) using Bartlett kernel

		LM-Stat.
Kwiatkowski-Phillips-Schmidt-Shin test statistic		0.103657
Asymptotic critical values*:	1% level	0.739000
	5% level	0.463000
	10% level	0.347000

*Kwiatkowski-Phillips-Schmidt-Shin (1992, Table 1)

Residual variance (no correction)	0.006127
HAC corrected variance (Bartlett kernel)	0.005993

KPSS Test Equation
Dependent Variable: USE_ALL_SHARE_INDEX_LOG
Method: Least Squares
Date: 08/27/14 Time: 17:33
Sample: 2007M01 2014M08
Included observations: 92

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.007790	0.008205	0.949417	0.3449

R-squared	0.000000	Mean dependent var	0.007790
Adjusted R-squared	0.000000	S.D. dependent var	0.078702
S.E. of regression	0.078702	Akaike info criterion	-2.235488
Sum squared resid	0.563653	Schwarz criterion	-2.208077
Log likelihood	103.8325	Hannan-Quinn criter.	-2.224425
Durbin-Watson stat	2.021479		

Source: Eviews.

Table 34: PP Test NSE20 Log Returns Output

Null Hypothesis: NSE_20_SHARE_INDEX_LOG_R has a unit root
Exogenous: Constant
Bandwidth: 3 (Newey-West automatic) using Bartlett kernel

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-9.075459	0.0000
Test critical values:	1% level	-3.503879	
	5% level	-2.893589	
	10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.003941
HAC corrected variance (Bartlett kernel)	0.004379

Phillips-Perron Test Equation
Dependent Variable: D(NSE_20_SHARE_INDEX_LOG_R)
Method: Least Squares
Date: 08/27/14 Time: 10:25
Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NSE_20_SHARE_INDEX_LOG_R(-1)	-0.947349	0.104765	-9.042652	0.0000
C	-0.001880	0.006656	-0.282494	0.7782

R-squared	0.478830	Mean dependent var	-0.000657
Adjusted R-squared	0.472974	S.D. dependent var	0.087446
S.E. of regression	0.063483	Akaike info criterion	-2.654362
Sum squared resid	0.358676	Schwarz criterion	-2.599178
Log likelihood	122.7735	Hannan-Quinn criter.	-2.632098
F-statistic	81.76955	Durbin-Watson stat	1.964055
Prob(F-statistic)	0.000000		

Source: Eviews.

Table 35: PP Test DSE Log Returns Output

Null Hypothesis: DSE_ALL_SHARE_INDEX_LOG_ has a unit root
Exogenous: Constant
Bandwidth: 2 (Newey-West automatic) using Bartlett kernel

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-8.827102	0.0000
Test critical values:	1% level	-3.503879	
	5% level	-2.893589	
	10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.000651
HAC corrected variance (Bartlett kernel)	0.000647

Phillips-Perron Test Equation
Dependent Variable: D(DSE_ALL_SHARE_INDEX_LOG_)
Method: Least Squares
Date: 08/27/14 Time: 17:31
Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
DSE_ALL_SHARE_INDEX_LOG_(-1)	-0.936355	0.106052	-8.829189	0.0000
C	0.009014	0.002883	3.126240	0.0024

R-squared	0.466921	Mean dependent var	0.000204
Adjusted R-squared	0.460931	S.D. dependent var	0.035146
S.E. of regression	0.025805	Akaike info criterion	-4.454774
Sum squared resid	0.059264	Schwarz criterion	-4.399591
Log likelihood	204.6922	Hannan-Quinn criter.	-4.432511
F-statistic	77.95458	Durbin-Watson stat	1.996455
Prob(F-statistic)	0.000000		

Source: Eviews.

Table 36: PP Test USE Log Returns Output

Null Hypothesis: USE_ALL_SHARE_INDEX_LOG has a unit root
Exogenous: Constant
Bandwidth: 2 (Newey-West automatic) using Bartlett kernel

		Adj. t-Stat	Prob.*
Phillips-Perron test statistic		-9.751960	0.0000
Test critical values:	1% level	-3.503879	
	5% level	-2.893589	
	10% level	-2.583931	

*MacKinnon (1996) one-sided p-values.

Residual variance (no correction)	0.006054
HAC corrected variance (Bartlett kernel)	0.005940

Phillips-Perron Test Equation
Dependent Variable: D(USE_ALL_SHARE_INDEX_LOG)
Method: Least Squares
Date: 08/27/14 Time: 17:34
Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
USE_ALL_SHARE_INDEX_LOG(-1)	-1.021768	0.104813	-9.748498	0.0000
C	0.006744	0.008290	0.813540	0.4181

R-squared	0.516392	Mean dependent var	-0.001355
Adjusted R-squared	0.510958	S.D. dependent var	0.112509
S.E. of regression	0.078679	Akaike info criterion	-2.225139
Sum squared resid	0.550949	Schwarz criterion	-2.169955
Log likelihood	103.2438	Hannan-Quinn criter.	-2.202876
F-statistic	95.03321	Durbin-Watson stat	1.964156
Prob(F-statistic)	0.000000		

Source: Eviews.

