

https://dspace.org/

The challenges and benefits associated with residential investment in South Africa: residential REIT and portfolio manager perspectives

Van Straaten, Kevin

2023

University of the Witwatersrand, Johannesburg

https://hdl.handle.net/10539/37363

Van Straaten, Kevin. (2023). The challenges and benefits associated with residential investment in South Africa: residential REIT and portfolio manager perspectives. [Master's dissertation, University of the Witwatersrand, Johannesburg]. https://hdl.handle.net/10539/37363

Downloaded from a DSpace repository. https://dspace.org/



SCHOOL OF CONSTRUCTION ECONOMICS AND MANAGEMENT

BUQS 8000A – Master's Thesis

Supervisors: Prisca Simbanegavi & Bekithemba Mpofu

The challenges and benefits associated with residential investment in South Africa – residential REIT and portfolio manager perspectives.

NAME: KEVIN VAN STRAATEN
STUDENT NO: 922812
DATE: 14/05/2023

Acknowledgements

I am deeply grateful to my family for their unwavering support throughout the writing of this thesis and the many challenges that came along with it. I want to thank you for all your support in helping me achieve this goal and helping push me when I needed that extra bit of encouragement and motivation. This research truly would not be possible without your love, support and encouragement.

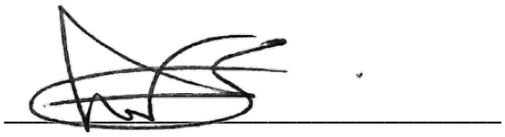
I want to thank my partner, Lindsey-Jayne, for always standing by me and supporting me through this challenging endeavour no matter what it took. Your support has been second to none and your words of encouragement have been driving force in helping me get to the end of this research. I am truly grateful for all your support, love, and everything that you have done to help get me to the finish line. It is hard to describe the power of your support.

Finally, I would like to thank Prisca Simbanegavi and Bekithemba Mpofu, my two supervisors. Thank you both for providing your guidance and motivation throughout this thesis and helping me find my feet when I have been lost in the research. All the weekend and afterhours calls to assist in the progression of my research have been greatly appreciated, fully understanding that you have had to make some sacrifices of your own. I truly thank you for your guidance and wisdom in helping navigate my way through this thesis.

Declaration

I declare that this Research Report is my own, unaided work. It is submitted in partial fulfilment of the degree Master of Science in the field of Property Development and Management at the University of the Witwatersrand, Johannesburg.

It has not been submitted before for any degree or examination in any other university.



Student name: Kevin van Straaten

Student number: 922 812

Abstract

A common theme in addressing critical housing shortages is the call to leverage private sector resources using REITs. Despite South African having critical affordable housing shortages, REIT exposure to residential is far below the global REIT market average. Existing research brings to light the mixed views and perceptions between different stakeholders about the challenges and risks associated with residential REITs. This is exacerbated by the lack of input from managers of residential REITs and residential funds which is critical to establish a more in depth understanding of the characteristics of the sector.

The purpose of this research was to understand the challenges faced, methods to overcome these challenges, and the unique benefits that residential investment offers from the perspectives of managers of residential REITs and large scale residential rental portfolios in South Africa.

This was achieved using a qualitative survey consisting of semi-structured interviews with managers and executives of residential REITS and large scale residential rental portfolios.

The findings provide a more granular look at some of the challenges faced by these key stakeholders, which provide a deep insight into the characteristics of the sector. The key finding is that the limited track record of residential REITs is cause for many of the challenges associated with residential investment in South Africa. Residential portfolio and REIT managers are implementing unique strategies to respond to some of challenges that arise in the context of South Africa such as a shift toward month-to-month leases and exploring methods of reducing utility costs which are increasing at above inflationary rates.

These findings make a valuable contribution to the limited literature on residential REITs in South Africa and include insights from the stakeholders that are most acquainted with the sector which is key to helping broaden our understanding of the challenges and benefits of residential investment in South Africa. Understanding these characteristics is crucial in further developing and growing the residential REIT sector which has the potential to help leverage private sector resources to address the critical housing shortages in South Africa and Africa.

Tables

Table 1: Structure breakdown of thesis 10
Table 2: Global Comparison of Top 10 REIT markets 16
Table 3: Annualized Average Performance of Assets: May 2013 to December 2015 17
Table 4: List of South African REITs According to Sector 17
Table 5: Profile of Sector-specific SA-REITs September 2020 21
Table 6: South African Residential REITs and rental range of offerings (ranging from studio apartments to 2 and 3 bed apartments) 21
Table 7: Performance of Residential REITs Globally (August 2018) 23
Table 8: Sector Specific SA REITs adjusted return analysis: April 2013 to September 2020 28
Table 9: Comparison of risks and constraints associated with residential real estate across different geographies 35
Table 10: Sector Specific SA REITs correlations analysis: April 2013 to September 2020 41
Table 11: Breakdown of interview participants 54
Table 12: Participants ranking of challenges facing large scale residential rental portfolios and residential REITs (all 9 participants) 93
Table 13: Participants ranking of challenges facing large scale residential rental portfolios and residential REITs (residential REIT participants only) 94
Table 14: Participants ranking of challenges facing large scale residential rental portfolios and residential REITs (non-residential REIT participants only) 95
Table 15: Comparison of Indluplace Properties and Transcend Residential (December 2022) 143

Figures

Figure 1: Application of the theory of behavioural finance in the property market 15
Figure 2: Property sub-sector exposure by region 19
Figure 3: Property sub-sector exposure by market 20
Figure 4: MSCI World REIT sub-industry weights 20
Figure 5: Total Return of South African property sectors 2017 25
Figure 6:Total Return of South African property sectors 2017 26
Figure 7: Net Operating Income Yield (%) of South African Property Sectors 2017 26
Figure 8: Total Return Residential South Africa vs. other National Markets 2017 27
Figure 9: Net Operating Income Yield Residential South Africa vs. other National Markets 2017 27
Figure 10: Sub-Sector SA-REITs Market Capitalisation Index: April 2013 to September 2020 (100 = April 2013) 28
Figure 11: SA-REIT Residential Performance Comparison (index weighting by Market Cap) 29
Figure 12: TPN Tenants in good standing - Residential vs Commercial Rent 2007 - Q2 2021 42
Figure 13: Research 'onion' 47

Table of Contents

1. INTRODUCTION 1
   1.1. Background 1
   1.2. Substantiation of Research Problem 3
   1.3. Research Gap 4
   1.4. Problem Statement 5
   1.5. Aim 6
   1.6. Research Questions 6
   1.7. Research Objectives 6
   1.8. Assumptions 6
   1.9. Research Limitations 7
   1.10. Hypotheses 8
   1.11. Contributions 9
   1.12. Structure 10
2. LITERATURE REVIEW 11
   2.1. Theoretical review 11
   2.2. Empirical review 16
   2.2.1. Significance of SA-REITs 16
   2.2.2. SA Residential REITs In the Global Context 18
   2.2.3. Performance of Residential REITs Globally 22
   2.2.4. Performance of Residential and Residential REITs in SA 24
   2.2.5. Conditions for Residential REITs to Succeed 30
   2.2.6. Investor Perceptions Toward Residential Property 31
   2.2.7. Residential REITs: Risks and associated challenges 33
   2.2.8. Mitigating Risks Associated Challenges with Residential Rental 39
   2.2.9. Benefits associated with investment in the residential sector 40
   2.3. Conceptual Framework 43
3. METHODOLOGY 46
   3.1. Research Philosophy 47
   3.2. Approach to theory development 48
   3.3. Methodological choice 49
   3.4. Research Strategy 49
   3.5. Data Collection 50
      3.5.1. Population Group 51
   3.6. Data Analysis 52
   3.7. Ethical considerations 53

4. DATA ANALYSIS, RESEARCH FINDINGS & DISCUSSION. 54
4.1. Introduction 54
4.2. Overview of participants and Response Rate 54
4.3. Research Findings 55
4.3.1. Challenges facing large scale residential rental portfolios and REITs in South Africa. 55
4.3.3. Overcoming the risks and challenges with respect to residential real estate and improving investor understanding and appetite for investment in the sector. 96
4.3.2. Unique benefits to residential investment 122
4.4. Discussion 131
4.4.1. Challenges facing large scale residential rental portfolios and REITs in South Africa. 132
4.4.2. Overcoming the risks and challenges with respect to residential real estate and improving investor understanding and appetite for investment in the sector. 139
4.4.3. Unique benefits to residential investment 144
5. CONCLUSION & RECOMMENDATIONS 149
5.1. Conclusions 149
5.1.1. Challenges facing large scale residential rental portfolios and REITs in South Africa. 150
5.1.2. Overcoming the risks and challenges with respect to residential real estate and improving investor understanding and appetite for investment in the sector. 152
5.1.3. Unique benefits to residential investment 154
5.1.4. Concluding remarks 156
5.2. Recommendations 158
Industry recommendations 159
Recommendations for Academia 162
REFERENCES 164
ANNEXURE A – Interview questions 172
ANNEXURE B – Ethics Approval 174

1. INTRODUCTION

1.1. Background

The success of residential REITs has been varied around the world with notable adoption in the United States (largest REIT sector globally) and Japan, and less adoption in the United Kingdom and Australia (second largest REIT sector globally) with exposure to residential property by market cap at 14%, 18%, 9% and 2% respectively (Lin et al. 2019). These contrasts demonstrate the importance of research within the local context because of market places behaving differently and facing different fundamentals (Jones, 2007). It is found that research on the topic, particularly the performance of residential REITs, in emerging markets remains limited (Newell and Fischer, 2009; Anderson, 2015). Furthermore, the contradictory degrees of success of residential REITs between the world's two largest REIT markets, the United States and Australia, make for a difficult conclusion as to the suitability and feasibility of residential REITs in developed markets, nevertheless in some of the less developed countries and REIT markets. This is further exacerbated by the inconsistencies in findings with respect to the challenges and risks in the sector identified between investors that are not exposed to the residential sector and those that are directly involved with and manage large scale residential rental portfolios.

Broad themes in literature identify the high-risk low-return profile and lack of reliable market information associated with residential real estate among other constraints, as two prohibitive investment characteristics of residential real estate (Crook and Kemp, 2002; Berry et al., 2004; Milligan et al., 2004; Daly, 2008; Lawson, Gilmour and Milligan, 2010; Lawson, Milligan and Yates, 2012; Newell et al. 2015a). On the other hand, residential REITs offer institutional investors effective and liquid exposure to the residential sector (Montezuma, 2006; Newell and Fischer, 2009; Ball, 2010; Gibb, Maclennan and Stephens, 2013), strong diversification characteristics between asset classes and other property sub-sectors (Hartzell, Hekman and Miles, 1986; Liang, Chatrath and McIntosh, 1996; Anderson et al., 2003; Montezuma, 2004; Newell and Fischer, 2009), albeit diminishing over time (Newell and Fischer, 2009; Chong, Krystalogianni and Stevenson, 2012), long-term inflation hedging characteristics (Fama and Schwert, 1977; Hutchison, 1994; Bond and Seiler, 1998; Stevenson, 2000; Lee, 2014) and stable income with less risk than stocks (Newell, 2012; Cotter and Roll, 2015).

It was agreeably said by Coovadia (2019; p.23) that *'there is a moral obligation for private sector to address issues of the housing crisis, but it is also in the interest of the private sector as it will contribute to long-term sustainability for business'.* This is further emphasized in the context of a new era driving impact investment of which housing plays a key role (Hebb, 2013). The call for private investment to assist in overcoming critical housing shortages, particularly in less developed countries, is identified as

a common theme in literature. In said research, REITs are proposed as the preferred indirect investment vehicle to improve private investment in housing (Jones, 2007; Cote and Tam, 2013; Milligan et al., 2013a; Anderson, 2015; Chan, 2016; Frew, 2016; Nurick et al., 2018). It cannot be ignored however, that there are concerns about equity REITs involvement at the very low end of the housing (social housing) market having a negative impact because of shareholders' drive to maximize profits at the cost of the tenants. In such a case the use of mortgage REITs is debated as the preferred and more responsible investment vehicle to leverage private sector resources in the investment and management of rental housing (Huang, 2010; Yin, 2019).

The implementation of the REIT structure in South Africa was welcomed in 2013 and stands out as an asset class having delivered exceptional returns since inception, both domestically and internationally, outperforming both Stocks (4.79% p.a.) and Bonds (-0.07%p.a.) between 2013 and 2015 with an annual return of 10.64% (Ntuli and Akinsomi, 2017). SA-REITs have typically invested in the more traditional office, retail and industrial sub-sectors. As the market has matured the recent establishment of more specialised REITs have been seen with the listing of Stor-age in 2015, Indluplace (residential) in late 2015 and Transcend Residential Property Fund in 2016.

Despite the recent listings of two specialised residential REITs, South African REIT exposure to residential remains far below the global REIT market - 1% versus 13.91% respectively (Broll, 2014; Anderson and Cloete, 2016; Nurick et al., 2018; MSCI, 2019). Considering this, it is important to consider that the South African residential rental market makes up approximately 17%, versus 7%, 5% and 4% for retail, office and industrial respectively (Coronation 2017 cited in Nurick et al., 2018). REITs low exposure to residential real estate is of particular interest within the context of global trends of urbanisation, particularly in Africa, which is experiencing the second highest rate of urbanisation after Asia (EEA, 2015; Venables, 2018). Furthermore, South Africa is facing a critical supply shortage of formal affordable housing with large demand encompassing low to middle income earners. There is an estimated housing shortage of between 2,3 million and 3,7 million units, growing at approximately 178,000 units per year (National Housing Finance Corporation, 2021).

On this basis and considering the contradictions regarding the perceived risks and challenges associated with residential REITs between participants, it is difficult to make a conclusion at present on their viability, particularly within the context of emerging markets with relatively immature REIT markets. South Africa presents as an important case study to add to the existing body of literature as it is one of the most established REIT markets within the broader context of emerging markets, the SA-REIT market is largely underexposed to residential compared to the global market, there is growing evidence to show that South African residential (including affordable residential) rental property can

compete with traditional REIT property sectors and is competitive in global terms, and finally, South Africa is faced with critical housing shortages and a high urbanisation rate much like the rest of Africa.

1.2. Substantiation of Research Problem

There has been a notable lack of participation and insight from REITs and large-scale private fund managers currently invested in residential real estate in South Africa. No research, outside of South Africa, is found that considers the challenges and risks that residential REITs face from the perspective of those REITs, but rather focuses on surveying institutional investors attitudes towards residential real estate (Crook, Hughes and Kemp, 1998; Kemp and Crook, 1999; Montezuma, 2004; Investment Property Forum, 2014).

Findings regarding the risks and challenges associated with residential REIT investment remains varied within and between different countries and stakeholders. This appears to be a partial symptom of investor misperceptions and misconceptions which has commonly been identified and implied in several research articles (Milligan et al., 2013a; Chan, 2016; Frew, 2016; Nurick et al., 2018; Lin et al. 2019). This problem is highlighted by Anderson (2015) in the South African context in which he concludes that *"there appears to be conflicting views as to both the extent of [residential REIT] challenges and the associated risks. One possible reason for the conflicting views is the immaturity of the residential sector in the South African REIT market and the limited data available on such risk".*

It is imperative to build a grounded understanding of what the experiences have been of residential REITs, as surveying the perceptions of external stakeholders in an already immature market (as is the case in South Africa) will inevitably further imbed and give rise to investor misperceptions. This is particularly the case when residential REIT participants (albeit with limited input in existing research) hold clear contradictory views to many of the risks and challenges identified by other interviewed participants - as is the case in Andersons' (2016) and Nurick et al. (2018) research. Existing research has presented a bias towards the perceived risks and constraints identified by participants not directly involved and actively managing residential funds. The consequences of this can be damaging as can be seen in an interview with the CEO of Indluplace, a specialised residential SA-REIT, in which it was highlighted that investor misperceptions were in fact a critical constraint to their success (CAHF, 2017).

From a South African research perspective only one out of four REITs with large residential exposure has been included in relevant surveys. In addition to this, South African research on the topic has largely been completed at a time when few residential REITs had been listed and those listed had only been listed for a short period of time.

It is therefore essential to gain deeper insight from REITs currently invested in residential real estate and large-scale residential rental funds to get more dependable views as to what the challenges and associated risks are that residential REIT portfolios are facing. Furthermore, there is a gap to not only truly understand the challenges faced by those actively invested in the market but to also explore what strategies are being used to overcome such challenges to improve institutional investor understanding and appetite. Furthermore, it is important to understand from the perspective of these stakeholders what benefits they believe investment in the residential sector can offer investors.

This is of importance as the South African residential REIT sector extends its track record and provides growing evidence of strong performance compared to other property sectors, albeit during a time of economic strain (MSCI Real Estate, 2018). Furthermore, the performance of the two specialised residential REITs in South Africa since listing present polar results, which without doubt are contributing to the misperceptions in the market. Transcend Residential has produced returns beating the SA-REIT index and exceeding all other property sub-sectors included in the MSCI South African Property Index while Indluplace Properties on the other hand has largely underperformed SA-REIT index returns.

The rationale behind this thesis is strongly aligned with that of Nurick et al. (2018) in that an understanding of the defining factors that are limiting SA-REIT investment in residential real estate is necessary to leverage private sector resources in addressing the evident challenges of affordable formal housing shortages - challenges that exist not only in South Africa but in many other African and developing countries (Faye, 2015). South Africa is the largest REIT market in Africa and as such, important insights on the residential REIT market are key to the rest of Africa and to finding solutions to overcoming the critical housing shortages.

1.3. Research Gap

Contradictory views exist between the different stakeholders with regards to the challenges and risks associated with large scale residential rental investment and residential REITs (Anderson, 2015; Nurick et al., 2018) .These contradictory views become evident when undertaking an analysis of the existing literature on the topic. In the South African context, investor misperceptions are specifically identified as a challenge for residential REITs when it comes to attracting investment. This is perhaps most importantly highlighted by Anderson (2015) who concludes that there are conflicting views regarding the extent of the challenges and associated risks facing residential REITs in South Africa. Later research by Nurick et al. (2018) further highlights that there are contradictory views held between the different stakeholders. This leaves the case for residential REITs in South Africa somewhat unclear despite new

evidence emerging that the sector can deliver competitive returns compared to the other more traditional commercial property sub-sectors (MSCI Real Estate, 2018).

Existing research has contributed to further embedding investor misperceptions in the sector by considering minimal input from existing SA-REITs with large exposure to residential despite clear evidence of contradictory views being expressed. Such input is vital as the market is relatively immature and research largely focusing on the perceptions of external stakeholders is likely to further embed investor misperceptions in the market. As such it is critical to comprehensively account for the views of those directly involved in large scale residential rental portfolios as they will be able to provide meaningful and experienced insights into the challenges that the sector is facing and how they are attempting to overcome these challenges. It is also important to then understand the unique benefits that the residential sector offers investors from the perspective of those actively managing such funds.

1.4. Problem Statement

A common theme in literature in addressing critical housing shortages is the call to leverage private sector resources using REITs, yet there remains mixed views and perceptions about the challenges and risks associated with residential REITs. Furthermore, there is a critical lack of input directly from residential REIT managers and large scale residential rental funds. These mixed perceptions, often labelled misperceptions, in themselves, contribute to some of the challenges facing residential REITs. It is therefore essential to develop an understanding of the challenges associated with residential REITs directly from those invested and who manage these portfolios and how they are managing these challenges and risks to improve investor understanding and appetite. Furthermore, it is critical to understand from these stakeholders, what unique benefits the large-scale residential sector offers investors to understand why investors should consider investment in the sector.

It is on this basis that this research looks to contribute to existing literature by providing a more in-depth study on the experiences of those directly involved which is key to understanding the challenges being faced in the sector, how these funds are attempting to overcome these challenges to improve investor appetite, and the benefits that the sector offers investors.

More broadly, this research is important in helping address global calls for improved private investment in housing, particularly in affordable housing, where critical demand supply gaps exist and where urbanization is happening at a rapid pace, adding to the demand for adequate affordable housing. This is a phenomenon relevant not only in South Africa, but in Africa as a whole.

1.5. Aim

This thesis aims to investigate the challenges that are facing residential REITs and large scale residential rental funds in South Africa, how these funds are trying to overcome these challenges, and identify the benefits that these funds offer investors. This research aims to do this by surveying those that are directly involved with the management of large scale residential rental funds and residential REITs. This will address a global gap in literature which is based on the lack of detailed insights from key stakeholders who are directly involved in and manage large scale residential rental funds.

1.6. Research Questions

1. What are the challenges facing residential REITs and large scale residential rental portfolio managers in South Africa?

2. What strategies are being employed by residential REITs and large scale residential rental portfolio managers to overcome these challenges?

3. What are the perceived benefits that large scale residential rental portfolios offer investors from the perspective of large scale residential rental portfolio managers in South Africa?

1.7. Research Objectives

1. Investigate the challenges faced by residential REITs and large-scale residential portfolio managers in the context of South Africa.

2. Investigate the strategies that residential REITs and large scale residential rental portfolio managers are employing to overcome the above challenges.

3. Investigate the perceived benefits that large scale residential rental portfolios offer investors from the perspective of large scale residential rental portfolio managers in South Africa

1.8. Assumptions

This research is based on the below assumptions that,

1. There are unique challenges that are facing large scale residential rental portfolios including residential REITs in South Africa; hence, the limited number of large scale private residential rental funds and low exposure by SA-REITs to residential.

1.1. It further assumes that key stakeholders that manage these large-scale residential portfolios and REITs are more acutely aware of the challenges being faced.

2. Key stakeholders involved in the management of large scale residential rental portfolios and residential REITs are undertaking active measures to overcome the assumed challenges facing large scale residential rental funds and residential REITs in South Africa.

3. There exist unique benefits that large scale residential rental funds and residential REITs offer investors that distinguishes the residential sector from the other more traditional real estate sectors such as office, retail and industrial.
   3.1. It is further assumed that key stakeholders of these large-scale residential portfolios and REITs are more acutely aware of these benefits.

1.9. Research Limitations

This thesis acknowledges and highlights some limitations which are core to the research. Firstly, it is acknowledged that the REIT market in South Africa is relatively immature compared to several other more developed markets (the REIT vehicle was only implemented South Africa in 2013). Furthermore, there are only four REITs with large exposure to residential, only two of which are pure residential REITs, the first of which having listed in 2016. This results in two core limitations, firstly there is a limited population of residential REITs in South Africa. To cater for this, the population group was widened to include large scale private residential rental funds which was also found to be limited to a degree. Limitations with respect to the number of large-scale residential funds in South Africa translated into a limited number of participants. However, given the high response rate, the findings represent 100% of the residential REIT market and a large portion of the large/commercial scale residential rental market. Given the limited track record, it is important that attention be given to the experiences and input of these stakeholders. Secondly, the commercial scale residential rental market and particularly the residential REIT market in South Africa has a limited track record, as such it is difficult to carry out any meaningful empirical and quantitative research on the role of residential SA-REITs in the mixed asset portfolio to provide stronger evidence regarding aspects of performance and risk.

1.10. Hypotheses

The below hypotheses are broken down according to the three objectives set out.

With respect to the first hypotheses, the relative immaturity of both REITs in general in South Africa and particularly residential REITs in South Africa plays a big role in how residential REITs are perceived by investors and that this phenomenon has caused a lot of misperceptions in the market, and in particular an increase in the perception of risk.

Residential REITs and large-scale residential rental portfolios are fundamentally different in nature to the other more traditional real estate sectors due to the sheer number of leases that need to be managed and likewise the higher churn rate of tenants. This in turn results in the asset class being highly management intensive, which plays a large role in the perception of risk.

It is envisaged that rental escalation limitations and legislation favoring the tenant will not be a risk or challenge associated in the South African context which has been highlighted as a risk in the literature. This is because many other countries where REITs have a higher exposure to residential have similar legislation.

Finally, the short-term nature of leases is the cause of rental growth limitations which are cause for concern for investors and which ultimately affect the long term returns achieved by these funds.

With respect to the second hypotheses, it is envisioned that growth in the track record for residential REIT's and large-scale residential portfolios will help tremendously in improving investors understanding and partialness to investing in the sector. It is anticipated that the role players interviewed will putting a lot of energy toward improving investor understanding and appetite. Key to this will be collecting as much data as possible and publishing this data in a transparent and easily accessible fashion. Secondly, the building of an industry body to help educate the market and provide the market with stronger evidence of the performance and risks associated with rental residential accommodation as an investment class by aggregating each respective stakeholder's data on the sector. One can already see an improvement in the level of reporting and data that is being produced with respect to residential REITs and residential rental portfolios.

It is anticipated that large-scale residential rental portfolios and residential REITs will all adopt unique approaches to overcome the challenges that are present in the industry, one such example will be the preference toward residential head leases with employers or government to improve cashflow certainty and reduce perceived risk. Such an approach will more closely align residential rental portfolios with the more traditional real estate sectors such as office and retail and reduce the perceived risk by investors.

With respect to the third hypotheses, it is anticipated that these are well reflected in the existing literature and that the consensus from the participants will be that the greatest benefit the residential rental sector offers investors is diversification. This is due to the underlying spread of tenants who are renting at different rental levels and are employed throughout a vast array of industries.

More generally, it is anticipated that the participants interviewed will provide more granular detail with respect to all the above and provide more insight which will go a long way in helping investors understand what the experiences of those actively involved in the industry are and help curb investors' perceptions of risk associated with the sector.

1.11. Contributions

Existing research regarding the risks and challenges associated with large scale residential rental portfolios and the reasoning for the low uptake of residential by SA-REITs has largely excluded the views of those that are directly involved with such funds. This is despite there being evidence of conflicting views with respect to the challenges and risks associated with the sector between mostly external investors and the managers of such funds.

This research will contribute to existing research by addressing the critical lack of input of those directly involved in and managing such funds. This will help one gain a deeper degree of insight into the actual experiences of those that are intimately involved in the sector.

This will help dispel investor misperceptions about the challenges and risks associated with the large-scale residential and residential REIT sector, and further educate investors that are unfamiliar with the sector about the unique characteristics it offers. Furthermore, this research hopes to contribute to existing literature by establishing what these funds are doing to overcome these challenges, an area of research that is found lacking in the South African and global context.

The above contributions seek to contribute to the ultimate goal of improving and leveraging off private investment to address the critical shortfall of affordable housing in South Africa and Africa as a whole.

1.12. Structure

The following table sets out the structure of the thesis:

Table 1: Structure breakdown of thesis

Chapter	Title	Details
1	Introduction	The introduction provides a brief and broad background on the research topic to provide context within which the gap in the research is found. The problem statement, research aim and objectives, and the anticipated findings and contributions to existing research will follow.
2	Literature Review	A review of existing research will be undertaken in this chapter whereby existing theory and concepts will be analysed and discussed. This will help provide more context to the research problem and an account of existing research on the broader topic.
3	Research Methodology	In this section the research methodology, research philosophy, approach to theory development and research strategy is discussed. This is followed by a discussion on data collection and analysis with a concluding section on the appropriate ethical considerations.
4	Data Analysis, Results and Discussion	This chapter presents the data collected from the interviews and discusses the key themes and findings as well as how they link back to existing literature.
5	Conclusion & Recommendation	This chapter provides the overall conclusions with respect to the objectives of the research and provides recommendations based on the findings and conclusions to both academia and the relevant industry players.

2. LITERATURE REVIEW

The literature review chapter is broken down into three broad sections. The first section will be a brief theoretical review to help ground the research in existing broad theory.

The next section will provide a comprehensive empirical review of existing research relating to the research topic. The empirical review will begin by looking into the broader relevant themes including the significance of REITs in South Africa, South African Residential REITs in the global context and the performance of residential REITs globally and in South Africa. Following the broader review of literature with respect to residential REITs, the empirical review will focus more closely on the existing literature with respect to the specific objectives of the research. The literature review will further provide context to the research problem and better define and highlight the research gap which this research aims to address.

The final section will conclude with the conceptual framework for the study.

- Theoretical review
    - Behavioural finance theory
- Empirical review
    - Significance of SA REITs
    - SA Residential REITs in the Global context
    - Performance of residential REITs globally
    - Performance of residential REITs in SA
    - Conditions for residential REITs to Succeed
    - Investor Perceptions Toward Residential real estate investment
    - Residential REITs, risks and associated challenges
    - Mitigating Risks associated with residential rental property
    - Investment benefits associated with the residential sector
- Conceptual framework

2.1. Theoretical review

The substantiation of the research problem and research gap above provide good context to ground the research within the broader theory of behavioural finance. The substantiation for this research is heavily weighted on the lack of key input from large scale residential portfolio and REIT managers with respect to their experiences in and insights into the residential sector. Insights from these key stakeholders is critical to better understand the unique characteristics of the residential rental sector from an investment perspective and the management and investment decisions of these stakeholders. More so, such insight will play an important role in removing misperceptions and misunderstandings in the broader investment market about the residential investment sector, which was a key theme

identified in existing literature and which contributes to investors aversion to investing in the residential sector. The theory of behavioural finance places emphasis on the views of individuals and investor groups and how and why they behave in certain ways when it comes to making investment and management decisions. It is on this basis that it becomes important to understand the behaviours of certain primary stakeholders and the underlying factors that drive these behaviours and decisions to ultimately understand the unique characteristics of the sector that they invest in. The below section provides an in-depth review of the theory of behavioural finance which forms the basis on which the connections to the research at hand can be made. These connections are highlighted more clearly in the concluding section of the theoretical review.

Pompian (2006) asserts that the theory of behavioural finance encompasses both the individual investors and the entire market and therefore, can be categorised into macro and micro behavioural finance. Macro behavioural finance tries to explain the anomalies exhibited by the efficient market hypothesis theory through incorporating models of human behaviour (Bikas et al., 2013). On the other hand, micro behavioural finance looks at the behaviour of individual investors in an attempt to understand what motivates them to act irrationally and to divert from rigid mathematical and statistical models that a rational person would follow (Jurevičienė et al. 2012).

Goldberg and von Nitzsch (1999) described the theory of behavioural finance as a finance market theory that puts more weight on the behaviour of humans and hypothesises that humans can only act rationally up to a certain point. Kourtidis et al. (2011) are of the opinion that the existence of irrational individual investors who make random and perhaps unpredictable transactions can only be fully explained by the behavioural factors influencing these individual investors. It focuses on what individual investors actually believe when making financial and investment decisions as opposed to wealth maximisation that traditional financial theories seek to attain. The theory of behavioural finance therefore combines different financial and classical economic theories in the spectrum of understanding the psychology and decision making in finance and investment (Thaler, 1999; Fuller, 2000; Fromlet, 2001; Jordan and Miller, 2008). However, Ritter (2003) is of the opinion that the theory of behavioural finance introduces the psychological aspect into the finance and investment decision process and therefore acts as a supplement to traditional financial theories. Moreover, Levy and Post (2005) assert that behavioural finance is a group of theories that are able to explain the inefficiencies and anomalies that may exist in the market that traditional financial theories fail to account for. Barberis and Thaler (2003) assert that the psychology of individual investors and the lasting effects of irrational individual investors are the backbone of behavioural finance.

The theory of behavioural finance attempts to explain the psychology of individual investors and how it influences their investment decisions (Kapoor and Prosad, 2017). Moreover, the presence of market

anomalies and inefficiencies as a result of speculation, overreaction and/or underreaction is evidence that investment decisions are not the product of rational decision making (Kapoor and Prosad, 2017). In addition, the theory of behaviour theory can be attributed to psychologists Kai-Ineman and Tversky (1979), who introduced prospect theory as a way to analyse decision making under risk which formed the backbone of behavioural finance (Kapoor and Prosad, 2017). Prospect theory has three propositions: i) individual investors have different risk appetite, ii) individual investors estimate the value of an investment based on their current level of wealth and iii) individual investors have a stronger desire to avoid losses than their desire for gains. In light of this, prospect theory sparked the development of behavioural finance which led to the development of the behavioural asset pricing model (Shefrin and Statman, 1994) and behavioural portfolio theory (Shefrin and Statman, 2000) amongst others. It is believed that the theory of behavioural finance started to gain traction from the works of De Bondt and Thaler (1985), who employed subjective behavioural factors to explain the changes in stock prices and investor's income.

Kourtidis et al. (2011) acknowledge that there are many behavioural factors that may influence individual investors but limit their study to only focus on risk tolerance, self-monitoring, over-confidence and social influence. According to Smith (1998), an individual investor in pursuit of profit may be influenced by his/her ego, insecurity, pride and disgrace to make financial and investment decisions. Fischer and Gerhardt (2007) also believe that fear, optimism, greed, love, herd instinct, overestimation of one's knowledge and capabilities and too much focus on recent encounters without taking cognisance of the overall market environment as some of the behavioural factors that influence individual investor decision making. In this regard, it seems that individual investors may be influenced by different behavioural factors and to varying degrees when performing financial and investment decisions. However, Hon-Snir et al. (2012) research discovered that skilled and competent individual investors were less susceptible to "the disposition effect, herd behaviour, availability heuristic, gambler's fallacy and hot hand fallacy".

De Bondt's (1998) research discovered that most individual investors typically disregard the recommended investment principles but defer to their intuition which may be in conflict with rationality. In view of this, Daniel et al. (1998) state that most individual investors usually respond to information about certain events in such a way that they are often sensitive to irrelevant information, whilst, on the other hand they may be non-responsive to important information. This highlights the irrationality that most individual investors may exhibit. In addition, Hirshleifer and Hong Teoh (2003) argue that listening to the opinions of other individual investors may be regarded as being rational; but doing so is often misconstrued to be irrational due to the influence of herd instinct. Hirshleifer and

Hong Teoh (2003) further argue that some decisions by individual investors may appear irrational on face value but in actual fact may be rational.

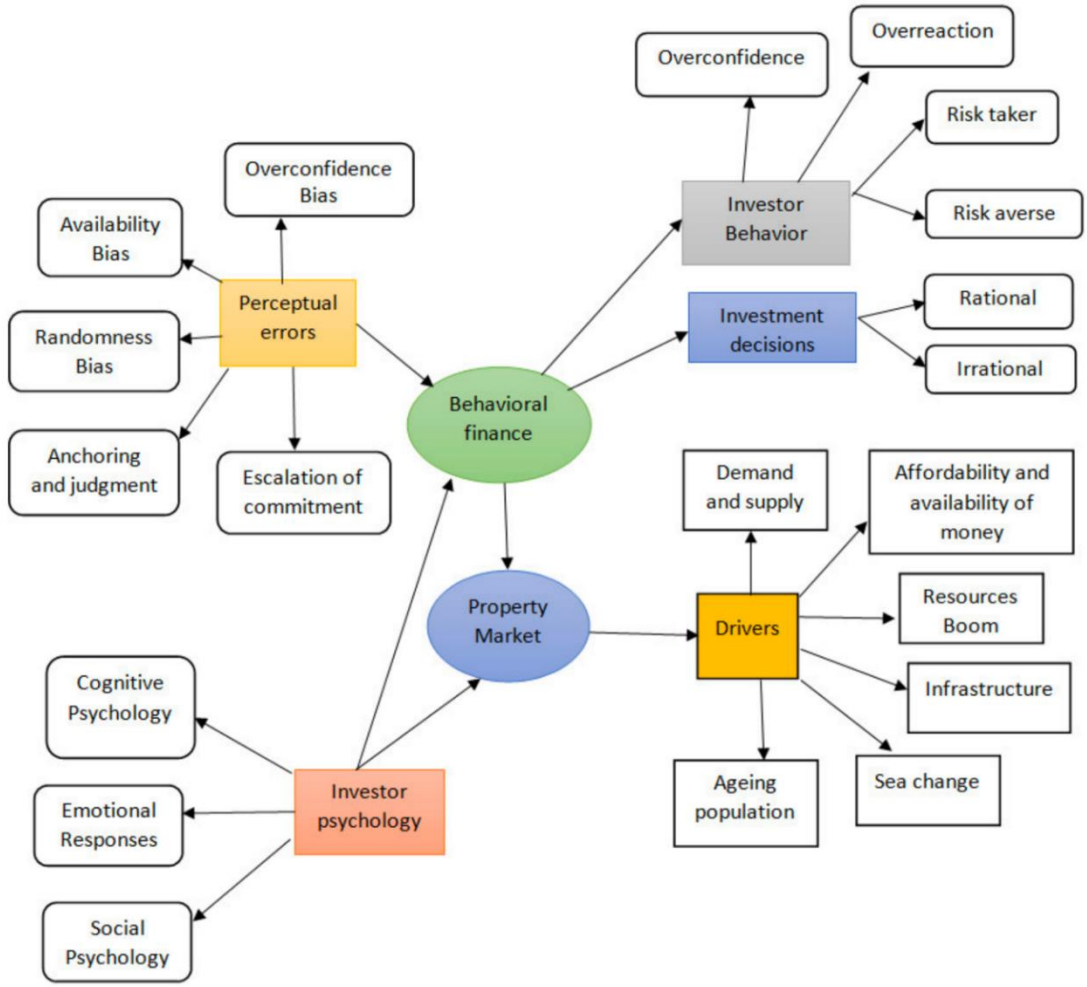
In view of the above discussion of the theory of behavioural finance, it is argued that although the theory originates from the stock and financial markets; it is applicable to the property market as well. Amin and Pirzada (2014) agree with this and state that irrational behaviour of an individual property investor may influence his or her decision when performing property investment transactions. In light of this, the theory of behavioural finance can be used to analyse the impact of emotions and psychology that influences the decision-making process of individual properly investors. Nevertheless, in the property market it is typical that the market capitalisation process, property prices and property valuation can be more volatile than cap rates and/or changes in rents. This phenomena suggest the presence of irrational and risk averse individual investors within the property market (Kishore, 2004; Amin and Pirzada, 2014).

De Bondt (1998) in his study had three important findings: i) individual investors are typically overconfident about the future performance of their investment, ii) individual investors usually have overly narrow confidence intervals with regards to fluctuations in prices i.e., they estimate their highs too low and their lows too high and iii) individual investors relied on past performance of stock prices to forecast future performance.

According to Gervais and Odean (2001), overconfidence bias makes an individual investor too confident in his or her investment decision and because of that does not consider other valid information. Kim and Nofsinger (2008) also point out that individual investors may also exercise availability bias in which they make decisions on recent events and data that is available to them but may not necessarily be sufficient to support their decision.

According to Sadi et al. (2011), an individual investor who believes in superstition may be subject to randomness bias as compared to an individual investor who believes in fate. Amin and Pirzada (2014) also highlighted that individual investors may be involved in anchoring and judgement bias where they judge the performance and productivity of others against theirs instead of anchoring their own performance and productivity which leads them to under-or-overestimate their own performance. Schoorman and Holahan (1996) also further pointed out that some individual investors may acknowledge that they have made a wrong decision but because of the cognitive sunk cost they may try to find ways of justifying that decision. These identified biases may also be applicable to individual investors in the property market as they make their investment subject to the influence of human behaviour as illustrated in **Figure *1*** below (Amin and Pirzada, 2014).

Figure 1: Application of the theory of behavioural finance in the property market



Source: Amin and Pirzada, (2014)

Figure 1 provides a key summary of the forces at play when applying the theory of behavioural finance to the property investment market and provides a strong foundation on which the key concepts of this study are based on and rely. Importantly, ***Figure 1*** emphasises the behavioural dynamics at play when it comes to making investment decisions in the property market. A key takeaway from this is that when one takes into consideration all the stakeholders involved in the property market, it is vital to understand how the primary/key stakeholders view and perceive things such as risk, for example, and how these impact and influence investment and management decisions with all the above influences considered. Given the subjective nature of these perceptions and actions, which are driven and influenced by investor psychology, behaviour, and perceptual errors, it is critical when trying to understand the characteristics of a specific investment that one acknowledges and comes to understand the perceptions held and the experiences of all stakeholders to help paint the full picture. The substantiation for this research is largely based on this concept and targets perhaps

the most critical stakeholders - managers of residential REITs and large scale residential rental portfolios in South Africa, which have largely been left out of the conversation in existing research with respect to the sector and who undoubtedly hold the key to uncovering important insights.

2.2. Empirical review

2.2.1. Significance of SA-REITs

In the decade leading up to the implementation of REITs, South African listed property, in the form of Property Unit Trusts (PUT's) and Property Loan Stock companies (PLS), saw tremendous growth (De Klerk, 2013). In 2013 the REIT structure was adopted in South Africa resulting in most PUT's and PLS companies converting to REITs. Since the adoption of REITs in South Africa, they have become a prominent asset class having outperformed the United Kingdom, European, and Asian REIT markets a year after implementation (Ntuli and Akinsomi, 2017).

According to total market cap as of 2022, the SA-REIT market is the 12th biggest globally and the largest of the emerging markets with a market cap of $16.11 billion made up of 30 REITs. This makes up 0.67% of the global REIT market and 16.91% of the emerging market REIT market (EPRA, 2022). The United States having been the first to implement the REIT structure in the 1960's dominates the global REIT market with a market cap of $1,599 billion across 185 REITs, making up 67% of the global market (EPRA, 2022).

Table 2 provides a global comparison of the top 12 REIT markets for reference and each respective countries REIT exposure to residential property where information is available.

Table 2: Global Comparison of Top 10 REIT markets

Country	Number of REITs	Market Capitalization (USD Bln)	% Weight of FTSE EPRA NAREIT Global Index	Comparative ranking	REIT Exposure to residential by market Cap
Europe					
France	28	50.50	0.86	7	
Nertherlands	5	25.66	0.50	9	
U.K.	53	100.97	3.64	4	9%
Belgium	17	27.7	0.86	8	
Americas					
Canada	41	76.24	2.63	6	
United States	185	1,599.68	57.76	1	14%
Mexico	16	17.71	0.55	11	
Asia-Pacific					
Australia	41	120.69	3.46	3	2%
Hong Kong	9	25.64	4.31	10	
Japan	63	137.15	9.95	2	18%
Singapore	35	78.02	3.35	5	
Africa					
South Africa	30	16.11	0.43	12	1%

Note: Updated and adapted from (Ntuli and Akinsomi, 2017). The sources are (Nurick et al., 2018; Lin et al. 2019; EPRA, 2022; FTSE Russell, 2022)

The implementation of the REIT structure has standardised the property investment vehicle across global markets, as a result, attracting investors from a global marketplace. In 2022 there are 8 SA-REITs included in South Africa's top 100 companies by market cap. Investors and fund managers find it particularly advantageous to include SA-REITs in their portfolios due to the favourable tax dispensation, improved regulation, increased international competitiveness and enhanced liquidity (Naidoo, 2014). As such, SA-REITs remain an important asset class for portfolio managers with research by Ntuli and Akinsomi (2017) highlighting the performance enhancing return benefits that REITs can add in the mixed asset portfolio of stocks and bonds. This has attracted large investment from government institutional funds including the Government Employees Pension Fund and Eskom Pension and Provident Fund as well other prominent private investment funds and managers such as Stanlib, Nedbank, Investec, Prudential, Old Mutual and Liberty Group.

The strong performance since the implementation of REITs in South Africa is shown in **Table 3** below.

Table 3: Annualized Average Performance of Assets: May 2013 to December 2015

Asset Type	Annual Return	Volatility	Sharpe Ratio	Reward-to-Risk Ratio
REITs	10.64% (1)	3.33%	0.09 (1)	3.20
Shares	4.79% (2)	3.39%	-0.26 (2)	1.41
Bond	-0.07% (5)	2.53%	-4.88 (5)	-0.03
T-Bills	4.20% (3)	0.00%	0.00 (3)	0.00
Listed Property	3.12% (4)	4.37%	-0.59 (4)	0.71

Source: (Ntuli and Akinsomi, 2017)

Table 4 provides a breakdown of SA-REITs by market cap, sector exposure and number of properties. It is evident here that very few REITs have exposure to residential real estate which will be further discussed in the next section.

