28TH ANNUAL PACIFIC RIM REAL ESTATE SOCIETY CONFERENCE

ONLINE VIRTUAL 19TH JANUARY 2022

THE EMERGENCE OF REITS IN GHANA

SAMUEL SWANZY-IMPRAIM[1], XIN JANET GE[2] and VINCE MANGIONI[3]

University of Technology Sydney, Australia

ABSTRACT

Real estate investment trusts (REITs) are evolving in Ghana's real estate market. As at mid-2021, Republic Bank and GCB Securities were the two publicly known institutions operating REITs in the country. With the passage of the 2019 REIT guidelines, all existing REITs were rendered invalid, pursuant to provisions that, REITs must be approved by the Securities and Exchange Commission of Ghana. Using exploratory qualitative methods, the study investigates on-going developments surrounding the formulation of REITs in Ghana. Interviews were conducted with institutional investors and policy experts on their perception on the new REIT guidelines and the conditionalities needed for developing a REIT sector in Ghana. Institutional investors were largely receptive of the new REIT guidelines but at the same time not enthusiastic about venturing into it. They exclaimed that, unless REIT yields are proven to be competitive against their existing assets, they may not consider it in the short term. To develop Ghana's first REIT sector, there are three conditions to be met, namely, creating a conducive macroeconomic environment, improving the state of the real estate industry, and developing an effective legal and regulatory framework. The study concludes that, there is a market for REITs in Ghana to serve institutional investors such as pension funds, insurance companies, private equity funds etc. However, the right structures must be created to usher in more advanced forms of indirect real estate investments. Additionally, real estate companies must be encouraged to trade publicly on the Ghana Stock Exchange once the opportunity presents itself, to expand their financing options. The implementation of the REIT guideline is a major milestone towards negotiating, establishing, and operating REITs in Ghana.

Keywords: Gh-REITs, listed property trusts, indirect real estate investment, institutional investors,

Email contact: Samuel.Swanzy-Impraim@uts.edu.au

INTRODUCTION

Ghana's real estate industry has seen extensive reform and changes over the recent decades. The positive aspect of these changes are seen in the influx of private real estate companies, the development of residential gated communities and the architectural display of medium-to-high rise commercial properties in the big cities (Arku 2009b; Asiedu & Arku 2009; Ehwi, Morrison & Tyler 2021; Khanani et al. 2021; Paaga & Dandeebo 2013). With the soaring levels of uncertainty and economic fluctuations, institutional investors are exploring the possibility of harmonizing their portfolios with alternative investment avenues (Broadstock et al. 2021; Chiappini, Vento & De Palma 2021). In recent conferences and reports, topics on the emergence of real estate investment trusts (REITs) have aroused a lot of attention among scholars and practitioners. The latest pursuit for REITs has been, not to only protect investments against the uncertainties posed by the Covid-19 pandemic, but more importantly as a diversification strategy. As has been established, diversification allows investors to blend non-correlated assets to obtain high risk-adjusted returns and enhance optimum portfolio performance (Bhuyan et al. 2015; Oertel et al. 2019; Rehring 2012). REITs in this respect, are considered a low-correlated asset class and a good alternative for obtaining diversification benefits.

In recent years, there have been propositions from all facets of Ghana's real estate industry to develop a regulatory framework for REITs. The belief is that, establishing REITs would help increase financing options for real estate companies and serve as a gold-mine for expansive forms of finances for property developers (Owusu-Manu et al. 2015). In response to the continuous advocacies, the Securities and Exchange Commission (SEC) of Ghana came out with its first ever REIT guideline in 2019. The guideline was largely welcomed by stakeholders within the industry, especially by those in the institutional investors' fraternity (e.g., pension funds, insurance companies, private equity funds, financial institutions, mutual funds, endowment funds etc.). Ghana became a leading example to other African countries as it took steps to regulate indirect real estate investments, especially funds set up in the spirit of 'property trust'. Without a stringent regulatory framework, activities related to the establishment of real estate funds may lead to massive fraud in the financial and real estate sectors. Apart from South Africa, Kenya, Nigeria and few other countries, REITs are largely non-existent in Africa. This contrasts with the situation in the US, Europe, UK, Australia, and many parts of Asia, where REITs have advanced in operation.

For Ghana to develop its first REIT sector, there must be an improvement in the country's macro-economic environment to set the stage for the legalization of all categories of indirect real estate investment vehicles. At the market level, Ghana's real estate market is confronted by numerous challenges which needs redress, these include customary land disputes, real estate agency problems, indiscipline, lack of property market data, low mortgage penetration etc. (Agyapong 2021; Anaman & Osei-Amponsah 2007; Arku 2009a; Owusu-Manu et al. 2018). The informal nature of the real estate market does not encourage more advanced forms of real estate investments, such as REITs. The bottom-up orientation of the country's real estate market is also evident in other sectors such as the financial, insurance and services sectors (Swanzy-Impraim et al. 2017). To resolve these challenges, propositions in the past have centered around increasing professionalism in the sector. Specifically by: closing property market information gaps (Baffour Awuah et al. 2017; Hammond 2006), developing internationally recognized performance benchmarks for measuring house prices and rent series (Wilfred 2012), and dealing with real estate agency problems (Obeng-Odoom 2011). Others have taken the ideologist approach by proposing the need to conceptualize the nature of Ghana's real estate market, for example, by investigating the existence or in-existence of submarkets and unpacking unsolved puzzles surrounding the sector (Gavu & Owusu-Ansah 2019). Suggestions have also been made to develop pathways for the management of corporate real estate practices within the sector (Boakye-Agyeman & Bugri 2019). All these strategies are envisaged to help fast-track on-going efforts to 'formalize' the real estate industry.

The high levels of volatility in Ghana's macro-economic environment and the lack of regulatory frameworks may have contributed to the absence of listed REITs on the Ghana Stock Exchange (GSE). As at mid-2021, companies which were listed on the GSE mainly belonged to the financial, mining and distribution sectors of the economy. According to the 2021 market report, the total market capitalization of the GSE was a little over GH61 million (US$10 million), with a composite index of 2,647.17 (Securities and Exchange Commission 2021). The government of Ghana has since then been making gradual steps towards introducing listed property trusts into the listings of the GSE. This paper provides one of the first empirical investigations into Ghana's REIT sector. It makes original contribution to the happenings surrounding the emergence and development of REITs in Ghana. There are two sides to the discussion, first, it explores and conceptualizes the formation of Gh-REITs and, second, it gathers feedback from institutional investors in Ghana concerning the 2019 REIT guidelines. It provides important information for policy experts to consider in the on-going efforts to establish a new REIT sector. It makes both theoretical and practical contributions to the development of Ghana's first REIT sector.

LITERATURE

The literature review provides an overview of the foundations and regulation of REITs globally. It commences with a distinction between direct and indirect real estate investment vehicles and discusses the origins of REITs. This is followed by the scholarly outlook of the growing appetite of institutional investors towards alternative investment avenues amid the never-ending uncertainties with the covid-19 pandemic and its changing variants. It further presents an overview of REITs in the US, UK, Australia, Europe, Africa, and Asia.