Table 37: VAR Model Output

Vector Autoregression Estimates
Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments
Standard errors in ( ) & t-statistics in [ ]

	DSE_ALL_SHARE _PRICE_INDEX	NSE20_PRICE _INDEX	USE_ALL_SHARE_ PRICE_INDEX
DSE_ALL_SHARE_PRICE_INDE(-1)	1.008146	-0.258341	-0.059762
	(0.10862)	(0.71904)	(0.21907)
	[9.28136]	[-0.35928]	[-0.27279]
DSE_ALL_SHARE_PRICE_INDEX(-2)	0.035588	0.430405	0.166001
	(0.11635)	(0.77018)	(0.23465)
	[0.30588]	[0.55883]	[0.70743]
NSE20_PRICE_INDEX(-1)	-0.014116	0.706923	-0.005075
	(0.02032)	(0.13450)	(0.04098)
	[-0.69476]	[5.25591]	[-0.12384]
NSE20_PRICE_INDEX(-2)	0.016353	0.210632	0.011128
	(0.01983)	(0.13125)	(0.03999)
	[0.82479]	[1.60478]	[0.27828]
USE_ALL_SHARE_PRICE_INDEX(-1)	-0.042140	1.139480	0.917786
	(0.07213)	(0.47749)	(0.14548)
	[-0.58421]	[2.38638]	[6.30872]
USE_ALL_SHARE_PRICE_INDEX(-2)	0.068422	-1.160823	-0.007378
	(0.07190)	(0.47598)	(0.14502)
	[0.95161]	[-2.43883]	[-0.05088]
C	-78.75564	128.9542	-59.05302
	(36.3796)	(240.825)	(73.3727)
	[-2.16483]	[0.53547]	[-0.80484]
R-squared	0.986442	0.902188	0.938181
Adj. R-squared	0.985473	0.895202	0.933766
Sum sq. resids	122110.1	5351060.	496712.3
S.E. equation	38.12731	252.3947	76.89761
F-statistic	1018.584	129.1320	212.4682
Log likelihood	-456.8062	-628.8019	-520.6467
Akaike AIC	10.19354	13.97367	11.59663
Schwarz SC	10.38669	14.16681	11.78977
Mean dependent	1334.786	4238.239	1079.018
S.D. dependent	316.3393	779.6558	298.7932
Determinant resid covariance (dof adj.)		2.98E+11	
Determinant resid covariance		2.34E+11	
Log likelihood		-1578.509	
Akaike information criterion		35.15403	
Schwarz criterion		35.73346	

Source: Eviews.

Table 38: Johansen Cointegration Test Output

Sample (adjusted): 2007M02 2014M08
Included observations: 91 after adjustments
Trend assumption: Linear deterministic trend
Series: DSE_ALL_SHARE_LOG_RETURN NSE_20_LOG_RETURNS USE_ALL_SHARE_LOG_RETURN
Lags interval (in first differences): No lags

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.651385	211.8251	29.79707	0.0001
At most 1 *	0.525200	115.9305	15.49471	0.0001
At most 2 *	0.410865	48.14802	3.841466	0.0000

Trace test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.651385	95.89462	21.13162	0.0000
At most 1 *	0.525200	67.78244	14.26460	0.0000
At most 2 *	0.410865	48.14802	3.841466	0.0000

Max-eigenvalue test indicates 3 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegrating Coefficients (normalized by b'*S11*b=I):

DSE_ALL_SHARE_LOG_RETURN	NSE_20_LOG_RETURNS	USE_ALL_SHARE_LOG_RETURN
5.725921	-17.55236	17.21648
-22.87589	-13.57124	1.317715
-32.26623	3.800155	6.385686

Unrestricted Adjustment Coefficients (alpha):

D(DSE_ALL_SHARE_LOG_RETURN)	-0.011304	0.018465	0.012435
D(NSE_20_LOG_RETURNS)	0.022674	0.049945	-0.028836
D(USE_ALL_SHARE_LOG_RETURN)	-0.046438	0.049136	-0.043528

1 Cointegrating Equation(s): Log likelihood 414.8749

Normalized cointegrating coefficients (standard error in parentheses)		
DSE_ALL_SHARE_LOG_RETURN	NSE_20_LOG_RETURNS	USE_ALL_SHARE_LOG_RETURN
1.000000	-3.065421	3.006762
	(0.30341)	(0.24492)
Adjustment coefficients (standard error in parentheses)		
D(DSE_ALL_SHARE_LOG_RETURN)	-0.064724	
	(0.02007)	
D(NSE_20_LOG_RETURNS)	0.129832	
	(0.05096)	
D(USE_ALL_SHARE_LOG_RETURN)	-0.265901	
	(0.06179)	
2 Cointegrating Equation(s):	Log likelihood	448.7661
Normalized cointegrating coefficients (standard error in parentheses)		
DSE_ALL_SHARE_LOG_RETURN	NSE_20_LOG_RETURNS	USE_ALL_SHARE_LOG_RETURN
1.000000	0.000000	0.439285
		(0.05458)
0.000000	1.000000	-0.837561
		(0.04947)
Adjustment coefficients (standard error in parentheses)		
D(DSE_ALL_SHARE_LOG_RETURN)	-0.487126	-0.052187
	(0.06859)	(0.06453)
D(NSE_20_LOG_RETURNS)	-1.012705	-1.075806
	(0.16869)	(0.15871)
D(USE_ALL_SHARE_LOG_RETURN)	-1.389941	0.148257
	(0.22285)	(0.20967)

Source: Eviews.

Table 39: Tax Treatment in East African Countries

	Corporate Tax	Capital Gain Tax	
		Individual	Company
Kenya	30%	no	no
Tanzania	30%	10%	30%
Uganda	30%	30%	30%

Source: Own illustration, referring to: PWC (2013b).

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Statutory Declaration

I hereby declare that I have prepared the thesis

"Introduction of REITs in East African Financial Markets"

myself. Materials and ideas directly or indirectly adopted from external sources are properly indicated. The paper has not been previously presented to an examination board and has also not been published.

Regensburg, 9th February 2015

Place, Date (SIGNATURE)