Table 4: List of South African REITs According to Sector

Active SA REITs	
Diversified REITs	
1. Arrowhead Prop LTD A	
2. Attacq	
3. Dipula Income Fund A	
4. Emira Property Fund Ltd	
5. Fortress REIT LTD A	
6. Growthpoint Properties	
7. Investec Property Fund LTD	
8. Liberty Two Degrees LTD	
9. Rebosis Property Fund LTD	Shares suspended on JSE

10. Redefine Properties LTD	
11. SA Corporate Real Estate Fund	Estimated 25% of portfolio is residential by market value.
12. Spear REIT LTD	
13. Texton Properties Fund LTD	
14. Tower Property Fund LTD	
Industrial and Office REITs	
15. Delta Property Fund LTD	
16. Equities Property Fund	
Residential REITs	
17. Indluplace Properties LTD	
18. Transcend Residential Prop	
Retail REITs	
19. Accelerate Property Fund	
20. Exemplar Retail LTD	
21. Fairvest Property Holdings LTD	
22. Hyprop Investments	
23. Octodec Investments LTD	31.7% of portfolio is residential by rental income
24. Resilient REIT LTD	
25. Safari Investments LTD	
26. Vukile Property LTD	
Specialty REITs	
27. Hospitality Property Fund LTD	
28. Stor-age Property REIT LTD	

Source: Akinsomi (2020), IRESS Research Domain (2020), edited by author
* REIT sectors as categorised by IRESS Research Domain.

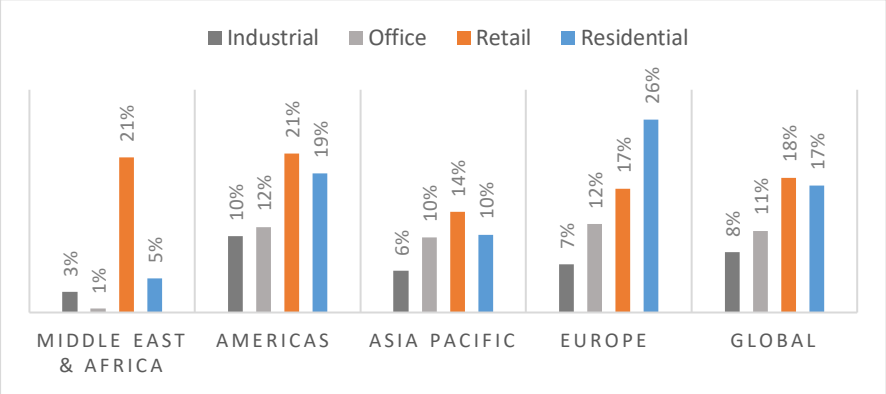
In summary this section has given context to the significance of SA-REITs globally and in emerging markets. Also highlighted is the strong performance of SA-REITs since being established in the global context. It is this performance and the advantageous investment characteristics that SA-REITs offer investors and investment managers that has seen large investment from both government and private institutions. The next section will provide context to the role that South African residential REITs play in the global and South African context.

2.2.2. SA Residential REITs In the Global Context

REITs typically deal with specific property types or a limited mix of property types - the most traditional being retail, office, industrial and residential. More specialised REITs have been constructed in more mature REIT markets, particularly in the United States. These REITs include, among others, timber

REITs, agricultural REITs and Islamic REITs. ***Figure 2*** below illustrates the different property type exposures by region. It is noticeable that amongst all the different regions, barring Europe, the highest exposure is in retail property. This is followed by residential in all regions except Middle East and Africa with the Americas and Europe holding the largest exposure to residential at approximately 19% and 26%, respectfully.

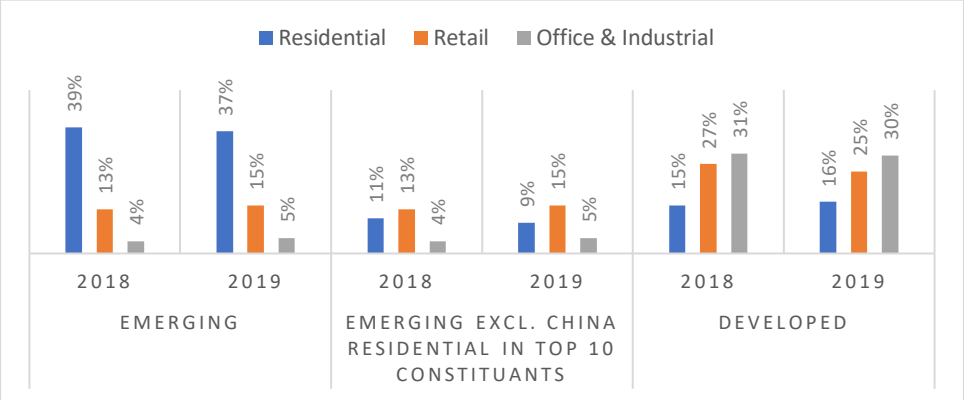
Figure 2: Property sub-sector exposure by region



Source: FTSE Russell, (2019f; 2019a; 2019b; 2019e) graph compiled by author.

A broader view of the different property sub-sectors, grouping all developed and emerging markets together as illustrated in ***Figure 3***, shows that there is significant market exposure to the residential sector in emerging countries compared to that of developed countries with 37% exposure and 16% exposure respectively in 2019. It must be noted however that China makes up a significant weighting (57%) of the emerging market index. In the top 10 constituents of the index, four Chinese residential funds make up a combined 22% of the index. When excluding the China residential funds from the top 10 constituents the residential exposure drops significantly from 37% to 9%. It is notable that residential exposure in emerging markets has fallen between 2018 and 2019 according to the index. On the other hand, residential exposure in the developed market index has increased between the same period by 1%. Developed markets are more significantly exposed to retail, office and industrial. The remainder of the allocations in ***Figure 3*** below are allocated to the broader categories of diversified and specialised portfolios.

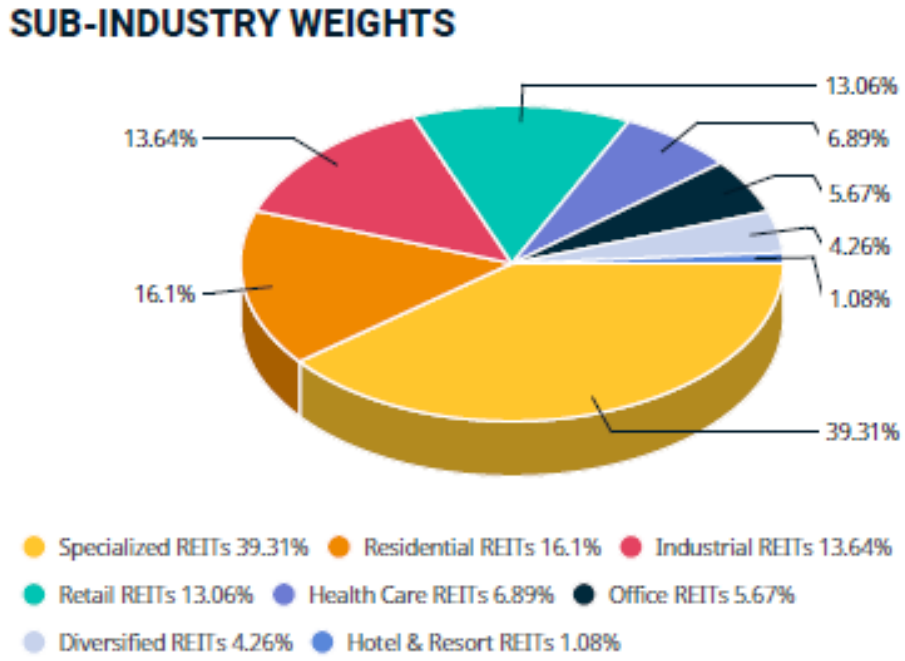
Figure 3: Property sub-sector exposure by market



Source: FTSE Russell (2018a; 2018b; 2019c; 2019d), graph compiled by author.

The global REIT market is comprised mostly of specialised and retail REITs making up 30% and 20% of the global sub-industry weights respectively as per ***Figure 4*** below. The second largest REIT sub-sector is residential REITs with 16.1% exposure followed by industrial REITs with 13.64%. Interestingly It is noted that 'Diversified REITs' only account for 4.26%, emphasizing the shift in focus to more specialised/single property type REITs.

Figure 4: MSCI World REIT sub-industry weights



Source: MSCI (2022)

In South Africa on the other hand, specialised residential REITs make up approximately 1% of the SA-REIT market by market cap as per **Table *5*** below. Diversified REITs, which may encompass residential

components, make up approximately 64%. Figures regarding the exact residential portfolio weightings of the 'diversified - with residential' REITs in terms of their specific portfolio weightings are difficult to source. While this is seen as a limitation in determining the exact exposure to residential, few SA-REITs invest in residential and as such this figure is viewed as an accurate representation.

Table 5: Profile of Sector-specific SA-REITs September 2020

Sectors*	No. of Funds	Market Cap (US $)	% of SA-REITs by Market Cap
Diversified	14	5,42	64%
Industrial and office	2	0,64	8%
Residential	2	0,11	1%
Retail	8	1,87	22%
Speciality	2	0,39	5%
Total	28	8,43	100%

Source: Authors compilation from IRESS Research Domain and Akinsomi, (2020).

There are only four REITs in South Africa that are significantly invested in residential. These include Octodec Investments, SA Corporate Real Estate, Transcend Residential and Indluplace Properties. Indluplace and Transcend are the only REITs specialised in residential real estate with most of their portfolio comprised of affordable housing. Both funds are relatively new having only listed as SA-REITs in June 2015 and December 2016, respectively. These REITs cater largely to the more affordable segment of the market with their respective portfolio rental ranges provided in **Table 6** below.

Table 6: South African Residential REITs and rental range of offerings (ranging from studio apartments to 2 and 3 bed apartments)

Fund	Rental Range
Octodec Investments	R3,500 - R11,800
Indluplace Properties	R1,855 - R5,800
Transcend Residential Property Fund	R3,000 - R7,000
SA Corporate Real Estate	R1,000 - R7,500

Source: Indluplace Properties (2018); Octodec Investments (2018); SA Corporate Real Estate (2018; Transcend Residential Property Fund (2019)

In summary, the global average REIT exposure to private rental housing is 16.1% by value (MSCI, 2022) with residential property exposure in emerging market REITs as high as 37% by value, however when adjusting for the large weighting of China in the index this value falls to 9% (FTSE Russell, 2019d). While residential REITs exposure has been increasing in developed markets between 2018 and 2019, emerging market residential real estate exposure has been declining at a slow rate. South African

residential REIT exposure is far below the global and emerging market averages - estimated to be 1% by value (Broll, 2014; CAHF, 2017; Nurick et al., 2018).

2.2.3. Performance of Residential REITs Globally

The following section reviews the literature on the performance of residential real estate as an asset generally as well as the residential REIT sector globally. The performance of residential real estate is broadly measured through risk, return and cross asset class correlations which is benchmarked against other asset types such as bonds and stocks to provide a broad picture of residential real estate as an investment alternative. It must be noted that when considering the performance of apartment REITs that specific markets may act differently. This review aims to broadly review the performance of residential investments and REITs where literature is available to identify any broad trends.

Institutional investors representing different countries routinely cite that low yields/the financial performance of residential property is one of the key concerns associated with residential investment (Kemp and Crook, 1999; Mansfield, 1999; Montezuma, 2006; Milligan et al., 2013a; Investment Property Forum, 2014; Newell et al. 2015b; Nurick et al., 2018).

Anderson et al. (2003) highlights that historically in poor economic conditions apartment returns in the United States have shown to exceed the returns of other property types suggesting that the investment performance is less correlated with the overall economy than with other property types.

From an Australian perspective, financial institutions view residential real estate as a 'defensive' asset with a focus on income returns. An income of 3-4% for residential real estate is expected compared to an income return of approximately 7-8% from office, retail and industrial property type sub-sectors (Jones, 2007). This low relative return has been a large deterrent for investors particularly considering the perceived risks about the sector.

Newell and Fischer (2009) analyse the performance of residential REITs benchmarked against the other REIT subsectors in the United States. Findings show that residential REITs failed to produce the same returns as the other major REIT sub-sectors, despite this underperformance, residential REITs outperformed the stock market at an annual return of 12.06% compared to 10.55% over a 14-year period.

Newell and Fischer (ibid) further analysed the data based on two sub periods with the initial period being from 1994 to 2000 and the second period being from 2001 to 2007. It was found that for the second sub-period residential REITs experienced reduced returns and a significant increase in risk. This

was not the case for the other REIT sub-sectors which experienced enhanced returns without large increases in volatility.

The contribution of residential REITs to the total REIT market over this 14-year time horizon decreased significantly from 21% to 13.5% (Newell and Fischer, 2009). The authors attribute this decline to the privatisation of multiple large residential REITs as well as growth in retail and healthcare REITs.

Newell and Fischer (2009) note that residential REITs however were the third best performing REIT sector (17.1%) in the year to September 2008 having outperformed major REIT sectors including office (-1.8%), retail (-3.9%) and industrial REITs (-25.4%). This is evidence of the view held that residential REITs can perform well during strained economic periods (Jones, 2007).

In Japan, residential REITs are the second-best performing subsector after industrial with an average annual return of 6.4%, annual risk of 22.75% and a risk adjusted performance of 0.27, with industrial achieving 8.26%, 22.57% and 0.35. The next best sub-sector was office (Lin et al. 2019). **Table 7** gives a comparison of the performance of residential REITs across key markets. It is notable, and as expected based on the review of literature in Australia, that in the long run residential REITs in Australia have performed poorly however, in the short-term Australia's residential REITs produced noteworthy returns in the year up to August 2018. It is also noteworthy that the global average annual total returns over a five-year period were 12.2% in the year up to August 2018.

Table 7: Performance of Residential REITs Globally (August 2018)

Residential REITs	Average annual total returns		
	1 Y	3Y	5 Y
US	3.1%	8.8%	13.4%
Australia	11.3%	5.9%	-1.3%
Japan	**7.6%**	**9.9%**	**7.1%**
Global	3.9%	8.8%	12.2%

Table sourced from: Lin et al. (2019), data sourced from Thomson Reuters Eikon

It is evident that residential REIT performance varies per market which is also a symptom of how the markets perceive the sector, for example, Australia perceives residential real estate as a more defensive income asset with relatively lower income returns compared other REIT sectors such as office, retail and industrial. Markets in the United States from the sub-periods between 1994 to 2000 and 2000 to 2007 provide for different performance stats for residential REITs however, both showing relatively strong performance. In Japan residential REITs make up a large portion of the overall REIT market providing competitive returns that are attracting institutional investors. The three cases between Australia, the United States and Japan provide evidence of how residential REIT performance and perceptions of the sector differ between markets. This emphasises the importance of undertaking

research in the local context to make valuable and accurate findings associated with the South African residential REIT market. This is also essential in efforts to understand the challenges and risks faced by the South African residential REIT sector and to identify possible solutions aimed at overcoming the challenges.

2.2.4. Performance of Residential and Residential REITs in SA

Little empirical research has been undertaken on the performance of residential REITs in South Africa. This is largely attributed to the limited track record of the sector. The latter part of this section will follow with a short analysis on the performance of residential property in South Africa. It is important to consider the performance as the high-risk low return aspect of residential has been raised routinely by institutional investors as a deterrent to investment.

According to research by Frew (2016), based on participants responses to a survey, it was concluded that historically residential rental yields were not able to compete with commercial property. It was noted at the time of research however that this was no longer the case and that both residential and commercial were producing yields in the region of 7% and that residential returns were mostly derived by capital appreciation versus income yield.

It was further noted by Nurick et al. (2018) that while there is a perception that residential rental property cannot compete with commercial property, this perception is not entirely accurate. Despite this, it is still concluded that the 'financial performance' of residential is a contributing factor to the low uptake of residential by SA-REITs. Some respondents in this research argued that the residential sector is outperforming the commercial sector and that the affordable housing sector is delivering yields of between 9 – 9.5%.

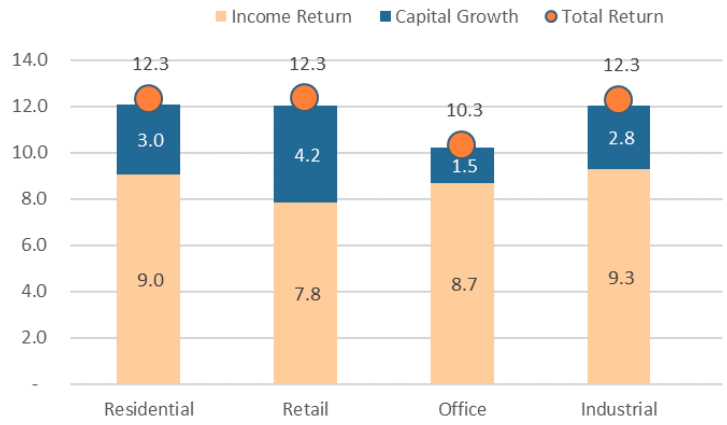
An analysis of the South African residential property performance concurs with the above with the exception that the makeup of the total yield is more weighted toward the income component. It is necessary to include the following analysis to provide context to the performance of residential real estate in South Africa and to position it in terms of its risk return profile, an aspect that much of the debate is centred around. While low returns and high risk have routinely been argued the following data suggests that residential property in South Africa can indeed compete against other commercial property sectors.

In a step towards improving market transparency and access to residential real estate data in South Africa, MSCI recently published its inaugural South African Residential Property Index (MSCI Real Estate, 2018). This index was based on a spread of 368 different properties and almost 45,000 units - predominantly made up of affordable houses. The sample was taken from 12 property portfolios, both private and listed funds, with a total value of approximately R17.8 billion. It is noted in the report that

local institutions have typically held limited exposure in residential property until a few years ago and has only recently become viewed locally as an institutional investment class (MSCI Real Estate, 2018).

The report provides evidence of favourable returns in the residential and affordable residential sector for the year ending December 2017, as illustrated in **Figure 5** below, particularly when compared to the office sector at 12.3% and 12.2% versus 10.3% respectively. It is also noticeable that the income return for residential real estate is the second highest after industrial at 9% and 9.3% respectively. As REITs typically target high yields to maximise shareholder distributions, this favourable income return component should be an attractive selling point for the addition of residential real estate in the portfolio.

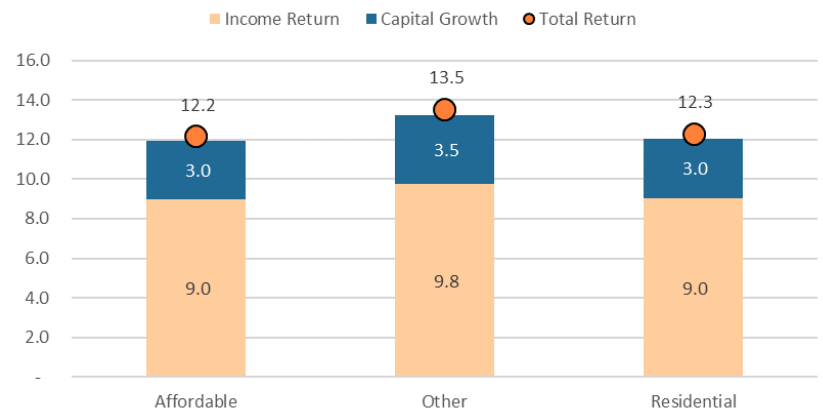
Figure 5: Total Return of South African property sectors 2017



Source: MSCI Real Estate (2018)

When further separating the sub-sectors within the residential sector the affordable housing sector delivers a slightly lower return to what the report has termed 'other' at 12.2% versus 13.5% respectively as per **Figure *6*** below. 'Other' refers to properties classified as student housing and mid to upper income apartments and houses. The 12.2% percent compares well to all other sub-sectors as seen in **Figure *7*** above and still outperforms the office sector. It is noted again that the total affordable residential returns are made up of a large income return of 9% and capital growth component of 3%.

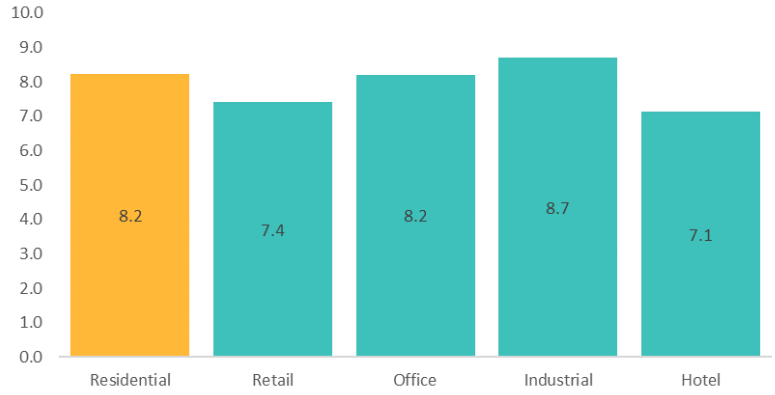
Figure 6:Total Return of South African property sectors 2017



Source: MSCI Real Estate (2018)

When looking at the net operating income yields in **Figure *7*** below it is emphasised that the residential sector produces high income yields which are favourable for REIT investment. The residential subsector is on par with office producing the second highest net operating income yield at 8.2% and is 50 basis points lower than industrial property.

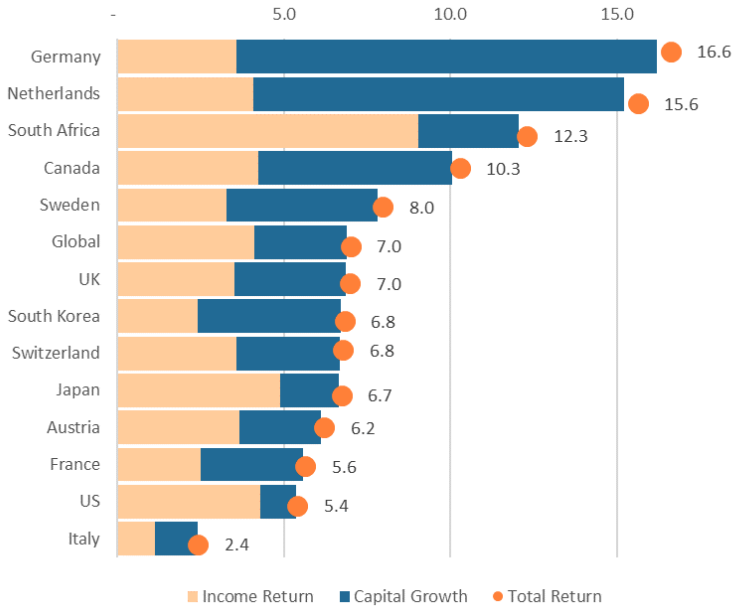
Figure 7: Net Operating Income Yield (%) of South African Property Sectors 2017



Source: MSCI Real Estate (2018)

The inaugural index allows one to compare the performance of South Africa's residential sector with other key countries on a like for like basis. **Figure *8*** below provides this comparison for the year ending December 2017. While REITs in SA may be investing offshore for better opportunities in the office and retail sectors the local market is producing internationally competitive residential returns - beating the likes of the United States and Japan which have far more mature REIT markets with large exposure to residential. South Africa is delivering the third highest total return for residential and affordable residential real estate, 12.3% and 12.2% respectively, with Germany and the Netherlands in the top two spots with a total return of 16.6% and 15.6% respectively.

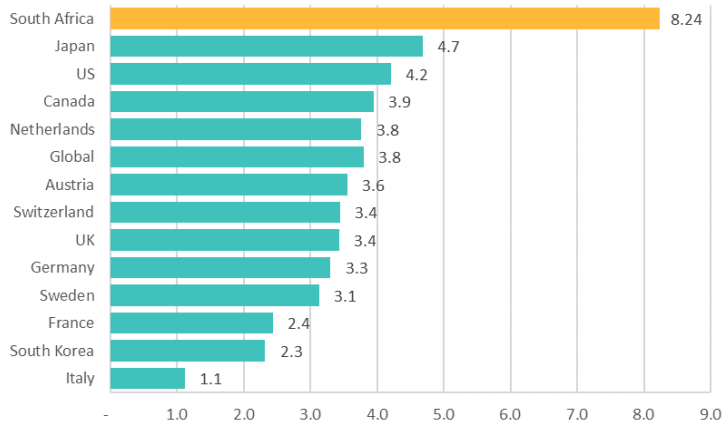
Figure 8: Total Return Residential South Africa vs. other National Markets 2017



Source: MSCI Real Estate (2018)

South African residential far outperforms the rest of the globe producing a net operating income yield of 8.24% compared to the second and third largest residential yield producing countries being Japan and the United States at 4.7% and 4.2% respectively. The global net operating yield for residential is less than half that of South Africa at 3.8%.

Figure 9: Net Operating Income Yield Residential South Africa vs. other National Markets 2017



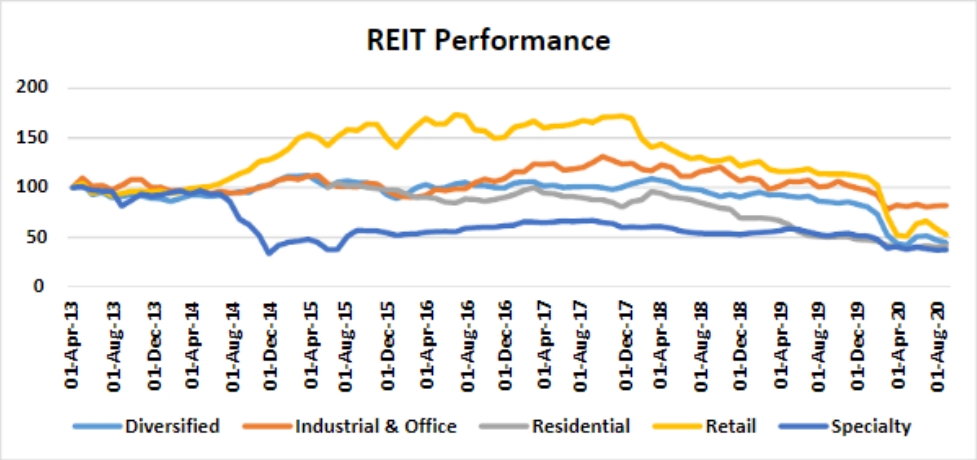
Source: MSCI Real Estate (2018)

A recent study looking at the performance of sector-specific and diversified REITs in South Africa highlighted some key performance metrics with respect to how the specialised residential REIT sub-

sector performs against other specialised REIT sectors and diversified REIT sectors (Akinsomi, 2020). The study tells a different story to the data discussed and can be seen in

Figure 10 and **Table *8*** below. It is evident here that the two pure residential REITs on an aggregated basis have been the worst performing sector for the period between April 2013 and September 2020 delivering a negative average annual return of 11.32%.

Figure 10: Sub-Sector SA-REITs Market Capitalisation Index: April 2013 to September 2020 (100 = April 2013)



Source: Akinsomi (2020)

Table 8: Sector Specific SA REITs adjusted return analysis: April 2013 to September 2020

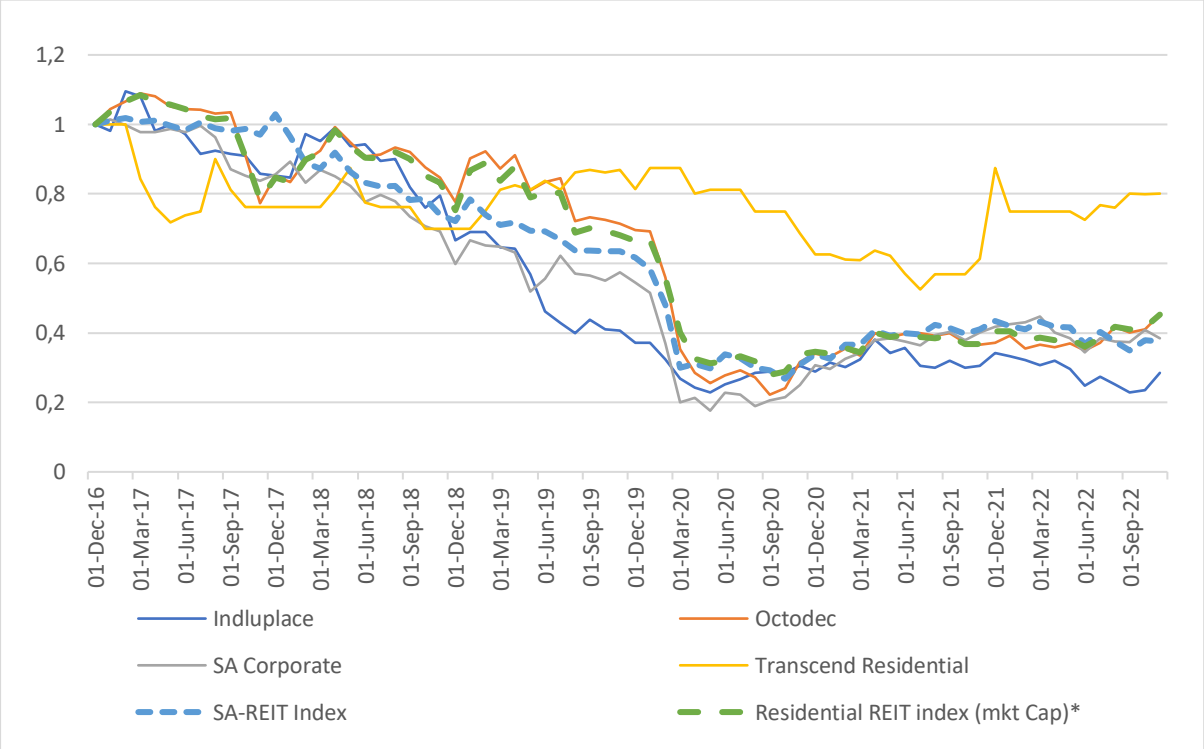
Asset Class	Average Annual Return	Average Annual Risk	Sharpe Ratio	Rank
Diversified	-8.78%	5.79%	-6.13	5
Industrial and Office	-2.66%	4.81%	-5.65	4
Residential	-11.32%	5.08%	-8.53	6
Retail	-3.66%	9.82%	-4.55	2
Specialty	-5.19%	6.29%	-4.59	3
Stocks	4.85%	2.13%	-1.93	1

Source: Akinsomi (2020)

Taking a closer look at the performance of SA-REITs with the largest exposure to residential real estate provides for mixed results. The residential REIT index illustrated below in **Figure *11*** (constructed by

the author which includes two specialised residential REITs and two REITs with large exposure to residential based on a total market cap weighting) has outperformed the overall SA-REIT index over the period from the most recent specialised residential REIT listing as per **Figure *11*** below. It is notable however, that although the SA-REIT index has been on the decline, Transcend Residential has maintained value over the period as the best performing residential REIT, followed by Octodec, albeit this is not a pure residential REIT. Both REITs outperforming the SA-REIT index over the period. On the other hand, Indluplace has underperformed the SA-REIT index. It is important at this point to highlight that the mixed results of Indludplace Properties and Transcend Residential have big implications on the aggregated performance of the two funds and ultimately the perceived risk and return profile of the residential sector. With reference to **Table *8*** above, if one were to separate the average annual returns of these two pure residential SA-REITs, a very different story appears. The average annual return for Indluplace Properties and Transcend residential for the period December 2016 to December 2022 is -16.86% and -1.24% respectively. While it is difficult to draw any major conclusion from this it is essential to note that specialised REITs such as Transcend Residential can compete in the overall REIT market, particularly in an environment of economic strain whereby the SA-REIT index has shown a continued decline over the five-year period.

Figure 11: SA-REIT Residential Performance Comparison (index weighting by Market Cap*)*



*Residential REIT index weighted by market cap. Includes Octodec Ltd and SA Corporate which have large holdings in residential real estate.

Source: Author - IRESS research domain

Considering this early data, which shows that residential real estate can compete with the other more traditional property sectors, one questions why SA-REITs remain underexposed when compared to other markets around the world. The MSCI report also provides evidence that in global terms, the South African residential and affordable residential sector provides competitive returns (MSCI Real Estate, 2018). A large portion of the returns are being realised in the income component which is attractive to REIT funds as they target income producing assets that help maximise distributions to shareholders. Furthermore, as can be seen when specifically focussing on the SA-REIT market, that specialised residential REITs such as Transcend Residential can produce competitive returns over the medium term particularly during times of economic strain. This provides further evidence of the potential competitive financial returns produced by residential REITs compared to the other sub-sectors, despite the financial performance of residential REITs being identified as one reason for the low uptake of residential REITs in SA (Nurick et al., 2018). It must be highlighted here too, that the one residential REIT participant included in the study by Nurick et al. (2018) held a contradictory view to the perceptions from other participants that the financial performance of residential REITs was not enough to attract investment.

2.2.5. Conditions for Residential REITs to Succeed

Exposure of REITs to residential differs across different markets with notably high exposure in Japan and the United States and with low exposure in Australia and South Africa. Jones (2007) highlights the differences in success of residential REITs across different markets and sets out to develop a pseudo mathematical proof theorem based on assembled evidence from the United States and Australia. This proof aims to provide a series of 'lemmas' that can subsequently be applied to the United Kingdom in determining the success of residential REITs for a specific market. The author refers to the development of REITs in general as a vehicle that would bring 'new impetus to indirect investment in commercial properties across Europe'. What remains less clear is whether this position will increase housing development, perhaps opening another avenue for future research. The reason Jones (2007) investigates the United States and Australian residential REIT markets in assembling evidence of the performance of REITs is based on the success of the United States residential REITs versus the failure of residential REITs in Australia. Looking at both successful and unsuccessful markets prove to provide a broader context of what needs to be present for residential REIT markets to succeed.

One of the major limitations in the establishment of residential REITs in Australia was found to be the lack of supply in concentrated areas and lack of large landlords whereby economies of scale present viable investment opportunities. Urban markets with a depth and maturity to their rental markets provide two major benefits - they minimise investment risk and allow for purpose built, large scale developments aimed at the private rented market (Jones, 2007). This provides evidence that the

success of residential REITs is not purely based on demand side characteristics but also significantly influenced by supply characteristics. Even if investors are interested in residential REITs there remains challenges in obtaining the necessary supply to benefit from economies of scale and overcome local market risks (Jones, 2007).

Jones (2007) sums up this position by combining the 6 'lemmas' to state that "REITs are a very attractive property investment medium, but the establishment of residential REITs requires a thriving rented sector and local markets with depth and is facilitated by the existence of large landlords".

These findings set an initial framework within which one may begin to determine the viability of residential REITs in South Africa. The following sections delve deeper into some of the key factors that present challenges to residential REIT investment from the perspective of multiple different markets.

2.2.6. Investor Perceptions Toward Residential Property

The varied perceptions of risk found to be associated with residential real estate, coupled with the performance and uptake attributes across the globe, emphasize the key role of investor perceptions and how they may differ between markets and even within the same market and between different stakeholders. The lack of empirical research available on residential real estate, particularly residential REITs globally, apart from the United States and recently Japan, has resulted in largely perception-based research which will be further uncovered in this chapter. A potential contributing factor to the limited research on residential REITs is the fact that a significant portion of residential property is owned and rented out privately. Data in these instances can be unreliable and difficult to access.

In an interview with the HPET REIT in the United States it was noted that REITs are attempting to challenge investors negative perceptions, particularly around affordable housing due to the lower rent and targeted tenant base, by arguing the significant demand side factors in that there is an infinite demand for affordable housing which is driving the sector. Chan (2016) states that affordable housing will never be obsolete, and that if economic inequalities exist, demand will always remain. Chan (2016) is also of the view that residential real estate is relatively risk free and capable of delivering attractive returns. He also calls for REITs to provide the platform that will help 'demystify' affordable housing from an investment perspective.

Milligan et al. (2013b) highlight that the risk factors around low yields, poor market data, and uncertain government support are the common areas of where misperceptions exist that contribute to residential REITs being seen as a high-risk investment product amongst institutional investors. Lin et al. (2019) in Japan highlight these misperceptions by institutional investors and concludes that despite such misperceptions, institutional investors are attracted by the stable income stream (Newell and Wen Peng, 2012), less market risk (Cotter and Roll, 2015) and ability to more closely track the

performance of the underlying residential assets (He, 2000) particularly as seen in the United States. Their overall findings highlight the fact that there are misperceptions in the market however find that, based on empirical research in Japan, residential REITs have a value added and strategic role to play in the Japan mixed asset portfolio when compared to other property sub sector J-REITs, stocks and bonds. The value-added benefits not only included superior risk adjusted performance but also superior diversification benefits with bonds compared to other property subsectors. Based on these findings Lin et al. (2019) highlight that residential J-REITs are to be an increasingly institutionalised property sector moving forward.

In the South African context, Anderson (2015) finds that investor perceptions alone are a major constraint to residential investment by SA-REITs and concludes that there are conflicting views regarding the extent of such challenges and their associated risks.

In an interview recorded with the CEO of Indluplace Properties, a specialised residential SA-REIT, by the Centre for Affordable Housing Finance (CAHF, 2017), it was noted that investor misperceptions remain a material constraint to the sector. It was found that investors tend to immediately associate residential real estate with a high risk of evictions and the associated challenges in the legal processes that are required. Further, it was stated that that investors fail to understand that the fundamentals of residential real estate are good.

Anderson (2015) argues that many of the negative perceptions of investors are dated and that examples exist of them being surmountable. These conflicts are a potential symptom of the immature state of the residential market in South Africa and the lack of available information in the market leading to a lack of understanding by investors and need to be challenged.

Investor misperceptions around residential real estate have been highlighted across the three key South African research papers found by Anderson (2015), Frew (2016) and Nurick et al. (2018). Anderson and Cloete (2016) largely attribute these misperceptions to the under-development of the sector which contributes to the lack of information and poor understanding of the risks and opportunities presented in the sector.

Early research by Anderson (2015), as has been discussed, highlighted the clear contradictions between stakeholders perceptions around risk which centred around the scale and availability of suitable residential stock in the market and, the potentially large number of evictions and the associated risks – many of the contradicting views being held by the one residential REIT participant.

As with the findings by Chan (2016) and CAHF (2017), participants interviewed by Frew (2016) concurred, in contradiction to the argument of many external investor perceptions, that residential real estate offers lower risk and competitive returns compared to commercial real estate due to the

high number of leases, many of them expiring at different times, shorter leases, and the ease at which to find new tenants allowing for a more fluid market.

With regards to the highly cited concerns around eviction it was noted by Frew (2016) from the response of the one residential REIT participant that very few evictions took place over a 12 year period. These contradictions are again identified as a symptom of a relatively immature market and subsequent lack of information and understanding by investors. This is however likely to be overcome and improved as institutional interest and investment grows in the sector.

In research by Nurick et al. (2018), notable contradictions between respondents, particularly from the one residential REIT participant, centred around the poor financial performance of residential REITs, with investors arguing that the returns are not sufficient and it is unable to compete with other property classes on a risk return basis. It was further argued that the residential REIT had a far lower vacancy rate than what would be required to warrant the concerns of investors which are largely driven by the concern of short-term leases and the rights afforded to the tenant to cancel a lease with 20 business days' notice. It was again emphasised in this research that a growing track record and interest from institutional investors should see improved investment and understanding.

From the research It appears investors' perceptions of risk are largely focused around the demand fundamentals for residential rental accommodation. This, coupled with the typical short lease length, appears to be the centre of concern regarding risks in the sector. To highlight the contrast in perception there is a contradictory view that the nature of residential rental property lowers risk compared to commercial property due to the higher diversified tenant base, more fluidity because of the short-term leases, greater fundamentals and sustainable demand in the market, and ease at which tenants can be replaced resulting in a low vacancy rate.

Perceptions regarding the risk characteristics of residential real estate vary largely between different investor groups. Furthermore, these highly varied perceptions can largely be attributed to the characteristics that make residential real estate unique when compared to other property sectors. These characteristics most notably include the shorter lease terms and higher number of tenants in the overall portfolio. It is on this basis and the clear evidence to support this, coupled with the relative immaturity of the residential REIT market in South Africa that more insight is critical from those directly involved to get a solid grounding on the reality of the risks and challenges that these characteristics pose.

2.2.7. Residential REITs: Risks and associated challenges

Research on residential REITs, particularly with regards to their performance, remains limited compared to other REIT subsectors (Newell and Fischer, 2009). This is largely due to a limited track

record of residential REITs. The United States has the longest track record and accounts for the majority of the studies relating to the performance of what the United States terms 'apartment REITs' (Newell and Fischer, 2009). With many countries looking to private sector alternatives to help address the critical shortages in affordable housing, REITs have come into the spotlight as a potential investment vehicle to do so however, the uptake and performance of residential REITs remains varied across the world (Montezuma, 2006; Jones, 2007; Huang, 2010; Manoj, 2016; Nurick et al., 2018; Yin, 2019; Aveline-Dubach, 2020). With limited track records and the opportunity that residential REITs can offer to help address critical supply shortages research has been undertaken mostly in the United States, with a high uptake of residential REITs and in theUnited Kingdom. and Australia with a low uptake of residential REITs. Research is also starting to gain traction in China however here the focus is targeted towards mortgage REITs (Huang, 2010). Due to the limited track record and literature on the performance of residential REITs much of the research, apart from the United States, is qualitative and based on institutional investor perceptions.

Daly (2008), undertaking research in the United Kingdom, notes that the viability of investment in residential real estate is derived from performance comparisons between residential and commercial real estate. It is here that the characteristics and risks associated with residential become defined in a better context, showing the factors that make commercial real estate more viable and residential riskier. She refers to behaviors of institutional investors when considering real estate investment and emphasizes that when looking at the typical commercial property market a higher risk is associated with a higher expected return on invested capital. It is implied in Daly's (2008) findings that residential real estate poses higher risks, yet the yields remain below that of less risky commercial property, resulting in a lower appetite for residential real estate. A significant portion of this risk and return profile lies on the institutional investors increased weighting on the income component of total returns (Daly, 2008; Milligan et al., 2013a).

A comprehensive review of existing literature summarised in **Table 9** highlights the key risks and associated challenges that residential investment poses to investors and investment managers in several countries, largely gathered from investor perception-based surveys.