The Foundations of REITs

Real estate investment trusts (REITs) cannot be discussed without first, elaborating on the differences between direct and indirect real estate investment. This area of real estate studies has been intensively researched. Kuhle (1987) and Seiler, Webb & Neil Myer (1999) are two notable early studies whiles Ciochetti, Craft & Shilling (2002), Boudry et al. (2012), and Khan (2021) are more recent studies. An example of an indirect real estate investment is a REIT whiles the direct investment is characterized by the conventional philosophical understanding of what 'real estate' represents. The 'real estate asset' class which was originally known for its geographical uniqueness, immobility, and indestructibility, has progressed into intangible asset arrangements defying conventional thinking. Investors have found a way to remove the illiquid constraints posed by real estate in their portfolio. The word ‘trusts’ suggests an arrangement that encourages pooling of financial resources from a number of investors into a ‘fund’ set-up to develop and manage real estate. The distinction between direct and indirect real estate investment is becoming more clearer as research are being conducted all over the world. Several insightful peer-reviewed books have been published on the composition and structure of REITs. Notable among them are books by Parker (2012); Block, Burton & Campbell (2012) and Adams (2015). There are also highly influential journal articles that have discussed REITs capital structure, categories, influence on the GFC, inflation hedging ability, performance benchmarks etc. (Chikolwa 2011; Liu, Hartzell & Hoesli 1997; Seiler, Webb & Neil Myer 1999; Zarebski & Dimovski 2012). The attributes of REITs have not been exclusively exhausted, in fact, new discoveries are continuously being made around the world. The opportunities they bring are discussed in the latter part of the literature review.

To the investor, REITs provide dividend-based income, competitive market performance, transparency, liquidity, inflation protection and portfolio diversification. The gradual evolvement of the REIT sector is unique in different economic and geographical perspectives. Some authors are of the view that investors’ preference for liquidity along with the quest to gain diversification benefits within their multi-asset portfolios birthed the innovative real estate investment vehicles in modern portfolios (Adair, McGreal & Webb 2006; Anderson et al. 2014; Füss & Schindler 2011; Khan 2021). Others believe that REITs resulted from advancement in knowledge and technology within the investment world (Brounen & de Koning 2012; Dabara et al. 2018; Gibilaro & Mattarocci 2020; Serrano & Hoesli 2009). The conceptual and theoretical application of setting up ‘funds’ to invest in real estate has been accepted into the fabric of most countries’ investment environments. REITs have thus moved beyond just the internal investment packages of financial institutions, into an arena of public trading, also known as listed property trusts, on the stock exchange of various countries. There are instances where REITs behave like common stocks and bonds on financial markets as seen in study undertaken by Liu, Hartzell & Hoesli (1997) and Hoesli & Moreno (2007). Although still evolving, there are studies on the workings of existing REITs in different countries in terms of its formation, processes, and regulatory frameworks. Studies on the commonalities between REITs and other financial assets are becoming more interesting. The conceptualization of REITs is important to the debates about its modalities in different countries. The next section looks at an overview of the workings of REITs in selected countries and its implication for the global economy.

Global Overview of REITs

The US recognized its first REIT sector in 1960, making it one of the early countries to do so. The formation and development of REITs during this period did not occur at once but commenced with the enactment of the US Real Estate Investment Trust Act 1960, and a follow up passage of the Tax Modernization Act in 1986 (Brounen & de Koning 2012). The passage of the Act laid the foundation for investors to structure their portfolios to accommodate REITs. The process of inception and formation was gradual, thus contributing to the US being one of the earliest countries to recognize this sector. More recent studies on REITs in the US have become more expansive covering crowdfunding, the advancement of rental housing supply, and performance comparisons with other assets (Benefield, Anderson & Zumpano 2009; Chilton et al. 2018; Gibilaro & Mattarocci 2020; Jones 2007; Newell & Peng 2009).

Although, there is an international standard, its application and modalities in many countries are varied in terms of capital structure and regulatory requirements. Extant literature and reports from financial and real estate markets reveal that, countries such as the US, UK, Australia, Germany, Switzerland, and many parts of Europe have relatively developed REIT sectors (Lin, Cho & Lee 2019; Marzuki & Newell 2018; Mazurczak 2011). Official documents from the respective stock exchanges shows over 91 listed REITs on the Australia Securities Exchange, 56 on the London Stock Exchange, 35 on the Singapore Stock Exchange etc. These three are notable examples of developed countries with advanced listed and unlisted REIT sectors. In China and other parts of Asia, REITs took-off during and after the 2008 Global Financial Crisis (GFC) (Chong, Ting & Cheng 2016; Ooi, Graeme & Tien-Foo 2006; Suk Kim 2009; Tsai, Chiang & Lin 2010). Lessons could be learnt from countries that have advanced in the REIT sectors for future policies and regulations in those countries in question as well as those intending to bring REITs into their shores. Table 1 below shows REIT and REIT-like structures in selected countries around the world.

Table 1 REITs and REIT-like Structures around the World

Region	**Country**	**REIT sector recognition**
North America	United States	1960
	Canada	1994
	Mexico	2011
	Puerto Rico	Legislation in place
Europe	Netherlands	1969
	Belgium	1995
	Turkey	1999
	Greece	1999
	France	2003
	Bulgaria	2005
	Germany	2007
	United Kingdom	2007
	Italy	2007
	Luxembourg	2007
	Lithuania	2008
	Finland	2013
	Ireland	2013
	Spain	2014
	Hungary	2011
Asia Pacific	Australia	1971
	Japan	2001
	Korea	2004
	Singapore	2002
	Taiwan	2004
	Hong Kong	2005
	Malaysia	2005
	New Zealand	2007
	Thailand	2013
	Indonesia	Under consideration
	Philippians	2010

	China	2008*
Other	Ghana	1994*
	Brazil	1995
	Israel	2006
	Nigeria	2007*
	Pakistan	2015
	South Africa	2013
	Dubai	2010
	Costa Rica	2009
	India	2014

Adapted from Mazurczak (2011) and Jones et al. (2020)

Table 1 shows REITs in countries in North America, Europe, Asia Pacific, and others. The countries with asterias may have undergone some progress with respect to REIT regulation and implementation. The data in Table 1 includes REIT-like investment vehicles, meaning vehicles that are operating in the spirit of REITs. This data gives an overview of REITs globally. It gives a picture of the evolvement and establishment of REIT sectors around the world.

Opportunities and Challenges of REITs in Developing Countries

There is a significant increase in the literature on establishing new REIT sectors in developing countries (Aro-Gordon et al. 2014; Boshoff & Bredell 2013; Dabara et al. 2018; Olanrele, Said & Daud 2015). This is a signal that emerging economies are embracing the idea of indirect real estate investment. Ghana is a typical example of such countries. The REIT sectors in Mauritius, Nigeria and Kenya are relatively new and still evolving. As at 2018, the total market capitalization of Nigerian REITs was US$134.5 million (Dabara et al. 2018). This amount is quite low compared to that of developed countries. In terms of N-REIT performance, earlier studies by Olanrele, Said & Daud (2015) showed that N-REITs underperformed the market using the average and risk-adjusted returns as benchmarks. The situation is not any different in Kenya. As at the end of 2010, there were no listed REITs on the Kenya Stock Exchange (Michuki 2010). Recent studies also show that REITs in Kenya are also picking up. Stanlib Fahari i-REIT was the first listed REIT on the Kenya Stock Exchange in 2015. In India, the securities and exchange board implemented the first Indian REIT regulations in 2014 (Lee 2018). This shows clearly that REITs are gradually emerging in developing countries around the world. Evidence from theoretical dispositions and real-world practice show that, REITs offer numerous opportunities to the real estate industry and the national economy at large. Firstly, they serve as an avenue for expanding the finance options to real estate developers. An example is exploring the usage of institutional funds in South Africa’s pension housing finance system to increase financial support for the residential sector (Afrane et al. 2016). The effectiveness of this system in South Africa and the implications of replicating it in other countries is yet to be known. Secondly, REITs are known as tax efficient assets, meaning that, developers could benefit from several corporate level taxes if their portfolio are structured in a certain way to distribute earnings to shareholders as dividends (Newell, Lee & Kupke 2015). It has been argued that such an investment vehicle could attract institutional investors into the real estate sector. Thirdly, through innovative thinking, REITs have emerged into a financial asset with the onset of property derivatives. The debates about whether REITs are real estate continues (Morawski, Rehkugler & Füss 2008; Seiler, Webb & Neil Myer 1999). Within this frame of thinking, REIT futures, which is argued to be a financial asset, is an effective hedging instrument against portfolio risks (Lee & Lee 2012). It also enhances the information discovery process of REITs and the real estate industry at large (Lee, Stevenson & Lee 2014). This is an advantage to developing countries due to their constant battle with information flow in their real estate sectors. Since there is insufficient data on REITs in developing countries, policy experts may consider the abovementioned advantages as a major driving force to establish REITs in the respective countries.