Table 9: Comparison of risks and constraints associated with residential real estate across different geographies

Country and Risks/Constraints	Score	Weighting/ critical	Participants	Focus of research
Australia				
Newell et al. 2015a	Average Score (5)	Viewed as critical		
Low returns	4.25	82%	16 Super-annuation funds	Residential property investment - Issues when investing in residential investment vehicles
Poor market information	3.75	69%		
Low Quality portfolios	3.75	63%		
Poor liquidity	3.12	44%		
Newell et al. 2015a	Average Score (5)			
Lack of well-structured investment vehicles	4.12	88%	16 Super-annuation funds	Investment issues
Low returns	3.94	75%		
Lack of management Expertise	3.81	63%		
Poor market information	3.69	69%		
Newell et al. 2015a	Average Score (5)	Viewed as critical		
Low returns	4.00	67%	10 Property investment companies	Residential property investment - Issues when investing in residential investment vehicles
Poor market information	3.78	78%		
Low Quality portfolios	3.78	67%		
Poor liquidity	3.78	67%		
Milligan et al., 2013a				
Risk-return profile				Rental Housing
Lack of Track record				
Scale				
Liquidity				
Level and certainty of government support				
Milligan et al., 2013b				
Low rates of return				Rental Housing
Scale and expertise				
Lack of a track record				
Residential REIT framework excessively constrained				
United Kingdom (Housing investment Trusts)				
Crook, Hughes and Kemp, 1998				
Political Risk			Institutional investors	Private Rented Housing - Housing Investment Trusts
Small lot size and high transaction costs				
Restricted liquidity				
Volatile rent				
High management cost				

Kemp and Crook, 1999			
Small lot/portfolio size		27 senior institutional investor managers	Private rented housing
Poor liquidity			
Low returns			
High costs of management and maintenance			
Investment Property Forum, 2014	No. of responses		
Just too difficult/ management issues	12	21 Market rental and assured shorthold tenancies, 15 development land, 11 student housing, 10 ground rents, 7 regular tenancies, 5 social housing	Residential Property
Income yield too low	9		
Lack of liquidity/insufficient market scale	9		
Pricing not right	6		
Mansfield, 1999			
Immature and poorly researched		Institutional and large-scale investors	Residential property
High risk low return profile compared to other asset classes			
Management intensive			
Historic net asset value to vacant possession problems			
Crook and Kemp, 2002			
Small-scale and fragmented nature		Secondary research	Housing Investment Trusts
Lack of large-scale residential portfolios to buy			
Poor standard and high cost of management			
lack of systematic market evidence			
Berry et al., 2004			
Government regulation		Secondary research	Social Housing
Risk return profile			
Political risk/government uncertainty			
Lack of management expertise			
Understanding market demand			

Netherlands, Switzerland and Sweden

Montezuma, 2006	Weighted mean	11 Pension funds, 10 Insurance companies, 9 Property investment companies, 5 Asset management companies, 1 Bank	Residential Property
Rent control	8.9		
Tenancy regulation	7.9		
Poor market information	3		
Low returns	3		

Africa CAHF, 2017

Ghana - HFC REIT (Residential)	HFC REIT Executive
Investor lack of understanding of the REIT instrument	
Lack of patient capital	
REIT regulations (high cash reserves)	
Nigeria - Union Homes Hybrid REIT (Residential)	UHHR REIT Executive
Poor performance	
Poor quality stock	
REIT Legislation too restrictive - limits development	
Tanzania – Watumishi Housing Company REIT (WHC-REIT) (Residential)	WHC REIT Executive
Tax uncertainty	
Poor investor understanding of the REIT platform	
Low returns from affordable housing	
Lack of patient capital	

South Africa

Anderson, 2015	Magnitude of similar responses	Challenge Weighting		
Legislation (favouring tenants)	70%	25%	7 diversified REITs, 1 Retail REIT, 1 Residential REIT,3 fund managers, 1 Analyst	Residential Property/REITs
Management intensity	60%	17%		
Investor perception	40%	11%		
Rental growth limitation	40%	11%		
Frew, 2016	**Participants mentioned**			
Property Liquidity	30%		1 Residential REIT, 1 Diversified REIT, 1 Residential Property Manager, 1 Institutional Private Equity Fund, 1 Large private Residential Developer, 1 Private Property Fund	Residential Investment Property
Management Skills	25%			
Management costs	15%			
Investment market information	10%			
Nurick et al., 2018				
Maturity of REIT sector			CEO & Fund Manager of fund management company investing in listed property, Non-executive director of diversified REIT, 3 Executives of 1 residential REIT, Regional Head of Largest SA REIT, CEO of specialised retail REIT	Residential REITs
Financial performance*				
Nature of residential real estate (management issues, Leasing, Renewals and eviction, affordable housing and rentals in South Africa)				

*Financial performance – belief that residential real estate cannot compete with other property classes on a return basis.

Source: Summary of literature review findings on the risks and challenges with respect to residential – compiled by Author.

It can be seen in the identified risks and challenges associated with residential real estate that there is a range of different risks identified and participants weighting towards those different risks (where available) which also differs within countries and between different countries. It is noteworthy that many of the risks and challenges that have been identified in the literature are present in multiple countries, including those where the take up of residential REITs has been more successful. One

takeaway from this is that the risks and associated challenges may be overcome and ultimately improve investor appetite for residential REITs in the South African context.

The Centre for Affordable Housing Finance notes that there are two types of challenges when it comes to the implementation of residential REITs (CAHF, 2017). These include the 'critical enabling factors' and the 'risks associated with housing as a unique property type'. The critical enabling conditions are focussed on key conditions such as secure property rights and accurate title deeds, reliable valuations, access to market information, sound legislative and regulatory environment including rental market legislation, good economic conditions, presence and interest of institutional investors and rental housing markets with scale and maturity. From the findings above it appears that less developed countries are challenged more by the lack of 'critical enabling conditions' for residential REITs. In the case of Africa, challenges such as a lack of patient capital, investors lack of understanding towards REITs as an investment vehicle, and lack of information and skills in the market contribute to these high-level constraints. The latter two however being seen across both developed and developing markets.

In some of the more developed markets factors such as government regulation in rent control and tenancy regulation seem to present as larger risk factors (Crook and Kemp, 2002; Berry et al., 2004; Milligan et al. 2013a).

On aggregate (excluding South Africa), of the risks and challenges identified above and in order from most to least cited, the key identified factors include low yields (7), high management intensity (5), poor market information (5), poor liquidity (4) political risk/legislation (3) and small lot size (3). The commonly identified factors in South African research include high management intensity (4) and poor market information (2). The other South African risks identified include legislation (favouring the tenant), low yields, poor liquidity and rental growth limitations.

Many of the same risks are present in all markets, yet residential REITs have performed well in the United States and Japan providing evidence that some of these challenges/risks are surmountable and need to be understood directly from those invested in the residential rental sector. These common risk factors include legislation, high management intensity and short-term leases among others. It remains relatively unknown as to how critical these challenges are in South Africa from the perspective and experiences of those directly invested in residential – particularly given that contradictory views from external parties have been flagged when those directly invested in residential have been surveyed.

2.2.8. Mitigating Risks Associated Challenges with Residential Rental

Research has focused primarily on the perceived challenges and risks that residential REITs expose investors to in trying to explain the relatively low uptake of residential property by REITs. There remains a lack of research undertaken on how markets with large REIT exposure to residential property are mitigating the risks identified in the literature. Research by Aveline-Dubach (2020) in Tokyo, Japan provides early research on how residential REITs attempt to mitigate risk and provide value for shareholders. This is particularly interesting as Tokyo battles with strong declines in population growth, yet REITs hold large exposure to residential rental property. These mitigation strategies include setting up a group of companies to take advantage of the full value chain - development, management and maintenance for approximately 6-8 years, and finally disposal into the REIT which allows the REIT to control the age and quality of property in their portfolio. Having control of the full pipeline, residential REITs can then standardise the design of the buildings, pool maintenance requirements and provide suitable quality kitchen and bathroom equipment. Similar yet early strategies by SA-REITs can be seen through the attempted partnerships between the likes of SA Corporate and Calgro M3, a large-scale affordable housing developer with a strong track record, and Transcend residential and Balwin, a large scale affordable to mid-range apartment developer.

Another strategy employed is to invest where high barriers of entry exist to ensure continued growth and demand. In the case of Japan this is in the central urban nodes of Tokyo where population growth is expected to continue at higher rates than on the urban fringes. SA REIT Octodec has employed a similar strategy with a portfolio focus of assets in the inner city of Johannesburg. In the context of rapid urbanisation and population growth in Africa a similar strategy is seen to be beneficial.

Due to the increased number of smaller tenants', high vacancies have also been noted as a concern. To reduce vacancy in Japan REITs have targeted highly solvent tenants to lower the risk of default and increase permanent renters.

Investor concerns lie largely on cash flow certainty and the covenants of individual tenants versus corporate tenants as with commercial property. To ensure greater cash flow certainty and reduce risk of default and vacancy, REITs have looked to partner with large corporates whereby the company signs a head lease with the REIT for the units to house employees. This reduces the number of direct leases with smaller tenants and creates stronger lease security. Few corporates are willing to take on the vacancy risk and so typically these contracts only account for approximately 25-30% of the units (Aveline-Dubach, 2020).

Returns are maximised by focussing on housing younger professionals who do not have families of their own and require smaller units which produce the highest yields and maximise the number of

units that can be achieved in a building. This ultimately improves efficiency and returns through increased economies of scale. Younger employees also tend to enjoy inner city lifestyles and spend less time at home, reducing the need for ancillary spaces and service provisioning, resulting in lower costs (Aveline-Dubach, 2020).

These strategies provide examples of how residential REITs can mitigate risk while also maximising returns for shareholders. With a high perception of risk in the South African market, it is essential for investors to understand what actions and strategies SA-REITs are employing to mitigate such risks and increase investor appetite for residential REITs.

2.2.9. Benefits associated with investment in the residential sector

Before considering the viability of residential REITs, an analysis of the potential benefits will help establish whether there is a place for residential REITs. Several papers reviewed here refer to the advantages attributed to residential real estate compared to the other major property types.

Anderson et al. (2003) note that historically the residential sector has offered high risk adjusted returns, low correlations with other property types and a strong fundamental demand through demographic drivers such as the baby boomers and the echo boom generation. In addition to this, they find that demand is more fluid in the residential property market with higher turnover rates. The consequences of these attributes are favourable resulting in a higher market efficiency and faster reaction times. This potentially explains the higher correlations between residential REITs and its equivalent underlying asset found in research done by Newell and Fischer (2009). This market efficiency may also limit profitability opportunities as market information will be more transparent and priced into the market at a much faster rate.

Tenants in residential REITs are employed by a broad range of industries and form a large base of diverse demographic profiles and social and cultural groups which in itself provides diversification characteristics (Anderson et al. 2003). A more stable, predictable, and diversified demand base as opposed to other property type's results in less volatility and therefore less variation in rent. Considerations of higher market efficiency coupled with a more responsive supply due to shorter construction times as well as phase development results in a fairly stable market asset with lower risk (Anderson et al. 2003). From an investment perspective, predictable demand relays into more accurate forecasts and less variability in market conditions and therefore less overall risk.

Montezuma (2004), and Kruger-Levy and Bertoldi (2017) attribute residential real estate investment in the United States, United Kingdom and Malaysia as being an effective hedge against inflation in the long run, however, high inflationary markets do not provide for the same hedging abilities with residential assets (CAHF, 2017). Interestingly in the South African context, it is found in research by

Mpofu, Moobela and Simbanegavi (2023), whose research aim was to determine the extent that the Covid 19 epidemic affected the relationship between inflation and REITs, that between December 2013 and July 2022, there was no evidence of a long-run relationship between inflation and REIT returns in South Africa. Their findings show that there was a structural break in the relationship in February 2020, whereby, before the break, the relationship between inflation and REIT returns was negative and after the break, a positive relationship is confirmed. This raises some important considerations about the implications of investment in residential real estate using REITs, and if indeed residential REITs in South Africa can provide a good hedge against inflation. This is particularly important as institutional investors find inflation hedging to be a very desirable investment attribute.

Research by Akinsomi (2020) looked at the performance of sector-specific and diversified REITs in South Africa. The study examined the diversification benefits of diversified REITs, specialised REITs and stocks during the period April 2013 to September 2020. **Table 10** below provides the correlation figures between the different REIT subsectors and stocks. It is noteworthy that, if one removes the speciality REIT category, residential REITs had the lowest correlations with stocks (albeit of no statistical significance), industrial and office sector REITs (albeit of no statistical significance), retail REITs and diversified REITs. This would suggest that there are strong diversification benefits to including residential REITs, not only in a mixed real estate sector portfolio, but also in a mixed asset portfolio in South Africa. That said, noting that the correlations between residential REITs and stocks and industrial and office sector REITs are not statistically significant, it is difficult to make sound conclusions on the potential diversification benefits with these specific asset classes/sectors.

Table 10: Sector Specific SA REITs correlations analysis: April 2013 to September 2020

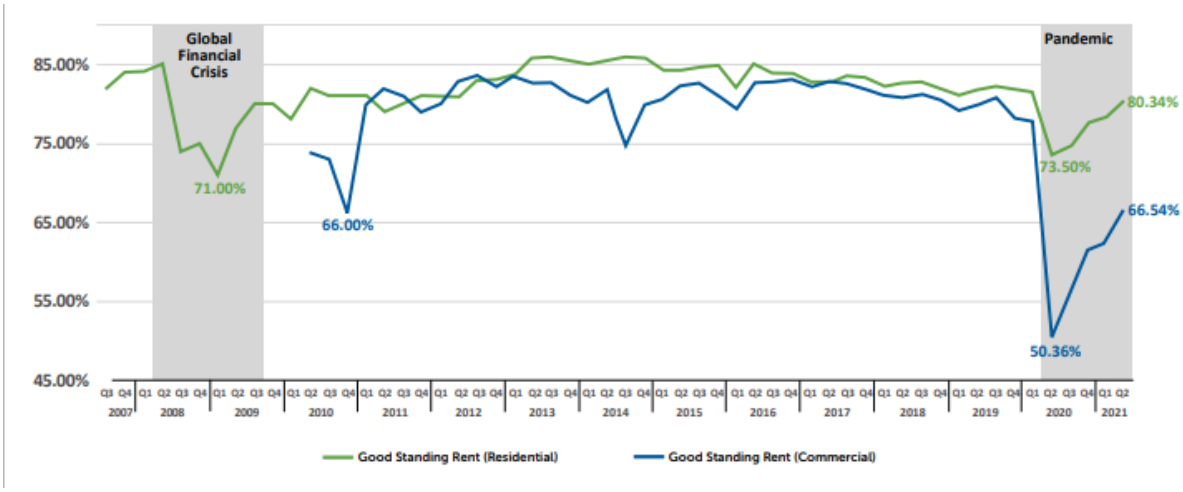
Asset Class	Stocks	Diversified	Industrial and Office	Residential	Retail	Specialty
Stocks	1					
Diversified	0.5600***	1				
Industrial and Office	0.4678***	0.4370***	1			
Residential	0.1985	0.4071***	0.1927	1		
Retail	0.4786***	0.8893***	0.3987***	0.2532**	1	
Specialty	0.2277**	0.2456**	0.2189**	0.2474**	0.1854*	1
Note:***, ** and * denotes significance at the 1%, 5% and 10% level respectively						

Source: Akinsomi (2020)

Furthermore, evidence of the resilience and stability of the residential sector in South Africa when compared to the commercial sector can be seen in the findings in the TPN 2nd quarter 2021 report as

shown in **Figure 12** below. This shows a strong drop off in tenants in good standing in the commercial sector but a far shallower drop off and faster recovery in the residential rental sector. A key takeaway from this is that it presents evidence of the sector being more resilient which is discussed as a key benefit. When combined with the findings presented in **Table 10** above, this resilience could be attributed to the diversification benefit that residential real estate offers. Another possible explanation for the smaller drop off and recovery in terms of the TPN tenants in good standing could be a result of the shorter-term leases associated with residential meaning that residential tenants are less afraid to enter a lease compared to commercial tenants where leases are typically for a far longer period. This is particularly the case following a black swan event such as the Covid pandemic. The non-discretionary nature of residential may also play a key role in explaining the smaller drop off and faster recovery of residential tenants in good standing compared to commercial tenants.

Figure 12: TPN Tenants in good standing - Residential vs Commercial Rent 2007 - Q2 2021



Source: TPN Credit Bureau (2021)

In summary, the advantageous attributes that residential real estate assets provide primarily include a good hedge against inflation and higher market efficiency compared to other real estate sectors. It must be noted that higher market efficiencies due to faster turnover and a more responsive supply, limit potential return opportunities. There seem to be mixed perceptions in the market regarding the risk profiles of residential real estate assets. Investors seem to demand higher returns due to the higher perceived risks, however research is providing evidence of a more efficient and resilient market with fluid demand, diversification benefits and faster supply response times which effectively lowers risk and ultimately returns. Early evidence of the diversification benefits can be seen in South African context however given the limited number of residential REITs in South Africa, it is difficult to draw strong conclusions from this data.

2.3. Conceptual Framework

Themes in literature call for private sector resources to be mobilized to help address critical housing shortages with REITs being the preferred mechanism to help do so (Jones, 2007; Cote and Tam, 2013; Milligan et al., 2013a; Anderson, 2015; Chan, 2016; Frew, 2016; Nurick et al., 2018). According to Naidoo (2014), the introduction of REITs offers investors a favourable tax dispensation, improved regulation, increased international tax competitiveness and enhanced liquidity. Research has also been done on the role of mortgage REITs in affordable housing which, according to Drew (2016) and Huang (2010) is key to maintaining the affordable nature of the rental housing by separating shareholder greed from the tenant's rental.

According to research done by Ntuli and Akinsomi (2017), SA-REITS have performed exceptionally well between 2013 (date REITS were introduced in South Africa) and 2015 and there is strong evidence to support the benefits of including SA-REITs in the mixed asset portfolio of stocks and bonds such including improved risk adjusted returns and diversification benefits.

Despite the above, exposure by SA-REITs to residential is low compared to other markets even though there are critical affordable housing shortages in South Africa (Nurick et al., 2018; Anderson, 2015; CAHF, 2017; Broll, 2014; Anderson and Cloete, 2016; MSCI, 2019).

It is highlighted by Jones (2007) that all markets act differently and as such there is a requirement to undertake research in the context of a specific market when it comes to the success and adoption of residential REITs. With respect to REITs investing in the residential sector, research from an emerging market perspective is limited (Newell and Fischer, 2009).

The varied success of residential REITs in different markets across the globe has been the cause of several research papers with a focus on gauging external investors interest in the sector and the perceived risks that they associate with the residential sector. Research on residential risks and challenges has been extensively carried out by Newell et al. (2015a); Milligan et al. (2013a,b); Crook et al. (1998); Kemp and Crook (2002); Crook and Kemp (1999); Mansfield (1999); IPF (2014); Montezuma (2006) and Jones (2007). This research is largely focussed on the more established REIT markets, such as the United States and United Kingdom, and focusses largely on the perceptions of external and institutional investors' perceptions using a variety of self-administered surveys and interviews.

It is evident from the research, firstly, that there are varying views with respect to the perceived risks associated with the residential sector and which are the common cause for deterring investors. Secondly, that there is evidence of conflicting views between the different stakeholders, most notably

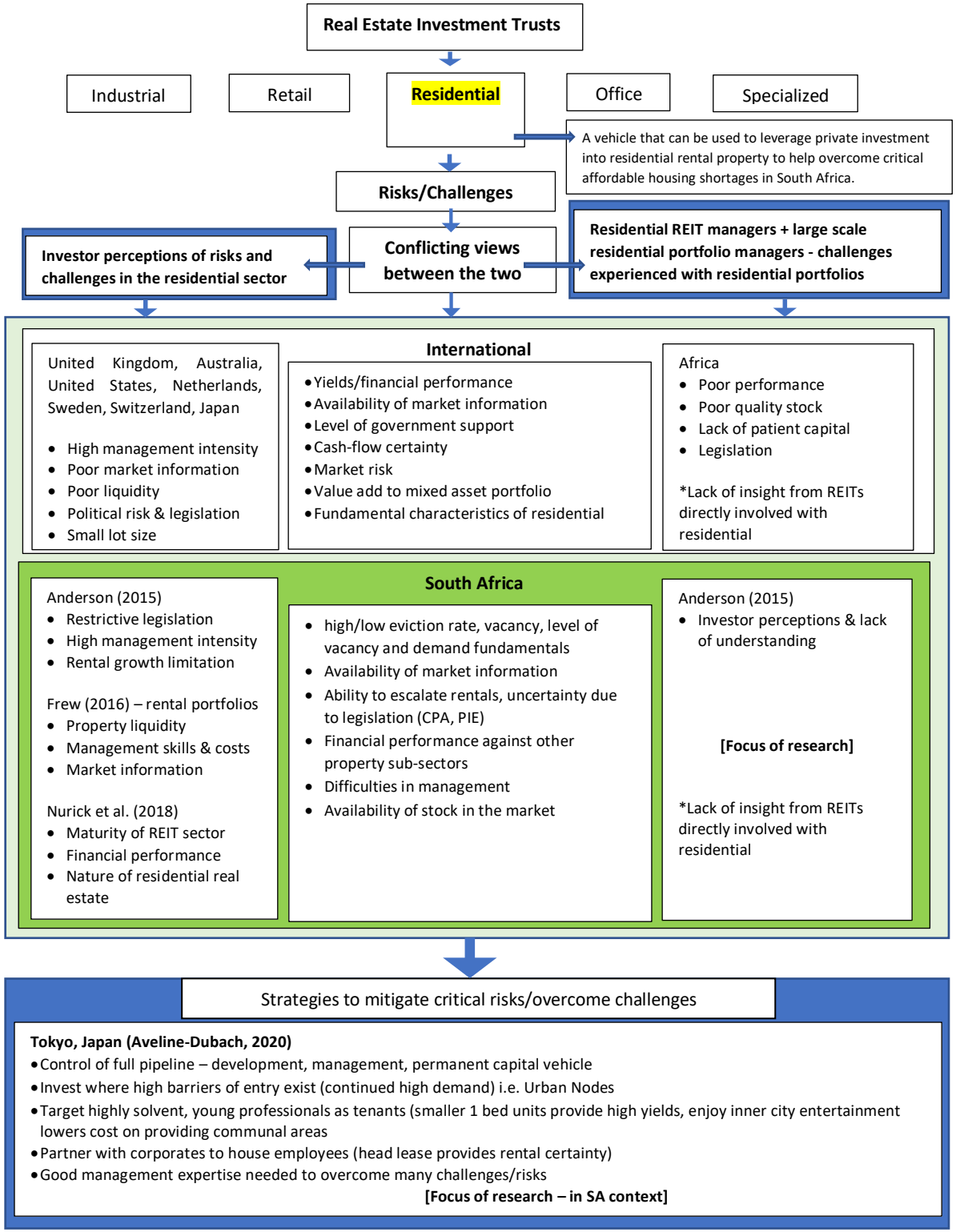
between those that are invested in or manage large scale residential rental portfolios (Lin et al., 2019; Milligan et al., 2013, Chan, 2016; CAHF, 2017).

The only empirical studies from the United States and recently Japan provide evidence of good returns achievable from residential portfolios in addition to diversification between different property sub-sectors, albeit diminishing over time (Newell and Fischer, 2009) and risk return benefits from a mixed portfolio of J-REITs, stocks and bonds (Lin et all. 2019).

South African Research on residential REITs remains limited and was completed before and only recently after the first listings of pure residential REITs in South Africa. The South African research, similar to that of other international research, is heavily weighted towards external investor perceptions (Anderson, 2015; Frew, 2016; Nurick, 2018). In a relatively immature market, research based on perceptions of those not actively invested raises a concern of further imbedding misperceptions about the market, which Anderson (2015) identified as a key constraint. This is evidenced by the one residential REIT representative holding several contradictory views to the other participants. It is critical to get a better understanding of the challenges and risks that face residential REITs from those actively managing them and who have first-hand insights and experiences to help inform the market and alleviate the misperceptions held by investors.

International research has focused primarily on the challenges and risks that residential REITs pose to investors in trying to explain the relatively low uptake by REITs of residential property in many markets. There remains a lack of research undertaken on how markets with large REIT exposure to residential property are mitigating the risks identified in the literature. Research by Aveline-Dubach (2020) in Tokyo, Japan provides the first found research on how residential REITs attempt to mitigate risks and improve their overall offering to investors. Tokyo battles with strong declines in population growth, yet REITs hold large exposure to residential rental property. The unique market characteristics of South Africa, the demographic and urbanisation trends are likely to create unique findings in the local context which are aimed at helping inform the investment market of local strategies to overcome challenges and mitigate risks.

The table below sets out a visual illustration of the points raised above, highlighting the separated schools of thought between the different stakeholders, particularly highlighting the conflicting views identified in existing literature. The below table highlights the information asymmetry and availability bias, as discussed in theory of behavioural finance in the theoretical framework, between external investors and the managers of these residential REITs and large-scale residential rental portfolios.



Naidoo (2014) highlights the advantage to investors that the introduction of REITs may lead to including; favorable tax dispensation, improved regulation, increased international tax competitiveness and enhanced liquidity. Ntuli and Akinsomi (2017) highlights the exceptional performance of REITs in SA since inception and the benefits of including REITs in the mixed asset portfolio of stocks and bonds such as improved risk adjusted returns and diversification benefits.

Research into residential REITs from an emerging market perspective is limited (Newell and Fischer, 2009). Jones (2007) emphasizes the requirement to undertake research in the context of a specific market. Themes in literature call for REITs as the preferred mechanism to help leverage private sector resources in addressing critical housing shortages (Jones, 2007; Cote and Tam, 2013; Milligan et al., 2013a; Anderson, 2015; Frew, 2016; Chan, 2016; Nurick et al., 2018). In SA exposure to residential is extremely low compared to other markets Nurick et al. (2018), Anderson (2015), CAHF (2017), Broll (2014), Anderson and Cloete (2016), MSCI (2019).

The varied success of residential REITs in different markets across the globe has been the cause of several research papers largely gauging external investors interest in the sector and their perceived risk factors associated with residential. Research has largely been undertaken using surveys. Key risks are identified in the research which are deterring institutional investors however evidence of conflicting views becomes apparent in many of the papers (Lin et al., 2019; Milligan et al., 2013, Chan, 2016; CAHF, 2017). Research was also done on the role of mortgage REITs in affordable housing which was key to maintaining the affordable nature of the rental housing by separating shareholder greed from the tenants (Drew, 2016; Huang, 2010).

Research on residential risks and challenges: Newell et al., 2015a; Milligan et al., 2013a,b; Crook et al., 1998; Kemp and Crook, 2002; Crook and Kemp, 1999; Mansfield, 1999; IPF, 2014; Montezuma, 2006; Jones, 2007). The only empirical studies from the United States and recently Japan provide evidence of good returns achievable from residential portfolios in addition to diversification between different property sub-sectors, albeit diminishing over time (Newell and Fischer, 2009) and risk return benefits from a mixed portfolio of J-REITs, stocks and bonds (Lin et all. 2019).

South African Research on residential REITs remains limited and largely completed at a stage before and only recently after the first listings of pure residential REITs in SA. Findings, like international research, are heavily weighted towards external investor perceptions (Anderson, 2015; Frew, 2016; Nurick, 2018). In a relatively immature market research based on perceptions of those not actively invested raises a concern of further imbedding misperceptions about the market, which Anderson (2015) identified as a key constraint. This is evident by the one residential REIT being represented in the research having held several contradictory views to the other participants. It is critical to get a better understanding of the challenges and risks that face residential REITs from those actively managing them and who have first-hand insights and experiences to help inform the market and alleviate the misperceptions held by investors.

International research has focused primarily on the challenges and risks that residential REITs pose to investors in trying to explain the relatively low uptake by REITs of residential property in many markets. There remains a lack of research undertaken on how markets with large REIT exposure to residential property are mitigating the risks identified in the literature. Research by Aveline-Dubach (2020) in Tokyo, Japan provides the first found research on how residential REITs attempt to mitigate risks and improve their overall offering. Tokyo battles with strong declines in population growth, yet REITs hold large exposure to residential rental property. The unique market characteristics of South Africa and demographic and urbanisation trends are likely to create unique findings in the local context which are aimed at helping inform the investment market of local strategies to overcome challenges and mitigate risks.

3. METHODOLOGY

In this section the research methodology, research philosophy, approach to theory development and research strategy used to meet the research objectives is discussed and justified. This is followed by a discussion on how the data was collected and analysed and the appropriate associated ethical considerations.

The key focus of the proposed research is to address the lack of input from SA-REITs with exposure to residential and large-scale residential rental portfolio managers when it comes to understanding the challenges, strategies to overcome these challenges, and the benefits that residential real estate offers investors. Research focused on the perspectives of these primary stakeholders is critical in achieving a grounded understanding of the key investment characteristics of the sector and which is necessary to improve investors understanding of the risks and benefits associated with it. This will play a key role in helping unlock additional investment and appetite into the sector for further growth. This is particularly important in the context of a relatively immature REIT market in South Africa and Africa where private capital can play a key role in addressing the affordable housing supply shortages.

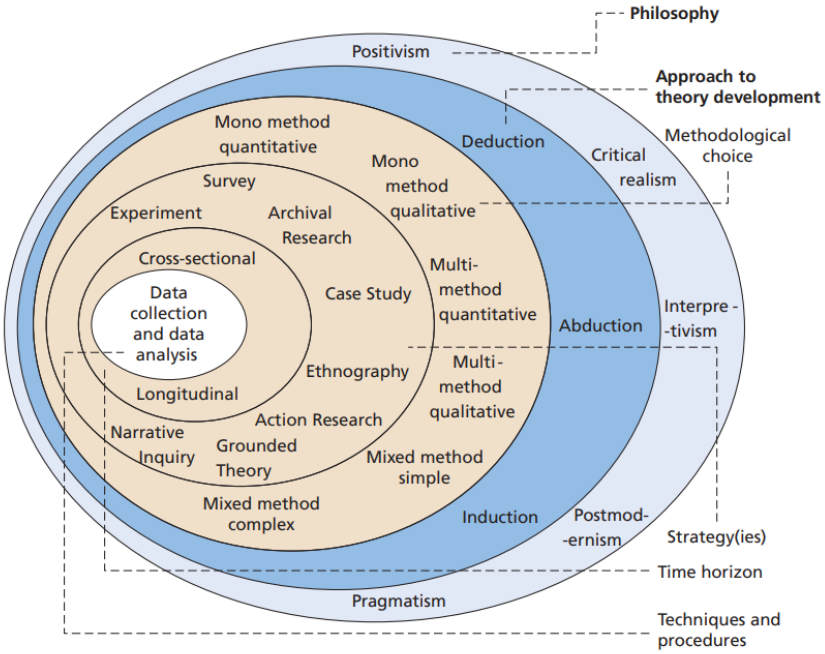
Due to the limited track record available to undertake meaningful quantitative research on aspects of residential REITs in South Africa, existing research in the area has been largely constrained within the qualitative methodological realm. Existing research has focussed on the perceptions of multiple stakeholders, including institutional investors, property companies, residential real estate investors and residential REITs associated with the South African residential REIT market and has been carried out using semi-structured interviews and thematic and content analysis (Anderson, 2015; Frew, 2016; Nurick et al., 2018). This research follows a similar methodological choice, with emphasis on the selection of the participants to separate itself from, and to address the shortcomings in existing South African research, i.e. the lack of input from SA-REITs with large residential holdings and large scale residential portfolio managers. A key benefit to following a similar approach to existing research (i.e. qualitative using semi structured interviews) is that it provided a good basis on which to compare and contrast the findings against existing research. This methodology also does not limit the researcher in terms of the amount and depth of information that the participants are able to provide. The ability to gather more in-depth qualitative data is key, particularly in an area that has not been extensively covered by existing research and where the participant population group is small.

The outcome of the research methodology is to have the participants answer the below research questions which as much depth as possible so that once can extrapolate key themes and discussion points from the data.

1. What are the challenges facing residential REITs and large scale residential rental portfolio managers in South Africa?
2. What strategies are being employed by residential REITs and large scale residential rental portfolio managers to overcome these challenges?
3. What are the perceived benefits that large scale residential rental portfolios offer investors from the perspective of large scale residential rental portfolio managers in South Africa?

The research follows the 'research onion' layers expounded by Saunders et al. (2019) as illustrated in **Figure 13** below. The sections to follow provide a more detailed discussion of each layer of the 'onion' and where this research is placed.

Figure 13: Research 'onion'



Source: Saunders, Lewis and Thornhill (2019)

3.1. Research Philosophy

In terms of the outermost level of the research onion, the qualitative approach used falls within the interpretivist philosophy. The interpretivist philosophy places value and emphasis on the perspectives of key participants (Glaser and Strauss, 2017). In the case of this research the focus is on the managers of large-scale residential portfolio managers and residential REIT managers who are certain to provide valuable insights into the characteristics of the sector given their experience managing large scale residential rental portfolios in South Africa. This approach also relates back to the theory of

behavioural finance where an emphasis is placed on the behaviour and views of different individuals and the influences at play when it comes to their investment decisions and the management of those investments.

More specifically, the interpretivist philosophy is followed as it provides for a richer, in depth and intimate knowledge that is used to create new interpretations of social realities and contexts from the perspective of the participant and is suited to research focussing on understanding the perceptions of a few key participants (Thornhill et al. 2009) i.e. managers of large scale residential rental portfolios and SA-REITs with large exposures to residential. Given these participants/key stakeholders experience when it comes to the residential sector, they are able to provide valuable insights that are informed by their individual and unique knowledge and understanding of the sector which is key to improving ones understanding of the sector.

3.2. Approach to theory development

The theoretical review introduces the theory of behavioural finance which is the lens through which one is to look with respect to this research and acts as an overarching theory. The theory of behavioural finance introduces the concept that there are psychological aspects that come into play in finance and investment decision making and which therefore act as a supplement to traditional financial theories and place emphasis on the individual. These psychological and behavioural factors influence investor perceptions and ultimately their behaviours which translate into their investment and management decisions. These decisions and perceptions therefore become more subjective in nature based on the individual and their experiences as opposed to objective based on more traditional financial theories and tools and it becomes important to acknowledge these influences, particularly in the research case where such a large weighting is placed on one stakeholder group.

On the other hand, the focus point of the research is on residential rental property as an investment which presents unique investment characteristics that are more observable and objective. Based on the above, there is a clear interplay that is evident between the empirical/observable domain (i.e. nature of residential real estate) and the theoretical domain (and its influences) (i.e. theory of behavioural finance). On this basis this research follows an abductive research approach to theory development and bounces between these two domains in building the research findings. Abductive research is defined as a type of inference which has to do with identifying analogies across empirical and theoretical domains, whereas deduction and induction has to do with drawing inferences from and to rules (respectively) (Olsen and Gjerding, 2019).

3.3. Methodological choice

The methodological choice for the research is largely informed by existing South African research in the field, which is qualitative based using semi structured interviews. Several studies in the United Kingdom and Australia covering a larger sample group opted for self-administered surveys however, for the purposes of this study and given the limited number of participants, it was important to access more in-depth data for meaningful analysis.

The research is qualitative in nature for three key reasons. Firstly, as mentioned, there is a limited track record, and a limited number of residential REITs in South Africa which limits quantitative data availability to undertake any meaningful analysis in this regard. Secondly, qualitative research allows for the gathering of data that goes beyond simple numerical analysis and inference and which takes cognisance of the individual participants views and perceptions which is again important given the limited number of relevant participants and the scope of the research. Finally, qualitative research is effective for building theory as the depth of the data is significant compared to quantitative data. According to Mason (2002), qualitative research provides for a rich, contextual and holistic understanding of the data gathered from participants. This is key in the context of this research and its application to the theory of behavioural finance which places emphasis on investor psychology, behaviour and the presence of perceptual errors.

3.4. Research Strategy

The data was gathered using semi-structured interviews on a one-on-one basis. The semi structured approach was used to ensure that the core objectives of the research were met but still allowed the participants and researcher to explore any other area of interest that might have arisen.

The interview was structured such that the initial questions were open ended and broad, and the latter questions became more specific having regard for the specific objectives and aims of the research. The reason for this approach was to ensure that the participant had the opportunity to speak broadly and be less directed by the researcher initially. The benefit of this being that questions that are too specific may direct the participant to a certain extent and limit the scope of the participants responses which may create oversight on the researcher's behalf. The latter questions were more specific relating back to the objectives of the research to ensure the interview was well directed and responded to the specific objectives and aims of the paper while keeping in mind any other concepts raised in the initial broad questions. The questions asked in the survey were largely informed by existing literature on the topic as well as the objectives and aims of the research.

A copy of the interview questions and format can be found in Annexure A.

3.5. Data Collection

It was the researcher's priority to conduct interviews in person and on a one-on-one basis however given the social distancing restrictions due to the Covid-19 Pandemic, all interviews were conducted using digital communication platforms including Zoom and Microsoft Teams. Conducting interview based research offered advantages and disadvantages to the researcher. The main disadvantage being that conducting interviews and transcribing interviews takes a lot of time and resources not only for the researcher but for the participants too. Due to the small population size of the participants this was not as big of a concern and did not have a negative impact on the participants response rate. The ability to conduct interviews online helped make the process efficient and more agreeable by the participants and allowed for good quality recordings of the interviews using the same software.

The advantages of collecting data via interviews far outweighs the disadvantages in that the level and depth of responses is far more holistic than when using self-administered surveys which was key to this research. Interviews also allow the researcher the freedom to explore areas that are of interest to the research that may be excluded when undertaking a self-administered survey. Furthermore, given the emphasis in the research on understanding the unique experiences of each participant, interviews allowed the researched to probe further with respect to understanding why the participant perceived things in a certain way. It is for the above reasons that the researcher opted to collect data by conducting interviews. This data collection strategy was largely in line with existing research in the field.

Interview data was recorded, transcribed and safely and securely stored for further analysis during the data analysis stage. The data was stored in such a manner that it remained anonymous and secure (password protected). To avoid potential technical difficulties or data corruption, two recording devices were brought to each interview as well as tested prior to all interviews.

Interpretivists are concerned with aspects of dependability, credibility, confirmability and transferability when it comes to testing for data reliability (Bloomberg and Volpe, 2008 cited in Ponelis, 2015). The research was carried out such that each aspect of reliability was dealt with and adhered to in accordance with the below.

> **Dependability –** to ensure that the findings are dependable all records of the research must be kept for possible later examination or inspection. These records include problem formulation information, population and sample selection, interview transcripts and any other field notes that are gathered in the process (Lincoln and Guba, 1985).

Credibility – for findings to be credible the researcher must adhere to good practice and prudent procedures. All aspects of good practice must be noted throughout the research as each step is carried out in more detail. It is also prudent for the researcher to revert findings back to the original respondents for confirmation of findings based on their representations to ensure respondent validation.

Confirmability – it is difficult to be objective in qualitative research and for this reason confirmability is best implemented through the demonstration of good faith when carrying out the research. Bryman and Bell (2011) provide a key example of acting in good faith when carrying out research by ensuring that the outcome is not influenced by personal value or the theoretical inclination of the researcher.

Transferability – the key to this measure of reliability is to ensure that the research carried out provides rich accounts of the phenomenon studied as qualitative research emphasises the requirement for depth of knowledge versus breadth of knowledge (Geertz, 1973).

3.5.1. Population Group

To address the shortcomings of existing research this paper focused on interviewing participants that are directly related to the management of commercial residential rental portfolios, with an emphasis on residential REITs.

Although the research has a large focus on residential REITs, large scale private residential rental portfolio managers were included on the basis that they are familiar with the unique characteristics of the large scale residential rental sector and have valuable insights from their experiences which will be transferable to those experiences of residential REITs. When approaching the relevant companies for interviews, the target individual was the chief executive officer (CEO), if the CEO was unavailable alternative directors and executives were then approached.

The target companies identified for the research are listed below.

Pure Residential REITs

Transcend Residential

Indluplace Properties

SA-REITs with large residential holdings

SA Corporate - Approximately 25% of portfolio is residential by market value.

Octodec Investments - 31.7% of portfolio is residential by rental income.

Large scale residential rental portfolios

Indigo Kulani Group

Uvest

Balwin rentals

iThemba Property

Similan

Pulse living

International Housing Solutions (IHS)

Private large scale impact investment fund manager with residential rental holdings*

Large scale residential rental management companies

International Housing Solutions (IHS)

* Unable to disclose further details for sake of anonymity.

3.6. Data Analysis

Once transcribed, the data was analyzed using NVIVO, a qualitative thematic analysis software tool. This software allows the researcher to insert the transcribed data obtained from the interviews into the software whereby it is made easy to identify common themes in the responses through thematic analysis whereby one can highlight, group, categorize and cross reference points of interest and key themes for discussion. This helped identify connections and better understand any underlying themes and patterns between the different respondents' responses. This allowed the researcher to view all responses from all participants with reference to a particular theme identified when discussing each theme, ensuring the full spectrum of responses on the theme were considered in the analysis and discussion. In the initial stage of analysis, default themes were determined based on the themes that were identified in the existing literature from which the primary findings can be benchmarked against. Additional themes were then identified based on the primary data collected which the researcher noted down during the interviews and later referred to during data analysis.

The data analysis section also involved cross referencing the findings with the findings from both local and global literature to identify any relationships and where perceptions/views of participants in other studies differed. The analysis also focused on identifying new themes and patterns in the primary research where limited existing research had been found, the aim here was to focus on the methods employed by the participants to overcome challenges associated with residential rental property, and to identify the benefits that these participants perceive the residential sector can offer investors.

3.7. Ethical considerations

The Ethical risk of the research was considered minimal and ethics approval was sought and granted by the University of Witwatersrand prior to conducting any interviews/data collection (See Annexure B).

A key consideration in this regard that was managed throughout the research process was to ensure that the participants remained anonymous. Prior to conducting any interview, a consent form setting out the terms of participation was signed and returned by each participant. Consent included confirming that the participant is prepared to partake in the study, that the interview could be recorded and stored, and that the participant would remain anonymous. At the beginning of each interview the same terms of engagement were repeated and confirmed with the participant again. There were no objections from any of the participants to recording of the interviews, nor were any other ethical concerns raised by any of the participants. No participants chose not to participate on the basis of any ethical concerns.

4. DATA ANALYSIS, RESEARCH FINDINGS & DISCUSSION.

4.1. Introduction

In this chapter, a brief overview of the participants that were interviewed and the response rates is given. The remainder of the chapter includes an analysis of the data gathered from the interviews and a discussion of the research findings in response to the objectives of the research. These core objectives include understanding the challenges experienced by large scale residential real estate portfolio managers and how managers are responding to these challenges, and the benefits that residential REITs and large-scale rental portfolios present to investors.

4.2. Overview of participants and Response Rate

Table 11 below provides an overview of the participants involved in the study. The information provided below is limited to avoid the risk of identification by inference of information. This is due to the limited pool of applicable participants in the study.

Table 11: Breakdown of interview participants

Interviewee	Position	Company	Focus
A	CEO (A), Head of Operations (B)	A,B	Residential REIT (A), Private financier of affordable housing (B)
B	Non exec Director (A), Managing Director (B)	A,B	Residential REIT (A), Private financier of affordable housing (B)
C	Managing Director	C	Residential subsidiary owned by a REIT
D	Managing Director	D	Residential REIT
E	CEO	E	Residential REIT
F	Managing Director	F	Large scale private residential rental portfolio manager
G	Director	G	Large scale private residential rental portfolio manager
H	Senior Executive	H	Impact fund with exposure to residential rental portfolios
I	CEO (I), Non-exec Director (A)	I, A	Tenant Statistics and Credit analysis (I), Residential REIT (A)

Given the limited number of large scale residential rental portfolios in South Africa and in particular the limited number of SA-REITs with large exposures to residential rental property, an initial concern from the onset of this research was the risk of a low response rate from an already limited pool of targeted participants. The response rate for interviews with key participants was extremely encouraging and it is important to highlight that all SA-REITs with large holdings in residential rental property are represented in the findings of this research. Furthermore, the individual respondents

representing each REIT all hold current senior executive positions at the time of being interviewed, except for Participant B.

4.3. Research Findings

The data was collected from interviews with the above-mentioned participants, thereafter the interviews were transcribed and analysed using thematic analysis with the assistance of NVIVO software. The interview data was broadly categorized into the three respective objectives of the research. Using NVIVO, each section relating to each objective was then provisionally reviewed to identify the key themes in the participants responses. A more in-depth review of the data followed with these key themes in mind and the responses from the participants, where applicable, were then categorized into these key themes. The below section responds to the research findings relating to each of the broad objectives of the research and discusses in further granular detail the sub-themes that were identified. Finally, each sub theme is reviewed in relation to the literature review and any relationships or discrepancies are briefly discussed along with a brief general discussion on the findings.

4.3.1. Challenges facing large scale residential rental portfolios and REITs in South Africa.

In understanding the risks and associated challenges that face residential REITs and large scale residential rental portfolio managers in South Africa, the research set out to do two things, firstly, based on the participants first-hand experience, identify the participant's perceptions regarding the challenges faced when it comes to managing commercial residential rental property as an investment and secondly, to compare these views with those identified in existing literature which were mostly from the perspective of institutional investors. The latter was done by way of using a Likert scale to rate the degree to which the participants agreed or disagreed with the identified risks and challenges from the literature review and whether they viewed these risks to be material or not.

The thematic analysis carried out on the interview data relating to the challenges faced by the participants yielded the below nine sub-themes. These include;

- Limited track record and data availability
- Lack of adequate supply/pricing misalignment between developers and residential funds
- Investor misperceptions
- Above inflationary Municipal cost increases
- Rental escalation limitations
- Concentration risk

- High management intensity
- Access to equity
- Competition from Government (Social housing)

Several of these themes overlap and relate strongly to one another. These instances are highlighted and discussed together in this section. The themes presented some findings that had not been discussed in existing literature identified to date but do relate to and help describe some of the existing literatures findings in more detail and in more depth. What is also evident, is the importance of understanding the risks and challenges in the context of the South African market as several aspects of the sub-themes discussed highlight the unique nature of that challenge to the South African context.

The order of findings below does not imply the level of importance of each item. The section is structured by grouping discussion points that best relate to one another.

Limited track record and data availability

A common theme discussed by the participants that has a direct influence on the perceived risks of large-scale residential portfolios is the limited track record of residential rental funds and residential REITs in the context of the South African market.

The interviewed participants held strong views that when the residential rental sector first listed it did not have the same history/track record and existing scale of the more traditional listed property sectors i.e. office, industrial and retail. As Participant B explains, when non-residential REITs listed, large portfolios of commercial real estate existed, and it was easy to quickly add to these portfolios and build a substantial portfolio. Unlike the more traditional real estate sectors, the "[residential] product just wasn't out there like the non-residential product was" (Participant B). Participant F elaborates that

> *it's just been easy in the past [for the other real estate sectors] - I think retail and offices have done extremely well in the past. Shopping centres boomed, offices were always in good demand. There wasn't the opportunity to invest in quality affordable [residential] rental stock.*

When asked why the uptake of residential is so low Participant C responded – "[We don't have] the volumes and the quality that can be associated like with our big grand malls, which are comparable to other countries". He goes on to say, "in my view it seems to be just an obsession with a traditional type of asset class, the performance of the SAPI Index that has been good over the years, it has been a good performer, so I think a lot of that has to do with that". "It's a combination of just a pure

obsession with the traditional stuff and maybe it's keeping it safe, not wanting to venture into something new".

Participant G also states that "the property players have just been comfortable with commercial yields, as opposed to residential yields".

Participant A highlights an example whereby a listing of a residential fund failed because of this obsession from investors with the more traditional real estate sectors at the time -

> *The man who started Arrowhead tried doing some residential in 2001 but there was not enough support because the competition coming from the commercial side was just so big. That market was growing, and it was more compelling for investors to put their money in the commercial REITs as opposed to going to residential.*

The impact of the above and lack of a substantial track record has three critical consequences, firstly, there is limited data with respect to the sector with which investors and analysts can digest and understand and use to compare the funds from a risk return perspective. Participant E elaborates by saying,

> *the established other sectors, the industrial and retail, the Growthpoints and the Hyprops and the Redefines of this world, [have] been around for many years and there's lots of proper data available, comparative data. So you can compare portfolios to each other and who gives a better yield and, which one's riskier … [with] the residential sector, there's very little data available comparable to the other sectors, especially in South Africa, overseas not so [much] because it's an established sector. Here it's difficult and that was difficult in the beginning.*

Participant I also comments that

> *there's less data published about residential property investments than there is about commercial, the commercial is very well understood and there's a lot of data and everyone's on board because they understand the market. I think that [with] residential there's less data, you don't know what you don't know. You feel that there's a high risk simply because you don't know it.*

Participants D, C and B all note that the lack of data is contributing to the challenges in the sector however they comment that while it is not where it needs to be, there has been major improvements in the availability of data and type of data available through the likes of TPN reports and the MSCI residential rental index.

The second consequence that became apparent is that in a limited pool of large residential rental portfolios, particularly for example residential REITs, and where benchmarks are derived from a limited number of funds, the performance of each fund has a significant impact on the sub-sector and the perceptions thereof. One of the comments made which sums this view up is that

> *[with respect to] one of the funds, for various reasons, I, and the market/the educated residential investor, can see from a mile why it [is] not be performing as good as other residential funds. But for the uneducated layman, he would just look [and say] 'here's a residential portfolio and this is the [poor] performance'. I don't believe all this nonsense that everybody's saying about residential [not performing well and not being a defensive asset]* - Anonymous (Participant in this study).

Several participants made similar comments with respect to this. Participant A noted that it puts funds on the back foot with potential investors from the get-go. He further goes on to explain that "in every meeting [with investors], we have had to explain why we think we are different" in an attempt to break away from perceptions created by the performance of other funds. Participant A also comments that "we need someone else, [more residential funds], to come into the market". Participant B mentions that "we need a residential Growthpoint" to emphasize the need for a large-scale fund with residential that investors can track and use to better understand the sector.

The final consequence of this limited track record, and leading on from the last point, is that the limited data available and limited number of large-scale residential rental portfolios has created misperceptions about the sub-sector. Participant C in response to why investors are 'obsessed' with the more traditional real estate sectors states that "a lot of it is just to do with the misconceptions about the residential sector and the lack of actual large quality portfolios available".

The limited track record of residential REITs and large scale residential rental portfolios in South Africa can be considered an overarching theme and a key reason for the low uptake of residential by REITs and the limited number of large scale residential rental portfolios. A limited track record has a large impact overall as without a sufficient track record it is difficult for investors to understand the sector and analyse it using empirical historical data and results in poor market information being available.

In Australia, where the uptake of residential by A-REITs is also comparatively low, research by Milligan et al., (2013a) cites "lack of track record" as a challenge when it comes to investing in residential. As discussed, and as a knock on, a limited track record implies limited market information and historical data. Later research by Newell et al. (2015a) highlight poor market information as being high up on the list of risks when it comes to investing in residential.

Existing research on the topic focussing on the more established REIT and residential markets such as the United Kingdom does not cite limited track record and poor market information as being problematic for investors however two early papers, one by Mansfield, (1999) and another by Crook and Kemp, (2002) cite the immature and poorly researched nature of the sector and the lack of systematic market evidence respectively, as deterrents for investors when it comes to residential investment.

In the South African context research by Nurick et al., (2018) sums up the position by stating that

> *the most pertinent factor relating to the relatively low uptake of residential stock was identified as the maturity of the REITs sector in South Africa as this affects many of the other factors identified in this study. Furthermore, this has meant that there is a dearth of the requisite knowledge and understanding of residential real estate to facilitate greater uptake of this asset class.*

The next two sections can be considered as challenges relating strongly to consequences of having a limited track record. This includes a lack of adequate supply of residential for these funds to scale up sufficiently for investor interest and investor misperceptions about the sector in terms of the risks and challenges associated with it.

Lack of adequate supply and pricing misalignment with developers

Given the high management intensity of residential rental portfolios, managers' benefit significantly through, and require economies of scale in their operations. This is achieved by operating single properties and in some cases whole precincts that accommodate a high number of individual units and tenants. Participant B highlights the importance of this from a strategic point of view stating that "you [have] got to get your mix right, you [have] got to get your scale right to manage your operational costs and you can only do that where you've got 150 units in a rental scheme".

This highlights the importance of the quality and type of stock that is required to successfully build and manage a large scale residential rental portfolio. Furthermore, to establish a REIT, one needs significant scale before listing to create sufficient liquidity for its investors (Participant B). Participant G notes that their model is to purchase entire complexes and rent them out. Participant F on the other hand states that

> *[they have] evolved as a business. Initially, [they] would have done a standalone building on its own, a hundred units somewhere in the middle of town, but now [they are] focusing more on precincts, and to find precinct opportunities is difficult*

because you either need to do a land assembly, or you need to have one seller that owns a couple of blocks … so it is difficult to get scale opportunities.

Participant B, C and F agree that to find the scale and the bulk required to build these portfolios is a challenge. Participant H also highlights that due to the nature of residential rental property and the lack of appropriate scale that exists that "it's hard to get big chunks of capital away. If you go buy a shopping centre [for example], you can get a billion Rand invested in one go. Whereas with residential, you're dealing with properties that are in the tens of millions, not the hundreds of millions" and so one needs to acquire a lot and spend a lot of time trying to build up scale to get close to the size and scale that is required by many investors. Participant H further states that

[they] built [their] portfolio in two funds to just over R4 billion [and it took them] 10 years … to get to that. There were periods in which you [are] inactive because you're just not finding those deals at the appropriate returns, either because developer's expectations are too high, or our investor returns change relative to other asset classes.

Participant A holds the same view stating that "if you were to want to build a ten-billion-rand fund today of [residential], I think you'll battle to find the right assets. You would have to go and take everything in the CBD and all of that".

Participant B provides critical context below which establishes a good foundation for the discussion about the challenges relating to the supply of adequate residential rental stock in South Africa.

When non-residential REITs first came to the market in a big way, that was probably 15 years ago, 2003/4/5 around about then. There were big portfolios of properties that were owned in pension funds like Old Mutual, Momentum, Liberty etc. All of these players, even the banks, had big portfolios and it was very easy to just take a portfolio where you had the track record over the last 10 years, and list it. That's how most of our REITs were listed. They started in those days… if you had a two or three hundred-million-rand portfolio, that was a reasonable size. But very quickly they could add to it, and they could manage that much better, and they could yield very well. That opportunity doesn't exist in residential. … When we started building portfolios of residential, there were very few portfolios out there… City Property were the first people to really build up a portfolio and certainly to list it. In Premium, there was 30, 40% exposure to what was almost only Pretoria CBD property. It was managed very well by the Wapnick family . It performed well but it was a tiny little

> *slip. … even now there is quite a few people building portfolios of residential… but it is quite tough to go out there and secure a billion-rand portfolio. Which, if you want to list a REIT, is [essential for liquidity purposes].*

Taking the above into consideration, there is not an adequate supply of existing stock in the market that these funds can buy up, particularly not the same kind of scale that exists with more traditional real estate sectors. Participant E held a differing view, and believed that there is stock available, however access to capital is where the limitation exists in today's market. To corroborate this view, from the perspective of access to capital, Participant B states "access to equity/capital is a challenge because as you would have seen you go from asset manager to asset manager, they are not allocating big numbers to residential at this stage".

Participant E highlighted however that there is significant risk and downside when purchasing existing stock in that "you might not be that involved in the actual development and have an input in the layout and things like that". Furthermore, Participant E states that

> *The problem with growth and [buying up existing portfolios to scale up] is that a lot of the systems get left behind. I'm talking against myself, but we could probably have done more detailed due diligences in a lot of cases. We are uncovering stuff, even now after five years on municipal accounts that are not correct. Or surprises like that, that we just don't need.*

This makes it far more challenging to scale up the portfolio successfully and economically and presents challenges in consolidating these acquisitions into one portfolio. This is also because you are dealing with hundreds of existing leases and different management systems which one needs to now consolidate into the broader management approach and reporting systems of the overall portfolio.

Participant F also noted that there is appropriate stock available in the market, but it is becoming overpriced for a pure rental model. Participant F held this view due to the "competition" in the market from owner occupiers on the basis that

> *[a residential fund] requires a certain yield [on a property] to get it into the portfolio and the individual doesn't need that type of yield, he can possibly put a little bit more money down if he wants to rent it out, or he's going to live there, and in today's terms, he's going to live there for very much the same bond instalment as he could rent.*

This puts a lot of pressure on these funds when it comes to acquiring assets as the smaller private investment market or owner occupier market can drive prices up to a point that the yields do not make sense for a commercial investment.

Considering the participant views that there is a lack of adequate existing stock in the market to scale up, and that the appropriate existing stock in the market is unavailable at the right price, the only other option is to develop new stock which can be tailored specifically to the needs of residential funds. Participants G, E, H, C, F and A however discuss the associated challenges with developing. This can be done in one of two ways – firstly, the funds can develop their own stock. In this case, Participants E, C and F raise concerns in that one takes on a lot more risk when developing as opposed to acquiring existing stock.

> *It lowers the risk because … there's no development risk, there is no overrun risk. There's no timing risk, … there's no renting risk. It just lowers the risk all round if you buy existing stuff. The downside is you might not be that involved in the actual development and have an input in the layout and things like that* - Participant E.

> *We found that in order to grow that portfolio substantially, there was not, high quality developments that were actually available and therein lies one of the biggest challenges - that the stock isn't freely available, and associated with that, you would need to take on potential development risk were you to look to increase your portfolio and we did that* - Participant C.

> *The other challenge is as soon as you move outside of the CBD, then you have challenges with zoning, you have challenges with services and bulk contributions. So, it's not as easy as it used to be. You need to work hard to find appropriate opportunities and you also need to be very clever on how you approach the scheme and how you build and your cost to income ratios and technologies, et cetera, to make the commercial sums work* - Participant F.

Secondly, the alternative is to partner with developers who have the requisite skills and risk appetite to do the development and then for these properties to be acquired into the fund. Participants G, E, H and A provided valuable insight into the associated challenges highlighting two core difficulties - firstly, developers of residential property are getting better value (realizing the highest and best use potential) by sectionalizing their developments and selling them off individually to the owner occupier or small-scale private investor. The result of this has meant that a lot of these partnerships have failed to get off the ground.

> *Your end user, your small investor who wants to do a rent to buy, or your individual who wants to live there is still a little bit more attractive [to the developer] than a bulk buyer. There has been a move from a pure net operating income cap rate valuation to this end user or call it best use, best realization of value – which is go and sectionalize the block that you own with a hundred units in and sell it off, you're going to have quite a lift in your pricing. That's probably why we can't find the stock - because the developer goes and does that upfront* - Participant G.

> *We partnered with [two Johannesburg developers]… I wouldn't say our relationships have fallen apart by any means, we're in very good space with the guys, but it it's exactly that - if they can sell to the market and generate a better return than selling to us because of our expectations, they must do that. Whilst we did a few deals initially, it's dried up a little bit, but the relationships are intact. It's just that they could get a better deal elsewhere, and so could we, it's as simple as that* - Participant H.

Secondly, a lot of the developers that used to sell to the residential funds as an exit are now holding onto stock and building up their own residential rental portfolios.

> *So those people (developers of residential) are still developing because they developers, that's what they do to keep that machine going, but now they are holding onto that stock and building up their own portfolios. It's a little bit more difficult for them also to get rid of the development projects. I know of a couple of them that have built up their own portfolios now where it's not really what their core business is, their core business is development and selling stuff* - Participant E.

Participant E and A also raise the knock-on effects of this which further contributes to the lack of available stock for these funds.

> *You have a lot of private developers who hold on to stock, but their pockets are not that big for them to have big portfolios. So there's a supply problem. Who is building? Not every person wants to buy a place to stay. People are migrating from wherever in the villages to work in the centres and they need to rent* - Participant A.

The fact that the capital for residential developments is not being recycled to fund new developments further limits the pipeline of new residential stock in the market for these funds. That being said, some funds such as Transcend have been born out of being an affordable residential developer (through

their company called IHS) and then holding onto that stock in a separate vehicle to establish their residential rental fund.

With reference back to the literature, a common theme was identified in Australian research which, similarly to South Africa, has a low REIT exposure to residential property at approximately 2% by market cap. Research in Australia cited risks that existing residential stock was not of sufficient quality and there is not sufficient scale in the market, with participants surveyed in research by Newell et al. (2015a); Milligan et al. (2013a) and Milligan et al., (2013b) citing low quality portfolios and scale as high up on the risks and challenges associated with residential as an investment.

Similarly but less so reported in United Kingdom research, Crook and Kemp, (2002) through a compilation of research cites "lack of large-scale residential portfolios to buy" as a challenge for housing investment trusts in the United Kingdom.

In the South African context however, existing literature does not raise the lack of supply or the misalignment of pricing in the market as an issue, albeit this could be expected as these are risks and challenges that external investors investing into the market are not faced with directly but rather are a direct challenge faced by the managers of residential rental funds.

An interesting component on the supply side in the South African context is, the bulk of appropriate supply, in essence appropriate meaning single large properties with 150 plus units in them, is located within the CBDs of Johannesburg and Pretoria. This has contributed to concentration risk in the sector which presents several other challenges which is discussed later.

The above findings are conclusive in that finding adequate quality stock for these funds is a challenge albeit driven more so not by the availability of stock in the market but the price of the stock in the market which is driven up by the owner occupier and smaller private residential investor. The alternative methods of scaling up including developing one's own stock and partnering with other developers also come with challenges, most notably development risk and price risk in trying to agree on a bulk price with developers. These risks and challenges have made it difficult for these funds to build portfolios of sufficient scale to attract real investor interest. Furthermore, as some residential developers start to hold onto some of their own rental stock, capital is not recycled which further exacerbates the shortage of adequate supply by contributing to less stock being developed and ultimately becoming available in the market.

Investor Misperceptions

Eight of the nine participants interviewed held a strong view that misperceptions about the residential real estate sector exist amongst investors which has had a negative impact in terms of overall

perceptions of the sector. As per the previous section, Limited track record and data availability, these misperceptions can partially be attributed to the limited track record of commercial scale residential rental portfolios and residential REITs compared with the more traditional commercial property sectors of office, retail and industrial. Highlighted below are the common areas where those interviewed found there to be misperceptions amongst investors. To provide further evidence of these cases, included are detailed accounts of the participants responses when asking if they believed there are misperceptions in the market. The below key sub-themes were identified.

Tenants' ability to pay and rental collections

One of the most cited misperceptions that investors have is to do with rental collections and the 'tenant's ability to pay'. Highlighted below are accounts of several of the manager's experiences in this regard and their view that challenges with respect to collections were not experienced to the degree that investors perceive to be the case.

> *I think it's to do with [the] tenants' ability to pay. There's no doubt that there's demand for value for money rental accommodation, that's been proven over the last 20 years and that people are well behaved, they do pay. There used to be, or maybe there still is this perception of, especially at the lower end of the market, being a difficult market because no-one can pay, their buildings get hijacked, all sorts of nonsense. But none of that's true. There's a big demand for rental housing, especially at the lower end of the market. That pyramid goes quite big towards the bottom of the market* - Participant E.

Participants D and H held strong similar sentiments to participant E above. Furthermore, Participants G and H elaborate further below.

> *I think there is some misconception about [collections] generally. We've certainly had a good track record of collections. If you do the [lease] application properly, it's seldom. If a person loses their job and they won't move, you've got a problem, but generally, if you've had someone with a good track record of employment, I think collection rate perception is not the biggest concern for this market … we've had people that have said, 'I can't afford this anymore, I'm going to move on. I'm going to stay with family…'. So I think our client is a lot more responsible than we've given them credit for initially* - Participant G.

> *So we looked at the entire database and we say, well, what is a 'squatting tenant' by definition? That's someone you've had to evict out of the property, but we don't know all the tenants that have actually started the legal process on. So we chose to*

take a definition that said - if a tenant sits in a property for a minimum of four months in arrears, doesn't pay their rent.. and they're in the property, they're being invoiced, and they don't pay. We define that as a squatting tenant. We then said… how many of those tenants… as a percentage of the total number of tenants, and that sits at around about 0.5 to 0.9 of a percent, give or take .5 or .9 of a percent. In lockdown, when we had restriction of movement, in terms of legislation we were not allowed to evict. That popped up to over two percent, so it doubled, more than doubled, over 2%. As soon as the restriction of movement was lifted, it started coming back down, and we are now back to where we were. What it tells me is that tenants by nature are not going out to, and this is where the misconception comes in, residential tenants by nature are not going out to say, I just want to squat for as long as I can, because the law protects me and I can get away with it. No, that's not what the majority of people are doing. Sure, half a percent of people turn out to be like that. But the majority of tenants, if they can't afford to, and this is why legislation is good, they just want to give their 20 business days' notice, they just want to cancel the lease. They just want to move on. And if we can do that and you can re-let the property because you've got enough time and we in a market where …it's not being driven by the fact that, not purely, by the fact that we've got an oversupply in certain segments of market, it's being driven by job loss. And as a result of that, people are choosing to move back with family or friends or whatever. It means that the majority of tenants are actually good quality tenants. So that's what COVID showed us. That was really interesting. It picked up and it dropped straight back down - Participant I.

Another misperception highlighted by participants from the perspective of the investor is that the anticipated churn of short-term leases and poor collection rates results in a 'wobbly income stream'. Participant H and A provide more detail on this below highlighting that

there's definitely a misperception around the collections, as I was saying, banks and other funders and even investment managers, they like certainty of income which to some degree you get with commercial because you've got a lease. In the residential space, your lease might be for a year tops. It really isn't worth anything because a tenant can give two months' notice and just walk away because of the Consumer Protection Act. They lose their deposit, but they can walk away with no consequences. That puts the fear of God into investors - if they think the income stream is unstable. But, of course, if you're in the right locations you can replace

that tenant unless there is no churn, and no doubt there is a churn and therefore you have vacancies. Even if you, in theory are full all the time, you still have churn, tenants come and go. So vacancy gets created in that process, but that said, you do replace them. And so, the misperception is that your income stream is wobbly, it's doubtful, there's no certainty around it, but frankly, it's probably in some respects more certain than commercial, because if they lose a commercial tenant, you've got a big hole in your cash flow immediately. Whereas you lose one or two residential tenants in a big portfolio,…you can replace them. If you're running one building and you lose a couple of tenants it hurts badly, so that's, to me, it's about the income stream - Participant H.

Like I said, that perceived risk of having individual leases that are short term, it's a perceived risk and not a solid risk. If anything, it's advantageous to have a setup like that - Participant A.

The above shows strong evidence from Participants that investor concerns around the tenant's ability to and willingness to pay are largely unfounded. The next major misperception that the Participants highlighted is the number of evictions and the difficulty in having tenants evicted from the property.

Evictions

Considerations when it comes to collections and the tenant's ability to pay go hand in hand with perceptions about eviction and concerns that South African legislation favours the tenant in the eviction process. Below, the participants highlight their experiences when it comes to evictions, and it is clear from the interview responses that the number of evictions and the difficulty in carrying out evictions is not a critical risk or challenge for them. Many participants state below that this is an area where there is a lot of investor misperception about the sector. Given the relevance of the discussion around evictions and the popular view held by external investors around the perceptions and beliefs that eviction risk is high in the residential market, a detailed account of each of the participants responses is provided where there are strong contradictory views and experiences.

I remember those first road shows and the guys, the first thing that they were worried about, were the evictions. How do you evict someone? ... How do you get people out? And that's always the biggest question, is this eviction story, which actually is not such a big deal. From the beginning, the big thing was, in this market that you're playing, that people don't pay, they break stuff, and they don't want to move out and then you have to evict them and it's costly but it's the opposite - most tenants don't want nonsense. It's a normal working person that works in your office

that just wants a decent place for his family to stay. He wants to pay, he can pay, and he pays. It's the exception where you have to deal with him a little bit more aggressively or more closely and convince him to pay or to move out? So that's [a] big misconception, is that the tenants are a difficult market, the majority of tenants don't want to pay and there are big eviction stories and it's the opposite, it's the exception - Participant E.

If the guy's got money, he's going to pay. In fact, let me tell you something big, his debt morality is better than some of the South African corporates. There are those at the fringe that are just going to say 'to hell with the lease, I'm not going to pay, I've got nowhere else to stay. So I'm going to stay put'. You do have that, but you know, of the 14,000 units, approximately 200 or 250 of those units did that and I think 250 over 14,000 is nothing - Participant D.

You know, in the 10 years I can probably list on two hands, the problematic evictions we have had to do, and we are talking with a portfolio that we've got now of 9,000 odd units. We've certainly had a few difficult ones, but again, when it's spread out over 6,000 to 10,000 units, it really doesn't make a difference … overall evictions are not a big issue in the housing space - Participant C.

Legal collections and legal evictions are anomalies for us. I would say we've got 6,000 units, we probably do 10, if as many, legal evictions a year. If we had to do legal evictions to get rid of tenants then we won't have a business … in the context of housing and in South Africa we see that the first thing a person pays is rent because he wants to, he wants the roof over his head where he can stay and can operate from, so I think, in the hierarchy of repayments, rent is right at the top - Participant F.

Our experience is our tenants pay and if we want to get rid of them, we get rid of them... The legal system works. Obviously during lockdown, you are not allowed to evict tenants but that hasn't really impacted the performance. We find that people's credit records have started to matter to them a lot and particularly where you are a renter, and we don't let anybody into our building if TPN tells us, not only that they have got a bad credit record, but that they are late payers. We don't let them in - Participant B.

Believe me, tenants don't necessarily want to stick around. You'll have one or two bad ones that can manipulate the system. But when guys can't pay you and you say to them, you know what, you better go. Don't worry about the rent that you owe me. I'll take it from your deposit or whatever the case may be. No, they'll go - Participant A

There is this perception that people don't pay their rent and it's hard to evict people and those are just perceptions, it's really not our experience. I think that perception of risk is still big and maybe something to do with our historic context, people think poor people won't pay their rent… If you provide them with a proper product and you manage it properly, they pay their rent, that's our experience - Participant B.

To elaborate on comments made by B above it is interesting to note that at the time of the interviews it was found that the lower rental bands are better payers than those in the higher brackets, evidence of this is found in the 2nd Quarter 2021 Residential Rental Monitor report (TPN Credit Bureau, 2021), however following the Covid Pandemic it appears that this is no longer the case.

The lower rental bands are much better payers than the higher rental bands. The worst payers in the residential rental market are in the R25 000 and above category, statistically … Those people pay the worst by far - Participant B.

Participant H elaborates on the points made by Participant D and B in that, to a degree, some tenants do not pay their rent, however when factored into a larger portfolio and if managed correctly these defaults make up a limited proportion of your overall revenue and the law will take its course in evicting such tenants.

So I think that that is the perception that it is a difficult market when people don't pay their rent and if they don't, it is extremely difficult, of course, to force people to pay and to get an eviction. We are a socialist based society, ultimately. We're not a raging capitalist society where landlord rights are superior to tenants' rights, it's the other way around, but that said, and this is where some of the perceptions are not right. The law is always on the landlord's side, if you don't pay, you're in the wrong and ultimately you will recover your building and get the tenant out. The problem in that, of course, it could take you six to nine months to do it. And if you're not running a big portfolio, and if you've got one building, and your tenants not paying, that's zero income. You literally fall over, and you get out of business. But if you've got a portfolio as in our case and some of our peers, when you're in the

billions, if you've got 5% of your tenants not paying you and you factored that in, you can survive. It's just part of business as usual if you have to deal with this - Participant H.

It is evident from the participants feedback that indeed the eviction process may be a drawn-out one which can negatively impact rental collections, however the law does run its course and protects both parties equally. When factoring evictions into a larger portfolio versus a portfolio of three or four properties and if the tenant selection process is done diligently and with strict creditworthiness criteria, this limits cases of evictions. When considering the small proportion of eviction cases over the full portfolio, participants note that it has a minimal impact if priced in correctly. An interesting note here is that during Covid there were temporary measures introduced to prevent evictions during the lockdown in which instance legislation favours the tenant and was prejudicial to landlords.

Repairs and Maintenance, Quality of Portfolio, Returns and management expertise.

Other misperceptions that were briefly noted from several participants included the cost to keep the building in a good state of repair.

the other misconception is the repairs and maintenance that's required. One of the things that we emphasize is that when people move out, and people stay on average in our portfolio for three years, so you churn about a third of your portfolio every year. Every time that someone moves out, you get a chance to refurbish the unit, make sure everything is okay. So you are gradually almost refurbishing your building... It's not like a big retail or office building that you completely empty out and refurbish and then put people back. This is a gradual process, ongoing process. So every now and again, you have to replace the lift, big things, but inside the units, there's this constant renewing - Participant E.

So in commercial property, now and then you have big Capex that needs to go into the asset. We don't. Of course, we'll need to paint the building now and then, but because the units are occupied for a period of time, we keep a deposit when a tenant leaves, if something is broken, we take from the deposit and we fix it, they just don't understand why we don't have a reserve for big Capex and they think the properties will get tired... Maybe there will be some landscaping work, but that's just about it, in the main, your unit is forever being refurbished because one tenant moves out and when the next one comes in you must have fixed it. So that seems to be one of the things that guys can't get a handle on - Participant A.

Participant C briefly adds that a lot of the low exposure today to the residential sector by these large portfolios has to do with

> *the misconceptions about the residential sector and the lack of actual large scale quality portfolios available, because I think our population dynamics are very different to the first world countries where the REITs are well-represented with residential.*

Furthermore, Participant C goes on to say that "I don't think there's the understanding that the returns delivered on residential are actually as favourable if not more favourable in respect of some of the other asset classes, in particular, I think office and the like".

Finally, the other misconception raised by Participant C is that "whilst the management has to be intense, that there aren't adequate managers in the space". Participants G and E supported this view and stated that there is the right expertise in the market to manage residential property today.

The above participant responses strongly validate the conclusions made by Anderson and Cloete, (2016) and Nurick et al., (2018) that indeed there are misperceptions with respect to the large scale residential rental market -

> *there appears to be conflicting views as to both the extent of [residential REIT] challenges and the associated risks. One possible reason for the conflicting views is the immaturity of the residential sector in the South African REIT market and the limited data available on such risk* - Anderson and Cloete, (2016)

> *the most pertinent factor relating to the relatively low uptake of residential stock was identified as the maturity of the REITs sector in South Africa... Furthermore, this has meant that there is a dearth of the requisite knowledge and understanding of residential real estate to facilitate greater uptake of this asset class* - Nurick et al., (2018).

Above inflationary municipal cost increases

Participants in the study cited that the above inflationary municipal service and utility cost increases were a major challenge. These costs include property taxes, utility charges (water and electricity), and service charges for waste removal and sewerage, and in certain cases, City Improvement District Levies (CID levies) (Participant F).

All nine participants cited this as one of the biggest challenges and risks that they are faced with. Participant F cements this in stating that "[above inflationary municipal costs and utility increases] is

the biggest risk in our business and any residential [manager] that doesn't tell you it is, . . . hasn't been in the game long enough".

Three participants provided specific examples of the magnitude of increases that are being seen. H notes that "every year you're getting a 10 to 15% increase in your utility costs" and that these increases were not factored in 10 years ago which presents very real risks in meeting returns.

> *We've been in this for 15 years and [municipal charges have] become exponentially more expensive over the last three, four years . . . So [cumulative] rental increases say for the last 10 years has been . . . something like a 100%, cumulative municipal increases [were] something like 370%* - Participant F.

> *The City of Johannesburg in July changed their sewer rates for sectional title apartments. Just the City of Johannesburg. . . . [I]f you have got an apartment in Jabulani in Soweto where the tenant is paying R4,200 a month, you used to pay R210 for sewer and water, which was still high as a percentage. That went up to R510 [representing a 142% increase]* - Participant B.

These examples provide clear evidence of the excessive increases. Participants below note the negative consequences of these above inflationary and excessive increases, particularly in an environment when rentals have remained flat/stagnant.

> *. . . these . . . increases are putting pressure on our ability to be able to put up rental increases. So you finding that the rentals [have] just . . . declined, or flattened, whereas municipal costs have just skyrocketed over the last eight years* - Participant C.

> *if you can't grow the bottom line then your valuations naturally become more under pressure and therefore your LTV becomes under pressure, you start getting into difficult discussions with lenders and their covenants* - Participant E.

Participant G plainly states the consequences of these increases on investors in that these excessive increases are "bound to dissuade any investor to come into the market" and it "is one of the biggest risks associated with attracting new players to it".

Participant H who is an investment manager with exposure to residential rental portfolios elaborates further on the consequences of these excessive increases.

> *You're getting these substantial utility increases and you're getting nothing for your money. The roads are dug up, there's trash in the streets, there's vagrants everywhere. So whilst you're trying to improve and make an impact and increase the quality of*

housing stock in South Africa. . . . [I]f the municipality is not going to support you and make the environment a pleasant one in which to live in, that makes investing very difficult - Participant H.

It is natural for one to make the point that many of these costs and the associated increases would apply to the more traditional real estate sectors such as office and retail. Participants stated three reasons as to why the impact on residential rental portfolios is higher.

Limitations on what you can recover from the tenant.

The big difference is [in] what we recover from tenants, in the non-residential sector everything is recovered from the tenant, all of the council charges . . . including rates. We can't recover rates and some of the other charges [from our residential tenants] - Participant E.

You can only recover what you can - electricity and water . . . , but rates and taxes [are] for the landlord, the sewer charges, maybe you can recover a hundred [Rand] or so, but if you are levying 600 [Rand] on a unit, . . . it's big - Participant A.

City of Johannesburg sewer rate by-laws

Every single apartment, it doesn't matter if it is a Michael Angelo apartment in Sandton that [is] renting for R50k a month, or an apartment where you are collecting R4,200 a month, your sewer cost is R510 - Participant B.

In Joburg for example sewer is the biggest problem. The surcharges, I think it's about R450 per unit, It's a lot. So, they're not interpreting the by-laws correctly, so that's the biggest challenge - Participant A.

It is noted that this was only a challenge experienced in the City of Johannesburg however given the high exposure and concertation of South African Residential REITs in the inner City of Johannesburg, this is viewed as a critical challenge for the overall sector in the context of South Africa.

Affordability ceiling

So your utility rates for residential property typically are a way higher percentage of your overall cost and it's not just utilities, it's your sewage. It's your refuse removal, and the more affordable the flat is, for example, a nano unit. You just simply you outprice yourself if you're going to lump on all of those additional costs - Participant I.

> *in our market, our tenants have an affordability ceiling, and if you've got non-inflationary [above inflationary] increases in waste removal, electricity, water, CID levies, et cetera, then that eventually puts pressure on the rental portion"* - Participant F.

The above findings highlight the importance of understanding the risks in the local context when it comes to investment in large scale residential rental portfolios and REITs. No existing research in the local context has identified or discussed this as a risk or challenge. The above provides more granular detail into some of the factors that may be contributing toward other identified risks from existing research in the local context, for example rental growth limitations (Anderson, 2015) and financial performance (Nurick et al., 2018). As participants mentioned in the analysis of the data above, it is difficult for managers of residential funds to pass these above inflationary costs onto the tenant and so it can impact on rental growth and the bottom-line profit for these funds. These above inflationary municipal increases also have a knock-on effect on these funds ability to escalate rentals which is discussed in more detail in the next section.

It is also made clear that despite these costs escalating at such a fast rate, these funds are getting very little in return in terms of government services. Importantly, these services, which include for example, keeping nearby public spaces clean and safe, are of high value when it comes to attracting tenants. It is discussed later in the overcoming challenges section that many of these funds have lobbied together to pool resources to step into the shoes of government and take on the role of managing and improving these public spaces.

Rental Growth Limitations

Participants G, E, C, I and A all hold the general view that the escalations for residential are linked to the economic cycle and determined by supply and demand factors. In this respect Participant I notes that this is no different to commercial property. To further explain the link, Participant B states that "what should happen over time is your increase should be around about CPI or a little bit more". Participant A further elaborates that "generally . . . you are able to increase your rents [and] it will depend on which side of the cycle you are on".

What was made clear by participants G, E and C was that the economy has been in a stagnant growth cycle which directly effects their ability to escalate rentals, as would be the case for commercial real estate too. Where the challenge for residential comes in is the disproportionately, above inflationary municipal cost increases as discussed in the previous section. The result of this, as highlighted by Participant I, is that you are unable "to grow your rental because you're too busy passing on the costs of your rates and taxes [to the tenant]". Participants E, C, A and F raise the same concern. For example,

C elaborates that “these above inflation increases are putting pressure on our ability to be able to put up rental increases. So you are finding that the rentals . . . have declined, or flattened, whereas municipal costs have just skyrocketed over the last eight years”.

One of the major differentiating factors with residential as highlighted by Participant G is that the residential industry does not do well with fixed increases, instead,

> *[the manager] would determine the dates that you have annual escalations and [he] would say that . . . it will be reviewed on the anniversary of your lease commencement. Then we would have assessed the market and say it would be 6%, it would be what or it would be lower.*

South African commercial property on the other hand, is generally subject to fixed annual escalations over the period of a lease. In the case of residential “as you get churn, you're marking your units to market” (Participant H). This has both a benefit and a disadvantage in that your escalations more immediately reflect the market conditions such that when the market is in a downward cycle, your rents will not grow, however when the market is improving you get the immediate positive impact of inflation (Participant H), whereas often commercial property leases are bound by the initial rent agreed over the term of the lease and the fixed rental escalations. Participant F highlights this by saying that,

> *because you've got shorter term leases, as soon as interest rates go up, it lags a little bit, then rentals go up, as soon as interest rates go down, it lags a little bit, then rentals go down, but [they have] got an organic fix because [they] can re-price [their] rentals all the time. Every single month [they] can re-price rentals.*

The high churn associated with residential therefore can be seen as positive when the economic cycle is on an upward trend but can be a negative when the economic cycle is on a downward trend. Participants B and A both highlight that in the good cycles you can achieve good rental escalations – “in a good market, [such as] 2 years ago we were getting 5 to 10% [escalations]. We still have some buildings where we are getting 5 to 10%” Participant B. Participant A states that “in the good years . . . we used to increase rates like 5, 6%, 8%, on some projects”.

Participants B and A both downplayed the negative side of the economic cycle and the impact on residential rental escalations, implying that residential rental property is more defensive in nature as an asset. "You can’t maybe grow your rent as much as you want to [during bad economic times], but going backwards is not a risk. When I say going backwards, I mean reducing your rent to an extent that you're almost charging two years rent ago today” (Participant A).

Participant A further states that “it does have an impact on how much you can grow your rents when the economy is down . . . but you can still grow them”. Participant B elaborates that “in the current environment [with COVID] we would be really shocked if we had to go negative by more than 5% on any property”. In fact, Participant B highlights that they are still achieving escalations of between 5 and 10% on certain properties in the current economic environment.

B compares the performance of these rental escalations to other real estate sectors whereby “in the current environment you are seeing negative reversions in the office space of 30, 40, 50%” and so on a relative basis, rental escalations for residential property are not seen as a risk.

That being said, Participants A and D highlight the risk that when there is downward pressure in the market the different providers of residential rental property start to compete on a rental basis which can further drive the rentals downwards. As will be discussed later, listed residential rental portfolios largely occupy the inner city of Johannesburg and Pretoria which presents concentration risk. Because of this, funds compete to attract the limited pool of creditworthy and qualifying tenants by lowering rentals, increasing tenant incentives (no deposit, first month rent free etc.) and increasing the amenities on offer which come at a cost and erode the funds bottom line. Participant D highlights that it is dangerous when these funds start competing on a rental basis because where does one then draw the bottom line. Participant A also states for example that in a pandemic such as COVID you have to be careful with your escalations because you would rather keep your tenants than lose them.

Participant A was the only participant to mention the Rental Housing Act and that “in Cape Town, some of the projects [they have], because [of the] Rental Act, [they] can’t increase [their] rents by more than 10%”. It must be noted however that the Rental Housing Act of 1999 only specifies that the escalation must be “reasonable” and evidently this is not considered a risk by most of the participants. To support this, Participant F while discussing the risks associated with residential rental housing, particularly relating to legislation, felt that rent control was not a risk in the context of South Africa.

Rental escalation limitations are a key talking point when it comes to residential real estate, the core reason being that residential leases are at most one year long and in some cases month to month. This differs somewhat from the more traditional real estate sectors where leases range between three to five years with fixed annual escalations. The benefit of this being that investors have certainty of cashflow and growth in that cashflow over the next few years.

Participants broadly are of the view that rental growth follows the economic cycles and that due to the shorter-term leases reflects the market cycles more instantly than the other more traditional sectors. There are advantages and disadvantages to this which are discussed.

The two core risks identified by participants that have the biggest contribution to growing/escalating rentals, which are highlighted in separate sections under the risks, are concentration risk and the above inflationary municipal cost increases. The Participants note that these two factors contribute strongly to one's ability to grow rentals and go hand in hand with one another. Firstly, concentration risk drives competition in the market and for these funds to attract the right tenants from a limited pool of qualifying tenants, they need to price competitively and in addition to that, they need to maximise their offering to tenants which costs are often born by the funds, for example offering free Wi-Fi.

Secondly, the above inflationary municipal increases mean that even if you can escalate the rentals at a good rate, most of the escalation in the rental is needing to be passed on to cover the above inflationary increases in municipal costs.

In international research regarding the risks of investment in residential real estate, the only research to highlight a concern in the ability to increase rentals was research done by Montezuma (2006) whereby a survey was done on institutional investors' attitudes and perceptions of residential property in the Netherlands, Switzerland and Sweden, which highlighted rent control by the government as a risk. That being said, a common issue raised in existing literature, both in the South African context and international context, is that residential has low rates of return, poor financial performance, and a low risk-return profile, these could all be as a partial consequence of the inability to grow one's rentals.

In the South African context, Anderson (2015) highlights that rental growth limitations are a challenge associated with South African residential rental portfolios. Reviewing the participant's responses from Anderson's study reveals that the challenges are a result of three key factors - firstly, residential rentals are very inelastic i.e. if one were to increase the rental by too much, tenants will simply move to alternative accommodation. This is exacerbated by the high level of concentration of rental accommodation in the inner city of Johannesburg. Secondly, there tends to be an affordability cap with affordable housing and as such you put too much pressure on tenants when increasing the rental by a large percentage. Finally, due to the short-term nature of the leases, there is the inability to apply a fixed rental escalation over the term of a lease, as is mostly the case with commercial real estate. Due to this and as described by Participant H, your escalations are market driven and are constantly marked to market.

As discussed, there is a positive and negative aspect to this in that when the economic cycle is on an upward trend, rentals will grow faster than commercial real estate but if the economic cycle is on a downward trend, it is difficult to grow rentals as much as with other commercial real estate. That

being said, in negative cycles commercial real estate such as offices and retail do see large negative rental reversions, sometimes up to 30-50% which is not the case for residential. What bodes well for residential is the almost immediate realisation of rental growth along with the economic cycle. Anderson (2015) did not attribute rental growth limitations to the above inflationary increases in municipal costs and the impact that has on being able to increase rentals as a result of passing on these increased costs to the tenant, and leaving little room for rental increases.

Nurick et al. (2018) broadly highlighted that the nature of residential real estate and more particularly the nature of leasing and renewals was a partial cause for the low uptake of residential by REITs. Participants in the study noted that "a major risk was the ability to get a secure tenant at a good escalation" which finding concurred with research by Anderson and Cloete (2016), that concluded that the inability to continuously escalate residential rentals was a cause for the limited investment in the sector.

Concentration risk

Participant C held a strong view that concentration risk is a tremendous risk facing the South African residential sector.

> *I think in an analyst role assessing the performance of the residential [sector], the risks associated with it, there is somewhat of a concentration risk at the moment in that ourselves and [another REIT], the bulk of our portfolios are based in the inner city of Joburg and Pretoria... [one of the other REITs] is a little bit of a mix, although it has got a lot of stuff in Berea and inner city whereas [one of the other REITs] sits outside of that*- Participant C.

Participant C highlights the risk that arises from this in the context of the recent Covid pandemic, in that "we have seen that COVID has impacted the inner-city tenants more than they have the suburban tenants, which one would expect". Participant A holds the view that the reason for the inner city being impacted more by COVID was just the concentration of tenants who are employed in the hospitality sector which all shut down for an extended period during Covid.