There are several revelations about the challenges encountered with developing and managing new REIT sectors. In Asia, Ooi, Graeme & Tien-Foo (2006) and Wang, Sun & Chen (2009) stated several challenges relating to; the less support given to the development of a legal framework, low tax transparency, low property yields etc. The challenges in Kenya are mainly policy-driven, regulation-based and issues pertaining to the nature of dividend payout, capital structure etc. (Kamau 2016). The place of regulation in REIT formulation and implementation is thus proven to be an integral part of the whole process. With respect to the newly established REITs, studies conducted in Asia revealed that, high interest rates, taxes, poor market conditions and minimum payout considerations tend to affect real estate stocks significantly (Ghosh & Petrova 2020; Ooi & Kim-Hiang 2004). This means that the state of the economy, whether deplorable or average, tends to affect real estate stock performance. These results corroborate the findings of Kola & Kodongo (2017) who found the impact of macroeconomic factors on REIT performance. These authors compared the REIT sectors in South Africa and Bulgaria and found that interest rates indeed affect REIT returns. Perhaps the nature of market conditions in South Africa contributed to the long periods it took to develop the countries sector. Boshoff & Bredell (2013) state that, the entire process of negotiating, developing, and implementing REITs in South Africa took almost 6 years. This is a major point of note when discussing the formation of REITs in countries with similar macroeconomic characteristics.

REITs could benefit Ghana in various ways. Firstly, the financing options for developers are quite limited in an unlisted setting and thus the terrain of investment activities in the real estate sector is limited to direct debt-financing through financial institutions. Policy makers and industry personnel are calling for other financing options on publicly traded platforms such as the securities and equities market (Owusu-Manu et al. 2015). Secondly, the discussions on developing REITs are brought to the table to develop the secondary real estate market in the country as well as to broaden existing international exposures. To better understand the peculiarities associated with Gh-REITs, it is essential to decipher the drivers of its rapid emergence and the potential implications for the Ghanaian real estate sector. There is the need to understand the potential merits for using Gh-REITs to increase financing options in Ghana's real estate sector. Before such investigations are carried out, it is important to: first, explore and conceptualize the formation of Gh-REITs and, second, to understand the perceptions and feedbacks from the major institutional investors concerning the new REIT guidelines. Ghana's REIT sector is in its infantile stage and therefore lacks the empirical data to carry out quantitative analysis on REIT performance within multi-asset portfolios. This paper explores the plans, processes and steps being taken to develop, legalize and implement Gh-REITs.

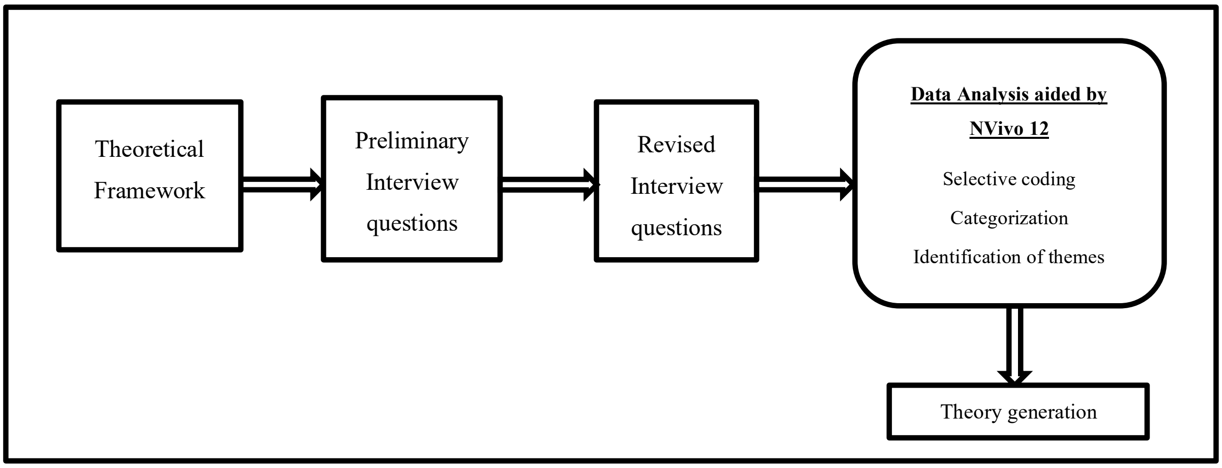
METHODOLOGY

The study adopts qualitative method to explore the emergence of REITs in Ghana. Snowball sampling method was used to identify, select, and engage institutional investors and policy experts on their perception and feedback about the relatively new Gh-REIT guidelines. The interviews sought the responses of participants concerning the development of Gh-REITs and on the possible implications for Ghana's real estate market. The total sampling size was n=15, out of which 12 responded and participated (80% sample size response rate). The participants work for large institutional investors in Ghana in the capacity as fund managers and portfolio managers. The response rate was an adequate representation of the population of fund managers of major institutional investors in Ghana. Policy experts and real estate developers were also engaged on the country's real estate market and an evolving REIT sector. The interviews were conducted via zoom app and Microsoft teams with an average time of 40 minutes. All the respondents were based in Ghana and operating within the country's major cities. This study is part of a bigger project on the topic, institutional investment in residential property. Per the definition of an institutional investor, REITs were selected as a unique category. The preliminary investigations in Ghana showed that REITs were 'technically non-existent' and that they were evolving. The interview questions were revised to explore the emergence of REITs in Ghana, in line with the recent guidelines. The content of the 2019 REITs guidelines were also reviewed to conceptualize the regulatory framework of Ghana's real estate sector. Specifically concerning the harmony between the real estate laws and the securities laws. These steps helped to support the analysis and the conceptualization of the relatively new sector.

Data Analysis Methods

Responses were recorded, converted to transcripts, and imported into the qualitative software, NVivo 12 for analysis. The responses from the interviews were documented and prepared for coding and theming. A thematic analysis was thus carried in line with Guest, Namey & Chen (2020) and Charmaz (2006). The process used include, first and second cycle coding, categorization of codes, display of data, and identification of themes. Although, this paper takes an inductive approach, the bigger project is premised on the modern portfolio theory as the main theoretical framework. The approach used for the analysis is oriented towards inductive reasoning because of the exploratory nature of the investigations. The process of analysis for both the big project and the REIT aspect is presented below.