Participant C highlights two core reasons for this over concentration in the inner cities. Firstly, historically this is the only place where suitable stock was available for the residential funds. Secondly,

> *what we've seen gradually over the last 3 years in particular is just a massive amount of new stock that has come on board [in the inner city], and I think part of that is born out of the fact that [a REIT] bought [a large residential rental portfolio in the CBD], [which] brought a new exposure to the inner city. It was now in the headlines and*

people saw it as an attractive destination. I think many developers believe the default position is that the fund is just going to buy out their properties. We have seen a tremendous amount of competition and that's been seen now in results, particularly over the last year – Participant C.

Thirdly, Participant A, adds another core culprit in that,

most investors would want to go to the hotspots – by that, I mean that they would go where there is a perceived demand, and we might end up over supplying certain areas because it's comfortable to [go there], you can go to Midrand and build a hundred units tomorrow and you rent them out. I just see that, as much as there's urbanization, there's certain nodes that might just be over supplied.

Despite the existing and acknowledged concentration risk in the inner cities of Pretoria and Johannesburg, competition in these areas continues to grow as more and more supply comes online. Participant A qualifies this in saying that he has had "conversations with the guys from [one residential property fund] and [one REIT with large residential exposure], and already they're starting to talk about quite a lot of competition in the inner CBD in terms of supply coming online". Participant C also highlights that the concentration of residential rental accommodation is not only from the REIT funds but there are also private funds scaling up at speed. The most popular mentioned private player being [anonymous] with the development of their precinct focus and broader lifestyle focus - more particularly their [anonymous] development. Participant C refers to the recent development of 1,800 units by [anonymous] which is largely still required to be tenanted and reports on their intention to invest an additional c. two-billion Rand in Randburg and the inner city of Johannesburg.

This concentration of supply from the existing funds in the inner cities is further exacerbated by two critical broader developments. Firstly,

back in the day, tenants weren't as sophisticated as they are now. So people understand what's in the market. People do a lot of comparisons of your product and of someone else's and they move for a couple of [Rands] or for bad service. So you need to be on top of your game to ensure that you attract tenants and you retain tenants - Participant F.

The above is particularly the case given tenants sensitivity to affordability.

Secondly, Landlords criteria for tenant selection is becoming far more stringent which is highlighted by Participant G, E and I. "Finding the right clients with the correct profile and affordability has been a challenge" - Participant G. "The pool of qualifying tenants is becoming less" - Participant E, and

“more and more landlords are more careful about their tenant selection [because] tenant selection is key/critical to your profitability - Participant I.

Taking the above into consideration, there is increasing concentration in the market, which is putting more and more pressure on these residential funds to compete with each other (which, as highlighted before, is exacerbated by todays tenant being more sophisticated in their selection of rental accommodation). This is further exacerbated by the limited pool of qualifying tenants from which the funds can compete for in the inner city of Johannesburg and Pretoria.

Participant C, emphasized the risks and challenges associated with the high concentration of these portfolios and describes the risk in stating that –

> *Everybody is fighting in this over competing space, there's a declining pool of quality tenants that you can take on and everybody's promoting. Right now, it's a tenant market because we are trying our best to get tenants to come to us as opposed to somebody else, or to take the tenant from the building next door. Everybody's just over promoting and it's just a win lose at the moment; the tenants are winning and unfortunately landlords are losing. … If I look back over the years, we used to be able to request … two months deposit, plus your rental, plus your admin fees. Today you're giving away a free month’s rent and not even charging a deposit, the dynamics have just changed completely. So unfortunately, that is being felt by the landlord because your 12-month lease is now effectively becoming a ten- or eleven-month lease through the rental that you're getting.*

Concentration risk is not something that was found in the reviewed literature and interestingly can be considered an idiosyncratic risk associated with residential REITs and large-scale rental portfolios in South Africa. That being said, certain funds such as Transcend Residential have focused on developing and acquiring residential rental portfolios outside of the inner city and more in the suburban areas which would have played to their benefit in the current COVID environment and to an extent may explain the resilient performance of Transcend Residential compared to the other funds with a heavy weight in residential in the inner cities, as identified in the literature review.

An important consequence of the high concentration risk in the inner cities is that it also diminishes the benefits of diversification associated with residential rental portfolios - as mentioned by Participants C and A, the inner-city residential portfolios were effected a lot more from Covid than those invested outside of the city due to the high concentration of tenants who are employed in the hospitality sector which was severely impacted during the pandemic.

High Management Intensity

All 9 participants interviewed made it clear that the management of residential rental portfolios is extremely intensive which is simply to do with the very nature of the asset, and this is where a large degree of the risk lies. Participants F, B and A expressly state that "from an operational perspective, one of the biggest risks is not having the right manager on your property" - Participant F. Participant B highlights that in the residential sector, where the correct management has not been in place, that is where you see it fail. To elaborate on this, several participants provide more detailed accounts of the challenges associated with managing residential property and help give context to what the management of this asset entails and why it is such a key component of the sector.

> *It's quite onerous to just try and establish a big management team looking purely after residential. There are guys that are doing it right now and I think quite successfully, but there's no disputing that it's just a lot more work to collect. Your systems need to be robust, and your people need to have regular correspondence with their tenants* - Participant G.
>
> *We've got 10,000 tenants, 10,000 leases, 10,000 customers, 300 new leases per month. That's very management intensive, but that's just the sector* - Participant E
>
> *You are forever doing something in the portfolio, either it's renewing leases because of the churn of tenants coming and going, it's paying for repairs and maintenance. You're dealing with utilities. You're dealing with trying to always look for ways of minimizing your consumption of water and electricity and how you recover it. It's just very active. It's just a lot of things going on in the portfolio, at all times and that's a real challenge. You're going to need to be prepared for and geared up for it* - Participant H.
>
> *So in our business, we've got thousands of tenants and we need to make sure that we can react and act. Preventative maintenance is one thing, but the other thing is reactive maintenance. There has to be acceptable standards, otherwise you'll have a riot from your tenants. Another thing is you have to run your business by a set of rules, almost like a machine and put people in there to deal with anomalies. One can't have different rules for different tenants . . . if you've got a big portfolio like ourselves. Good access control is paramount. . . . You need to understand who's in your building and avoid overcrowding. . . . We sort of pride ourselves on the basic stuff - that it's clean*

> *[and] safe - that is non-negotiable. [If there is a] broken window, then [we] fix it* - Participant F.

Participant B further highlights that the management is critical on multiple layers - "you [have] got to get your [tenant and property] mix right, you [have] got to get your scale right to manage your operational costs". It is clear in this case that management is not only critical from an operational perspective but also from an asset management and broader strategic portfolio perspective in terms of purchasing the right sized assets in well located areas where one can suitably benefit from economies of scale and the right diversification of tenant and property mix. Participant A elaborates on this stating the importance of "bringing in the right tenants, making sure you have good people in your credit control department, [having] the right . . . information systems for communicating with your tenants, [that is] key".

One of the biggest contributing factors to the intensity of the management has to do with the number of tenants that a manager has to keep track of in terms of invoicing, renewals, escalations, repairs etc. As mentioned by Participant E, they are managing over 10,000 leases. Many of the interviewed managers have implemented month to month leases which has resulted in a high degree of churn in these portfolios. For example, Participant E mentions that, in a normal month, they are signing up between 250 and 300 new leases. Participant F states that there is constant churn in their portfolio of between 30% and 50%. Participant I elaborates on the impact of this stating that

> *the high churn . . . means that you've got to do marketing on the property. You've got to do repairs and maintenance on the property. There's additional administration, signing of contracts, electricity meters, water meters, you've got all of those added complications that you've got to manage on a monthly basis, whereas maybe on a commercial property, it's a bigger building, bigger rental, you've got pro-rata shared costs [which are] not necessarily metered individually* - Participant I.

As Participant I eludes to above, compared to the more traditional commercial investment property sectors such as office and retail, residential demands much more hands on management. When considering the management intensity of residential as a challenge, most participants compare it with the more traditional commercial real estate sectors. Participant E notes that "the retail[/office managers], [have] got six or seven big tenants and it's worth the same amount of money that we have, so you've got a Discovery and two others and that's it. We've got 10,000 tenants, 10,000 leases, 10,000 customers, 300 new leases per month". Because of this, Participant G comments that "the property

sectors found it easier to invest in some blue chip or A grade [tenant], type of [property] and make their solid returns from that rather than mess around with thousands of individual leases".

Participant H also highlights a key differentiating factor in that –

> *There's a lot more motive when you're dealing with a property manager at a retail house - they're operating in a professional manner, they understand the law [and] they work . . . peer to peer. When you deal with somebody whose residential property is their home, there's a lot more emotion . . . you don't necessarily have rational conversations with people as you might in the commercial world . . . So it's a lot more emotive and a lot more emotionally charged than the commercial space.*

Participant F also elaborates that

> *residential property management and asset management is probably the most difficult thing there is and there's a couple of reasons why - it's 24/7, 365 days a year. It's a person's home that you're renting out and you can imagine at your house, if you're renting and something goes wrong, you want it fixed immediately, because that's your primary place of residence.*

Participants seemed to have mixed views regarding the expertise of residential managers in South Africa and were of the view that their internal management teams had the expertise to manage the sector well. Participant E, B and C were of the view that "there's enough expertise that's been developed over decades [on] how to deal with this asset class. It's different to other asset classes, but people know now how to [manage it]" - Participant E.

Participant B highlights the important role that technology is playing in adding to the effective management of residential portfolios – "it is becoming more and more automated. We have now got a robot that works for . . . management that loads leases, that pays municipal accounts, you know it's getting more . . . automated which is making it easier and easier. But it requires a lot of bodies and we don't see it as a risk anymore for us".

Interestingly participants H and A both noted that the higher management intensity required for residential does not come at an additional cost to the investor, however it is difficult to make a conclusion on this from the limited discussion on the costs of management.

It was clear however from the majority of the participants responses that the use of external managers, that are readily available and competent to manage the other more traditional real estate

sectors, were not able to successfully manage residential rental portfolios to the same degree and scale that they could the other commercial sectors.

To elaborate on the above, it became clear from 8 of the 9 participants that internal, instead of external outsourced, management is critical to the success of residential real estate and that given the management intensity of the asset, there needs to be a strong alignment of interests between the manager and owner of the portfolio. Participant F elaborates on this stating that

[residential] is hands on and you need to sit on top of your till . . ., and that's why we won't give it to someone else because a third-party manager is only interested in their fees. We're interested in the longevity of the income stream out of the property, and we don't always see that interest alignment if it's not one in the same person.

Participants B, A and C stated the same view.

Participant B states that

> *we started off outsourcing our management and you will know, there is no national residential property management company like Broll or JHI that manage large residential portfolios, so you have to sort of have little entities, and the change in the performance of our portfolio when we decided, listen there is actually only one way to do it, and that is manage it yourself. It was remarkable and we have seen that now even in the difficult times, we still collecting in the mid 90's now during Covid. . . . the very hard credit control did create some increased vacancies over the last few months, but they are rectifying now, so we will see our occupancy moving back up to 95%. That's not the industry norm…. We have 240 people in our property management business, which is obviously the main reason you don't want to do the property management, but . . . you [have] got to take the leap, otherwise it's very difficult to manage. So I think management is the key. It's very immediate, very hands on. If you let a building go, it will go very quickly so it needs to be very direct. I think that's easily the biggest risk.*

It is clear, given the nature of residential real estate, that it requires intensive management. The participant's views align largely with what has been identified in existing literature both internationally and locally. Crook, Hughes and Kemp, (1998); Kemp and Crook, (1999); Mansfield, (1999); Crook and Kemp, (2002); Investment Property Forum, (2014); Anderson, (2015); Frew, (2016); and Nurick et al., (2018) all identified the management intensity of residential real estate as being highly intensive, the research also associated high management costs due to the intensity of the management as a risk,

however this was not discussed in depth and as such it is hard to make a conclusion on the costs of management and if these erode the returns.

Crook and Kemp, (2002); Berry et al., (2004); Milligan et al., (2013a); Newell et al. (2015a); and Frew, (2016), highlighted that one of the challenges with the management of residential real estate was the lack of skilled managers and managers with the correct expertise. The majority of the participants, as noted above, did not raise this as a concern, however, did note that there is a lack of third-party residential managers with the requisite skills to manage a residential portfolio successfully. Instead, it was made clear that in house/internal management teams are critical and key to the success of residential real estate portfolios which is largely attributed to having the right alignment of interests and being more hands on in the full process. All participants, except for one participant, which highlighted some shortcomings in their strategy to externalise management, felt that their own in-house management teams had the necessary skills and were able to successfully manage large portfolios of residential.

All participants interviewed discussed in detail how management intensive residential portfolios are, but when it came to determining the extent to which this was considered a risk or challenge participants views varied. The majority of the Participants held the view that their own internal management teams had the requisite expertise to successfully manage such an asset and that the skills and expertise to manage these portfolios has improved significantly over the years.

Participants also highlighted that there are no external management companies that have the same skills and expertise in the sector as there are for the other more traditional sectors and made it clear that there was a lack of alignment in interests when using external managers. It was emphasized that given the management intensity of the asset class, the asset manager and property manager need to be totally aligned for the fund to be successful.

In summation, it can be said that there is a high management intensity when it comes to residential property which is due to the nature of the asset and the number of leases and churn that is generated in these funds, and that the biggest risk with residential lies in the management of the asset. That being said, managers have adopted systems that are making the management of residential easier and more efficient. An important argument raised is the consideration, or rather debate, of whether internal or external management is better. The resounding response in this regard by all participants, apart from one, is that internal management is critical for the success of residential real estate and that if there is not an adequate alignment of interests between manager and investor, it can be detrimental to the success of the residential portfolio.

Access to Equity

Participants G, E, B and A raised access to equity as being a challenge albeit keeping two things in mind. Firstly, the overall listed property space in South Africa has struggled over the past few years so the broader listed property space has had difficulties with raising equity.

> *The one challenge is access to capital and going forward in this environment- now it's almost impossible. There's no money for property or there's very little money for property in the listed environment, and you might have issues with the banks also to get new loans out to invest in any listed property and residential is not different to the other property sectors* - Participant E.

Further to the above, Participant B states that

> *you go from asset manager to asset manager, [and] they are not allocating big numbers to residential at this stage. They weren't allocating nothing to residential but that was by accident to their exposure in [the SA-REITs that have a mix of retail and residential], but it wasn't a conscious decision to go into residential.*

The above being said, Participant G notes that while these funding lines may be more challenging for the smaller players in the residential space, they are becoming more and more available to the larger players.

Participant B agrees in stating that

> *Once you actually secure a [large scale] portfolio, [the challenge] is the equity side of the equation, particularly in the listed space. So for us now to go out and grow, we need to go out and find portfolios, and we need to find asset managers, the big guys, the Stanlibs, the Coronations, those ones, that need to say 'okay we will take a chunk, here's R500million, here's a billion to grow your portfolio and become liquid', and slowly but surely that is starting to happen.*

The above highlights that residential real estate falls within the broader sector of real estate which has struggled over the last few years in South Africa. This has meant raising capital for any of the real estate funds has been a challenge. A key consideration for investors is ensuring the funds they invest in have sufficient liquidity and for residential funds to achieve adequate liquidity for large scale investors, they need to scale up significantly. At the same time, as raised by Participant A, these residential real estate portfolios require patient capital in order to do so. A concludes by saying

> *hopefully we can convince more and more of these pension fund investors to invest because you need that kind of patient money to assist. Private developers are there*

to make a margin and move on. But you need someone that can have a 10/20 year view and invest in these kind of things.

The lack of patient capital was also highlighted as a challenge for growing residential rental portfolios in the report by the Centre for Affordable Housing Finance (2017) which looked at the case for residential rental portfolios in Africa. In said research this challenge was identified as a critical enabling factor for residential REITs to succeed and was viewed as a challenge resulting from a larger challenge, being the relatively immature investment markets in Africa. That being said it could be said that South Africa has a relatively more mature investment market which should limit such challenges.

Competition from Government social housing

Participant C was the only Participant to raise concerns around the competition coming from social housing. It is an important aspect to raise given recent changes to Government Policy relating to the thresholds of income earners to which social housing is granted. As discussed in the literature review, South African residential REITs are mostly exposed to a rental range of between R1,000 and R11,800 per month and as Participant C explains below this, starts to eat into these funds target market.

[As] one of the risks I spoke about the general competition in the city. But there's other competing aspects that I've forgotten to touch on - so one would be social housing. Social housing has also become a competitor to traditional affordable rental housing because they've moved the brackets in terms of which income thresholds they can service. Several years ago, they had the two bands, which I think capped out at R7,500, they have subsequently now doubled that to R15,000… there's the five income thresholds that you've got to meet for social housing. It used to be 0 to R3500 and then it became R3,500 to R7,500 and now they've changed it to R15,000 as the top bracket and it's broken into five categories. 10% has to be linked to people earning below R3500. The next 20% of people earning between that and R5,500 and so it ratchets up to the R15,000. So at least 50% of the social housing product can compete with traditional rental which it didn't previously do or did so on a very limited scale. They have a big part to play in terms of the housing demand and shortfall in the country and so that'll be an interesting space to watch over the next few years, but we do know that they have big budgets, having a big budget is all good and well but you've got to actually do the work to spend the money. That can become a bit of a risk to the traditional rental market or at least a portion of it - Participant C.

While this was not a common discussion point with the Participants it is important to note as the changes in government policy with respect to social housing are relatively new and so the impact of this may not yet have fully filtered through to these funds and as such not been discussed or raised by the other participants.

Matrix comparison

The below discussion is to be read alongside Table 12,Table 13 and Table 14 below.

To compare the risks and challenges with those identified in the literature on a more simplistic level, participants were asked to rank on a Likert scale, from 1 to 5, whether they agreed or disagreed that the highlighted point is a challenge or risk that is experienced in the residential market (specifically from their perspective). The result of which allows one, at a high level, to compare how the participants views are the same or differ from those in existing literature. A rating of five from a participant would mean that they strongly agree that the item is a risk or challenge in the residential market and a one meaning it is not seen as a risk or challenge in the market. It is important here to reiterate that these are from the perspectives of the participants i.e. in most cases being managers of large scale residential rental portfolios and residential REITs in South Africa.

The first table provided below includes all participants' responses and is ordered from the top, being the highest-ranking challenges and risks experienced in the market, to the bottom, being the lowest ranked challenges and risks experienced in the residential market.

Based on Table 12 below, participant's top four ranked risks and challenges were 1) Government Utilities increasing faster than inflation, 2) High management intensity, 3) Rental growth limitations, 4) Investor misperceptions/lack of understanding of the asset class.

When comparing this with the findings identified in the literature review it is interesting to note the disparities. It is worth emphasising again at this point that existing literature is largely based on the views of investors that are not directly involved or invested in residential real estate, whereas the findings uncovered by this research focus on those that are directly invested in and involved with commercial residential real estate portfolios in South Africa.

On aggregate (excluding South Africa), of the risks and challenges identified in the literature, and in order from most to least cited, the key identified factors included; low yields, high management intensity, poor market information, poor liquidity, political risk/legislation, and small lot size. In terms of South African literature, the key challenges and risks identified include, in no particular order; legislation that favours the tenant (difficult eviction processes), high management intensity, investor perceptions, rental growth limitations, funds being illiquid, lack of management skills and expertise, high management costs, lack of market information. More recently and broadly identified risks and

challenges identified in South African literature by Nurick et al. (2018) include the maturity of the REIT sector, financial performance, and the nature of residential real estate (property management issues, leasing, renewals and eviction, affordable housing and rentals in South Africa) as the reason for the low uptake of residential by SA-REITs.

It is important to note that perhaps the most critical challenge faced which had not been identified in existing literature is government utilities increasing above inflation (water, electricity, sewerage and refuse).

Interestingly, rental growth limitations ranked high up on the list of risks and challenges from the participants interviewed. Based on the in-depth responses from the participants this item appears to be a consequence of several other considerations. Mainly, the above inflation increases in government utility costs makes it difficult for residential managers to increase bottom line rentals as any increase is passed on to settling the higher municipal costs. Secondly, due to the high levels of concentrated stock in the inner City of Johannesburg, competition for tenants can also drive rentals lower as tenants are becoming more and more sophisticated in their search for rental accommodation and are highly price sensitive. In addition to this, landlords are becoming far more selective about the tenants they choose to accept leases with. These views may be further evidenced by the fact that all participants with a high exposure to the inner city rated this challenge/risk as high, compared with those with less exposure to the inner cities.

Another interesting point to note is that poor market information ranked high in the survey albeit this was not commonly mentioned during the initial open-ended phase of the interview when asking about the risks and challenges experienced. That being said, Participant D remarked that due to the size of their own portfolio they were able to understand the market very well based on their own data but acknowledged that someone who does not have access to this information, and the extent of this information, will battle to find valuable market information on the sector. Both large scale residential rental managers and REITs ranked poor market information as high however, based on the comments made by Participant D, one would anticipate that the larger pure residential REITs would view this as less of a risk than diversified REITs with smaller residential allocations or smaller private residential rental funds that don't have the scale of a REIT. With that in mind it is interesting to note that while the ranking (4^{th}) of poor market information was the same for both REIT and non-REIT participants, the average for non-residential REITs was higher at 3.8 versus 3.4 out of 5 for the residential REIT participants.

When asking participants how they are trying to improve investors understanding of the sector Participant D argues that he would start with improving the data in the market and making it more

accessible to investors. It was also mentioned by Participants C and B that such data is becoming more and more readily available, particularly with the likes of TPN Credit Bureau and the MSCI residential index, who are now starting to publish data on the sector.

When comparing the findings between the non-REIT participants and the REIT participants, it is interesting to note where 'high management intensity' ranked. When looking at the non-REIT participants it ranked as the second most critical challenge with a score of 4.4. When looking at the rankings from residential REIT participants only, high management intensity ranked sixth with an average score of 3.3. All participants noted that indeed the sector is highly management intensive, largely due to the number of tenants and the short term leases which result in a high level of churn, however several participants including E, D, B noted that there has been improvements over time with the quality and ability to manage these portfolios and as such, the high management intensity of the sector is seen as being less and less of a challenge over time. In addition to this, Participant B highlights that managers are starting to implement automated and more robust management systems that are capable of handling the large number of leases in these portfolios which is making it easier and easier to manage. A possible consideration for residential REIT participants rating management intensity lower down is the economies of scale that is achieved by these REITs due to the required scale of these portfolios to list and the rigid management structures that have been implemented which benefit from better economies of scale.

It is interesting to note that in general, across all the risks, non-REIT participants ranked each of the challenges slightly higher than the REIT participants which potentially implies that the smaller private funds are at a disadvantage due to their scale and resources when it comes to benefitting from the economies of scale than REITs do.

Participants ranked the risk adjusted returns not being high enough, small lot size, and legislation favouring the tenant, very low which reinforces the view that investors have misperceptions about the sector, particularly when it comes to the performance of residential portfolios and the challenges relating to rental collections and evictions which was discussed above. This is further evidenced by participants rating investor misperceptions/lack of understanding of the sector as the fourth highest challenge that they face.

One theory as to why investor misperceptions are considered such a challenge is because of the poor market information that is available, the limited number of participants in the market (particularly in the listed space) and the short track record of the sector. The above being said, and as one would expect, Participant E noted that he would have rated investor misperceptions a four out of five, five

years ago but now rates it a two out of five as the track record has extended and more and more data and market information is becoming available. Participant D was of a similar view.

When it comes to risk adjusted returns, participants G, E, F all commented that residential can compete with the commercial sectors while participants B and A highlight that residential is seen as a low-risk defensive asset class and so it does not necessarily need to compete with the other commercial property sectors on a pure return basis. To support this view, when discussing rental growth limitations, Participant B highlighted the resilience of the residential sector and goes on to state that "in the current environment you are seeing negative reversions in the office space of 30 - 50 %. We are not seeing that. We are still seeing growth even though it is slight. You are not seeing that in retail. You are not seeing that in office".

Another key theme identified in the literature is the lack of available and adequate stock in the market. This did not rank very high on aggregate in the participants responses albeit participant's views were polarised with approximately fifty five percent of the participants rating this a two or below out of five and forty five percent of participants rating this a four out of five. One theory that might explain this view is that stock is available in the market however there is a mismatch with respect to the pricing expectations between developers and residential rental funds. This is driven by multiple factors including, but not limited to, the owner occupier market and residential developers' preference to hold onto stock which has been discussed above (lack of adequate stock/pricing misalignment). Participants G, E and H shared this view. Participants F and B noted that availability of stock is improving but is still an issue and needs to be addressed. Participant I notes that the availability of stock varies significantly between subsectors within the residential sector and that certain locations are oversupplied with stock and perhaps cater to the wrong income bracket. An example of this oversupply of stock includes the inner city of Johannesburg as well as other areas such as Randburg.

Another interesting finding is that the residential REIT participants ranked poor liquidity as a big challenge. Participant F who operates a private residential fund in the inner city stated that "there is poor liquidity currently because there's not a lot of REITs out there and there's not a lot of investors that want to buy residential. So, yes, liquidity is a challenge, but we are still managing to trade portfolios and move them around between private players or to re-gear them, et cetera. But it is a challenge".

One participant highlighted that one company holds 60% of the REIT and other long-term investors hold most of the other shares. So in this case "there is very little trade and [relatively small trades] can create movements, up or down in the share price. It's not ideal for investors - low liquidity. So for us

it is a concern. But that's specific to us, it's not a sector problem". The same participant goes on to say that "we need a residential Growthpoint" to help create more liquidity in the listed residential sector.

Taking the above into consideration it is valuable to see the different perspective provided by those actively involved and managing large scale residential rental portfolios and residential REITs. Which hold differing views from the participants interviewed in the previous studies discussed in the literature review.

Table 12: Participants ranking of challenges facing large scale residential rental portfolios and residential REITs (all 9 participants)

	All participatns (n=9)		% participants that rated this a 5.	% participants that rated this atleast a 4/5 and above.
1	Government Utilities Increasing above inflation (water, sewerage, refuse removal)	5,0	100%	100%
2	High management intensity	3,8	22%	78%
3	Rental growth limitations	3,7	33%	67%
4	Investor misperceptions/lack of understanding	3,7	11%	67%
5	Poor market information	3,6	11%	56%
6	Poor liquidity	3,3	22%	44%
7	Legislation favouring the tenant (CPA, PIE Act)	2,8	0%	44%
8	Political risks	2,7	11%	11%
9	Lack of available stock in the market	2,6	0%	44%
10	Risk adjusted returns not high enough	2,3	0%	0%
11	Small lot size (dispersion of property)	1,4	0%	11%

Table 13: Participants ranking of challenges facing large scale residential rental portfolios and residential REITs (residential REIT participants only)

	Residential REIT participants only (n=5)	
1	Government Utilities Increasing above inflation (water, sewerage, refuse removal)	5
2	Poor liquidity	3.6
3	Rental growth limitations	3.6
4	Poor market information	3.4
5	Investor misperceptions/lack of understanding	3.4
6	High management intensity	3.3
7	Political risks	3
8	Lack of available stock in the market	2.8
9	Risk adjusted returns not high enough	2.3
10	Legislation favouring the tenant (CPA, PIE Act)	2.3
11	Small lot size (dispersion of property)	1

Table 14: Participants ranking of challenges facing large scale residential rental portfolios and residential REITs (non-residential REIT participants only)

	Non-REITs only (n = 4)	
1	Government Utilities Increasing above inflation (water, sewerage, refuse removal)	5,0
2	High management intensity	4,4
3	Investor misperceptions/lack of understanding	4,0
4	Poor market information	3,8
5	Rental growth limitations	3,8
6	Legislation favouring the tenant (CPA, PIE Act)	3,5
7	Poor liquidity	3,0
8	Risk adjusted returns not high enough	2,3
9	Political risks	2,3
10	Lack of available stock in the market	2,3
11	Small lot size (dispersion of property)	2,0

4.3.3. Overcoming the risks and challenges with respect to residential real estate and improving investor understanding and appetite for investment in the sector.

Noting the challenges identified in the section above, participants were asked in the interviews what they are doing to overcome these challenges where they were able to. Furthermore, in light of, firstly, the relatively lessor track record when it comes to residential rental portfolios compared to the more traditional office retail and industrial sectors, and secondly, the misperceptions that investors have as highlighted previously, Participants were asked what they were doing to improve investor understanding and appetite to invest in the residential sector. The below section discusses the findings from the participants responses in this regard.

Overcoming the risks and challenges

The below sub sections highlight the main themes that were uncovered from the participants responses with respect to overcoming the challenges that residential rental portfolios face. It is noteworthy that the participants did not respond in this regard to all the challenges identified in the first section of the research findings. The below sub themes were identified in the same manner as the previous section using NVIVO software to assist in identifying the common views of the participants using thematic analysis from the transcribed interview data. The sub themes identified when it comes to overcoming the risks and challenges include.

- Managing utility costs
- Overcoming supply challenges – Partnering with developers and taking control of the full pipeline from development to management.
- Internalising management
- Improved tenant vetting
- Improving the tenant offering
- Forming lobby groups for residential in the inner city
- Adoption of individual month to month leases as opposed to head leases.

Managing utility costs

A major challenge identified was the above inflationary municipal cost increases which, as discussed above, is eroding the bottom line for residential rental funds and making it difficult to grow rentals. What exacerbates this challenge is the difficulty in monitoring and recovering the usage of certain utilities such as water and electricity over thousands of individual tenants.

Participants raised some of the solutions that are being implemented to better manage this which came down to two core approaches, one - better control and monitoring of the use of utilities and two – lowering the cost of utilities, for example, through solar power and grey water harvesting among other things.

With respect to one above, I elaborates

> *some of the units in the Joburg inner city will give you a water card. So you've got a unit, but you don't have your own personal bathroom, you share on a floor, then you get a card and that card allows you 30 showers per month at two minutes a shower. So there's ways of overcoming these issues. You've got to be smart about what you offer to the market.*

Another common solution used is "pre-paid meters, so that it stops usage if you don't have the funds available to use on it". Participant I concludes, "If you can measure it, you can manage it. You can collect on it".

With respect to two, Participant F's fund is pushing to implement strategies to reduce the cost of these utilities

> *we want to be most affordable in class so, in our future developments, we are also looking at green buildings from an EDGE or Green Buildings Association perspective. We want to certify our buildings and implement all renewable energy so we're doing solar, boreholes, grey water, LED's and recycling.*

Taking a more active approach in not only the management and metering of utilities but the supply of utilities and reduction in cost thereof will play a key role in managing and overcoming the challenges faced by these funds. While these strategies are not very different from what managers are doing in the commercial space, it plays a crucial role in the residential sector due to the number of tenants one needs to account for and monitor as well as, particularly in the affordable residential rental space, the tenant's sensitivity to the affordability of their rentals. In a more competitive space, where the tenant is very sophisticated, lowering utility costs can play a key role in attracting tenants as well as driving stronger rental growth as less of these utility costs increases need to be passed on to the tenant.

Overcoming supply challenges

Identified above was the challenge that some funds are facing in terms of finding the right/adequate stock and at the right price point. One solution to overcome such a challenge is to develop one's own

stock which was discussed with the participants. One of the largest benefits to such a strategy is that the fund in this instance is involved in the development of the product and can tailor the design and use of the building in such a way to improve efficiencies and synergies with the objectives and operations of the fund i.e. reduce maintenance costs, optimize the use of space to achieve the right mix of units and the maximum number of units, the inclusion of certain valuable amenities and monitoring and management systems to improve the operations and management of utilities etc from the ground up – all critical aspects to consider when it comes to large scale residential rental portfolios.

Participant E raises key concerns in that this approach presents development risk which many yield and distribution focussed funds do not have the mandate to expose there investors to. These risks include and are not limited to, timing/overrun risk, tenanting risk and cost overrun risk, among others. Considering this, many of the South African residential REITs and large scale residential rental portfolios looked to partner with residential developers and act as an off taker for these developers. Feedback from the different participants is somewhat varied in terms of the success of partnering with developers with most participants who had engaged with developers finding that it does not work. Participants C, B and A explain that a lot of these partnerships do not end up materialising due to the different expectations in terms of pricing, as developers are able to achieve higher returns selling to individual investors and the owner occupier market than they are from selling in bulk 'to distribution obsessed' residential REITs and funds.

Participant C elaborates to say that,

> *[one of the challenges with trying to partner with a developer] is a REIT structure is very different to a typical business model in the sense that we are all about distribution, and you are measured. You are measured purely on your distribution growth. The market is obsessed on distribution growth. You have to show your 4 to 6 to 8% distribution growth year on year. If you don't do it, you're not a good performer relative to the rest of the market … This created expectations which we weren't able to meet on either side, and it was just because of this difference in business structure and our obsession with this distribution and that. So that's ultimately what lead to somewhat of a divorce [when it came to partnering with residential developers].*

Another challenge which Participant A highlights in this regard is that a lot of the private developers' pockets are only so deep and so many cannot develop to the scale that these funds require. To

overcome this, participants C, B and A state that they needed to partner with multiple developers instead of just one. While not mentioned in the interviews, it can be assumed that such a strategy makes it difficult to produce rental products that are consistent across the different developers and which are suitable for the fund.

A does however note that they have had success with working with a network of developers.

> *In the main they do turnkey deals for us. We agree a price. We do the specification, they know what we want and they go on risk and build these things and we pay them once it's done. But it's guys that have been successful with us and they keep on coming, not to say that we don't fight on price now and then, but we lock it in, so we know what we're getting.*

Participant A further states that

> *if you look at our pipeline, we probably have five or six different partnerships in terms of the developers that are working with us, so we're not looking, it's not a story for a developer to grow their order book, it's different, each developer that comes to us - It's, they own a piece of land, we like it, we work on it together, we agree the price they're going build, or we JV with them. They take risks, we take risks and that way, at the end, we need to come up with what works for everyone".*

With reference back to research by Aveline-Dubach, (2020) on Japan residential rental funds, it was discussed that one such way to overcome supply is setting up a group of companies to take advantage of the full value chain - development, management and maintenance for approximately 6-8 years, and finally disposal into the REIT which allows the REIT to control the age and quality of property in their portfolio. Having control of the full pipeline, residential REITs can then standardise the design of the buildings and improve efficiencies throughout the full pipeline and in the design and management of these portfolios.

Participant A was the only Participant to note that they have adopted a similar approach, noting that their new fund will do exactly that - "build stock for the REITs, to have kind of a short-term view where we build, we tenant and once it's stabilized, then we can exit to institutional investors or REITs". These funds aim to build about 16,000 units at a time, "some of them we're selling individual units, but the bulk of it is going to be those three-story, four-story walk-ups in the right neighbourhoods that can be rented out". This was the only fund that appeared to be taking control of the full value chain albeit

through separate funds, from development right through to ongoing management. It was noted that one such challenge in the development fund however is access to capital as such funds require patient, long term capital from the likes of pension funds, DFI's and Impact funds which are not providing adequate funding.

An interesting finding from the interview with Participant C, was that while it is difficult for residential REITs or large-scale rental funds that have an 'obsession' with distributions to take on development risk, the developers do not face the same problem. It was mentioned by Participant C that "Balwin and other [developers] have obviously seen the [economic] downturn and have also seen that they would rather have perpetual income over difficult periods". He goes on further to say that "all these guys are considering this rental aspect for the long term. We know about Balwin, but certainly there are others as well that are definitely going to consider it".

From the above, it is found that the solution to overcoming challenges with respect to adequate supply is not clear cut and the different funds are experimenting with different strategies such as developing for themselves, partnering with developers, and setting up their own separate funds for each stage of the value chain, from development through to the management of these residential portfolios. Each of the above strategies appear to have their own respective benefits and drawbacks.

With respect to developing their own stock, many of these residential rental funds do not have the mandate and appetite to take on development risk as this can harm their ability to deliver consistent distributions which the bulk of their investor base are interested in. On the positive side, developing your own stock allows one to develop a specific product that is suited to optimizing the objectives and operations of the fund.

The alternative approach is to partner with developers, the most notable drawback however being the inability to agree on a price point. This was because most developers can achieve higher returns by selling sectional title units individually to private small-scale investors and/or the owner occupier market which do not value these units on an investment yield basis. Secondly, the funds have a lesser degree of control in the final product and still take on the tenanting risk of the buildings. It was also mentioned that some developers have recognised the value in building up their own rental portfolios consisting of units that they have developed in order to ride out more challenging economic cycles when development is not viable. An example of such a developer mentioned was Balwin. On the upside here, the funds can focus on their own operations and reduce certain elements of development risk. They are also still able to have a meaningful say on the product that is being developed.

The final alternative identified to overcoming challenges with supply is to take control of the full value chain by creating separate funds that effectively serve and feed into one another, i.e. a separate development fund, that takes the development and tenanting risk for the units that then exits into a long term residential rental fund/REIT that is managed by another 'separate' but internal management entity. Such solution appeared to be successful for Participant A's business and has several benefits, most notably, investors can participate at different stages of the value chain according to their individual risk return appetite. There also remains continuity between the different phases of the value chain and the ultimate residential rental fund can benefit from tailor-built products that are already tenanted and generating distributions. One challenge however that Participant A mentioned was obtaining funding for the development phase and the requirement for patient capital which was difficult to obtain.

An interesting topic that was briefly raised in this section from the participants was the opportunities currently to convert office buildings into residential buildings for rental accommodation. The Covid pandemic and the impact this had on office space because of the lockdowns and many businesses adopting remote work policies has meant that there is a dearth of vacant office space in well located central nodes. Conversion opportunities may largely reduce timing risk and costs to 'develop' more residential supply. At the time of the interviews, it was too early to tell if these funds were actively doing such conversions.

Internalising Management

It was clear from the discussions on the challenges and risks when it comes to residential rental portfolios, that the management of these funds is highly intensive and critical to their success. Management intensity was also a prominent discussion raised in the existing literature relating to large scale residential rental portfolio's and REITs.

Of the nine participants, there was only one participant whose portfolio was not managed internally, and many participants spoke critically of the decision to do so. It was clear, from the feedback when it comes to the management of residential rental funds, that it needs to be internally managed due to the better alignment of interests between the property manager and the owner.

Participants elaborated on this as below,

> *We've attempted to outsource, pockets of it and that was merely through acquisitions. We decided when we acquired certain properties to leave it with particular managers for a period of time. Even that just proved, somewhat*

disastrous. Again, I just don't believe a manager is going to look after a property better than the owner… Managing this asset class is way more difficult than retail, commercial, industrial. We started off outsourcing our management and you will know, there is no national residential property management company like Broll or JHI that manage large residential portfolios, so you have to sort of have little entities, and the change in the performance of our portfolio when we decided listen there is actually only one way to do it, and that is manage it yourself was remarkable - Participant B.

We think we got it right, five years ago we started our own property management company that we control - a sister company. We can tell them what to do and what not to do, the information flow there is also quick for the asset managers to speak to the guy on the ground. You don't have to wait a month to get a report from the property manager and they start saying we're losing tenants here. You know everything is live. Information is there, the asset managers can go look in real time and see how many leads are coming through this month. So that is the biggest challenge for most investors that get into this space, you can't remote manage, you have to be hands on - Participant I.

I can speak to you for hours about the challenges and issues that we've had to deal with and this is where the management becomes so critical. [Given] the hands-on nature of it we firmly believe that you have to manage your own properties. We would not want anybody to manage our properties for us and funds that do that, I actually don't know how they do that, to be honest, in the residential space - Participant C.

From an operational perspective, one of the biggest risks is not having the right manager on your property. So this has to be owner-operated. We will never give out our properties to a third party to do the property management, because then we just don't see the interest alignment - Participant F.

The participants responses above make it clear that internal management is critical when dealing with residential rental portfolios. This is largely because there is a better alignment in interests between the property manager and property owner. This is critical, particularly given the shear management intensity of these residential funds. As mentioned by Participant I, the asset manager needs to have

transparent, instant and direct access to the tenants to actively monitor the performance of the funds and to be able to make informed decisions to respond to the market.

As noted by Participant B, perhaps the biggest shortcoming when it comes to external management in South Africa is that there are no large reputable residential management companies that have the expertise and capabilities to manage large scale residential rental portfolios, like there are managers for the other more traditional real estate sectors in South Africa. Most of the funds built up their own internal management expertise which proved to drastically improve their respective funds' performance when compared to using external management. This was strongly evidenced in the participants responses above.

Given the scale of these funds and the lack of large-scale residential management companies with the requisite expertise, if a fund intends on outsourcing the management of the portfolio, they need to outsource the management to several smaller management firms. This creates other challenges in terms of consistent reporting across the different properties by the different managers and creates a critical disconnect between the property owner and the underlying tenants. In an environment where the market is more fluid due to the number of leases, shorter term nature of the leases, and the tenant's sensitivity to quality of offering and affordability, one needs to be actively involved at the top from a strategic asset management level, right down to monitoring what monthly leads are coming through from potential tenants.

Participant A also highlights that from an investor perspective "the fact that we have control of the property manager, is a big thing for them because they can see that… the property manager knows what they're doing. There's proper communication between the asset manager and the property manager and the processes are there".

Tenant vetting

On conclusion of the interviews, challenges associated with tenant evictions were not noted as a major risk. Participants G, I and A emphasize the importance of tenant vetting and the key role that tenant selection can have in firstly reducing eviction risk and secondly, improving overall portfolio resilience.

For example, in the latter case, Participant G comments to say that

> *"until this year, we haven't looked at [our tenant selection] within industries and obviously government and private sector, are two big areas. We haven't focused and looked for, for instance, government, but government have had no salary reductions, nobody's lost work, so those are, in today's terms, very safe bets".*

This shows that there can be a further strategical level of tenant selection which can improve the overall performance and resilience of residential portfolios.

In terms of tenant vetting, Participant G states that

> *our trick is to find the right clients. There are lots of clients, and that's sifting through a lot [of applications]. The acceptance rates on applications is still not that great, so you have to go through a lot of work to get the right clients, but it does mean that once you've got the right client, you've got diversification, you've got your 2,000 individual clients who not all of them are not going to pay and not all of them are going to lose their jobs.*

Participant I also states that "more and more landlords are more careful about their tenant selection. So tenant selection is key/critical to your profitability".

While evictions were not noted as a big risk from the interviewed participants, tenant vetting remains key to the success of such funds. As landlords become more selective in their tenant selection, the pool of qualifying tenants can reduce drastically. In an instance, for example, such as the inner City of Johannesburg, where there is a high concentration of these residential rental funds, competition to attract the right tenants from a limited pool of qualifying tenants can be damaging to overall returns as funds look to reduce rentals or deposit payment requirements or include additional amenities at no cost to the tenant. All of which erode from the bottom line of the funds profit.

From a portfolio resilience and strategic perspective there is potential to use the tenant vetting process to strategically diversify the tenant base to improve the diversification and resilience of the portfolio. Participant G provides a brief example when looking at job retention in the government sector versus private sector during Covid. Participant F also commented that their fund is now actively gathering and analysing data on the makeup of their tenant base to better understand the extent of the tenant diversification achieved in the portfolio, for example, in terms of tenant income levels and the industries that they are employed in.

Improving the tenant offering

It was highlighted in the discussion above that there exists a degree of concentration risk when it comes to residential rental funds. With many of the existing residential REIT and large-scale residential funds in South Africa being heavily weighted toward inner-city property accompanied by these funds more stringent tenant vetting processes, this drastically reduces the qualifying pool of tenants for which these funds compete. This, coupled with today's tenants being far more sophisticated and price

sensitive, has caused funds to have to improve their offerings beyond simply being price competitive to attract the pool of tenants to occupy their portfolio. The key drivers discussed by the participants to attract tenants come down to affordability, the amenities on offer and security.