Figure 1 Data Analysis Process



Adapted from Charmaz (2006)

The codes were selective, and the process was inductive. Since not much is known about the existence of REITs in Ghana, this study explored and made originally contributions to this topic. The analysis was supported with secondary data on several laws and acts, as well as other online sources such as information from the official websites of important organizations. For example, table 3 shows a list of important laws regulating Ghana's real estate market as well as those in the securities industry.

FINDINGS

The empirical investigations were carried out in Ghana. The findings thus include responses from 12 participants as well as the gathering of secondary data to support the analysis. Out of the 12 participants, three were quoted in this paper on responses that are primal to this paper. All other views which repeated were mentioned and discussed accordingly. For confidentiality purposes, the names and institutions of participants were not mentioned in this paper. The findings from the study covers three main areas, namely, a) the existence of REITs in Ghana, b) Gh-REITs and the Ghana Stock Exchange, and c) the perception of institutional investors and policy experts on the REIT guidelines. This is followed by a discussion section which analyses the findings.

Are there any Existing REITs in Ghana?

One of the questions posed to the interviewees asks whether there were any existing REITs in Ghana. This question was supported by recent assertions in conferences and reports that there is an emerging REIT sector in Ghana. The responses gathered revealed that there were no REITs in Ghana at the time of the interview (i.e., the second quarter of 2021). Some companies and institutions were however offering investment vehicles which behaved like REITs in terms of capital structure and functionality. These companies were operating without approval from the Securities and Exchange Commission (SEC) of Ghana. One notable response given by a participant who is a policy expert and industry practitioner about the existence of REITs is presented below.

"Yes and no. Yes, because in name, we have one REIT that is publicly known, Republic Bank's REIT. Also we've had some pilot project by the Ministry of Finance with GCB Securities, what they call the Rent-to-own scheme where they piloted a REIT, it's a sort of a Joint Venture between the government through the Ministry of Finance and the GCB securities to build apartments for them, obviously at the price point that they thought would work and rent them out to public sector workers with the option to buy it at some point in the future". (Participant #11, Policy expert)

The Republic Bank, formally known as HFC Bank is one of Ghana's leading real estate investment banks. It had its first internal REIT in 1995, to offer mainly long-term capital appreciation in land, real estate, and bonds (Republic Bank 2021). This arrangement works within the bank's own portfolio of investments and offered to the public as an investment vehicle. The second REIT was the pilot project between Ghana Commercial Bank (GCB) securities and the Ministry of Finance. This pilot REIT was commissioned under the government of Ghana's National Housing and Mortgage Fund (NHMF). The NHMF was designed for public sector workers and took almost nine months to complete its first phase. Although it commenced in the Greater Accra region, the Tema Development Corporation (TDC), the developer for the project, is hoping to replicate the subsequent phases across the different regions of the country. The Republic Bank's REIT and the pilot NHMF project were thus the two main publicly known REITs in Ghana at the time of the empirical investigations. Unfortunately, there was no database containing a list of institutions and investors who were operating unlisted REITs before and after the implementation of the guidelines.

Some of the institutional investors interviewed alluded that, REITs were limited in the country and that, some private companies tried to enter the sector, but because of the enormous challenges, their plans did not go through. Another point of consideration was that the existing REITs were not operating in line with the provisions of new REIT guidelines. The provisions in the guidelines specify the structural requirements, licensing needed, direction and duties of directors, and all matters relating to the establishment of REITs. These conditions rendered any existing REITs invalid. This is because an approval is required before REITs could operate in the country. The surrounding debates pertaining to the legality and acceptability of REITs within Ghana's domestic macroeconomic environment are analyzed in the discussion section. It is possible that there were private companies which were operating as REITs in Ghana, which are not mentioned in this paper. For example, Participant #3 (portfolio manager) mentioned without certainty that, an international company called Acorn properties, which had its headquarters in Kenya, attempted to set up one in Ghana but could not for reasons unknown. The conclusive finding for the question on the existence of REITs is that there were two publicly known REITs based on structure and functionality. At the same time, the 2019 REIT guidelines implemented by SEC brought the legality and licensing aspect of the debate, rendering any existing Gh-REITs unlawful to operate. Through the interviews, it was revealed that all participants (#1 to 12) had sufficient knowledge of the REIT guideline as well as for the purpose for which it was implemented. Dissemination of information on the new REIT guidelines was done quite well. For a wider coverage, there must be collective efforts to publicize it through mass media campaigns.

Are there REITs on the Ghana Stock Exchange?

The Ghana Stock Exchange was implemented as a private company in 1990 under the Stock Exchange Act 1971 (ACT 384) and transitioned into a public listed company in 1994, four years after its implementation (Securities and Exchange Commission 2021). Since then, there have been significant growth in their number as well as their total capitalization. As at the last quarter of 2021, there were no REITs on the Ghana Stock Exchange. Concerning legality and licensing of REITs there is an assumption that no company in Ghana qualified as a REIT. Now there are 34 listed companies on the GSE. All the 12 participants selected for the interview confirmed that, there was no REIT listed on the GSE. However, there was one company, called Enterprise Group PLC which engaged in investment, insurance, real estate development and management consultancy. Upon further investigation, it was revealed that it was not solely into REIT but was an insurance company which is publicly traded on the GSE. This proves that the GSE does not have a listed REIT now and that the new REIT guidelines, although not passed into an ACT of parliament yet, is a huge step towards this direction. Part eight of the guidelines provides the sets of requirements for making public offers for REIT securities, with clear instructions of seeking approvals before any of such activities is done. This provision along with other related ones such as criminal liability for defective prospectus and compensation matters are important for the listing of REITs unto the GSE.

Perception of Institutional Investors and Policy Experts about the REIT Guidelines

Participants were asked about the prospect of Gh-REITs and the result was largely positive. Notable statements made by two of the participants are presented below.

> *"To be honest, I've seen significant interest in REITs. What I would say is that the regulators must put together a framework which is good. I'm sure maybe one or two asset managers will be looking to develop products out of the framework that's come up. But largely we, I think that it is good for the country".* (Participant #7, Fund Manager)

> *"Certainly, yes, I have personally advocated for REITs since 2002 because I think it allows us to be able to mobilize funds. Because real estate is capital intensive, and so the only way we can undertake big projects is to bring in funds from different sources, and the only way we can do that of course, is to set up a REIT or such other vehicles that allow for pooling of funds together".* (Participant #11, Policy Expert)

All the participants affirmed the good prospects of implementing REITs in Ghana. The potential contribution of REITs in terms of serving as platforms for the inflow of funds for property development was highlighted. The idea of property securitization was given a priority by all participants because it somewhat eradicates the liquidity constraints associated with real estate investment. REITs if implemented in Ghana, could benefit the country massively. But before getting it up and running, some of the participants gave interesting insights about the need to solve the pending problems in Ghana's real estate sector and improving the macroeconomic environment. In other words, setting the foundation right for the implementation of REITs.