To speak to these key drivers Participant I did a tenant survey in which it was found that the

> *tenant said pricing is a big driver to what [they can] afford and the second thing that [they] want is security. People want to feel safe and secure in their environment. When I come in, I want to know that I am safe and secure… The more secure you can have your building, the more you can increase your rentals* – Participant I.

Participant E comments more generally in saying that

> *it's becoming more and more a refocus on the tenant. No one takes the tenant for granted anymore. So making sure that the offering to tenants is valuable, making sure that the rental levels are valuable, being aware of what's changing in the market, what other people are offering, now I'm talking about things like fiber and those sort of things. Stepping up on your marketing and making sure that the marketing is done correctly and properly and professionally. That's changed a lot over the last couple of years or so. You used to put a banner on a building and people queue around the blocks. It's not like that anymore.*

Participant A and C provide further examples of the type of amenities that are being offered and which are important to attracting the right quality tenants.

> *Making your estate more attractive to the tenant is all the amenities that come with it. You'll see, we don't build anything that's not fibre ready these days. Make sure that there is, we have all these amenities, you know, funny enough, most of our tenants are single women with kids. You have to have some playgrounds, a facility that tenants can sit around and make it more liveable as opposed to just a block of flats where people come in and out* - Participant A.

> *The main one from that list, which is very appropriate is the shared amenities. So, you know how one differentiates your product from the others is obviously offering the best amenities. Over the last two years, there's been a big drive toward providing more as part of the lease and we were somewhat at the forefront of that…*

> *[for example] many years ago, it wasn't common to have kiddies play areas on the roof of a building, today that's fairly stock standard and everybody can do that. So again, it's about finding new add-ons that enhance the portfolio and everybody's seeing that, things like free internet now is the next sort of standard* - Participant C.

To take the amenities offering to the extreme Participant F's fund focusses more broadly at the precinct level, and by doing so provides several shared amenities within a precinct which provides economies of scale and serves multiple buildings in that precinct. Participant F refers to it more as a broader lifestyle offering in the inner city. This is also driven from the failures of government to maintain the services in inner city areas and provide clean, liveable and safe spaces.

Interestingly, in research by Aveline-Dubach (2020), when it comes to Japan residential REITs and the financialization of rental housing in Tokyo, discusses the focus that these REITs have toward accommodating Japan's young "promising" corporate employees which tend to enjoy inner city lifestyles and spend less time at home, reducing the need for ancillary spaces and service provisioning, resulting in lower costs. It is clear however that the focus from South African residential REITs and large-scale residential portfolios is not catering to the same tenant market firstly and secondly, to improve the tenant offering, is focussing on improving and bringing amenities into the building for the benefit of its tenants.

This section highlights the importance that is now placed on the tenant, and that in the context of South Africa where these residential funds are not only competing against one another, particularly in highly concentrated areas such as the inner city of Johannesburg and Pretoria, they are also competing against private landlords. The two key levers to attracting the right tenants is price and amenities included in the offering.

The only existing research found that discusses the strategies that REITs are employing to improve the financialization of the residential sector and attract investors is in Japan and focusses on reducing amenities on offer to save costs and locate the properties in the inner city of Japan whereby public amenities are an attraction to the tenants. It is noted however that these REITs focus on a completely different segment of the tenant market, being young corporate employees whereas South African REITs cater toward the more affordable housing tenant market which makes it difficult to relate to the South African context.

Lobby groups for residential in the inner city.

It was identified in the risks associated with residential property that municipal costs are increasing at above inflationary rates and that this is severely impacting the managers ability to escalate rentals and ultimately the funds bottom line/profit. Despite paying these higher rates and utilities, funds receive very little in return from government in terms of the services that it should be providing. It was raised that this is a particular issue in the inner city of Johannesburg and Pretoria where government services fail to provide for a clean and safe environment, two aspects that play a crucial role on what the tenant looks for in finding a place to live. Furthermore, reliable access to electricity and water is also becoming a concern.

Participant H elaborates by saying that -

> *you're getting these substantial utility increases and you're getting nothing for your money. The roads are dug up, there's trash in the streets and there's vagrants everywhere. So whilst you're trying to improve and make an impact and increase the quality of housing stock in South Africa, if the municipality is not going to support you and make the environment a pleasant one in which to live in, that makes investing very difficult. You can almost tolerate a high municipal charge through rates, water, electricity, etc. provided you are getting a service and you can see your environment is clean and secure, it's safe, all those things. Now, that burden for managing a precinct comes down to the landlords to do, for the private sector to do.*

The above circumstances are also a key driver for the strategy adopted by the fund managed by Participant F whereby they focus more on whole precinct investment opportunities and rejuvenation projects as opposed to individual buildings.

The importance of providing the right amenities to tenants to attract the right tenants in a diminishing pool of quality tenants, particularly in the inner city, is discussed above as a key lever to compete for tenants. While providing such amenities to tenants can be a tool to compete with other residential rental funds in attracting tenants, there is also a broader element of providing for a more general safer and cleaner environment. Here it is difficult for a single fund to play a major role in doing so, so there are advantages and economies of scale achieved by lobbying together with different funds and fund managers to improve the inner-city environment and to gain greater influence in government decisions. Not only does this have a positive impact on attracting tenants but is also key in attracting

investment, particularly in the “inner city [where] investment is perceived as being highly, highly risky” and is a big deterrence for investors (Participant D).

Participant C explains that -

> *the managers, particularly in the inner city work very well together. We are part of a body called the Johannesburg Property Owners and Managers Association (JPOMA), and as a collective, we look after the interests of each other, keep each other informed, make sure that the city is as well run as possible. We've got lots of interventions outside of the city. We know that the city doesn't clean, we know that they don't secure. So, again, coming to your investor case… not only for investors, but also for tenants to live in your building, it's making sure that it is secure. It's making sure that it is clean in the surrounds and a lot of the big credible players do that - we've put up our own CCTV in the streets around the buildings. We clean the surroundings; we don't leave it to the city anymore. And again, it all comes at a cost which ultimately, does hit your bottom line, but if you didn't do it, the bottom line would be greatly affected.*

JPOMA represents most Johannesburg Inner-City property investors and managing agents who are active in the rejuvenation of the inner-city of Johannesburg through building upgrades, conversions and effective urban and building management. JPOMA represents both commercial and residential interests with a combined portfolio of R15billion, 60,000 plus affordable units, 250,000 plus residents and 200,000m² plus of commercial space.

Participant H also highlights the role that JPOMA plays but argues that it does not have the same influence as say South African Property Owners Association (SAPOA) which is a much larger association dealing mainly in the commercial property sector.

> *They call it the Johannesburg Property Owners Association, where the landlords get together to create a lobby group when you're dealing with security and that sort of thing, in particular precincts, CBDs, such as improvement districts, CID. These things all help and really what it requires is investors to act as a collective to try and improve the environment and the lobbying and the information flow. But it's still not enough. It's not like SAPOA for example, they are very much focused on commercial property* – Participant H.

From the above, it is evident that these fund managers are taking active steps to work together to address the shortcomings of government in the inner city which both improve investor appetite and tenant interest in the property. It is however noted that associations such as JPOMA are still relatively small and do not have the same influence of the larger property associations such as the South African Property Owners Association (SAPOA).

Individual month to month leases instead of head leases.

While the typical tenure of leases with respect to residential rental accommodation was not directly raised as a risk or challenge, there were associated challenges discussed by the participants such as high churn and management intensity and the inability to escalate rentals. Research done by Aveline-Dubach (2020), on the Japan residential REIT market found that to mitigate against some of the Investor concerns, (which lie largely on cash flow certainty and the covenants of individual tenants versus corporate tenants), to ensure greater cash flow certainty, reduce risk of default and reduce vacancy, Japan REITs have looked to partner with large corporates whereby the company signs a head lease with the REIT for the units to house employees. This transfers risk over to the lessee and reduces the number of direct leases held by the landlord and creates stronger lease security over a longer term.

Participant H notes in this regard that he has not seen many head leases with employers in South Africa and it is not something you typically see. Participants G, E, D and B expressly state their aversion to entering into head lease agreements which raises an entirely different view to that of Aveline-Dubach (2020) and which is detailed by the participants responses below. This could once again be due to the vast differences between the Japan and South African market.

> *If you go, like the suggestion, to have an employer-based lease with a long lease - If It's a good client it's fine, but it's also got the risk that you lose all of the tenants in that circumstance* - Participant G.

Participant G elaborates further that “diversification must be the biggest upside to a residential portfolio, as opposed to a single lease situation. It’s easier to manage, but once you've lost it, it's harder to fill”.

Participant D concurs, saying that a headlease approach is “dangerous, dangerous stuff because when they move out, you're in trouble. It takes a bit of pain away, but when they leave, the pain comes back twice as hard”.

Participant B, explains -

> *We only sign one-month leases. We don't sign one-year / two year leases, and every time we've had a head lease, that's ended up being a problem because there's been an issue with the lease and then you end up with a [vacant building]… So we have a property in Protea Glen where for years we had a [headlease with an employer] as a tenant… they occupied the whole building at one stage. Then they gave us notice for a 3rd and we sat with this gaping vacancy for months and we had to refill it and then they gave us notice for the balance, and that's not typical of a residential portfolio where the lease expires and you have this big vacancy. You think about the commercial industrial retail space now, you have a 5-year lease and it expires, chances are you are going to sit with that big hole for the foreseeable future.*

Participant E mentions how the fund he manages went through a purposeful exercise of getting rid of any headleases in the portfolio. He goes on to say that

> *head leases go against the whole idea of [being] defensive [and having] individual freestanding or different leases. It doesn't help you to have a residential building which is on a head lease to a mine or someone, because then you lose the whole thing, then you are the same as an office building.*

Notwithstanding the above reasons for the participants wanting to avoid headleases, Participants C, I, F and B raise several advantages to entering month-month leases with individual tenants as opposed to annual leases or long term headleases with larger companies.

Participant I sums up what most participants said were advantages by saying that "the pro of having a month-to-month lease with a residential tenant is that you don't have to go through the Consumer Protection Act's 20 business days' notice for a none paying tenant".

Participant C, B and F elaborate –

> *One interesting part on leases that we are strongly debating is the whole concept of the lease. If one looks at COVID and what it's done in terms of people being able to pay, or not being able to pay their rent, anybody who's in the initial period of their lease, unless a tenant defaults, you as a landlord have no rights in that 12 months to get rid of the tenant. So, a tenant can move out in 20 business days' notice, but you [as the landlord] can't do anything. You can only give notice on the completion*

of the 12 months. So our view is that that is not a very good position to be in, particularly when you've got a bad tenant, and cancelling a lease because it has reached its end is far easier to do than trying to evict somebody for arears… So In our view, tenants are going to stay, regardless, whether they've got a monthly lease or a six month lease or whatever. So we are actually strongly considering, whether we don't actually reduce that period of the lease - Participant C.

In the renting space we don't want somebody in the property if they don't want to be there because they are going to be a bad payer. So, as you said in terms of the Consumer Protection Act they can give us 20 business days' notice, so if you sign a long lease it ties you in [as the landlord], it doesn't tie the tenant in. So two to three years ago we just said okay we are signing one month leases. If the tenant's happy they stay as long as they want. We are happy with that. But now if they don't pay, we don't have to first go through the legal process of cancelling the lease, we can just give them notice- Participant B.

All our leases are on a month-to-month basis for practical terms. Regardless of whether they've signed a one-year contract, according to the Consumer Protection Act, the tenant can give you 20 days written notice at any time, and it happens a lot. So, it's not an issue because the tenant gives notice, I do a touch up at the end of the month. I place it back in the market and I rent it. I've got constant churn in my portfolio, churn between, depending on where, 30% and 50%. So I'm constantly placing new tenants and so lease profile is not something that I think is important for us - Participant F.

A second key advantage raised by Participants F and B is that shorter term leases allow the funds to be more fluid, responsive and reactive to changes in market conditions.

We can be nimble and quick on our feet if the market is moving and sometimes it's a one-hundred or two-hundred rand that the rent needs to drop and if we see our occupancy going down on a building, we know we can react very quickly, drop the rent by one-hundred or two-hundred rand and it goes back up again. We don't see that as a risk, we see it as an advantage - Participant B.

Participant F elaborated that -

> *because you've got shorter term leases, as soon as interest rates go up, it lags a little bit, then rentals go up. As soon as interest rates go down, it lags a little bit, then rentals go down. I've got an organic fix because I can re-price my rentals all the time. Every single month I can re-price rentals. So, that is a good point and it's a big misconception in the market on long-term leases. What's the relevance? There is so much demand for affordable rental stock that a long-term lease doesn't mean a thing. And for all practical purposes, my leases are on month-to-month notice.*

An interesting finding here is that despite legislation regarding evictions not being rated high in terms of risks in this instance, most funds are structuring their leases on shorter month to month leases to avoid situations that can arise where the Consumer Protection Act for example becomes applicable. This may in turn mean that legislation is seen to be a risk, particularly when it comes to legislation relating to evictions, and that by changing the structure of the leases these funds have effectively mitigated against this risk, thereby eliminating it.

Despite many Participants funds shifting to month-to-month leases, it was mentioned by Participant E, for instance, that people stay on average about three years in a unit and that they churn about one third of the portfolio every year.

It is noteworthy however that Participant G's fund on the other hand which typically signed tenants on a one-year lease and thereafter automatically reverting to a month-to-month lease, are now looking to retain tenants on longer term leases.

> *What we try to do now is say, because we're trying to retain tenants, if you sign up now, we promise you that you will not have an increase for the next 12 or 13 months to try and keep them. So, we've moved onto month-to-month [leases] in many instances, but we are trying to go back into an annual [lease] just from a retention point of view.*

The above response from Participant G could be a reflection of the growing competition in the space, particularly in the inner City of Johannesburg and Pretoria, and so to reduce churn and thereby reducing the frequency at which you are competing for tenants a longer-term lease may be preferable to better retain tenants.

The finding that many of the interviewed participants funds had a preference toward month-to-month leases is a somewhat surprising revelation and is the opposite to seeking long term headleases over entire properties. This relates back to the benefits discussed in the previous section and highlights that for such benefits to be recognised, one needs to stick to the characteristics that make residential different to the other more traditional sectors. A key characteristic being the multiple, relatively shorter-term leases with individual tenants as opposed to single long-term leases with larger corporates which drastically reduces benefits such as diversification and being able to respond faster to market cycles and conditions. The shift to month-to-month leases also speaks to these funds adopting strategies to mitigate against risks such as eviction risk which may be the reason for the Participants not rating 'legislation favouring the tenant' as being a material risk to them compared with findings from Anderson (2015) for example.

The above findings are in contradiction to what was a common theme found in literature, which was to focus on methods of achieving better cashflow certainty, one such strategy being to focus on signing headleases as opposed to multiple shorter term individual leases. The shorter-term leases were cause for concern amongst many investors due to the perceived reduced ability to accurately forecast future cashflows and ensuring that one can match future cashflows against future liabilities such as debt with a further degree of certainty. On the other hand, the Participants argue that there are more advantages to shorter term month to month leases and that this is what makes the residential sector unique from the other more traditional real estate sectors. This perhaps is the cause for some disconnect between the views of external investors and the managers of these funds when it comes to the benefits and risks associated with the residential sector.

Improving investor understanding and appetite

It was apparent from the literature review and the discussion on investor misperceptions with respect to residential real estate that the views of the interviewed Participant's vary largely from the views of external investors. Furthermore, these mixed perceptions and misperceptions create challenges in themselves when it comes to attracting investment into the sector. A critical consideration, therefore, is what are the participants doing to improve investors understanding of the sector and how they believe this can be done. With the assistance of NVIVO software the below sub themes were identified from the discussions with the interviewed participants. The sub-themes identified include:

- Extending the residential sector track record and improving on the availability and access to data.
- Differentiating between residential product types.

- Having a clear investment strategy.
- Educating investors.

Extending the residential sector track record and improving availability and access to data.

As discussed in the risks and associated challenges section, residential REITs and large-scale residential rental funds have a shorter track record than the more traditional property sectors such as office, retail and industrial. Extending the track record will impact on investors understanding as it allows for more data to be collected and analysed which in turn is useful to investors to better understand the risks and benefits of investing in residential rental property through more quantified analysis and long-term monitoring of performance. Participants A, E, B and G all highlight the importance of growing a track record and proving the concept to investors for investors to 'buy into' residential rental funds.

Participant G and B elaborate by saying,

> *Consistency of performance is the only thing that a manager can do… I think if someone's really wanting to sell the sector, they'd have to portray that year on year, you're going to get those type returns or if you don't, there's that reason for it. That's about the best thing. Its only tracked performance that will help you* - Participant G.

> *It's proving the concept, in the private equity space, our investors can see that we fill our buildings, and we collect our rent. But those aren't investors that you typically come across in your daily life. The REIT was a big move in that direction, to put it out there in the public space. People can see [our] results, they can see what our occupancies are, they can see what our rental increases are, they can see that we are still distributing at a time like this [Covid]. We have to continuously put ourselves in front of asset managers and prove the concept to them. That's the only way. You can't tell them it's going to work, you have to actually show them* - Participant B.

With the above in mind a challenge identified is that Indluplace Properties is the only pure residential REIT, the other residential REITs have elements of retail included (albeit retail makes up a very small portion of the Transcend Residential portfolio) in the funds and as a result, this specific Participant mentions that "you don't always get that pure [residential fund] with the other 'residential REITs', [so you don't see] what your residential sector is doing... So, we've [spent] a lot of effort in explaining the sector to people".

Key to establishing a track record is the data that is available and that can be used to monitor the performance of these funds and to establish a benchmark which can be used to measure the performance of each individual fund against and the whole sector. This is an important requirement for investors and analysts when looking to allocate capital and to understand the performance of a sector.

That being said, given the limited number of pure residential funds, the performance of one fund, which may for example be driven by specific management decisions and not by the market, will heavily impact on the perceived performance of the residential sector as a whole. When looking at the performance of the pure residential REITs, Transcend Residential and Indluplace Properties, as discussed in the literature review, one can see that one fund is far outperforming the other, which makes it difficult for investors to take a view on the sectors performance as a whole.

Participant E elaborates to say that

> *the other established sectors, the industrial and retail and the Growthpoint's and the Hyprop's and the Redefines of this world. That's been going on for many, many years and there's lots of proper data available, comparative data. So you can compare portfolios to each other, who gives a better yield, which one's more risky and all of those things. The residential sector, there's very little data available comparable to the other sectors. Especially in South Africa, overseas not so, because it's an established sector. Here It's difficult.*

Participant I states, "I think that in residential there's less data, you don't know what you don't know. You feel that there's a high risk simply because you don't know it. So I think that drives a lot of the misconceptions".

Participant G also notes that the data is useful for the funds themselves as it "promote[s] the entire sector, and you can show how your returns stack up against the other property asset classes. It helps benchmark us against our peers as well".

Importantly, Participant F highlights that the use of data can improve investors understanding of these funds in more granular detail, which is useful in better understanding the sector and improving performance in the sector, particularly given the wide spread of tenants that make up these portfolios and the emphasis that residential rental funds place on the diversification benefits.

> *Data is becoming more and more important. We were using MRI, MBA, and we are using some of our own software packages for sales and leads to understand where our tenants come from and where did we get our leads from. We are capturing income brackets, what industries they worked in, previous place of employment, previous address [etc]. Because we want to see how people migrate, where did they come from? We've got so much data. We just need to make sense of it to make sensible business decisions. We are evolving as we go along, building databases, capturing better things that we want. That is top of mind for us* – Participant F.

In summary Participant B states that "The only way is to show. You have to build a big portfolio, you have to tenant it, you have to manage it properly, and you have to show people that this is what can happen".

Participant F also concludes saying that "it's one thing to talk about what I've just said, but it's another thing to give them evidence to say, I've got a portfolio of commercial, retail offices, residential assets, here's my data, collections, vacancies and performance".

Building a track record and having the data to support it is key to improving investors understanding. It is critical however that as the residential track record grows that sufficient data be collected to provide evidence of this performance. During this research, it was identified that residential data is slowly becoming more available in the local context with the likes of the MSCI inaugural residential property index report first being published in 2018. Other companies such as TPN Credit Bureau are also starting to provide valuable and meaningful data about the sector through their tenant credit reports and analysis of rental collections and vacancies in the sector.

In the interviews however it was noted that there is not enough data available and that many funds are hesitant to openly share their data and, in some instances, deem there to be some competitive advantage, for the larger funds who have sufficiently sized portfolios, to keep their data private as their own data is sufficient for them to make business decisions (Participant D).

The above section responds directly to the conclusion by Anderson (2015) as identified in the literature review that "there appears to be conflicting views as to both the extent of [residential REIT] challenges and the associated risks. One possible reason for the conflicting views is the immaturity of the residential sector in the South African REIT market and the limited data available".

The above sub-theme highlights two key things, firstly that having an extending track record for the sector and the necessary data to support it is critical to building on investors understanding of the sector, and secondly, that between 2016 and 2022, the availability of such data has improved however needs to improve further to improve investors understanding of the sector.

A specific challenge for the sector is the wide variation between the performance of the two pure residential funds which can come down to a multitude of factors including different management structures (internal versus external), different products both in terms of the typology of the buildings and the locations of their portfolios, for example inner city versus suburban. This makes it difficult to compare apples with apples and understand the performance of the sector as a whole which is essential when it comes to building a track record and establishing benchmarks for the sector.

The next section speaks to the differentiation of product types within the residential sector which is an important consideration in the scope of this research and provides more insight to what has been raised and identified in this section.

Differentiating between residential product types

The residential REIT sector and large scale residential rental funds in South Africa remain broadly classified as 'residential' which can be considered a symptom of this particular sector being far more immature than the other more traditional real estate sectors such as office, retail and industrial. Many of these more mature sectors are split up into further categories - the office sector has many subcategories for example, premium office, A grade, B grade etc. Retail also has several subcategories such as regional, neighbourhood or convenience retail. Despite the residential rental sector being somewhat smaller than office and retail, participants I, F and B raised the importance that these residential rental funds and the quality of each of these funds needs to be further defined than simply being 'residential'. Participant I gives an example that

> *the differentiation in the residential sector has not even started. People… don't break it down into lower end of the market and middle, high-end of the market, student housing fund, retirement fund etc. You go to America where there's a fund of 100,000 units only doing army base housing. But that's all they have in their portfolio is the housing on army bases… That's specialized. We not anywhere close to that, the market's not big enough maybe for that specialization.*

Further differentiation of the products and or the quality of stock in the context of South Africa is important because there are a limited number of large-scale residential rental funds and in particular,

REITs, yet the different funds all have very different offerings and strategies and are performing very differently. “I think the investor base hasn’t started differentiating between product yet. If you look at our products, it is a completely different product to [the other residential funds]” - Participant B.

Participant F provides some more in-depth examples of the different types of products that there are and how one can better define them as well as how the market views the residential sector at the moment.

> *“I think there's a bit of education that needs to happen with the market to educate them as to the different qualities of rental stock. Because currently, if people talk about residential rental, they don’t define between is it precinct focused, is it owner operated, is it walk-ups is it third party managed, is it new, is it old, what’s the price point, et cetera. It's just residential and it just should be, by way of example, it should be at a 10% cap rate. Now that's the level of sophistication you have. Whereas, it should go towards understanding the portfolio, understanding the quality of the assets, understanding the price points, understanding the management setup and, understanding the longevity of the income stream, and then pricing it appropriately. We feel that within the residential subset, there should be different pricing for different portfolios. I think the market is slowly but surely catching up on that… It's another challenge for us to educate the market into the different qualities of residential as I said previously - Price-points, new versus old, precincts, and management structure. Those are the most important things in defining the quality of your residential assets”* - Participant F.

It is evident from the above that the differentiation between the different funds and their offerings is not as well defined as the Participants believe it should be. This is possibly a symptom of the residential sector being far more immature than the other more traditional real estate sectors. For investors to understand the sector and the risks involved they need to differentiate between the different funds in terms of the different products, strategy’s locations, and management structures. What further exacerbates investor misperceptions in the market is that there are only two pure residential REITs, Transcend Residential and Indluplace Properties, with almost opposite strategies, location focusses and management structures which makes it difficult to take a position on the overall performance of the sector and to accurately benchmark it on a like for like basis based on these two funds. A further complication is that these two funds’ performance have been drastically different with Transcend Residential performing well and Indluplace Properties not performing well.

This emphasises the importance of better defining each of the different funds in terms of, and not limited to, type of product, management style and structure and the geographic focus of these funds for example. It is clear from the above that one cannot reliably assess the performance of the residential sector in South Africa by aggregating all the residential funds, and that given the relative immaturity of the sector, one needs to assess each fund individually to understand the merits and risks as well as the implications on the sector as a whole.

Having a clear investment strategy

The above sub-theme (differentiating between residential product types) goes hand in hand with establishing a clear strategy in terms of what each fund is offering. It is clear from the above sub-theme that there are a range of sub sectors in the broader residential rental sector for example inner city versus suburban, student accommodation to retirement estates, low income to medium or high income and internal versus external management. Having a clear strategy between the different funds and fund managers is critical to improving investors understanding of not just the individual fund alone, but the entire sub-sector. Several participants spoke to having a clear strategy however it became apparent that many participants were still working towards a particular strategy. Participant E for example details some of the strategies their fund has been focussing on and the impact that having a clear strategy has on investors and analysts understanding when it comes to the sub-sector.

> *Our focus is becoming a lot more on the pure rental residential. We've said that we want to exit student [accommodation] because it's a specialized asset class within residential… We want to focus on bigger buildings, purely rental residential to working families... Have a clear strategy, which we've got. So [we want to] make it very simple for tenants, investors and analysts to understand the offering which I think we've done, and people have commented on road shows that the strategy is clear and it's easy to understand the business… We want a simple easy to understand business, so it's just become even more focused. In the beginning, in chasing that growth, we bought some student stuff and small properties and we're getting rid of the small properties we're getting rid of the student's stuff, to be more focused… the other one that we've said is we don't want to just be an inner-city player. We want to have a diverse fund, so we've got a third of our portfolio in the inner-city, and we've got the other two thirds in the areas surrounding the city, in the suburbs, from Fourways to Springs, [so its's] a diversified fund… [Another*

> *strategy] is to get rid of any head leases, because head leases go against the whole idea of a defensive [asset]* – Participant E.

Participant I elaborates on their fund's strategy saying that

> *it was not by default that we found ourselves investing in these areas [suburban areas] that we are, it's a careful strategy of wanting to invest in low rise, secure residential estates in neighbourhoods where people want to live closer to work opportunities. You know the migration of business from the CBD to the North Rand suburbs at least here in Gauteng. The story is the same in the other big cities. So, to go and establish a huge residential [portfolio] in the CBD where people still have to get into a taxi to go to work. It's kind of, not to say there's no space for residential in the CBD, there is, but some things also need to happen around the CBD to make it more attractive.*

Participant B involved with the same fund reiterates "we had very little exposure to the CBD. Most of our stuff is suburban - It's typical townhouse complexes, it's affordable, but we have purposefully avoided the CBD in recent years and that's turned out to be the right decision".

Participant F also defines a shift in their strategy – "Initially, we would have done a standalone building on its own, a hundred unit somewhere in the middle of town, but now we're focusing more on precincts".

It is evident from the above and the previous sub theme that there are a lot of different sub-sectors and strategies within the residential rental fund space and that these funds need to have a clear strategy for investors and analysts to understand and to differentiate between the different funds and their offerings. It is important to highlight again that investors need understand that within the broad definition of residential rental funds, there are a wide range of different products and management strategies which impact each fund and their performance differently. It is therefore not possible to aggregate all these funds to get an accurate understanding of the performance of the residential sector as there are many factors that differentiate these funds and their offerings.

Educating investors

One of the more elementary strategies discussed by the participants in the interviews was simply to go out and educate investors and analysts more about the sector. This goes hand in hand with having a sufficient track record with the associated data to evidence what has been discussed in terms of the performance, risks and benefits when it comes to investment in the residential sector.

Participant C highlights that

> *transparency is key, and I think it's more of an education drive than anything else, it's the investor road shows it's the tours, it's those types of engagements and coupled with that, obviously, it would help if there was sustained performance [of the residential sector]… Through the results presentations, we try and give confidence to the market that we have a sustainable route forward. I think it's as you say, it's being transparent, but it's trying to get that case around as clear as humanly possible. Which is not always easy to do on presentations and that. But I think we've outlined a very good case for ourselves and from there it's about executing on what you are saying you can deliver.*

Participant B and F highlight the importance of continued discussions with asset managers, analysts and investors and needing to constantly put themselves in front of these stakeholders to educate them and prove the concept to them. Participant B emphasises that that is the "the only way. You can't tell [investors and analysts] that it is going to work, you have to actually show them".

Participant A provides an example of the detail they are going into to show analysts and investors what they are doing - "we've had two road shows, where we took investors out and they speak to the staff on the ground, to the leasing agents, they come to our office, we bring the property managers to come talk to their business and how they do things and all of a sudden guys say now we get it".

Participant H states that as an industry body, the residential rental sector

> *has not put out enough literature to educate the market and investors around the quality or the successes that have been had in this asset class... You want to be able to put it out there, that your returns are comparable with other investment properties, that there is a database in which you can compare your performance.*

Importantly Participant D concurs stating that "if I was responsible for changing perceptions out there, that's one area [I would focus on], I would look to find people that could put research out there".

This sub-theme speaks to a culmination of the sub-themes identified above under 'improving investor understanding and appetite'. It is evident that given the relatively immature status of the sector that these funds need to make an asserted effort to not only promote the residential sector to investors and analysts and to educate them on the risks and benefits but also to emphasize the unique offerings

that each of these funds presents and the associated idiosyncratic risks and benefits associated with each fund.

As discussed above there are limited number of large-scale residential funds, each with a very different product and so one cannot take a view on the sector at this stage by aggregating these funds and looking at the sector broadly. As it was discussed, the performance of each fund varies significantly from one another and so one needs to be cognisant of the unique aspects and offerings of each fund and how this impacts on each fund's performance.

With the sector being so small, the poor performance of one fund can drastically impact on investors' perceptions of other residential funds, in which case it is critical that these funds differentiate themselves from one another and make an asserted effort to educate the investor in this regard, and this is done through building a track record, utilising internal data to show sustained evidence of the performance and physically educating investors through presentations and road shows, and in some cases having investors meet with the management teams of these funds to get detailed insight into the operations of these funds and their offerings.

4.3.2. Unique benefits to residential investment

With reference to the third objective of the research, the Participants were asked what benefits residential rental accommodation can provide investors. The question was posed in an open-ended interview format. The data was then transcribed and analysed by way of thematic analysis with the assistance of NVIVO Software. The below section highlights the key themes that were identified in the Participants responses.

It was a noteworthy observation that the conversation tended toward a single overriding benefit in that it is a resilient and defensive asset resulting from the culmination of several key and unique characteristics that the residential sector offers. The preceding section provides a detailed discussion on this overriding benefit and the underlying characteristics that contribute to this benefit.

Resilient and defensive nature of the residential rental sector

The overwhelming response from all nine participants was that the residential rental sector, and more particularly the affordable residential rental sector, is a strong defensive asset in nature. Participant E states that -

> *The reason you invest in [residential] is because of that stability and the defensive nature of the sector, that's what we are offering. So you might have people doing better than us, but you're also going to have people doing worse than us in the bad*

times. The idea is to try and get people decent growth and stability in the dividends… So, we can't and we won't always give the best returns, but we should also not fall off a cliff in the bad times.

Participant H elaborates on E's statement to say that, "[residential] won't always be the best but I think it should be part of a portfolio… and [two REITs with residential exposure] have started to see that there are some benefits of this diversification".

Participant A agrees by saying that "for the other types of real estate funds it would add value for them to diversify [into residential]. Some funds have commercial, retail and industrial, and most of the literature that's coming out now in terms of the types of real estate that are resilient are industrial, logistics and residential".

Participant D partly attributes the resilience and defensive nature of the sector to the fact that it can be broadly classified as a non-discretionary sector in the sense that "you'll always need a roof over your head, as opposed to traditional offices which [purpose] is being challenged as a result of COVID".

Participant C reinforces this view in stating that "people need a house, a roof over their head, so this does become somewhat non-discretionary which is not the case with offices or having a premises to sell from (retail) when you can do it via e-commerce these days".

Evidence of this resiliency can be seen in the TPN residential report (Q2 2021), discussed in the literature review, whereby it was seen that the drop off in tenants in good standing in residential during the Covid pandemic was far shallower and returned to its pre-Covid levels in a very short period of time, whereas the percentage of tenants in good standing in the commercial sector dropped off far more and remained lower than the pre-Covid levels.

there's no doubt in my mind that [residential] is more defensive than both retail, or at least certain elements of retail, as well as office. I think sitting where we are today [late Covid Pandemic] and looking at office space, [one has to ask,] will office ever recover [particularly] with the high vacancies that [already] existed pre-lockdown, which would now be exacerbated - Participant C.

To briefly follow-on from the above reference to the recovery of certain real estate sectors from black swan events such as the COVID pandemic, while the residential sector is not immune to these events, one of the aspects that contribute to its resiliency is not necessarily that it won't be affected by such events, but by the fact that it can recover from these events faster than other sectors. Participant E

states that “if you're tied into a 10-year lease, or a five-year lease now and the economy improves, the [(office, industrial and retail sectors)] are going to take five years to recover again, and [residential] will immediately see the pickup. So, you take the pain quicker but should also see the benefits quicker”.

Three key sub-themes were identified from the Participants responses when discussing the benefits of residential real estate, all of which contribute to the single overriding characteristic that residential real estate is resilient and defensive in nature. These characteristics of the sector in many ways can be considered benefits in their own right. The subsections below highlight these key characteristics and include;

- Diversification,
- Fundamental demand for residential accommodation in South Africa and,
- Influence of owner occupier market.

Diversification

All nine Participants mention that diversification is the greatest benefit that residential rental portfolios offer investors and discuss the unique characteristics attributed to the sector that support this.

The most prominent instance of diversification that sets residential apart from the other real estate sectors is the large number of individual tenants/leases that one is exposed to in a portfolio. Participant C likens it to a typical insurance model in that

> *you obviously have a reduced tenant dependency because you are spreading your risk over a larger number of individual tenants as opposed to a retail portfolio which maybe has relatively fewer [large] blue chip tenants. Our risk is [instead] spread over 10,000 tenants.*

Participant D agrees that there is a benefit to having a diversity of tenants and not relying on one big office cheque or two commercial shops which presents far greater exposure to downside risk.

Participant D also highlights that in many instances a unit is shared by more than one person, what this essentially means is that often your risk is spread over a larger number of individuals than may appear on the face of it, which will provide greater security on the payment of rentals.

Participant G elaborates on the benefits of a widespread tenant base stating that

you've got your two thousand individual clients, not all of them are not going to pay and not all of them are going to lose their jobs… so I think the diversification must be the biggest upside to a residential portfolio, as opposed to a single lease situation which is easier to manage, but once you've lost it, it's harder to fill.

Participant F also highlights the exposure to risk that some investors take on when investing in the more traditional real estate sectors when compared to the residential sector, for example

those invested in retail, if a Massmart or a Woolworths… goes bankrupt, all of a sudden, they've got 25% exposure in the portfolio to that sub-sector, then they are severely affected. We don't have that. So there's always strong demand and it's so sensitive. If vacancies go up a little bit you can just drop price slightly and you'll fill it again.

Participant D also refers to the case of Edcon, which is a good example of the point Participant F raises above. Edcon was a leading clothing, footwear and textiles retailer group in South Africa which went into financial difficulties in 2018. This led to them reducing their retail footprint by as much as one third. Many South African REITs held large exposures to Edcon at the time such as Hyprop who had 9% of its gross lettable area occupied by Edcon, they were left with large pockets of vacant space across their portfolios. Furthermore, rentals on some of their existing leases were reduced by as much as 40%.

Participant A highlights the risk that other commercial real estate portfolios face in stating that "you can see that things can easily, quickly go wrong with the commercial clients, because of the fact that you got one building with one tenant and if there's a disruption like COVID, then you have an empty building".

This risk is largely eliminated with residential portfolios as it is effectively spread over a larger number of individual tenants who are exposed to and derive their income from a wide variety of different industries, sectors and seniority levels within each industry, thus reducing exposure to any one industry or occupier.

Participant F refers to it as having a "diversified tenant base over diversified industries of employment".

To provide an example into the degree of diversification that can be seen in a typical residential rental portfolio, Participant F undertook an analysis of their own residential portfolio. The findings of which revealed that the portfolio did not have more than 11% exposure to any single industry.

> *The top four [exposures] are all around 10% [and] it's a split between, government institutions, hospitality, and banking… and then there's a big portion in the 5% range and then there's a big portion in the 2 and 1% range. So that's a very nice, diversified profile of our tenants… we don't have one single large exposure to a certain segment. Therefore, when times are tough, and COVID is a good example now that we're seeing, we were not unaffected, but we were less affected compared to other asset or other property asset classes because of that diversified tenant base. We were lucky not to see vacancies shoot through the roof. It did go up initially, but it's settling down* - Participant F.

Another aspect of diversification that was raised by Participant E is diversification in the locations of the properties in residential portfolios. This was not a common theme raised perhaps due to the existing residential REITs and large-scale funds being largely concentrated in the CBD of Johannesburg and Pretoria, a point raised by Participant B and C which was discussed in more detail in the challenges and risks section above. This was perhaps also not a common theme as diversification via location of the portfolios properties is not a unique differentiator and indeed portfolios of office and retail are also able to strategically diversify their portfolio geographically.

It was noted with respect to diversification in terms of location that Transcend Residential REIT was more geographically diversified which proved to be a successful strategy for the group and proved to be more resilient throughout the COVID pandemic. This could be a possible contributor to its strong performance when compared with the other pure residential REIT, Indluplce Properties.

Participant E refers to another unique characteristic of residential rental portfolios, particularly in the case of the more established residential portfolios and REITs, including their own portfolio. This is diversity in the different tenant income/rental levels. He goes on to state that “it's not just diversity in location, its diversity in different income levels as well. We want to be a more affordable fund - so the R4,000 to R7,000 a month, but we want to have a range, we want to be able to serve the lower end of the market and the high end of the market as well, up to the R12,000 and R15,000 a month. So in that diversity, there's also a bit of lowering risk”.

Participant A and I explain that the diversification in income levels/rental levels reduces risk at it provides a buffer of sorts during good and bad economic times - for example

> *we've seen a downscale of people into the R3,000 to R7,000 [rental range]… and when the economy picks up again, we'll see those people move back up. So actually, there has been two things - There's been people coming down from the high categories, R12,000 to R25,000 and above R25,000, they've been coming down into the R7,000 to R12,000. But equally so, there have been people shifting from there back down into the R3,000 to R7,000 - Participant I.*

Due to the high churn rate and short-term nature of residential rental leases particularly in the larger portfolios and residential REITs, the residential sector is far more reactive and fluid. In that sense, having diversity across the different rental brackets means that the price sensitive tenant can move between the different rental bands depending on their individual circumstances or general economic circumstances and the larger portfolios are able to offer a range of price points to allow for those shifts and suit the tenant. This is also a benefit in the sense that a tenant may vacate a unit in a portfolio but opt to rent a different unit in the same portfolio, at a different price point, resulting in an improved tenant retention rate while also better mitigating against risks of the tenant's ability to pay.

It is made clear from the above discussion that the unique characteristics of residential real estate set it apart from other real estate sectors in terms of the diversification that it achieves. The biggest contributing factor to this is that portfolios are comprised of far larger numbers of leases and tenants than is the case with the more traditional real estate sectors such as office and retail, and as such rely less so on fewer larger scale tenants on longer term leases.

The next two sub sections discuss two factors relating to residential real estate in South Africa that contribute toward the resilience of the residential real estate sector compared with the other real estate sectors.

Fundamental demand for residential accommodation in South Africa

When considering the benefits of residential rental property as an investment class and more specifically referring to the defensive nature and resilience of the sector, six of the nine participants emphasised that there is strong fundamental demand for affordable residential real estate in South Africa. Participant I who is largely involved with market research on residential tenants sums the above up well in stating that

we have a huge population, a growing population, there are less people buying, there are more people renting, the numbers themselves show that. So, you look at Stats SA general household survey, and you've got a growing population, you've got a growing number of household sizes and you've got a growing percentage of those households that are staying in rental accommodation. I think on their last release, the 2018 data that they released, 26% of the population was in rented accommodation. So, it's growing and that means that you have an investment with a purpose and with a need. We do have a high level of unemployment, so that needs to be taken into consideration. But if you are building the right thing in the right area for the right people, you've got a good investment – Participant I.

Participants F, C, D and G hold the same view as evidenced by their comments below and believe that this strong fundamental demand plays a strong role in what makes the affordable residential rental sector so resilient.

Firstly, there's a big demand for affordable residential stock in the country, it's just a South African problem… There is strong demand, the lower your rentals, exponentially the more demand there is. It's resilient to economic downturn. So, when the economy is doing well, people are migrating out of your urban edge into our segment and when the economy is under pressure, like it is now, people are migrating down from your higher end in the northern suburbs into our market. So, it's very resilient - Participant F.

I think again, if one considers the population, the housing shortage in the country, and that's not going to go away and yes, a large portion of that needs to service, the poor market, but still, there is a massive shortage that currently exists. So, that to me still clearly bodes well for the residential space - Participant C.

We know that there's a chronic shortage of accommodation and if the economy starts on an upward trend, businesses out there are going to need employees. That's where the labour forces need a place to stay - Participant D.

This strong fundamental demand and shortage of affordable residential rental accommodation, in effect mitigates the risk of having shorter-term rentals and a high churn. Participant A emphasises the benefits of this when comparing such characteristics to other commercial real estate sectors such as office, highlighting two core aspects which participants I and F reinforce. Firstly, that the high demand

and chronic shortage of rental housing means you can replace your income easily compared to other more traditional real estate sectors. Secondly, as the economy changes, tenants still require a place to stay and will shift between different rental bands and locations depending on their personal economic circumstances – this speaks to the nondiscretionary nature of residential real estate compared to the office and residential sectors.

> *The ability to switch tenants [is a benefit], so as much as the change might be big, there's, always that demand. So, the ability to replace your income, is much better compared to the commercial guys in times like this [(Covid)] because you have people downgrading from where they were paying R15,000, they come and pay R7,000 now and still live in a respectable space* - Participant A.

Given the growing fundamental demand for affordable residential rental housing in South Africa and despite the nature of residential rental accommodation as having shorter term leases and high churn, there remains strong certainty in cash flow due to the demand for affordable rental accommodation and the non-discretionary nature of the sector. This fundamental demand is a strong characteristic of the sector that contributes to its resilient and defensive nature.

Influence of owner occupier market

The role that the owner occupier has in this market has both pros and cons. To briefly touch on the latter, it was discussed in the risks and associated challenges section, lack of adequate supply/pricing misalignment section, that owner occupiers are often willing to pay a higher price for residential property as opposed to what the funds are prepared to pay. This is due to the funds needing to stick to a target yield requirement when pricing these bulk acquisitions. These funds are unable to be as price competitive on this basis as often private developers or owner occupiers are willing to pay higher prices or accept lower yields. This entices developers to sell newly developed residential stock directly to the private investor or owner occupier at a higher price and better return than what they can achieve by selling the full development on a yield basis to a fund.

On the flip side, there is a “strong underpin on portfolio valuations driven by the residential owner occupier market” (Participant E) and funds can effectively exit their holdings by selling to the owner occupier or smaller private individual investor at a premium. Evidence of this is found the 2021 annual financial statements for Transcend Residential whereby the average sale price premium realised was 36.3%.

> *You've effectively got an underpin, we call it an underpin. So, you might not get a great yield, but if you were to sell it, you'd probably realize that relative to the investment value, you probably have an uplift [because] people are prepared to pay more to live in it, than people are prepared to pay for it as an investment* - Participant H.