Major institutional investors in Ghana including pension funds, private equity funds, financial institutions, insurance companies, etc. were aware of the guidelines proposed by SEC. These investors gave the impression that they were not in a haste to restructure their portfolios to immediately venture into Gh-REITs if it became available. Although the levels of acceptability among institutional investors were mostly positive, there were concerns about clarity with the country's real estate taxation policies as well as other macroeconomic indicators. This is consistent with findings from other developing countries concerning the challenges often encountered when developing REITs sectors. In negotiating and developing Ghana's first REIT sector from both regulatory and pragmatic perspectives, lessons could be taken from countries which recently underwent the same process. The literature on REITs in developing countries provide great insights about the approach taken by these countries in the past as well as the challenges faced through the various phases. The literature review presented on parts of Asia and Africa provide the best examples to take clues from. The next section focuses on discussions and analysis based on the findings and concludes with the conceptualization and development of Gh-REITs. The discussion explores three main areas of consideration, namely, the highlights from the interviews, an evaluation of the real estate sector and propositions about the next steps needed for the formation of Gh-REITs.

DISCUSSION

The discussion reflects on the perception and opinions of institutional investors and policy experts about the emergence of Gh-REITs. It specifically looks at the new guidelines and the prospects of establishing REITs in Ghana. Institutional investors such as pension funds and insurance companies are willing to explore the possibility of expanding their existing portfolios. The motivations behind this comes down to diversifying their portfolios with least correlated assets to help achieve optimal portfolio performance. REITs could also be used as a coping strategy against market shocks especially in the era of the never-ending covid-19 pandemic. The collective perception of the institutional investors who were interviewed about the prospect of REITs was largely positive. The investors stated that although the principle of diversification was an integral part of their work, they did not necessarily prioritize it in their portfolio construction and management processes. They further reiterated that the only way they would diversify is if the alternative asset provided relatively good returns. The participants made some arguments concerning some conditions or requirements needed in Ghana's real estate industry before any REIT arrangement may be successful. They were of the view that for Gh-REITs to work, these conditions needed to be satisfied. Firstly, policy makers need to address the existing challenges in the real estate industry through the macroeconomic lens. Secondly, there must be a well-functioning legal and regulatory framework for the real estate sector, specifically improving enforcement of existing laws. Finally, the right environment must be created for a transition of REITs unto the GSE. These three conditions thus include the macroeconomic environment, the legal and regulatory framework, and the platform for listed REITs on the GSE. These arguments are discussed below.

Ghana's Macroeconomic Environment and the Real Estate Industry

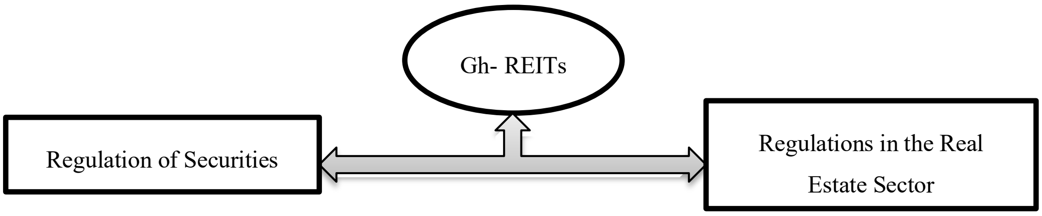
The development of REITs in a 'developed country' is often different from that of a 'developing country' based on several macroeconomic factors. The fact that many advanced countries seem to have well-developed REIT sectors testifies not only of the timing of the REIT formation, but more importantly on the underlying market conditions. This means that before a proper REIT sector can be set up, the right foundation must be laid. The institutional investors selected for the study stated that, the Ghanaian economy is generally an illiquid one judging by the nature of transactions (for example, a cash dominant economy) as well as lacking the complete systems needed for increased liquidity. Comparatively, developing countries are often confronted with high interest rates, high inflation, and high unemployment levels than developed countries. Although these macroeconomic factors affect the entire economy, they also have direct impact on the workings of the real estate industry. For instance, Ghana's low mortgage penetration and the largely absent secondary mortgage markets, are linked to market conditions. The high interest rates and skyrocketed inflation figures tend to affect the cost of building materials (local and imported). The findings on the impact of macroeconomic factors is confirmed by Aro-Gordon et al. (2014), Kola & Kodongo (2017) and Kamau (2016). The role of macroeconomic factors in creating a REIT sector in Ghana can therefore not be overemphasized. They go a long way to affect the yields from the REIT vehicles, something which is crucial to institutional investors.

Furthermore, the current state of the real estate industry must be good enough to start a REIT. Participants stated that, Ghana's real estate industry was confronted by challenges relating to the industry's informal culture, the lack of property market database, real estate agency issues, non-existent performance benchmarks that meet international standards etc. These findings confirm the results from early studies conducted by Hammond (2006); Nyarko, Ayitey & Gavu (2015); Obeng-Odoom (2011); Owusu-Manu et al. (2015) and Wilfred (2012). Ghana's real estate sector needs a complete overhaul to address these challenges to help increase the level of professionalism in the sector. A well-functioning real estate market is thus a prerequisite for more advanced forms of real estate investments such as REITs.

The Legal and Regulatory Framework

The legality and adoption of the name 'Gh-REITs' as seen in countries like Australia (A-REITs), Nigeria (N-REITs), Kenya (K-REITs) and Germany (G-REITs) would only be possible if the REIT sector is accepted into the framework of Ghana's real estate industry. The introduction of the REIT guidelines in 2019 is thus a major step to legalizing REIT operation in the country. An Act of parliament or a law to that effect could perhaps hasten the process. Theoretically, REITs are considered as a hybrid between securitized property and direct real estate investment (Boudry et al. 2012). The implication of its hybridity to the regulatory environment leaves room for further exploration, as some of the participants believe it falls between the two sectors. For example, the peculiarities between the management of the 'fund' itself, versus the processes involved in the property development process and the management aspect of the REIT. This unique arrangement is graphically represented below.

Figure 2. The Hybridity of REITs



Source: Authors (2021)

Figure 1 shows the synergy between the real estate sector and the securities and equities market in terms of regulations. Although REITs are securities (arguable), the underlying asset is real estate. For this reason, implementing regulations in this regard would not be complete without a holistic look at the regulatory framework of both sectors. Institutional investors in Ghana, referred to the non-compliance problem in the real estate sector. For an efficient REIT sector, the two sectors, must harmonize with each other. There are several regulations, laws and Acts governing the two sectors in Ghana. These laws shape the players and actors in various ways. Table 3 shows the major laws which are potentially important to the establishment of Gh-REITs. It includes laws for both the real estate industry and that of securities. As mentioned early on, the existing challenges in the real estate industry could be linked to the low level of compliance of existing laws and regulations. In line with efforts to lay the right foundation, these laws must be enforced to improve the country's real estate sector.

Table 2 List of Laws in Ghana

Name of Act, Law or Bill	**Year**	**Purpose**
Ghana Insurance Act 2021 (Act 1061)	2021	Regulates the insurance industry in Ghana (including property insurance). This Act repealed the previous Insurance Act of 2006 (Act 724).
Real Estate Agency Act 2020 (Act 1047)	2020	To license all real estate agents and brokers operating in Ghana
Land Act 2020 (Act 1036)	2020	To regulate land administration in Ghana.
Local Government Act 2016 (Act 936)	2016	A broad local governance law constituting property tax regulations
Securities Industry Act 2016 (Act 929)	2016	Regulates all matters relating to Ghana's securities industry
1992 Constitution, 1962 (Act 123)	1992	This is the supreme law of Ghana. It regulates every aspect of governance including roles of the president, parliament, judiciary etc.
Intestate Succession Act 1985 (PNDC Law 111)	1985	Regulates the distribution of a deceased person's self-acquired property in the event where no will was made.

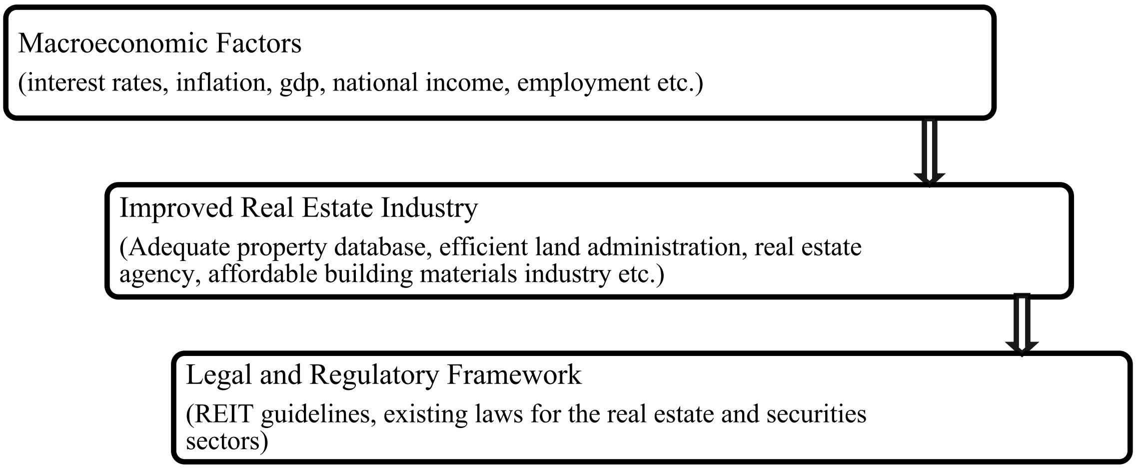
Rent Control Law (PNDC Law 138)	1986	To regulate transactions between landlords and tenants in all matters relating to the rental sector.
Companies Act 1963 (Act 179)	1963	Regulates the formation, financing, functioning, and winding up of companies in Ghana.

Prospects for Listed REITs on the Ghana Stock Exchange

The new REIT guidelines provides avenues for listed property trusts or companies to trade publicly on the GSE. The ultimate intention of creating REITs is to provide a platform to pool enough funds together from different investors to undertake real estate projects. In the Ghanaian context, listed REITs provide institutional investors an exposure to alternative investment avenues such as office space, retail, residential and industrial real estate. Previously, institutional investors largely stayed away from the real estate sector due to the problems discussed in previous sections. There was a positive anticipation among institutional investors who were interviewed concerning listed REITs. The findings from the interviews were similar to that of Michuki (2010). The author engaged 30 institutional investors in Kenya, asking them whether they would invest in K-REITs. Responses showed that they would only invest in K-REITs if they were listed on the Kenya Stock Exchange. This affirms the results from other contexts that, removing or minimizing the liquidity constraints associated with real estate investment is the way forward. Institutional investors in Ghana confirmed that they were mostly interested in liquid assets, and not illiquid ones.

Another advantage of developing listed Gh-REITs is that the real estate companies tend to enjoy taxation benefits, as is seen in the US and other countries. Although not always the case, REITs are exempted from corporate level income tax in many countries. This incentivizes both investors and developers to develop more properties onto the market. Unfortunately, it is unlikely for these tax benefits to be enjoyed in Ghana if the guidelines are not passed into an Act of parliament. The implementation of tax incentives in the major sectors of the economy cannot be done without the right legal backing. Meaning that, at this stage of policy making, the feedback from stakeholders concerning the REIT guidelines must lead to revision and further advancement into parliament to be passed into law. This is possible as was done with the Real Estate Agency bill which was recently passed into law. The above points prove the positive perceptions and feedback from institutional investors and policy experts concerning listed Gh-REITs. The conditions necessary for the establishment, licensing, and operation of a new REIT are illustrated in Figure 3.

Figure 3. Conditions for a Successful REIT Sector in Ghana



Source: Authors (2021)

Figure 3 shows a process by which a conducive investment environment could be created for a successful REIT sector. Although this is tailored for the Ghanaian context, the fundamental framework is applicable to other developing countries. The characteristics of a developing country are often shown in the interest rates, inflation, GDP, employment, national income etc., all of which fall under the macro economy. These factors must be improved to ensure that REITs would thrive. At the industry level, real estate practices that rely on property market databases, land administration, agency and building materials must also be improved. Finally, matters concerning regulation and laws is an important condition for a successful REIT sector. In this case, regulations in both the securities market and the real estate sector are necessary. It is not just about implementation but also compliance to these regulations. The primal asset in every REIT is an income producing property. The aforementioned factors contribute to the development and management of the asset. Although the attention is drawn to the legal and regulatory aspects, the macroeconomic environment and the state of the real estate industry play a crucial role in developing Ghana's first REIT sector.

CONCLUSION

REITs are evolving in Ghana in terms of structure, practice, and regulation. This paper explored the processes, challenges, and prospects of developing Gh-REITs, specifically by investigating if there were any existing REITs and to identify the conditions needed for a vibrant REIT sector. Several interviews were conducted with institutional investors and policy experts, to gather their perception about having Gh-REITs and to get feedback on the REIT guidelines put forth by the Securities and Exchange Commission. The paper makes the following conclusions.

a) Firstly, there is a market for REITs in Ghana based on the feedback from the major institutional investors in the country. Feedback from selected investment banks, pension funds, insurance companies, private equity funds showed the willingness of investors to diversify their portfolios with REITs. The condition is that the right regulatory structures must be put in place and that there must be acceptable balance between the regulations in the securities sector and that of the real estate sector.

b) Secondly, the 2019 REIT guideline was optimistically welcomed by institutional investors and policy experts. Its implementation was timely to guide the formation, legalization, and licensing of REITs in Ghana.

c) Thirdly, there is a good prospect for migrating existing REITs, once approved, unto the Ghana Stock Exchange. This gives institutional investors exposure to indirect real estate investment through listed property trusts or companies. It is also an opportunity to develop the country's real estate sector as well as increase participation in secondary mortgage markets.

d) Lastly, there are three conditions required for a vibrant REIT sector, namely, creating a conducive macroeconomic environment, improving the state of the real estate industry, and developing an effective legal and regulatory framework. These conditions govern matters relating to, taxes, interest rates, inflation, and the laws on listed REITs.

The findings show a rapidly evolving REIT sector in Ghana, placing in perfect view, the need for regulation. They provide the pathway to usher in various forms of indirect real estate investments. Getting feedback from major stakeholders on the 2019 REIT guideline was helpful to direct efforts being made to formulate, establish, and operate REITs. The conditions needed for a successful REIT sector are important ingredients to be considered in any future directives towards operating and regulating REITs in Ghana.

References

Adair, A., McGreal, S. & Webb, J.R. 2006, 'Diversification effects of direct versus indirect real estate investments in the U.K', *Journal of Real Estate Portfolio Management*, vol. 12, no. 2, pp. 85-90.

Adams, G. 2015, *Real Estate Investment Trusts and Their Impacts on Capital Markets*, Walter de Gruyter GmbH, Berlin/München/Boston.

Afrane, S.K., Owusu-Manu, D., Donkor-Hyiaman, K.A. & Bondinuba, F.K. 2016, 'Towards innovative housing financing in Ghana: an evidence-based from South Africa's pension housing financing system', *Public Policy and Administration Research*, vol. 4, no. 4, pp. 97-110.