This has a meaningful impact on the valuations of such portfolios and contributes to the resilience of affordable residential portfolios, particularly during difficult economic times which Participant H highlights such as the COVID pandemic in saying that "certainly in this pandemic, we haven't seen the reversal in property values that we've seen in the commercial sector, nowhere close. So it has proved to be quite resilient". Participant A elaborates on the above -

> *The other thing is the type of property that we invest in, we can easily break up and sell those units individually, it's not a high-rise block and we've proven that the actual value of those units is much more than the value that you see on our books because we value on an income basis. So, the yields on a sectional title sale are much better. People [do not value it on this basis], they are speculators that want to rent out their units, but in the main, you'll find that there's a plus minus 2% differential between the sectional title yield and income yield valuation. So, if things were to go bad and you had time to break up and sell, guys will still get their money back* - Participant A.

Speaking to the same point above, Participant E, states that "if [income/yield valuations] become a bit too sticky, we can always use the actual sales model to approve our values as well. So, it's more of a backup and really helping with valuations. It's one of the arguments you can bring to the table". Participant C follows on by saying that "you do have the opportunity to sell it individually and obtain a premium". He further goes on to highlight that the fund he is involved in has already adopted such an approach in some cases – "So we've engaged with tenants in five buildings right now and said, do you want to buy your apartment and we've educated them on FLISP* and all of that. So, it becomes a win-win for everybody and that's unique to residential."

* The South African Government's Finance Linked Individual Subsidy Programme (FLISP) empowers low-income earners to become homeowners

Interestingly, the impact that the owner occupier market and private small scale investor has when it comes to these residential rental funds has both pros and cons, on one hand these investors are willing

to pay higher prices/lower yields for residential accommodation which drives up the prices and entices developers to rather sell to this market than to the funds, which value these assets on a yield basis, and in which case are often unable to compete to purchase these assets on a bulk basis. On the other hand, the owner occupier and the small-scale private investors provide a strong underpin for these funds in terms of their asset valuations. If these funds sectionalise units in their properties and sell them off individually, they will realise a significant premium as evidenced in the annual financial statements of Transcend residential (2021) whereby the average premium realised was in excess of 30%.

The three subthemes identified and discussed above all contribute to the defensive and resilient nature of residential rental portfolios and there is strong evidence in each of these subthemes to substantiate this. This reinforces the findings in the literature, from the perspective of large scale residential rental portfolio and REIT managers, that residential rental accommodation offers investors diversification through its diverse tenant base (Anderson et al., 2003). Early evidence of this is found in the sector specific SA REITs correlations analysed by Akinsomi (2020) which shows residential REITs have very low correlations with stocks, industrial and office sector REITs, retail REITs and diversified REITs. Furthermore, international literature highlights the benefits of including residential in the mixed asset portfolio to improve the diversification and performance of a portfolio.

A strong theme in the literature, particularly in the United States, United Kingdom and Malaysia market was that residential property acts as an effective hedge against inflation in the long run (Montezuma, 2004; Kruger-Levy and Bertoldi, 2017). This benefit was not mentioned by any of the participants in this study and so it is difficult to conclude on this point in the South African context.

4.4. Discussion

The research findings section above highlighted the views of managers that are directly involved in the management of large scale residential rental portfolios and residential REITs with respect to the challenges they are experiencing in the residential sector, how they are attempting to overcome these challenges and, what the unique benefits are that residential real estate offers investors.

On analysis of the research findings a broad overarching theme emerged which links strongly back to South African research in this regard and helps explain, in many instances, the challenges faced by residential fund managers. The below section provides a discussion on the findings analysed in the previous section and is separated into the three separate objectives of the research.

4.4.1. Challenges facing large scale residential rental portfolios and REITs in South Africa.

The overarching theme identified was that large scale residential rental portfolios and residential REITs have a limited track record/history in South Africa which is perhaps the biggest contributor to challenges faced in the sector. This finding relates strongly to findings by Nurick et al., (2018) who concludes that the maturity of the REITs sector in South Africa is pertinent to the low uptake of residential stock by REITs.

The limited track record can be attributed to two key factors. Firstly, there simply was not the supply and scale of quality affordable residential rental stock suited to these types of funds in South Africa as there was with the other more traditional sectors such as office, retail and industrial. It was a lot easier for these non-residential funds to quickly build up portfolios of sufficient scale to attract investment, provide sufficient liquidity and, after the introduction of REITs as investment vehicles in South Africa in 2013, list these portfolios as REITs. This was not possible with residential at the time.

Secondly, non-residential REITs at the time of listing on the Johannesburg Stock Exchange, performed extremely well in South Africa, outperforming equities by a margin of 5.85% for the period between May 2013 and December 2015 (Ntuli and Akinsomi, 2017). Given the strong performance of these non-residential sectors, and as highlighted by the Participants in this study, investors became 'obsessed' with the more traditional REIT sectors and had no need to look elsewhere. At the same time, as mentioned above, the residential product was not out there like the non-residential product was.

As a consequence of the limited track record, lack of adequate supply, and investors 'obsession' with non-residential REITs (and the strong performance of these REITs), there is a severe lack of data available and a very limited track record in the sector from which investors and analysts can use to better understand the sector and measure the performance and risk of the sector. The first pure residential REIT only listed on the Johannesburg Stock Exchange (JSE) in mid-2015, two years after the introduction of REITs as an investment vehicle in South Africa. Challenges around market information and data availability was also raised in research done by Frew (2016) albeit no other findings in the South African context raised this as a challenge. In the international context, poor market information was also a common theme in Australia and the United Kingdom (Crook and Kemp, 2002; Berry et al., 2004; Montezuma, 2006; Newell et al., 2015b) albeit one cannot clearly attribute this as being as a result of having a limited track record, apart from the case with Australia (Milligan et al. (2013b).

To date, there are only two pure residential REITs listed on the JSE, Transcend Residential and Indluplace Properties. Both funds differ extremely from one another in nature and have performed very differently, for example, Transcend Residential has its own internal property management structure and Indluplace Properties is externally managed. Transcend Residential focusses on three storey walk up apartments with a focus on suburb areas whereas Indluplace invests in large apartment block buildings with a large focus in the inner City of Johannesburg and Pretoria. The varied performance of these two funds and the different nature and offerings of these two funds make it extremely challenging to take a view on the sector, particularly when relying on aggregated data from both funds. Given that there are only these two pure residential REITs, the performance of one REIT can have a severe impact on investors views and or perceptions of the sector as a whole. According to Kim and Nofsinger (2008), the availability bias makes individual investors make suboptimum investment decisions due to taking action based on limited data. This can damage investor perceptions as to the risks and performance of residential. Participants in the study say that one needs a 'Growthpoint' in the residential sector i.e. one needs a fund that is of large enough scale, liquidity and an extended track record from which investors can take a view of the sector. In agreement, De Bondt (1998) asserts that individual investors typically use past performance to predict the future performance of their investment, which implies that if the prediction is positive they are more likely to invest into that specific market. Moreover, this also speaks to the importance of differentiating between the different product types that these residential REITs and large-scale residential rental funds offer so that each individual fund can be understood better and how the implications of each funds unique offering on the residential sector as a whole.

The limited track record, the varied performance of the two listed pure residential REITs, and the lack of available data is contributing to investor misperceptions as to the risks and challenges faced by the residential sector. One of the core focusses of this research is to record the views of those directly invested in and managing large scale residential rental portfolios to eliminate reliance on possible misperceptions from investors who are not invested in residential. The majority of the Participants held a strong view that misperceptions about the residential sector still exist amongst investors. This resonates with Anderson's (2015) conclusion that investor perceptions alone are a major constraint to residential investment by SA-REITs and concludes that there are conflicting views regarding the extent of such challenges and their associated risks. This has had a negative impact on overall perceptions toward the sector. Furthermore, this has a negative consequence on investment into the sector, which is critical for these funds to succeed. Moreover, the property market is reported by

Kishore (2004) and Amin and Pirzada (2014) to be characterised with a market capitalisation process, property prices and property valuations that are sometimes more volatile than cap rates and changes in rents. This suggests the existence of irrational and risk averse individual investors in the property market. Furthermore, due to availability bias, the individual property investors would be deterred from investing into the residential REIT sector by acting on insufficient information that does not reflect the true nature of this sector. However, the REIT residential property managers are typically on the ground and engaging with the market and by reason of this, they have a clear picture of the industry which a financial report may not be able to provide. In view of this, an information asymmetry is created between the individual property investors and residential REIT property managers.

This is further highlighted by the following two core misperceptions that investors have about the residential sector. That is misperceptions about poor rental collections and evictions. The Participants made it clear that these are not challenges that they experience albeit, as identified in this research, they have adapted to mitigate against these risks, particularly the latter, by shifting to month-to-month leases and implementing strict tenant vetting and qualifying criteria. Investor misperceptions are exacerbated by the fact that there are only two pure residential REITs in South Africa and that their performance varies significantly. These findings reinforce the findings by Anderson (2015) that investor perceptions around the risks associated with the sector vary significantly and perhaps help explain the cause for these misperceptions.

As discussed above, when REITs were introduced in South Africa in 2013, the residential product was not out there like the office, retail and industrial product was. Residential REITs and large-scale residential portfolios require particular types of properties so that they can benefit from economies of scale in the management and operation of these buildings. This is done by investing in single buildings with a large number of units in them, in some cases in excess of 150 units per building. When REITs were introduced to South Africa, the only areas where adequate supply existed of this residential product was in the CBD of Johannesburg and Pretoria. In addition to this, over the last four years there has been a massive amount of new stock that has come on board in the Inner City of Johannesburg (Participant C). This was partly attributed to one of the large REITs acquiring a large scale private residential rental portfolio in the inner city of Johannesburg which made investors view the Inner City as an attractive destination to invest. This also led to developers believing the default position that these residential funds would buy out their properties, encouraging further development in an already over supplied location. This speaks to herd instinct which according to Fischer and Gerhardt (2007), is one of the behavioural factors that influence individual investor decision making. Fischer and Gerhardt

(2007) also find that investors can focus too much on recent encounters without taking cognisance of the overall market environment when making investment decisions. In view of this, Daniel et al. (1998) states that most individual investors usually respond to information about certain events in such a way that they are often sensitive to irrelevant information; whilst, on the other hand they may be non-responsive to important information which can also be influenced by herd instinct behaviour. This highlights the irrationality that individual investors exhibit and perhaps is exhibited by the investors decisions above to invest further in the inner city on the basis of other investors focussing investment in the area. Hon-Snir et al. (2012) however, discover that skilled and competent individual investors are less susceptible to herd behaviour, among other things. Evidence of this can be seen by the Participants in this research highlighting concerns of oversupply and concentration risk in these inner-city locations. Interestingly, concertation risk was not found to be a risk raised in existing South African research and adds an interesting new consideration when it comes to residential REITs in South Africa.

The above being said, three of the four REITs with large residential holdings are largely exposed to these inner-city locations. Concentration risk has major negative knock-on effects, for example, it increases competition between the funds with respect to attracting tenants in an already limited pool of qualifying tenants. This is exacerbated, on the landlords' side, by the implementation of more onerous tenant qualifying criteria, and on the tenants' side, with tenants being far more sophisticated in terms of identifying and comparing between the best residential rental offerings. Given the tenants sensitivity to price, they will move from one building to another to save a few hundred Rands. The protections afforded to the tenant by the Consumer Protection Act, and many funds shifting month to month leases, make it easier for the tenant to move on short notice to save money.

To compete and retain tenants, these funds need to maximise their offering to the tenant through the amenities they provide, for example free WiFi, communal park and play areas etc. and reduce the cost to the tenant. This is done for example by reducing deposit requirements, capping rental escalations, reducing rentals, and offering rent free periods. All the above puts pressure on the landlord's bottom line and as the Participants mention - when there is a lot of competition "where does one draw the line" in terms of what you offer and how far you are willing to go to compete for tenants.

The above potentially talks to investors' concerns around the financial performance of residential versus the other more traditional sectors, as commonly highlighted by Nurick et al. (2018). However, there is growing evidence of strong and competitive performance in the residential sector in South Africa. Despite this, a key risk identified by investors in existing literature that has a big impact on the performance of residential funds is rental growth limitations. Anderson's (2015) research ranked

'rental growth limitations' as the fourth highest in terms of challenges facing investment in the residential sector. Participants in Anderson's (2015) study cite tenant price sensitivity/affordability cap and the shorter-term nature of residential leases (month to month or annual) versus commercial office and retail leases, as key contributing factors to this. It is important to note here however that participants in this study note that, despite implementing month-to-month leases, the average tenure for tenants in the portfolio is high, this can be seen in the Annual Financial Statements of Transcend Residential, for example, where the average term that a tenant remained in a unit was 30 months.

Despite the above, and which Participants in this research highlight, these funds are always 'marking to market' - rental growth is market driven as opposed to contract driven (which is typically the case in office and retail). More specifically, Participants comment that rental growth generally tracks CPI and is dependent on the economic cycles - when the economy is doing well, rental escalations are strong and when the economy is doing poorly escalations are weak. It is also worth noting, with the above in mind, that these shorter-term leases mean that reactions to the market are far quicker than is the case with office and retail portfolios. Participants in this study highlight that residential funds feel the hard times faster but will generally bounce back quicker. The Covid pandemic will be a good opportunity to establish if this is the case and indeed there is early evidence in the TPN Q2 2021 report to show this.

From the data analysed, there were several external factors that had a negative impact on these funds ability to grow their rentals. Firstly, due to the concentration risk in the Inner City of Johannesburg and Pretoria, where many of these funds have large exposure (Indluplace 33% of units in Johannesburg inner City, Octodec 54% of rental income coming from Pretoria and Johannesburg CBD), there is pressure to compete for tenants which often comes in the form of reduced rental escalations, or in some cases, a commitment not to escalate rentals for a period of time. Secondly, and which is very important to acknowledge, in the South African context, is the above inflationary municipal cost increases for government services. In essence, funds are able to grow the rental they charge tenants depending on the market cycles but due to the unproportionally high increases in municipal service costs, these costs eat into the funds bottom line because unlike the office and retail sectors, residential funds are unable to pass on 100% of this cost on to the tenant. Instead, these funds are left to ultimately absorb most of these costs. The importance of this is highlighted by the participants rating this as the highest risk they deem the sector to be facing.

It was clear however that concentration risk and oversupply was unique to the inner-city of Johannesburg and Pretoria, whereas, in the suburban areas there is less access to adequate, high-

quality residential supply for these funds. The only way around this is firstly, for these funds to develop their own stock however, there is significant risk when it comes to development including, but not limited to, cost overrun risks, timing risks and tenanting risks. With these funds core focus being about distributions and distribution growth, taking on such risk is not in their mandate.

Secondly, funds can partner with residential developers to buy up new stock in bulk. This raises several issues, firstly, these funds lose a degree of control in the product being developed which is key to them in order to ensure the building is designed and best suited to them in terms of capitalising on economies of scale and operational efficiencies; Secondly, to achieve the scale these funds require, they need to partner with several different developers which impacts on the quality and consistency of the product they are acquiring; thirdly, and perhaps most importantly, developers are realising higher returns when selling units off individually due to the owner occupier market and individual private investor yield requirements being far less than those of REITs and large scale residential rental portfolios. Some funds have had successful relationships with developers in partnering to develop stock, but the overwhelming response from the Participants is that these relationships have not worked out due to being unable to come to an agreement on price.

Another challenge contributing to these funds access to adequate supply is that many South African residential developers have started to build up their own rental portfolios however do not have very 'deep pockets' and as such, the new supply coming into the market is limited and residential rental funds are unable to access this supply (particularly at the right price). This reduces the ability of these developers to recycle capital and for them to continually develop new stock which has long term implications with respect to addressing the affordable housing shortages in South Africa.

High management intensity was frequently highlighted in existing research (Crook, Hughes and Kemp, 1998; Kemp and Crook, 1999; Mansfield, 1999; Crook and Kemp, 2002; Investment Property Forum, 2014), including research in the local context (Anderson, 2015; Frew, 2016; Nurick et al., 2018). It was made clear from all participants that the nature of these funds is extremely management intensive and that that is where the biggest risks lies if something goes wrong. This is due to the sheer number of leases and the rate of churn in the portfolio. When managing residential you are also dealing with someone's home and so the nature of residential management is also far more emotive.

Participants in this study acknowledged the management risks but argue against what was found by Frew (2016) with respect to the management expertise in the market, saying that there does exist the requisite management skills and expertise to manage these portfolios. That being said, it was also

made clear that in South Africa, there are no large-scale property management companies with the requisite skills to manage residential like there are management companies for the office and retail sectors. What this section highlighted was that it was made unequivocally clear by all participants, barring one, that the management of these properties needs to be done internally. Many of the participants specifically highlighted the improvement in the performance that was realised when shifting to an internal management structure and attributed the key factor being that one needs to have a strong alignment of interests between the property manager and the asset manager. When looking at the two pure residential REITs in South Africa, one has an internal property management team and the other has an external property management team. It is difficult to attribute the performance of these two funds to the style of management as they differ from one another in many ways, but the poor performance seen by Indluplace Properties may potentially and partially be attributed to them using external property managers.

Interestingly, the REIT participants rated 'High management intensity' significantly lower down on the scale of risks (rated 6th) than those participants involved in private large scale residential rental funds (rated 2nd). This may be attributed to larger scale funds achieving better economies of scale and efficiencies for managing larger funds and having the additional resources to do so.

With the above being said, an interesting finding was that the residential REIT participants and the private residential portfolio participants ranking of risks varied. With the most varied responses being the rating of;

- 'Poor liquidity' rated 2nd and 7th respectively – this may be due to REITs requiring high liquidity to be attractive to investors who invest in the listed space, whereas private portfolios tend to have more long-term investors who are less concerned about short term liquidity.
- 'Investor Misperceptions' rated 5th and 3rd respectively – This may be due to REITs having more intensive reporting standards and so investors in REITs tend to have access to more detailed reporting and data as opposed to private portfolios.
- 'Legislation favouring the tenant' rated 10th and 6th respectively – This may be due the general shift by REITs to month to month leases which has made it far easier to evict tenants and puts the landlord and tenant on a more equal footing in terms of the tenant having rights under the Consumer Protection Act to give 20 business days' notice to vacate, and the landlord having legal grounds to evict at the end of every month.

Another noteworthy observation was that, generally, large scale residential rental portfolio managers gave a higher rating on the different risks compared with the residential REITs. This may also speak to resource availability and footing in the market in terms of the scale of these funds and the resources available to them. It also speaks to REITs having higher market transparency requirements in terms of better reporting to investors which ultimately improves their understanding of the sector. According to the theory of behavioural finance, individual investors may exhibit different risk appetites (Kapoor and Prosad, 2017) and by making available the information that is necessary for informed decision making, would likely lead to better property investment outcomes in the sector.

Participant C raised competition from government housing as being a risk and that there have been recent changes to government legislation in this regard which broadens the affordability band included within the support band of government assistance. Due to these changes being so recent, it is unknown at this stage the impact that this will have on the sector, but it is important to acknowledge that this may have a significant impact going forward and should be monitored.

These findings broadly resonated with existing literature when it comes to the challenges and risks associated with residential real estate and provided a more in depth explanation as to some of the risks and challenges which helps further inform investors and open up the door for strategies to be put in place to mitigate against these challenges and risks.

4.4.2. Overcoming the risks and challenges with respect to residential real estate and improving investor understanding and appetite for investment in the sector.

Participants responses in this regard responded directly to the challenges raised in the previous section. There are some interesting discussion points that come forward following an analysis of the participants responses.

Given the strong prevalence, as highlighted in the previous section, of investor misperceptions in the residential sector, responses from the participants highlighted two key focus areas. Firstly, what is being done to overcome the challenges, and secondly, being a challenge identified in itself - what are residential REITs and large scale residential rental portfolio managers doing to improve investors understanding and appetite for the residential sector.

In responding to overcoming the challenges, such as above inflationary municipal cost increases, there were some straightforward strategies raised such as implementing measures to improve the management and monitoring of utility costs. Solutions also included ways of passing these costs on to

the tenant as much as possible by implementing pre-paid electricity and water meters. Participant F also highlights the opportunities available to these funds to implement green building technologies. This reduces water and electricity requirements from government and ultimately provides a cheaper product to the tenant while improving the portfolios resilience against these above inflationary cost increases that ultimately erode the funds bottom line. These strategies are also key in helping these funds compete for tenants and offering the best product at the best price.

It was noted that despite these funds paying these above inflationary municipal cost increases, little is being provided by government, particularly in the inner city of Johannesburg and Pretoria, to provide quality services such as security, cleaning and general maintenance and upkeep. In fact, where funds share common interests, they have teamed up to provide these services themselves and at their own cost to improve the tenant environment and make it clean, safe, and attractive. The funds are part of a body called JPOMA (Johannesburg Property Owners and Managers Association) to lobby together to have more influence in the public forum and to fight for improved service delivery in Johannesburg. One Participants fund has focussed their strategy on buying and developing entire precincts to benefit from economies of scale and to take full control of the environment in which they operate from both a private landlord perspective and with respect to the public realm.

With respect to the supply challenges discussed in the previous section and the dilemma created by a misalignment of price expectations between these funds and residential developers, there appeared to be one such method that was proving successful for Transcend Residential. This was to take control of the full value chain, from development to the ultimate holding and management of the property. In such an arrangement, investors can come in at different stages of the process depending on their risk appetite from land holding, development and tenanting, management, and ultimate long-term listing and holding phase. All the while ensuring that the product is suited to meet the long-term objectives of the fund. This strategy was also highlighted in research by Aveline-Dubach (2020) in Japan. According to the theory of behavioural change, individual investors may exhibit different risk aversion practices (Kishore, 2004; Amin and Pirzada, 2014; Kapoor and Prosad, 2017). In view of this, there are still opportunities for investors with different levels of risk appetite to partake in the REIT residential property market by carefully selecting the stage at which they would want to invest. Considering this, the theory of behavioural finance may be able to explain the behaviours of different investors.

A common theme mentioned by Participants is to implement strict qualifying criteria when it comes to accepting a tenant. This may be the reason for participants not mentioning eviction risk and rental

collections as a problem and may be evidence of how such a risk has already been overcome. The emphasis that the participants put on this aspect of their operation would imply that such a measure is key to overcoming eviction risks. A side effect of this however is that the qualifying pool of tenants then becomes limited and drives competition between these funds in the concentrated areas such as the inner City of Johannesburg and Pretoria. This can ultimately impact on the funds' performance as competition drives these funds to reduce rentals, limit rental escalations, offer incentives, and expand their offering to their tenants in order to attract and compete for this limited pool of tenants. All the above come out of the bottom line of the funds profits and can drastically impact on the portfolio's overall performance. It is interesting to note that by implementing stricter qualifying criteria for tenants these funds are creating other challenges for themselves as above. It is difficult then to draw the line between how strict one becomes with their qualifying criteria and the resultant size of the tenant pool that you are competing for.

One of the most noteworthy findings in the participant responses is the shift to month-to-month leases from the more traditional one-year leases typically entered into in residential rental agreements. Given investor preferences for cashflow certainty, one would expect these funds to seek longer term lease agreements with tenants or perhaps even longer term headleases with employers to maximise security of income and reduce churn. This is the case in research by Aveline-Dubach, (2020) which highlighted the importance of bringing third party employers into the conversation when it comes to the financialization of rental housing in Tokyo.

When asking the participants about headleases, the overwhelming response was that headleases go against what makes residential portfolios unique from the other real estate portfolios such as office and retail. Participants explain that when a headlease is in place, you are effectively far more exposed to risk because if that tenant leaves, you are left with an empty building of over 150 individual units which, if unable to re-let on a headlease can take a substantial amount of time to let to individual tenants. One Participant, who was currently exposed to headleases in their portfolio, noted that their strategy was to exit from these types of leases and revert back to individual leases per unit. Another participant spoke of an example where they had a headlease agreement and when the tenant gave notice they sat with big vacancies for an extended period.

Participants explain the reason for the shift to month-to-month leases is to put the landlord and the tenant on an equal footing with the law. The Consumer Protection Act grants the tenant, in the case of these large scale commercial residential rental portfolios, the right to terminate the lease, regardless of the lease term, on giving 20 business days' notice, and subject to a reasonable penalty.

This is prejudicial to the landlord as they are legally bound to see out the full term of the lease whereas the tenant is not. Furthermore, in instances when the tenant does not pay their rent, it is far more difficult to evict that tenant while they are still within the lease term. On the other hand, with a month-to-month lease, the lease effectively expires at the end of each month and so if a tenant is not paying it is far easier to evict a tenant on the basis that the lease has expired versus a breach of the lease agreement.

As participants highlight when discussing the unique benefits of the residential sector, there is strong fundamental demand for affordable residential rental housing in South Africa and so these fund managers are not concerned about the shorter-term leases and the risk of vacancy and high churn. Instead, they benefit from easier eviction processes if it comes to that, and they can more frequently refresh units and re-let them at market related rentals. Participants highlight that despite the shift to month-to-month leases, tenants remain in the units for a long period of time. This is evidenced in the Transcend 2021 Investor Report whereby the average term that a tenant stays in a unit is 30 months. One participant however mentioned that they were trying to sign tenants up again on annual leases but did not go into detail on the reasons for this. One can speculate that in an oversupplied and competitive market, one would seek longer term leases to reduce churn and improve cashflow certainty.

With respect to improving investment understanding and appetite, a big aspect of this is extending the track record for large scale residential rental funds and REITs. As highlighted in the risks and challenges section the limited track record and history of residential rental funds has played a big role in terms of the challenges that are being faced today. While there is not much one can do in this instance other than allow time to pass and for the track record of existing residential funds to grow and become more established, participants often spoke about needing a large scale pure residential REIT fund, like a 'residential Growthpoint' to help grow the presence and track record of the sector. This is consistent with the theory of behaviour finance as it states that individual investors are subject to emotions and cognitive psychology (Amin and Pirzada, 2014). As such, their investment decisions may be influenced by availability bias. Given that the REIT residential market is still growing, individual investors can only work with the little information they have to make investment decisions in this market. Unfortunately, because this market is still young and growing, there is limited data that is sufficient to make informed decisions at least from the public domain. In view of this, the researcher argues that the individual investors may only act on the information that is accessible to them as consistent with the theory of behavioural finance. But the residential REIT property managers who are

on the ground have more information and data on the performance of this market that may not necessarily be accessible to the individual property investors. As such, the researcher further argues that if the information asymmetry between REIT residential property managers and individual property investors could somehow be reduced, it could lead individual property investors to view the sector in a more positive light and perhaps more motivated to invest more into this market. With the performance of the only two residential REITs being so drastically different and the offerings and structures of these funds being so different, it is difficult to draw any conclusions about the performance of the residential sector when aggregating the performance of these funds.

This leads into the next two topics which most of the participants raised, that is, the need to better differentiate between residential product types and for these funds to have a clear investment strategy to show investors what exactly they are offering and how the intend on doing so. As mentioned above, the only two pure residential REITs in South Africa differ in almost every possible way as shown in **Table 15** below.

Table 15: Comparison of Indluplace Properties and Transcend Residential (December 2022)

	Indluplace Properties	Transcend Residential
Market Cap	R1 009 569 825	R1 049 169 145
Mangement	External	Internal
Concentration	Inner City	Suburban
Building typography	High rise, multi-family	3 storey walkup apartments
Annualised growth Dec 2016 - Nov 2022	-18,84%	-3,65%

Source: IRESS Domain 2022, Transcend Residential 2021 annual results presentation, Indluplace Properties 2021 results presentation. Compiled by Author.

This makes it particularly difficult to aggregate the performance of these two funds and take a view as to the performance of the residential rental sector as a whole. For this reason, it is critical that the differentiation between these funds needs to be better defined, particularly in the REIT space. One participant mentioned that in such a small pool of residential REITs, if one REIT does not perform well it can have a negative impact on perceptions of the sector as a whole. This is most certainly a contributing factor to the high degree of investor misperceptions with respect to the performance and risks in the residential REIT sector.

Along with a growing track record comes more data which is key to improving investor understanding. The inaugural MSCI residential index (2018) aggregated data from a far wider range of residential funds and showed evidence of strong returns compared to the other more traditional property

sectors. This starts to paint a more holistic view as to the performance and risks in the sector. While the availability of data is still nascent in the sector, there has been a lot of improvement in terms of reporting on the performance and understanding the sector in more granular detail. For example, one Participant is collecting data on the makeup of the tenants occupying their portfolio including understanding their income levels and the spread of employment of these tenants across different industries and between the public and private sector etc. This data is critical for investors and analysts to better understand the risks and benefits of the sector, particularly with respect to the diversification benefit. With the above in mind and the extent to which these funds can differ from one another, participants highlight the importance of having a clear investment strategy and communicating this strategy clearly to investors. This goes hand in hand with the need to better differentiate between the different residential product types, management styles and investment strategies in the South African context.

Having a longer track record, more qualified data to support and evidence the performance and risks of the sector, and better differentiation and understanding between the different residential offerings will help direct capital to the residential sector where there is demand which will help grow the sector, improve supply in the right locations, and improve investors understanding of the sector. Evidence of this can be seen with the recent boost in the development of student accommodation in the country which has attracted significant investment.

Findings with respect to the strategies to overcome the risks and challenges both support and contradict findings in existing research, albeit limited. The most notable contradiction being the argument between long term head leases versus short term month to month leases with individual tenants which is likely due to the different market dynamics in Japan and South Africa. Growing and improving the South African residential REIT track record was a major topic in the research however this did not come up in research by Aveline-Dubach (2020) which is again likely as a result of Japan already having a significant residential REIT track record.

4.4.3. Unique benefits to residential investment

The overwhelming response by participants when asking about the unique benefits that the residential sector offers investors was that the sector is extremely resilient. It was identified in the context of South Africa that the sectors resilience is due to three core characteristics. Diversification, Fundamental demand for affordable housing in South Africa, and the Influence of the owner occupier market and small-scale private investment market. These findings closely replicate those by Anderson's (2003) in the United States, that the residential sector offers high risk adjusted returns,

low correlations with other property types and a strong fundamental demand through demographic drivers such as the baby boomers and the echo boom generation.

The diversification benefit was the most referred to benefit by the participants when it comes to investment in residential real estate. This is largely because the tenant base is so widely spread across different industries, income levels, and locations. This is evidenced by Participant F, who's fund is focussing on data collection within their portfolio to better understand it and use to base its strategic business decisions on. From the data gathered at the time of the research, Participant F highlighted that the greatest exposure their portfolio has to a single industry with respect to the industries that their tenants are employed in, is 11%. As such these funds are rarely impacted by the devastation of a single industry as not all people renting will all lose their jobs at once.

The above being said, Participants discussed the negative impact COVID had on large scale residential rental portfolios, particularly in the inner city where there is a lot of concentration, and which caters largely to the hospitality sectors (which are also concentrated to a degree in the inner city). When restaurants, bars and hotels shut down because of the pandemic, a lot of these jobs were affected which ultimately impacted on the residential funds with high concentration in these locations. It is important to highlight here that while diversification is clearly, as reported by the participants, a core benefit that the sector offers investors, because of the concentration risk of these large residential funds in the inner city, this benefit is somewhat muted.

In the South African context early evidence of the diversification benefit is highlighted in research by Akinsomi, (2020) which showed residential REITs having the lowest correlations with stocks, industrial and office sector REITs, retail REITs and diversified REITs, albeit the correlations between residential and stocks and industrial and office were of no statistical significance. This must however be caveated, by the fact that these correlations were calculated from two relatively small scale pure residential REITs and thus one must be careful taking strong conclusions from this. This does however support early views that there is a benefit to including residential real estate in South Africa in mixed asset and mixed real estate sector portfolios, which concurs with the benefits highlighted in existing literature.

The second characteristic that was identified that makes residential real estate resilient is the existence of strong fundamental demand for affordable rental housing in South Africa. This supports participants views that shifting from annual leases to month-to-month leases is not of concern when it comes to tenant retention and occupancy levels. The benefit of month-to-month leases and putting the landlord and tenant on an equal footing in terms of the law far outweighs concerns by participants

of tenant retention and keeping low vacancy levels. It can't be ignored however the impact that concentration risk has on this. Where there is oversupply of affordable residential rental accommodation, for example in the inner city of Johannesburg and Pretoria, the benefits of this are also somewhat muted. This is perhaps another key aspect which is resulting in the far stronger performance of Transcend Residential versus Indluplace Properties, as Transcend is targeted to areas outside of the inner city where there exists a shortage of supply and strong fundamental demand.

The final factor, in the context of South Africa that contributes towards participants views that the residential rental sector is resilient is the impact and influence that the owner occupier market and small-scale private investor has in the market. This is a complicated point as the influence of these stakeholders in the market both benefits and creates challenges for residential REITs and large scale residential rental portfolios.

It negatively effects these funds as it has made it more difficult for these funds to scale up and find adequate supply in the market at the right price. This is because these large-scale rental funds place significant emphasis on maximising the growth of their distributions to shareholders and as such, these funds are extremely conscious of the yields at which they enter a transaction on. The owner occupier or small-scale private investor however is less concerned about the yield on which they are acquiring a property or are prepared to buy a property at a much sharper yield than the funds can. The consequence of this is that developers can make greater profits by sectionalizing units and selling them individually to owner occupiers or small-scale investors.

It positively effects residential REITs and large scale residential rental portfolios because the owner occupier market and small-scale residential investor market provides a strong 'underpin', as referred to by participants, of value for these units which ultimately supports stronger portfolio valuations and shareholder value. Evidence of the benefit of this underpin can be seen in the Transcend Residential Annual results presentation for 2021 whereby the average premium realised on the sale of units was in excess of 30%. If funds can take control of the full value chain from development of the residential product to the leasing and management of that product and ultimate exit, there is large upside potential and value to be seen.

It is noteworthy that Participants in the study did not mention inflation hedging as a benefit and so it difficult to make a conclusion as to whether participants views matched the findings in literature in this regard.

Considering the above benefits identified by the participants and the recent pandemic, this will be a good time to monitor the performance of these funds and establish, with evidence, whether indeed the residential rental sector is resilient. It is already noted above that due to the inner-city concentration of residential rental stock in South Africa that this has muted the diversification benefits somewhat and that with the heavy concentration of the population in the inner city being weighted to the hospitality sector, which was severely impacted by Covid, the residential funds in the inner city were negatively affected.

That being said, the performance of Transcend Residential has held up well throughout the pandemic, this could be attributed to the fact that this fund is not exposed to the inner city and is more focussed on the suburban space. This reiterates the importance of differentiating between the different residential funds in South Africa and understanding the risks and benefits that are unique to each fund or portfolio.

Some early evidence of the resilience characteristic of residential can be seen when looking at the TPN Residential Monitor Report for the 2nd quarter of 2021. The TPN Residential Monitor Report aggregated data from a much larger dataset and thus gives a more holistic view of the residential sectors performance. It is a noteworthy observation in this report that the percentage of tenants in good standing for residential has consistently been higher than that for commercial since approximately 2012. When the Covid pandemic hit South Africa in early 2020, tenants in good standing for residential and commercial rent dropped to 73.50% and 50.36% respectively. In the second quarter of 2021, tenants in good standing for residential and commercial rent bounced back up to 80.34% (Approximately <5% below its long-term average before the pandemic) and 66.54% (approximately 15% below its long-term average) respectively. This can also be attributed to the benefit that shorter term leases and high churn rates have in terms of allowing residential to track the market more fluidly and respond more quickly to improvements in the economic cycles than the more traditional office and retail sectors, whereby long-term leases make for sticky, slow reactions, and corrections to market.

These research findings align largely with existing research from both a global and South African perspective with exception to the fact that none of the participants mentioned residential as being a good hedge against inflation. That being said, it does not confirm nor deny if residential investment offers this benefit.

While the benefit of diversification was repeatedly raised and agrees with existing research, there is the caveat in the South African context that there is concentration risk which may mute this benefit somewhat.

5. CONCLUSION & RECOMMENDATIONS

5.1. Conclusions

The success and adoption of residential REITs is varied around the world with prominent adoption in the United States and Japan and less success in the United Kingdom and Australia. South African REIT exposure to residential remains far below the global REIT market at approximately 1% versus 13.91% (as per the MSCI World REIT sub-industry weights) respectively. This is despite South Africa having a significant shortage in affordable residential rental accommodation, a high rate of urbanisation and early evidence of competitive returns in the sector.

Global research with respect to large scale residential rental funds and residential REITs varies with respect to the qualities that these portfolios offer investors and is largely centred on identifying and understanding the risks and challenges. In the South African context, research on the topic is limited and is largely based on the perceptions of investors that are not invested in residential with respect to the risks that the sector presents. The involvement of managers of residential funds in South Africa that exist have mostly been left out of the conversation and where they have been involved, have held contradictory views to those of the other participants. A strong theme in existing literature and the current research findings is the strong evidence of investor misperceptions with respect to the residential market.

Considering the above, the research questions are: From the perspective of managers of residential REITs and large scale residential rental portfolios in South Africa;

1. What are the challenges facing residential REITs and large scale residential rental portfolio managers in South Africa?

2. What strategies are being employed by residential REITs and large scale residential rental portfolio managers to overcome these challenges?

3. What are the perceived benefits that large scale residential rental portfolios offer investors from the perspective of large scale residential rental portfolio managers in South Africa?

The research was carried out using a qualitative survey with semi-structured open-ended questions. The questions were asked in an interview format using Zoom and Microsoft teams video calls. The

collected and transcribed data was then analysed using thematic analysis with the assistance of Nvivo software.

The below conclusions respond to the three research questions and objectives raised above. With respect to objective one, the objective was met by a combination of primary and secondary research. With respect to objective two, this objective was met through primary research. Finally, with respect to objective three, this objective was met by a combination of primary and secondary research.

5.1.1. Challenges facing large scale residential rental portfolios and REITs in South Africa.

It is evident that there are unique risks and challenges associated with the large-scale residential sector. This is evidenced by a good body of literature, from a variety of different countries, where residential REITs and large-scale residential rental funds have been both successful and unsuccessful. Research found documenting the associated risks in the sector dates back to 1990's by Crook, Hughes and Kemp, (1998); Kemp and Crook (1999); and Mansfield, (1999). These three papers highlight two common themes being the high management intensity of the sector and the high risk, low return profile. The findings vary somewhat across the different regions however the key risks and common themes identified, in order of most cited to least cited, include; low yields; high management intensity; poor market information; poor liquidity; political risk/legislation; and small lot size. In the local context, the key themes identified include; high management intensity and costs, including the lack of management expertise in the sector; investor perceptions; poor financial performance; and poor market information. The most recent research in South Africa on the topic was concluded by Nurick et al., (2018), which investigated the reasons for the relatively low uptake of residential stock by South African REITs. The broad conclusions made as to the reasons for the low uptake is that the South African REIT sector is not yet a mature sector, the poor financial performance of the sector and the nature of residential real estate.

The study concludes that there is a broader narrative that is contributing to the challenges faced by residential REITs and large-scale residential portfolio managers. This is that stock of large-scale residential portfolios did not exist like they did with the other more traditional sectors, whereby there was a large amount of high-quality suitable stock in the market, and it was easy to package together a large portfolio of sufficient scale and liquidity and to list it as a REIT. This coupled with the strong performance of the more traditional sector REITs in South Africa led to investors 'obsession' with these sectors and not needing to look elsewhere. The consequence of this is that there are very few quality, large scale residential rental portfolios, and particularly residential REITs, in South Africa and there is a limited track record of those that do exist. A limited track record has contributed to a lack of data in

the sector which contributes to investors not fully understanding the sector and ultimately having misperceptions about the sector. This is further exacerbated by the fact that the only two pure residential REITs in South Africa have two extremely different offerings in almost every sense and have performed vastly differently. This has led to difficulty in explaining the sector to investors in the South African environment, as the performance of one inevitably impacts on investors' perceptions of the other and the industry as a whole.

This broader narrative has also contributed to several other challenges, the biggest being that existing residential REITs and large scale residential rental portfolios are largely concentrated in the inner city of Johannesburg and Pretoria as this is where the only adequate quality stock existed for such funds. This is further exacerbated by the fact that the owner occupier and small-scale private investor market is competing with these funds for new stock coming onto the market. These stakeholders are often willing to pay more for residential stock as they are less concerned about the yields achieved which has led developers to rather sectionalise the units and sell them off individually to these stakeholders to achieve higher returns.

As these funds implement more stringent qualifying criteria for tenants to better protect against tenant default, the pool of qualifying tenants in these concentrated areas reduces drastically. The impact of this, and the fact that the tenant market is highly sophisticated and price sensitive, is that these funds then compete for this limited pool of tenants by introducing incentives such as rent-free periods; committing to low or no rental escalations; removing the requirement for tenants to pay a rent deposit; providing free amenities such as Wi-Fi and communal play areas – all of which come at a cost which these funds largely bear and which can impact on performance and returns.

One of the biggest challenges is found to be the above inflationary municipal cost increases which has a critical impact on these funds ability to grow their rentals. This is because, as opposed to the office and retail sectors, with residential, it is difficult to pass these costs onto the tenant as they are extremely price sensitive.

Despite participants saying that their ability to grow their rental is closely linked to the economic cycle, the above factors (concentration risk and above inflationary municipal cost increases) are making it difficult to grow the net rental that goes into these funds pockets and can negatively impact on the performance of these funds.

It is acknowledged in the findings that the residential sector is characterised as being highly management intensive. Albeit participants did not see high management intensity as a risk or

challenge to their own respective funds and stated that they have the internal expertise to manage their own portfolios effectively and efficiently. It is however acknowledged that a lot of the risk lies in the management of these portfolios and that there are no large external management companies with the requisite expertise to manage residential like there are for the office and retail sectors.

5.1.2. Overcoming the risks and challenges with respect to residential real estate and improving investor understanding and appetite for investment in the sector.

When it comes to the different strategies employed by large scale residential funds to overcome the challenges and risks and improve investor appetite and understanding in the sector, the literature was found to be scarce. The only research found which remotely addressed ways of overcoming challenges and reducing risk was a paper by Aveline-Dubach, (2020). This research investigated the financialization of rental housing in Tokyo and highlights several strategies employed in by J-REITs to improve appetite for the sector, mitigate against risks and maximise returns. These include; setting up a group of companies to take advantage of the full value chain - development, management and maintenance for approximately 6-8 years, and finally disposal into the REIT which allows the REIT to control the age and quality of property in their portfolio; Investing in areas where high barriers of entry exist to ensure continued growth and demand; partnering with large corporates whereby the company signs a head lease with the REIT for the units to house employees; and finally, focussing on housing younger professionals who do not have families of their own and require smaller units which produce the higher yields and maximise the number of units that can be achieved.

It must be noted however that it is difficult to relate the context of Japan residential REITs with South African Residential REITs as Japan is the second largest REIT market by market cap after the United States and has approximately 18% exposure to the residential sector.

This study concludes that the strategies employed by the funds directly respond to the challenges identified in the previous section. With the above inflationary municipal cost increase being deemed one of the biggest challenges the sector faces, participants emphasised the adoption of strategies to manage utility costs as best they can and to try pass these costs on to the tenant as much as possible. These strategies include the adoption of pre-paid water and electricity meters, reducing reliance of government services by incorporating renewable energy sources, and teaming up with other residential funds to address the failures by government with respect to service delivery, particularly with respect to sanitation and security in the nodes that these funds operate in.

It is found that the internalization of management was critical to the success of these funds and that the funds that had previously made the shift recognized immediate benefits and improved

performance. This is largely due to the management intensive nature of residential real estate. One can speculate that the poor performance of Indluplace Properties (one of two pure residential REITs in South Africa) can largely be attributed to the fact that management is external.