Agyapong, D. 2021, 'Implications of digital economy for financial institutions in Ghana: an exploratory inquiry', *Transnational Corporations Review*, vol. 13, no. 1, pp. 51-61.

Anaman, K.A. & Osei‐Amponsah, C. 2007, 'Analysis of the causality links between the growth of the construction industry and the growth of the macro‐economy in Ghana', *Construction management and economics*, vol. 25, no. 9, pp. 951-61.

Anderson, M., Chen, S., Hacking, J., Lieberman, M.R., Lundin, M., Maleckaite, V., Martin, A., Parham, R. & Steed, M. 2014, 'Modern pension fund diversification', *Journal of Asset Management*, vol. 15, no. 3, pp. 205-17.

Arku, G. 2009a, 'Housing policy changes in Ghana in the 1990s', *Housing Studies*, vol. 24, no. 2, pp. 261-72.

Arku, G. 2009b, 'Rapidly growing African cities need to adopt smart growth policies to solve urban development concerns', vol. 20, Springer, pp. 253-70.

Aro-Gordon, S.O., Bashir, A.M., Abdulsalam, D.O. & Abdullahi, H. 2014, 'An assessment of recent market performance of REITs in a developing economy', *Journal of Business and Management*, vol. 16, no. 8, pp. 16-21.

Asiedu, A.B. & Arku, G. 2009, 'The rise of gated housing estates in Ghana: empirical insights from three communities in metropolitan Accra', *Journal of Housing and the Built environment*, vol. 24, no. 3, pp. 227-47.

Baffour Awuah, K.G., Gyamfi-Yeboah, F., Proverbs, D. & Lamond, J.E. 2017, 'Sources and reliability of property market information for property valuation practice in Ghana', *Property Management*, vol. 35, no. 4, pp. 448-66.

Benefield, J.D., Anderson, R.I. & Zumpano, L.V. 2009, 'Performance differences in property-type diversified versus specialized real estate investment trusts (REITs)', *Review of Financial Economics*, vol. 18, no. 2, pp. 70-9.

Bhuyan, R., Kuhle, J.L., Al-Deehani, T.M. & Mahmood, M. 2015, 'Portfolio diversification benefits using real estate investment trusts - An experiment with US common stocks, equity real estate investment trusts, and mortgage real estate investment trusts', *International Journal of Economics and Financial Issues*, vol. 5, no. 4.

Block, R.L., Burton, S.D. & Campbell, K.D. 2012, *Investing in REITs: real estate investment trusts, fourth edition*, 4th ed. edn, vol. 141, Bloomberg Press/Wiley, Hoboken, N.J.

Boakye-Agyeman, N.A. & Bugri, J.T. 2019, 'Strategic corporate real estate management practice in Ghana', *Property management*, vol. 37, no. 3, pp. 432-49.

Boshoff, D.G.B. & Bredell, E. 2013, 'Introduction of REITs in South Africa', pp. 38-47.

Boudry, W.I., Coulson, N.E., Kallberg, J.G. & Liu, C.H. 2012, 'On the hybrid nature of REITs', *Journal of Real Estate Finance and Economics*, vol. 44, no. 1-2, pp. 230-49.

Broadstock, D.C., Chan, K., Cheng, L.T.W. & Wang, X. 2021, 'The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China', *Finance research letters*, vol. 38, p. 101716.

Brounen, D. & de Koning, S. 2012, '50 years of real estate investment trusts: An international examination of the rise and performance of REITs', *Journal of Real Estate Literature*, vol. 20, no. 2, pp. 197-223.

Charmaz, K. 2006, *Constructing grounded theory: A practical guide through qualitative analysis*, sage.

Chiappini, H., Vento, G. & De Palma, L. 2021, 'The impact of COVID-19 lockdowns on sustainable Indexes', *Sustainability*, vol. 13, no. 4, p. 1846.

Chikolwa, B. 2011, 'Investigating the capital structure of A-REITS', *Journal of Real Estate Literature*, vol. 19, no. 2, pp. 391-411.

Chilton, K., Silverman, R., Chaudhry, R. & Wang, C. 2018, 'The impact of single-family rental REITs on regional housing markets: A case study of Nashville, TN', *Societies*, vol. 8, no. 4.

Chong, W.L., Ting, K.H. & Cheng, F.F. 2016, 'The impacts of corporate governance on the performance of REITs in Singapore', *Journal of Real Estate Literature*, vol. 24, no. 2, pp. 317-44.

Ciochetti, B.A., Craft, T.M. & Shilling, J.D. 2002, 'Institutional investors' preferences for REIT Stocks', *Real Estate Economics*, vol. 30, no. 4, pp. 567-93.

Dabara, D.I., Tinufa, A.A., Soladoye, J.O., Ebenezer, O.O. & Omotehinshe, O.J. 2018, 'Financial structure of REITs in emerging property markets: An assessment of N-REITs', *Research Journal of Finance and Accounting*, vol. 9, no. 16.

Ehwi, R.J., Morrison, N. & Tyler, P. 2021, 'Gated communities and land administration challenges in Ghana: reappraising the reasons why people move into gated communities', *Housing Studies*, vol. 36, no. 3, pp. 307-35.

Füss, R. & Schindler, F. 2011, 'Diversification advantages of securitized investments in a mixed asset portfolio', *Perspektiven der Wirtschaftspolitik*, vol. 12, no. 2, pp. 170-91.

Gavu, E.K. & Owusu-Ansah, A. 2019, 'Empirical analysis of residential submarket conceptualisation in Ghana', *International journal of housing markets and analysis*, vol. 12, no. 4, pp. 763-87.

Ghosh, C. & Petrova, M. 2020, 'The Effect of Legal Environment and Regulatory Structure on Performance: Cross-Country Evidence from REITs', *The journal of real estate finance and economics*, vol. 63, no. 1, pp. 40-81.

Gibilaro, L. & Mattarocci, G. 2020, 'Crowdfunding REITs: a new asset class for the real estate industry?', *Journal of Property Investment and Finance*, vol. 39, no. 2, pp. 84-96.

Guest, G., Namey, E. & Chen, M. 2020, 'A simple method to assess and report thematic saturation in qualitative research', *PLoS One*, vol. 15, no. 5, p. e0232076.

Hammond, F.N. 2006, 'The social costs of real estate market information gaps in Ghana', *Urban policy and research*, vol. 24, no. 3, pp. 391-408.

Hoesli, M. & Moreno, C.S. 2007, 'International articles: Securitized real estate and its link with financial assets and real estate: An international analysis', *Journal of Real Estate Literature*, vol. 15, no. 1, pp. 59-65,8,70,4-9,81-4.

Jones, B., Shigekawa, S.S., Kwang, A. & Tiltman, G. 2020, *The growing case for global REITs*, Neuberger Berman, New York, USA, viewed 17-11-2021 2021, <https://www.nb.com/en/global/insights/the-growing-case-for-global-reits>.

Jones, C. 2007, 'Private investment in rented housing and the role of REITS', *European Journal of Housing Policy*, vol. 7, no. 4, pp. 383-400.

Kamau, K.M. 2016, 'Challenges and prospects of real estate investment trusts (REITS) financing of real estate in Kenya'.

Khan, S. 2021, 'Liquidity-driven cross-market linkages between securitized REITs and stock markets', *Journal of Real Estate Portfolio Management*, vol. 26, no. 1, pp. 37-56.

Khanani, R.S., Adugbila, E.J., Martinez, J.A. & Pfeffer, K. 2021, 'The impact of road infrastructure development projects on local communities in peri-urban areas: the case of Kisumu, Kenya and Accra, Ghana', *International Journal of Community Well-Being*, vol. 4, no. 1, pp. 33-53.

Kola, K. & Kodongo, O. 2017, 'Macroeconomic risks and REITs returns: A comparative analysis', *Research in International Business and Finance*, vol. 42, pp. 1228-43.

Kuhle, J.L. 1987, 'Portfolio diversification and return benefits—common stock vs. real estate investment trusts (REITs)', *The Journal of real estate research*, vol. 2, no. 2, pp. 1-9.

Lee, C.L. 2018, 'Oceania', *The Routledge REITs Research Handbook*, Routledge, pp. 257-78.

Lee, C.L. & Lee, M.L. 2012, 'Hedging effectiveness of REIT futures', *Journal of Property Investment & Finance*.

Lee, C.L., Stevenson, S. & Lee, M.-L. 2014, 'Futures trading, spot price volatility and market efficiency: evidence from European real estate securities futures', *The Journal of Real Estate Finance and Economics*, vol. 48, no. 2, pp. 299-322.

Lin, Y.C., Cho, H. & Lee, C.L. 2019, 'The value-added role of sector-specific REITs in Australia', *Pacific Rim Property Research Journal*, vol. 25, no. 1, pp. 49-72.

Liu, C.H., Hartzell, D.J. & Hoesli, M.E. 1997, 'International evidence on real estate securities as an inflation hedge', *Real estate economics*, vol. 25, no. 2, pp. 193-221.

Marzuki, M.J. & Newell, G. 2018, 'The emergence of Spanish REITs', *Journal of property investment & finance*, vol. 36, no. 5, pp. 495-508.

Mazurczak, A. 2011, 'Development of real estate investment trust (REIT) regimes in Europe', *Journal of international studies (Kyiv)*, vol. 4, no. 1, pp. 115-23.

Michuki, D.W. 2010, 'The existence of real estate investment trusts (REITS) needs by institutional investors at the Nairobi stock exchange'.

Morawski, J., Rehkugler, H. & Füss, R. 2008, 'The nature of listed real estate companies: property or equity market?', *Financial Markets and Portfolio Management*, vol. 22, no. 2, pp. 101-26.

Newell, G., Lee, C.L. & Kupke, V. 2015, 'The opportunity of residential property investment vehicles in enhancing affordable rental housing supply', *AHURI Positioning Paper*, Review, vol. 2015-May, pp. i-53, <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84939864311&partnerID=40&md5=b50f4e4fe38e4545579c0e1b7468c2c1>.

Newell, G. & Peng, H.-W. 2009, 'The impact of the global financial crisis on A-REITs', *Pacific Rim Property Research Journal*, vol. 15, no. 4, pp. 453-70.

Nyarko, F.J., Ayitey, J.Z. & Gavu, E.K. 2015, 'Evaluation of home-equity financing option in a developing economy, illustrated with an example of Ghana', *Świat Nieruchomości*, vol. 4, pp. 23-8.

Obeng-Odoom, F. 2011, 'Real estate agents in Ghana: A suitable case for regulation?', *Regional studies*, vol. 45, no. 3, pp. 403-16.

Oertel, C., Gütle, T., Klisa, B. & Bienert, S. 2019, 'US real estate as target assets for European investors', *Journal of Property Investment & Finance*, vol. 37, no. 4, pp. 398-404.

Olanrele, O.O., Said, R. & Daud, N. 2015, 'An evaluation of the performance and acceptability of REIT in Nigeria', pp. 269-86.

Ooi, J., Graeme, N. & Tien-Foo, S. 2006, 'The growth of REIT markets in Asia', *Journal of Real Estate Literature*, vol. 14, no. 2, pp. 203-22.

Ooi, J.T.L. & Kim-Hiang, L. 2004, 'Risk-adjusted performance of real estate stocks: evidence from developing markets', *The Journal of Real Estate Research*, vol. 26, no. 4, pp. 371-95.

Owusu-Manu, D., Edwards, D.J., Badu, E., Donkor-Hyiaman, K.A. & Love, P.E.D. 2015, 'Real estate infrastructure financing in Ghana: Sources and constraints', *Habitat International*, vol. 50, pp. 35-41.

Owusu-Manu, D., Edwards, D.J., Pärn, E.A., Asiedu, R.O. & Aboagye, A. 2018, 'Determinants of mortgage price affordability: a study of Ghana', *International journal of housing markets and analysis*, vol. 11, no. 4, pp. 734-51.

Paaga, D.T. & Dandeebo, G. 2013, 'Customary land tenure and its implications for land disputes in Ghana: Cases from Wa, Wechau and Lambussie', *International Journal of Humanities and Social Science*, vol. 3, no. 18, pp. 263-70.

Parker, D. 2012, *Global real estate investment trusts: People, process and management*, John Wiley & Sons.

Rehring, C. 2012, 'Real estate in a mixed-asset portfolio: the role of the investment horizon', *Real Estate Economics*, vol. 40, no. 1, pp. 65-95.

Republic Bank 2021, *The funds: Republic investments REIT*, Accra, viewed 20-10 2021, <http://republicinvestmentsgh.com/managed-funds/the-funds/91-managed-funds/the-funds/118-republic-investmnents-reit>.

Securities and Exchange Commission 2021, *Listed Companies on the Ghana Stock Exchange*, Ghana Stock Exchange, Accra, viewed 9-10-21, <https://gse.com.gh/listed-companies/>.

Seiler, M., Webb, J. & Neil Myer, F. 1999, 'Are EREITs real estate?', *Journal of Real Estate Portfolio Management*, vol. 5, no. 2, pp. 171-81.

Serrano, C. & Hoesli, M. 2009, 'Global securitized real estate benchmarks and performance', *Journal of Real Estate Portfolio Management*, vol. 15, no. 1, pp. 1-19.

Suk Kim, B. 2009, 'The impact of the global financial crisis on Asia-Pacific real estate markets: evidence from Korea, Japan, Australia and U.S. REITs', *Pacific rim property research journal*, vol. 15, no. 4, pp. 398-416.

Swanzy-Impraim, S., Gyasi, A.O., Acolatse, E.E., Graham, P. & Kyei-Addae, E. 2017, 'Commercial property insurance in Ghana: A case study of Accra and Kumasi', *Real Estate Finance*, vol. 33, no. 4, pp. 168-78.

Tsai, M.-S., Chiang, S.-J. & Lin, C.-H. 2010, 'A study of REITs in the Asia-Pacific area: volatility characters and their long-term relationship with stock indices', *Applied financial economics*, vol. 20, no. 17, pp. 1397-400.

Wang, H., Sun, Y. & Chen, Y. 2009, 'Special considerations for designing pilot REITs in China', *Journal of Property Investment & Finance*, vol. 27, no. 2, pp. 140-61.

Wilfred, K.A.-O. 2012, 'The nascent residential investment market in Ghana', *Journal of real estate literature*, vol. 20, no. 2, pp. 289-304.

Zarebski, P. & Dimovski, B. 2012, 'Determinants of capital structure of A-Reits and the global financial crisis', *Pacific Rim Property Research Journal*, vol. 18, no. 1, pp. 3-19.