Two mitigating strategies that contribute somewhat to the challenges discussed above include more stringent tenant vetting and improving the tenant offering to attract tenants to occupy the funds units. Given the concentration risk discussed above these two strategies further limit the pool of qualifying tenants and reduce the bottom-line revenue achieved by these funds respectively which both impact on the fund's financial performance. Most participants contend that these are both critical measures to overcoming some of the challenges faced.

Perhaps the most surprising finding with respect to overcoming challenges is the preference of most of the participants to enter month-to-month leases and their aversion to entering headleases. One would suspect that this shift would render the sector riskier as there is less cashflow certainty. That being said, there is evidence that the average term that a tenant stays in a unit is in excess of 30 months. The main reason for the preference to avoid headleases comes down to the fact that shorter term leases with a wide variety of tenants makes the sector unique to the other more traditional sectors and adds a significant diversification benefit. It is also found that legislation i.e. the Consumer Protection Act, allows a tenant to give 20 business days' notice to terminate a lease, regardless of the term of the lease agreed. On the other hand, the landlord is tied into the lease and has no remedy to cancel a lease early. The adoption of month-to-month leases effectively puts the landlord on an equal legal footing with the tenant. The main benefit of this is that it is far easier to carry out an eviction on the basis that a lease has expired as opposed to arguing tenant defaults or breaches of the lease.

When it comes to overcoming the challenges with respect to the supply of high quality and adequate stock it was found that these funds were unable to develop such stock themselves due to not being able to take on the development risk and other associated risks that go with it, such as timing risk, cost overrun risks, and tenanting risk. The most obvious solution is to partner with developers who develop the stock and then exit into these funds. That being said, the influence of the owner occupier market has driven these developers to rather sell units individually to the market to achieve higher returns. Almost all participants note that these partnerships have failed due to a failure to agree on a suitable price point. One participant highlighted that that they have adopted a strategy of taking over the full value chain from land sourcing to development, to management, which has been somewhat successful in accessing additional supply however access to patient institutional capital was a

challenge in this case. This strategy resonates with the one strategy identified by Aveline-Dubach, (2020) in order to better financialise the residential rental sector and overcome supply challenges.

Given the prevalence of concerns around investor misperceptions in the market, the findings show that improving investors understanding of the market is critical to accessing more capital and for growing these funds. The research finds that there are some aspects that are out of these funds control, such as growing/extending the residential REITs and large-scale residential portfolios track records. This is necessary to grow and improve the data that is available on the sector, from which analysts can use to better decipher the performance and unique characteristics of the sector. That being said, certain funds are already trying to capture and analyse as much data as possible to make better investment decisions and better educate investors and analysts, for example one such fund is carrying out detailed data capturing on each individual tenant to understand what their income is, industry of employment, movement patterns and so on.

The standout finding with respect to improving investor understanding and appetite however was the critical requirement that one needs to better differentiate, within the residential rental sector, the different offerings and product types. While the sector itself is immature there is a need to dive deeper into understand the different unique offerings within the sector. This is especially important as the only two pure residential REITs have significantly different offerings. Furthermore, the one fund has performed exceptionally well through difficult economic times, while the other has performed extremely poorly. This has a negative impact on investors' perceptions as they are none the wiser to the fact that these funds differ significantly and cannot be viewed as one in the same when it comes to analysing and understanding the potential of the residential sector. Differentiating between residential product types goes hand in hand with the need for these funds to have a clear investment strategy which is critical for improving investor understanding.

The participants highlight that the process of trying to educate the investor as to the unique characteristics of the sector needs to be hands on and often include walking through the properties with the investors and having detailed and informative discussions with the management and operations teams. It is noted that slowly but surely investors are becoming more familiar with the characteristics of the sector which is reducing their perceptions of risk in the sector.

5.1.3. Unique benefits to residential investment

Existing research found that discusses the unique benefits that residential rental property offers investors centred around two key benefits, firstly that residential real estate is a good inflation hedge

and secondly, residential real estate offers diversification benefits to investors both from a tenant perspective and from a mixed asset portfolio perspective.

Research in the United States finds that, historically, the residential sector has offered high risk adjusted returns, low correlations with other property types and a strong fundamental demand through demographic drivers such as the baby boomers and the echo boom generation. More so it is found that that demand is more fluid in the residential property market with higher tenant turnover rates.

Local research by Akinsomi, (2020) provides early quantitative evidence of the diversification benefits by undertaking an analysis of the correlations between the different SA REIT sectors and residential REITs. It was found that, if one removes the speciality REIT category, residential REITs had the lowest correlations with stocks (albeit of no statistical significance), industrial and office sector REITs (albeit of no statistical significance), retail REITs, speciality REITs, and diversified REITs. While difficult to make sound conclusions from this due to the lack of statistical significance between some of the relationships, this provides early evidence that there are diversification benefits when adding residential REITs to a portfolio of specialised, diversified and retail REITs.

Evidence of the resilience of the residential sector when compared to the commercial sector was also found as seen in the TPN 2nd quarter 2021 report which shows a strong drop off of tenants in good standing in the commercial sector but a far shallower drop off and faster recovery in the residential rental sector.

This study concludes that the research findings reinforce the above - the participants held strong views that the biggest benefit that large scale residential REITs and residential rental portfolios offer investors is that it is a resilient asset. That said it will not provide you with the most competitive returns, but it will also not 'fall off a cliff' in the bad times. It is found that in the South African context, the resilience benefit of the residential rental sector can be attributed to three key characteristics, all of which are viewed as benefits in themselves. These include; diversification – this is largely due to the sheer number of individual tenants who are employed across a wide range of industries, in different locations and not all of whom will lose their jobs at once; strong fundamental demand for affordable residential rental housing in South Africa; and the influence of the owner occupier and small scale private investor on the residential market – this is largely due to owner occupiers and small scale investors willingness to pay higher prices for residential property as they are not necessarily buying

purely on the back of achieving a specific yield requirement. This acts as a strong 'underpin' for the values of the residential units held by these funds.

It is a noteworthy however that the benefit of diversification in the South African context is somewhat muted due to the concentration of these funds' portfolios in the inner cities of Johannesburg and Pretoria. When the Covid pandemic hit the hospitality industry was one of the hardest hit industries because of the lockdowns. Labour in the inner city is weighted heavily toward the hospitality sector (restaurants, hotels, bars, salons etc.) and so the pandemic resulted in a lot of inner-city tenants being unable to pay rent which had a negative impact on the residential funds with large exposure to these locations. Funds that focussed more on the suburban areas such as Transcend Residential for example performed considerably better during this period.

5.1.4. Concluding remarks

From the findings above, and by surveying and involving stakeholders that are actively involved in the management of large scale residential rental portfolios and REITs in South Africa, this research has uncovered deeper and more detailed insights into the challenges that residential REITs and large scale residential rental fund managers are facing in the context of South Africa, how they are trying to overcome these challenges and what the benefits are that these funds offer investors.

From a challenges perspective, the findings agree largely with the core finding by Nurick et al., (2018) in that a key factor to the low uptake of residential property by REITs in South Africa has to do with the maturity of the REIT sector. Albeit it is identified in this research that the limited track record, specifically of residential REITs in South Africa, is a key contributor to the challenges faced by the sector. The findings above reinforce the view that research needs to be undertaken in the local context to understand the challenges and benefits of the sector more accurately.

In this case, the unique findings that stood out and which differed largely from existing literature included; high concentration risk in the inner cities of Johannesburg and Pretoria which the residential REIT sector and large scale residential rental portfolios have a high exposure to; the resultant impact of this in muting the benefit of diversification that residential rental portfolios offer investors; the participants focus on the affordable residential rental market which differs from the findings in Japan which targets young professionals; the shift to month to month leases as opposed to an annual lease or headlease in order to put the landlord on the same legal footing as the tenant and reduce eviction challenges; the impact of the above inflationary municipal cost increases and the inability to pass these costs onto the tenant in the affordable rental market given the tenants price sensitivity; the reasoning

behind, and the impact of, investor misperceptions with respect to the residential sector in South Africa and; finally, the challenges experienced in trying to scale up these funds and the many failed partnerships with residential developers.

With respect to overcoming the challenges, this research highlighted the importance of differentiating between the different product types within the residential sector as key to improving investor understanding. The existing residential funds differ largely from one another and have very different strategies which makes it difficult to understand the risks associated with the sector by simply aggregating the performance of all funds – this is particularly the case with respect to the two pure residential REITs listed on the JSE.

One of the overarching questions the research hoped to answer is whether residential REITs can help solve the critical supply shortage of affordable residential housing in South Africa. It appears however that the current challenges faced in terms of; developers selling directly to the individual and owner occupier market at higher prices; developers starting to hold their own stock to rent and consequently limiting the recycling of development capital into new residential developments; and the aversion that residential REITs have toward taking on development risk, all make it clear that the solution is not that simple.

Many of the strategies that these funds employ to overcome certain challenges, such as implementing more stringent tenant vetting criteria, expanding their offering to compete with other funds and to attract tenants, and shifting to month-to-month leases, also contribute to some of the challenges that they face, particularly when it comes to trying to grow the bottom line and improve investor returns.

The above findings also show clear evidence that these funds are constantly adapting to overcome the challenges that they are facing. Evidence of this can be seen by the shift toward internal management to better align the interests of the property manager and asset manager. The feedback from the participants who internalised the management function provided strong anecdotal evidence that such a shift drastically improved performance and reduced risk. All participants, barring one, strongly argued that large scale residential fund managers and residential REITs need to manage their own properties internally. This may change as time goes on and as skills and expertise in managing the residential sector improve to the same degree that there are external managers for the other more traditional sectors.

Another example of these funds adapting to overcome challenges and reduce risk is the shift to month-to-month leases to counteract the benefit that the Consumer Protection Act affords the

tenant, essentially allowing them to exit a lease at any time given 20 business days' notice. Month to month leases effectively provide the landlord with the same rights and makes the eviction process much less complicated.

A large aspect of overcoming the challenges identified is simply growing the track record and providing investors and analysts with reliable and consistent evidence of the performance of these funds and the associated risks. Only time can help in this case, however, these funds can help improve this by gathering as much data as possible and dissecting it in multiple ways so that it can be used to better understand the opportunities and the risks that the sector present and to better educate investors and analysts. The emergence of more third-party companies reporting on the residential sector will also play a key role. This is seen with the likes of the MSCI publishing their inaugural residential index for South Africa in 2018 and the likes of TPN Credit Bureau with the publishing of quarterly reports on a range of residential rental property metrics in South Africa.

With respect to the benefits that the large-scale residential sector offers investors, this research strongly agrees with the findings in existing literature. The overwhelming response from participants is that the sector offers investors resilient returns which is the result of strong diversification characteristics, strong fundamental demand for affordable residential rental housing and the influence that the owner occupier and small-scale private investor have on holding up the values of these properties. Furthermore, there is early evidence of the resilience of the sector following the Covid pandemic whereby the drop in the percentage of tenants in good standing during the pandemic and bounce back of tenants in good standing post Covid was a lot shallower and quicker than with the commercial sector.

One caveat in the South African context with respect to the diversification benefit, which is perhaps the greatest benefit that residential offers, is that there is a high concentration of residential rental stock held by these large residential funds in the inner city of Johannesburg and Pretoria and that this can somewhat mute the diversification benefit. This was shown during the Covid pandemic whereby funds with a high concentration in the inner city did not do well and those that were situated outside of the inner city, such as Transcend Residential, held their value well throughout the pandemic.

5.2. Recommendations

Short introductory statement: This study revealed the perceptions of large-scale residential rental portfolio and residential REIT managers with respect to the challenges, methods of overcoming these challenges and the benefits residential can offer investors. Based on the findings and conclusions

presented, the following recommendations are suggested. These recommendations have been categorised into recommendations for industry in general and for academia.

Industry recommendations

Differentiation between different product/fund types.

This study revealed the importance of differentiating between the different residential rental products and residential funds in the market. Given the relative immaturity of the residential REIT market and the different fund offerings in a limited pool of offerings, it can be misleading to aggregate the performance of these funds to determine how the residential sector performs. Aggregating the sector to take a view on its performance, particularly given the limited and highly varied offerings, has a knock-on effect on how investors and analysts view and understand the sector. The differentiation of these funds can be classified into multiple key areas which were apparent and key in this research. For example, funds can be defined by the typology of its residential unit/buildings (e.g. large multi-story apartment block versus three storey walk-up apartments in a secure estate versus entire precinct development and management); management style and structure (e.g. internal versus external management); branding (e.g. investor brand versus a tenant brand); geographic focus (e.g. inner city versus suburban); and tenant target market. This makes it difficult to gauge the performance of the residential sector as a whole and on a like for like basis.

Following the above, it is recommended that the residential funds clearly define the unique characteristics of their product/investment offering and the benefits and drawbacks of these characteristics. Furthermore, these funds need to establish and communicate a clear investment strategy to investors and analysts highlighting the idiosyncratic benefits and risks associated with each strategy to improve investors and analysts understanding of each specific fund and to separate each funds characteristics from its peers. This is a key step to better defining the offering which can be seen in the more established REIT sectors such as Office and Retail whereby there are several subcategories (e.g. P/A/B/C grade office or neighbourhood, regional and super regional retail) within each sector that clearly define the offering.

Defining the differentiation in product type and establishing a clear and well thought out investment strategy, as well as how this differentiation of product type and investment strategy is communicated to investors and analysts will need to be determined by all internal key stakeholders including management and the shareholders of these funds. Evidence of these funds focusing on defining a clear investment strategy was seen in the findings however it is clear that several funds are in the early

stages of narrowing down on a clear investment strategy and are still in the process of defining their offering.

Management of residential funds using an internal management team

A common theme in the findings was the importance of having an internal management team when it comes to the management of large-scale residential rental funds. This was due to several key factors including the lack of external residential management expertise in the market compared to the management expertise available for the retail, office and industrial sectors; external management companies not having the resources and capacity to manage such large scale residential portfolios and as such, funds need to employ multiple external management companies to look after one portfolio which leads to challenges around consolidating reporting and management structures between the different external managers; the management intensity of residential rental accommodation; ensuring a better alignment of interests between the property manager and the asset manager to protect the long-term sustainability of the assets; creating a stronger product brand in the market which can lead to improved market visibility and ultimately occupancy. Many participants in the study highlighted the immediate improvement in performance of their funds when taking the strategic decision to internalise management. It is important to note that of all the funds interviewed, only one has adopted an external management strategy.

Based on the inputs of the different fund managers it is recommended that large scale residential rental funds avoid using external management companies and internalise the management for the key reasons identified above. This recommendation is not permanent however the researcher believes that in a market where large scale residential rental funds are relatively immature that such funds be managed internally. In more established markets there is the possibility that there are external management companies with the requisite expertise and scale to manage these portfolios however in the local context this is not the case. Given the nature of residential rental property being the high management intensity and constant churn, communication lines between property and asset managers needs to be instant and data exchanges between the two need to be live to effect efficient and timely management decisions.

The decision to establish and build an internal management team versus appoint an external management team for the management of these large-scale residential rental portfolios is a decision that is ultimately made by the shareholders.

Data availability and transparency

It was noted from the participants responses that there is a reluctance by certain residential fund managers to share data about their respective funds and that the larger scale funds have sufficient internal coverage and data to base their own investment decisions on. As such, access to external funds data is of less importance to these funds than it is for the smaller residential funds.

It is recommended that all residential fund managers be more transparent with the data that they have for better benchmarking metrics to be established in the sector and to allow analysts better access to such data in order to better understand the performance characteristics of the sector. It is highlighted as a broad overarching theme that the large-scale residential rental sector and residential REIT sector has a limited track record and with that comes limited reliable data. it is recommended that funds share such data transparently so as to help establish and build a track record based on reliable, objective data and from which a better objective analysis of the sector and it's past performance can be done.

Impact Investment benefits

Several participants briefly discussed the role that affordable rental accommodation can play in the impact investment space. One of the participants interviewed represented a private equity investment firm who had invested in an affordable residential rental portfolio as part of their impact investment fund. Furthermore, participants discussed how they are implementing renewable energy and reducing water consumption, among other things as a measure to mitigate against the above inflationary municipal cost increases and reduce passing on these costs to the tenant, whom is highly price sensitive. In the context of the United Nations Sustainable Development Goals, there exists a strong alignment particularly with respect to UN SDG 7 - Affordable and clean energy; 11 - Sustainable Cities and Communities; and 13 - Climate action.

It is recommended that these funds, where applicable, seek to strategically align themselves with these sustainable development goals to provide an investment offering catered to the impact investment space given the several overlaps that already exist. Positioning oneself in the impact investment space will provide several benefits, perhaps the most critical being access to a larger pool of investors globally and access to cheaper capital both on the debt and equity side. In this instance these funds may be able to compete better against the owner occupier and private individual investment market for new supply as the lower cost of capital will allow these funds to pay higher prices for stock and maintain competitive investment yields. The inability to compete on a yield basis

with the owner occupier and private individual investment market when it comes to purchasing stock from developers was noted as a major constraint to accessing this new stock.

Fund managers need to take measures to position these funds to benefit from the demand in the market for impact investment opportunities which will open up potential avenues for additional capital and investment at a lower cost of capital.

Recommendations for Academia

Analyses of the resilient nature of residential REITs

This study revealed, through both primary and secondary research that residential REITs and large scale residential rental portfolios have the beneficial characteristics of being a resilient and defensive asset. It was revealed from this primary research that this is due to several factors, including a high degree of diversification in the tenants that rent these units, strong fundamental demand for affordable residential accommodation, and the influence of the owner occupier and small scale individual investors in the residential market which help hold up the valuations of the properties. This research was carried out during and throughout the Covid-19 pandemic and as such the benefit of being a resilient asset returned to spotlight. Unfortunately, at the time of interviewing the participants it was too early to tell these funds performed and if indeed they proved to exhibit characteristics of being resilient when much of the property market was hit hard by the effects of the pandemic, particularly the office sector.

With one of the cost benefits of the residential sector being the resilience of the sector it is recommended that further quantitative research be carried out on the performance of residential REITs before and after the Covid-19 pandemic to determine if indeed the asset class held its value and remained resilient throughout and after the pandemic. One particular characteristic which was highlighted is that the residential sector feels the impact of negative economic cycles/events immediately but the benefit is seen in how fast the sector bounces back from these events. In many instances the participants believed that the residential sector recovers a lot faster than the other property sectors, largely due to the non-discretionary nature of residential and the shorter term lease structures whereby a tenant often signs up to a month to month lease or annual lease at the most. These shorter-term leases allow for more fluid and faster reactions to the market. The Covid pandemic provides a perfect market situation to test the resilient nature of residential and the recovery time for residential versus the other more traditional real estate sectors such as office and retail.

It is recommended that this be researched by students or academics in the field of real estate with a preference toward quantitative research approaches so as to provide strong objective evidence of

these benefits. Such quantitative research is required to help build our understanding of the sector in an objective way as opposed to a more anecdotal, subjective manner more commonly associated with qualitative research which is the methodology that has most commonly been used in existing research on the topic in South Africa.

Pure residential REITs in South Africa - case study and implications of findings.

It is highlighted in this research that there are only two pure residential REITs in South Africa – Transcend Residential and Indluplace Properties. An interesting aspect of this research, which was highlighted on several occasions and repeatedly mentioned by the different participants, is that these two funds differ significantly from one another in terms of the locations they invest in, the management structure (internal versus external), the types of buildings they invest in, their branding (investor brand versus a tenant brand) and their performance. One of implications of this and challenges is that it can be misleading to aggregate the performance of these two funds as a way of representing the residential REIT sector as a whole, particularly given that the performance of these two funds is also so drastically different as highlighted in Table 15 in the discussion section.

It is therefore recommended that a case study be done on the two funds to better understand the idiosyncratic offerings that each fund presents, the opportunities and risks, how the different aspects of each fund impacts on the performance of these funds and the implications of this on the residential sector as a whole. One major topic in such a case study will be the impact of internal versus external management on the performance and success of these funds. Such a case study will have important implications on how the residential rental market will grow going forward and helping other residential funds when it comes to building and managing such funds. It will be useful for such a case study to include a combination of quantitative objective comparisons between the two funds and their performance. This can be complimented by subjective qualitative comparisons in terms of the experiences of the different fund managers with a particular focus on the areas in which they differ, for example, by focussing particularly on the management structures and how the different management structures influence the performance and day to day operations of these funds, and what benefits and drawbacks each management structure has presented.

It is recommended that this research be carried out by students or academics in the field of real estate who have an interest in REITs in general and who is aware of the different structures that different REITs have adopted and the impact of these structures on the performance of those REITs.

REFERENCES

Akinsomi, O., 2020. Performance of Sector-Specific and Diversified REITs in South Africa. [online] Available at: <https://www.researchgate.net/publication/345706200_Performance_of_Sector-Specific_and_Diversified_REITs_in_South_Africa_Omokolade_Akinsomi/citation/download> [Accessed 5 November 2022].

Amin, S. and Pirzada, S.S., 2014. Theory of behavioral Finance and its application to property market: A change in paradigm. *Research Journal of Finance and Accounting*, 5(13), pp.132–134.

Anderson, L., 2015. *A Place for Residential REITs in the South African REIT Market*. University of Pretoria.

Anderson, L. and Cloete, C.E., 2016. *Potential for residential REITs in the South African REIT market*.

Anderson, R., McLemore, R., Conner, P. and Liang, Y., 2003. Portfolio Implications of Apartment Investing. *Journal of Real Estate Research*, 25(2), pp.113–132.

Aveline-Dubach, N., 2020. The financialization of rental housing in Tokyo. *Land Use Policy*.

Ball, M., 2010. *The UK private rented sector as a source of affordable accommodation*. York: Joseph Rowntree Foundation.

Barberis, N. and Thaler, R., 2003. A survey of behavioral finance. *Handbook of the Economics of Finance*, 1, pp.1053–1128.

Berry, M., Whitehead, C., Williams, P. and Yates, J., 2004. *Financing affordable housing: A critical comparative review of the United Kingdom and Australia*. [online] Melbourne: Australian Housing and Urban Research Institute. Available at: <https://www.ahuri.edu.au/__data/assets/pdf_file/0016/2059/AHURI_Final_Report_No72_Financing_affordable_housing_a_critical_comparative_review_of_the_UK_and_Australia.pdf> [Accessed 4 November 2019].

Bikas, E., Jurevičienė, D., Dubinskas, P. and Novickytė, L., 2013. Behavioural finance: The emergence and development trends. *Procedia-social and behavioral sciences*, 82, pp.870–876.

Broll, 2014. *The Broll Report 2013/2014*. [online] Johannesburg: Broll/CBRE. pp.1–45. Available at: <https://www.broll.com/publications/> [Accessed 2 October 2019].

Bryman, A. and Bell, E., 2011. *Business research methods*. 3rd ed. Oxford: Oxford university press.

CAHF, 2017. *Residential REITs and Their Potential to Increase Investment in and Access to Affordable Housing Finance in Africa*. [online] Johannesburg: Centre for Affordable Housing Finance in Africa. Available at: <http://housingfinanceafrica.org/documents/residential-real-estate-investment-trusts-reits-and-their-potential-to-increase-investment-in-and-access-to-affordable-housing-in-africa/> [Accessed 25 May 2019].

Chan, X.Y.E., 2016. *Why affordable housing developers should go public: REITs as an alternative source of capital for housing development*. Doctoral dissertation. Massachusetts Institute of Technology.

Chong, J., Krystalogianni, A. and Stevenson, S., 2012. Dynamic correlations between REIT sub-sectors and the implications for diversification. *Applied Financial Economics*, 22(13), pp.1089–1109.

Coovadia, C., 2019. *The Banking Forum South Africa: Property Development Forum*. [online] Available at: <http://www.wcpdf.co.za/2019-conference/> [Accessed 13 June 2019].

Cote, A. and Tam, H., 2013. *Affordable housing in Ontario: Mobilizing private capital in an era of public constraint*. 3rd ed. IMFG perspectives. Institute on Municipal Finance & Governance.

Cotter, J. and Roll, R., 2015. A comparative anatomy of residential REITs and private real estate markets: returns, risks and distributional characteristics. *Real Estate Economics*, 43(1), pp.209–240.

Crook, A.D.H., Hughes, J. and Kemp, P.A., 1998. Housing investment trusts and the returns from residential lettings. *Journal of Property Research,* 15(3), pp.229–248.

Crook, A.D.H. and Kemp, P.A., 2002. Housing Investment Trusts: A New Structure of Rental Housing Provision? *Housing Studies*, 17(5), pp.741–753. https://doi.org/10.1080/0267303022000009781.

Daly, J., 2008. *Overcoming barriers to institutional investment in residential property*. [online] London: GLA Economics. Available at: <https://www.london.gov.uk/sites/default/files/gla_migrate_files_destination/wp_29.pdf> [Accessed 4 November 2019].

Daniel, K., Hirshleifer, D. and Subrahmanyam, A., 1998. Investor psychology and security market under-and overreactions. *the Journal of Finance*, 53(6), pp.1839–1885.

De Bondt, W.F., 1998. A portrait of the individual investor. *European economic review*, 42(3–5), pp.831–844.

De Bondt, W.F. and Thaler, R., 1985. Does the stock market overreact? *The Journal of finance*, 40(3), pp.793–805.

De Klerk, E., 2013. South Africa's Seven-Year Road to REITs. *Retail Property Insights*, 20(3), pp.46–50.

EEA, 2015. *Global megatrends: Towards a more urban world (GMT2)*. [online] Copenhagen: European Environmental Agency. Available at: <https://www.eea.europa.eu/soer-2015/global/urban-world#tab-figures-used> [Accessed 13 June 2019].

EPRA, 2022. *Global Real Estate Total Markets Table*. Total markets table Q1-2022. [online] Available at: <https://prodapp.epra.com/media/EPRA_Total_Markets_Table_-_Q1-2022_1649681531420.pdf>.

Faye, I., 2015. *Housing Market Dynamics in Africa*. [online] Available at: <http://www.auhf.co.za/conference/making-housing-finance-markets-work-in-africa/> [Accessed 20 February 2019].

Fischer, R. and Gerhardt, R., 2007. Investment mistakes of individual investors and the impact of financial advice. In: *20th Australasian Finance & Banking Conference*.

Frew, M., 2016. *Identifying the Major Constraints to Investment in Residential Rental Property in South Africa*. University of Cape Town.

Fromlet, H., 2001. Behavioral Finance-Theory and Practical Application. *Business Economics*, 36(3), p.63.

FTSE Russell, 2018a. *FTSE EPRA Nareit Developed Index April 2018*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2018b. *FTSE EPRA Nareit Emerging Index April 2018*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2019a. *FTSE EPRA Nareit Americas Index February 2019*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2019b. *FTSE EPRA NAREIT Asia Pacific Index February 2019*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2019c. *FTSE EPRA Nareit Developed Index February 2019*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2019d. *FTSE EPRA Nareit Emerging Index February 2019*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2019e. *FTSE EPRA NAREIT Europe Index February 2019*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2019f. *FTSE EPRA Nareit Middle East & Africa Index February 2019*. [Index factsheet] FTSE Russell. Available at: <https://www.ftse.com/analytics/factsheets/Home/Search#> [Accessed 21 May 2019].

FTSE Russell, 2022. *FTSE EPRA Nareit Global Extended Index*. 30 November 2022. [Index factsheet] FTSE Russell. Available at: <https://www.ftserussell.com/products/indices/epra-nareit> [Accessed 14 December 2022].

Fuller, R.J., 2000. *Behavioural finance and the sources of alpha*. [online] Available at: <https://www.acsu.buffalo.edu/~keechung/Collection%20of%20Papers%20for%20courses/Behavioral%20Finance%20and%20Sources%20of%20Alpha.pdf> [Accessed 30 January 2023].

Geertz, C., 1973. *The interpretation of cultures*. New York: Basic Books.

Gervais, S. and Odean, T., 2001. Learning to be overconfident. *The review of financial studies*, 14(1), pp.1–27.

Gibb, K., Maclennan, D. and Stephens, M., 2013. *InnovatIve fInancIng of affordable housIng*. York: Joseph Rowntree Foundation.

Glaser, B. and Strauss, A., 2017. *The discovery of grounded theory: Strategies for qualitative research*. New York: Routledge.

Goldberg, J. and von Nitzsch, R., 1999. *Behavioural finance*. 1st edition ed. John Willey & Sons.

Hartzell, D., Hekman, J. and Miles, M., 1986. Diversification Categories in Investment Real Estate. *Real Estate Economics*, 14(2), pp.230–254.

He, L., 2000. Causal relationships between apartment REIT stock returns and unsecuritized residential real estate. *Journal of Real Estate Portfolio Management*, 6(4), pp.365–372.

Hebb, T., 2013. Impact investing and responsible investing: what does it mean? *Journal of Sustainable Finance & Investment*, 3(2), pp.71–74.

Hirshleifer, D. and Hong Teoh, S., 2003. Herd behaviour and cascading in capital markets: A review and synthesis. *European Financial Management*, 9(1), pp.25–66.

Hon-Snir, S., Kudryavtsev, A. and Cohen, G., 2012. Stock market investors: Who is more rational, and who relies on intuition. *International Journal of Economics and Finance*, 4(5), pp.56–72.

Huang, Y., 2010. *An investigation into the use of REITs to finance affordable housing in Mainland China*. Doctoral dissertation. Massachusetts Institute of Technology.

Indluplace Properties, 2018. *Indluplace Annual Report 2018*. [online] Indluplace Properties Limited. Available at: <http://www.indluplace.co.za/5-annual-reports.php> [Accessed 16 April 2019].

Investment Property Forum, 2014. *Institutional attitudes to investment in UK residential property*. London: IPF Research Programme 2011-2015. p.38.

Jones, C., 2007. Private Investment in Rented Housing and the Role of REITS. *European Journal of Housing Policy*, 7(4), pp.383–400. https://doi.org/10.1080/14616710701650427.

Jordan, B.D. and Miller, T.W., 2008. *Fundamentals of investments*. 1st edition ed. McGraw-Hill.

Jurevičienė, D., Bikas, E. and Gausienė, E., 2012. Behavioural finance during economic downturn in Lithuania. In: *The 7th international scientific conference Business and Management 2012*. pp.75–83.

Kai-Ineman, D. and Tversky, A., 1979. Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), pp.363–391.

Kapoor, S. and Prosad, J.M., 2017. Behavioural finance: A review. *Procedia computer science*, 122, pp.50–54.

Kemp, P.A. and Crook, T., 1999. *Financial institutions and private rented housing*. Joseph Rowntree Foundation.

Kim, K.A. and Nofsinger, J.R., 2008. Behavioral finance in Asia. *Pacific-Basin Finance Journal*, 16(1–2), pp.1–7.

Kishore, R., 2004. Theory of behavioural finance and its application to property market: a change in paradigm. *Australian Property Journal*, 38(2), pp.105–110.

Kourtidis, D., Šević, Ž. and Chatzoglou, P., 2011. Investors' trading activity: A behavioural perspective and empirical results. *The Journal of Socio-Economics*, 40(5), pp.548–557.

Kruger-Levy, N. and Bertoldi, A., 2017. *Residential REITs and their potential to increase investment in and access to affordable housing in Africa, Report 2: Case studies of African REITs.* Centre for Affordable Housing Finance in Africa.

Lawson, J., Gilmour, T. and Milligan, V., 2010. *International measures to channel investment towards affordable rental housing*. Melborne: Australian Housing and Urban Research Institute.

Lawson, J., Milligan, V. and Yates, J., 2012. *Housing Supply Bonds—a suitable instrument to channel investment towards affordable housing in Australia?* [online] Melborne: Australian Housing and Urban Research Institute. Available at: <https://www.ahuri.edu.au/__data/assets/pdf_file/0027/1998/AHURI_Final_Report_No188_Housing_Supply_Bonds-a_suitable_instrument_to_channel_investment_towards_affordable_housing_in_Australia.pdf>.

Levy, H. and Post, T., 2005. *Investments*. 1st edition ed. Financial Times Prentice Hall.

Liang, Y., Chatrath, A. and McIntosh, W., 1996. Apartment REITs and apartment real estate. *The Journal of Real Estate Research*, 11(3), pp.277–289.

Lin, Y.C., Lee, C.L. and Newell, G., 2019. The significance of residential REITs in Japan as an institutionalised property sector. *Journal of Property Investment & Finance*, 37(4), pp.363–379. https://doi.org/10.1108/JPIF-03-2019-0036.

Lincoln, S. and Guba, E., 1985. *Naturalistic inquiry*. California: Sage Publications.

Manoj, P.K., 2016. Real Estate Investment Trusts (REITs) for faster housing development in India: An analysis in the context of the new regulatory policies of SEBI. *International Journal of Advance Research in Computer Science and Management*, 4(6), pp.152–167.

Mansfield, J.R., 1999. Practical difficulties associated with constructing a residential investment portfolio. *Property Management*, 17(4), pp.321–335.

Mason, J., 2002. *Qualitative Researching*. Second Edition ed. London: Sage Publications.

Milligan, V., Phibbs, P., Fagan, K. and Gurran, N., 2004. *A practical framework for expanding affordable housing services in Australia: learning from experience*. [online] Melbourne: Australian Housing and Urban Research Institute. Available at: <https://www.ahuri.edu.au/__data/assets/pdf_file/0003/2001/AHURI_Final_Report_No65_A_practical_framework_for_expanding_affordable_housing_services_in_Australia.pdf> [Accessed 4 November 2019].

Milligan, V., Yates, J., Wiesel, I. and Pawson, H., 2013a. *Financing rental housing through institutional investment - Volume 1: Outcomes from an Investigative Panel*. [Peer reviewed] Melborne: Australian

Housing and Urban Research Institute. pp.1–63. Available at: <http://www.ahuri.edu.au/publications/projects/p71016> [Accessed 9 December 2017].

Milligan, V., Yates, J., Wiesel, I. and Pawson, H., 2013b. *Financing rental housing through institutional investment - Volume 2: Supplementary papers*. [Peer reviewed] Melborne: Australian Housing and Urban Research Institute. pp.1–35. Available at: <http://www.ahuri.edu.au/publications/projects/p71016> [Accessed 9 December 2017].

Montezuma, J., 2004. Housing investment in an institutional portfolio context: A review of the issues. *Property Management*, 22(3), pp.230–249. https://doi.org/10.1108/02637470410545011.

Montezuma, J., 2006. A survey of institutional investors' attitudes and perceptions of residential property: the Swiss, Dutch and Swedish cases. *Housing Studies*, 21(6), pp.883–908.

Mpofu, B., Moobela, C. and Simbanegavi, P., 2023. Effects of COVID-19 on the relationship between inflation and REITs returns in South Africa. *Journal of Property Investment & Finance*, (ahead-of-print).

MSCI, 2019. *MSCI World REITs Index (USD)*. MSCI World REITs Index (USD) May 2019. [Index factsheet] MSCI. Available at: <https://www.msci.com/documents/10199/ddf1037b-481a-4b17-a2a7-ba9c51043b45> [Accessed 25 May 2019].

MSCI, 2022. *MSCI World REITs Index (USD)*. [Index factsheet] MSCI. Available at: <https://www.msci.com/documents/10199/ddf1037b-481a-4b17-a2a7-ba9c51043b45> [Accessed 14 December 2022].

MSCI Real Estate, 2018. *Inaugural South Africa Residential Property Index*. Cape Town: MSCI.

Naidoo, H., 2014. *The Introduction of REITs to the South African Property Market: Opportunities for Fund Managers*. Doctoral dissertation. University of Witwatersrand.

National Housing Finance Corporation, 2021. *Strategic Plan 2020-2025 and APP 2020/21, presentation to the Portfolio Committee on Human Settlements, Water and Sanitation, 29 April 2021*. [online] Available at: <https://pmg.org.za/files/210429NHFC.PPTX> [Accessed 1 January 2023].

Newell, G., 2012. *The investment characteristics and benefits of Asian REITs for retail investors.* Asia Pacific Real Estate Association (APREA).

Newell, G. and Fischer, F., 2009. The role of residential REITs in REIT portfolios. *Journal of Real Estate Portfolio Management*, 15(2), pp.129–139.

Newell, G., Lee, C.L. and Kupke, V., 2015a. *The opportunity of residential property investment vehicles in enhancing affordable rental housing supply*. [Peer Reviewed Positioning Paper] Melbourne: Australian Housing and Urban Research Institutue. pp.1–54. Available at: <http://www.ahuri.edu.au/publications/projects/p72031> [Accessed 9 December 2017].

Newell, G., Lee, C.L. and Kupke, V., 2015b. *The opportunity of unlisted wholesale residential property funds in enhancing affordable housing supply*. Western Sydney University University of South Australia.

Newell, G. and Wen Peng, H., 2012. The significance and performance of Japan REITs in a mixed-asset portfolio. *Pacific Rim Property Research Journal*, 18(1), pp.21–34.

Ntuli, M. and Akinsomi, O., 2017. An Overview of the Initial Performance of the South African REIT Market. *Journal of Real Estate Literature*, 25(2), pp.365–388.

Nurick, S., Boyle, L., Allen, O., Morris, G. and Potgieter, J., 2018. An Investigation into the Relatively Low Uptake of Residential Stock within South African Real Estate Investment Trusts. *Journal of African Real Estate Research*, 3(1), pp.61–80. https://doi.org/10.15641/jarer.v1i1.491.

Octodec Investments, 2018. *Octodec Integrated Report and Annual Financial Statements 2018*. [online] Octodec Investments Limited. Available at: <https://www.octodec.co.za/integrated-reports/> [Accessed 16 April 2019].

Olsen, J. and Gjerding, A., 2019. Modalities of abduction: a philosophy of science-based investigation of abduction. *Human Arenas*, 2, pp.129–152.

Pompian, M.M., 2006. *Behavioral Finance and Wealth Management: How to Build Optimal Portfolios for Private Clients*. New Jersey: John Wiley and Sons, Inc. Retrieved from http://library ….

Ritter, J.R., 2003. Behavioral finance. *Pacific-Basin finance journal*, 11(4), pp.429–437.

SA Corporate Real Estate, 2018. *SA Corporate Year End 2017 Results Presentation*. [online] Available at: <http://www.sacorporatefund.co.za/index.php/investor-relations/results-centre/presentations> [Accessed 16 April 2019].

Sadi, R., Asl, H.G., Rostami, M.R., Gholipour, A. and Gholipour, F., 2011. Behavioral finance: The explanation of investors' personality and perceptual biases effects on financial decisions. *International journal of economics and finance*, 3(5), pp.234–241.

Saunders, M., Lewis, P. and Thornhill, A., 2019. *Research methods for business students*. 8th edition ed. Pearson Education Limited.

Schoorman, F.D. and Holahan, P.J., 1996. Psychological antecedents of escalation behavior: Effects of choice, responsibility, and decision consequences. *Journal of Applied Psychology*, 81(6), p.786.

Shefrin, H. and Statman, M., 1994. Behavioral capital asset pricing theory. *Journal of financial and quantitative analysis*, 29(3), pp.323–349.

Shefrin, H. and Statman, M., 2000. Behavioral portfolio theory. *Journal of financial and quantitative analysis*, 35(2), pp.127–151.

Smith, V.L., 1998. The two faces of Adam Smith. *Southern economic journal*, 65(1), pp.1–19.

Thaler, R.H., 1999. The end of behavioral finance. *Financial Analysts Journal*, 55(6), pp.12–17.

Thornhill, A., Saunders, M. and Lewis, P., 2009. *Research methods for business students.* London: Prentice Hall.

TPN Credit Bureau, 2021. *Residential Rental Monitor 2021 Q2*. [online] TPN Credit Bureau. Available at: <https://www.tpn.co.za/Group/Home/Media>.

Transcend Residential Property Fund, 2019. *Company Profile: Market Segment*. [online] Transcend Residential Property Fund. Available at: <https://transcendproperty.co.za/company-profile/> [Accessed 16 April 2019].

Venables, A.J., 2018. Urbanisation in Developing Economies: Building cities that work. *The Journal of the European Regional Science Association*, 5(1), pp.91–100. https://doi.org/10.18335/region.v5i1.245.

Yin, Z., 2019. *A comparative analysis of apartment REITs in US and China: an examination of challenges and opportunities*. Doctoral dissertation. Massachusetts Institute of Technology.

ANNEXURE A – Interview questions

Interview Questions

Interview Participant (reference code):
Date of Interview:

Notes:

- Begin by introducing yourself and the purpose of the research
- Thank participant for taking the time to participate
- Remind the participant that he/she may refuse to answer any questions they are uncomfortable with or do not want to answer
- Confirm that the participant is okay with the interview being recorded
- Remind the participant that their participation will remain anonymous
- Proceed with interview

Questions:

1. What do you perceive to be the biggest risks associated with large scale residential rental housing in South Africa as an investment?

2. *Challenges*
   a. What challenges are associated with creating and managing large-scale residential real estate portfolios in South Africa?
   b. Can these challenges be overcome in the medium to long term?

3. Why do you believe South African REIT exposure to residential is below many other countries and the global average?

4. *Misperceptions*
   a. Do you believe that there are misperceptions or misunderstandings about residential real estate by investors? (Y/N)
      IF YES
   b. What do you believe the biggest misperceptions are?
   c. Are these misperceptions considered to be a challenge associated with residential portfolios in terms of access to funding?
   d. How are managers trying to improve investors understanding of residential real estate as an investment?

5. Below is a list of the most cited reasons why institutional investors don't want to invest in residential based on existing research (*in order of how commonly cited they were*).

   Ask the participant to rank each on a scale of 1 to 5; 1 meaning that they do not agree it is a material risk/challenge faced and 5 meaning they strongly agree that it is a material risk/challenge faced in the sector.

1 Government utilities increasing above inflation (water, sewerage, refuse)	1	2	3	4	5
2 Risk adjusted returns not high enough	1	2	3	4	5
3 High management intensity	1	2	3	4	5
4 Poor market information	1	2	3	4	5
5 legislation favouring the tenant (CPA, Eviction Act)	1	2	3	4	5
6 Poor liquidity	1	2	3	4	5
7 Political risks	1	2	3	4	5
8 Small lot size (dispersion of property)	1	2	3	4	5
9 Rental Growth limitations	1	2	3	4	5
10 Investor misperceptions/lack of understanding	1	2	3	4	5
11 Lack of available stock in the market	1	2	3	4	5
12 Other (participant to add)					

6. What are residential managers doing to improve investor appetite/investment case for residential?
   E.g. head leases with employers, high yield studio apartment investment only, inner city focus, shared amenities etc.

7. What are the biggest benefits that residential rental portfolios offer investors?

8. Do you believe residential portfolios can compete with other real estate sub-sectors in South Africa i.e. Office, retail and industrial?

9. Do you believe there will be an increase in REIT exposure to residential property in South Africa going forward?

10. What impact has Covid-19 had on residential rental portfolios? Have these portfolios exhibited characteristics of being a defensive asset?

ANNEXURE B – Ethics Approval

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Van Straaten

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER: H20/06/47**
PROJECT TITLE	Residential REITs: Perceptions toward challenges, risks and mitigating strategies for the future
INVESTIGATOR(S)	Mr K Van Straaten
SCHOOL/DEPARTMENT	School of Construction Economics and Management/
DATE CONSIDERED	19 June 2020
DECISION OF THE COMMITTEE	Approved Risk level: Minimal
EXPIRY DATE	02 July 2023

DATE 03 July 2020 **CHAIRPERSON** _____
(Professor J Knight)

cc: Supervisor : Professor B Mpofu

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

_____ 06 / 07 / 2020
Signature **Date**

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES