

Residential Property: Quantitative Analysis of an Emerging Asset Class

Analysis of residential property investment and fundamental performance in a Global and South African context
2024



Report sponsors:



Report by:



Content

Foreword	3
Executive Summary	4
Introduction & Methodology	6
Global Residential performance	8
Total Return of residential property against other sectors	8
Annualised Risk/Return – short and longer term	9
Total Return of the residential property sector across countries	10
Multifamily segment performance relative to other residential property types	13
Range of residential returns across major residential investment markets	14
Residential property performance during economic shocks	15
South Africa's property sector yields compare against other global markets	18
South African investment property performance	19
Comparing the total return of residential property against other sectors	19
Drivers of residential property returns– relative to other property sectors	19
Residential property performance has benefitted from compressing yields	21
Distribution of residential property returns over time	23
Residential returns breakdown by Net Operating Income	24
Inter-asset volatility of SA residential property compared to other sectors	25
Conclusion	27

Foreword

Residential Real Estate is the largest asset class in the world, accounting for roughly 40% of all fixed capital globally. Total investable Commercial Real Estate accounts for only 7% by comparison. While most residential property is held directly in the hands of households, institutional investors have started investing heavily in the Multifamily Residential asset class in recent decades. For example, Multifamily Residential grew from 9% of the US REIT Sector by asset value in 1990 to over 26% in 2020.

In South Africa, the Multifamily Residential asset class is still in its infancy - accounting for less than 2% of the REIT sector by asset value today. Despite this, a handful of landlords have been laying the foundation for the formation of what promises to be – as is argued in this paper – a mainstay of the South African institutional investment landscape. Against the backdrop of an acute need for housing delivery, the research presented here demonstrates the immense value that well-developed, well-managed residential portfolios may offer these investors.

The recent formation of SAMRRA, the South African Multifamily Residential Rental Association, marks an important point in the maturation of this asset class in our market. Amongst them, SAMRRA's founding members own and manage over 75,000 residential units which account for over R40bn in asset value. A core objective of the Association is to support the production of a credible knowledge base that can assist local institutional investors in developing their understanding of the Multifamily Residential asset class.

The research presented in this paper represents a first effort in this regard. It is the product of many conversations spanning several years and draws on the MSCI Residential dataset which Absa has sponsored since its inception in South Africa over 5 years ago. As Divercity and Absa, we are proud to co-commission this important study with SAMRRA and provide the sponsorship to make it possible.

I would like to thank everyone who has had a hand in producing this work, as well as the pioneers of South African residential rental who have charted the course for this exciting asset class.



Carel Kleynhans
SAMRRA Executive Member
CEO, Divercity Property Group

Executive Summary

Residential property is a well-invested, major asset class in the global property market

As a sector, residential has grown significantly over the last 20 years. In 2022, residential assets account for 21% of global investment property by value, equal in size to industrial property and second only to offices at 35%.

Internationally, residential assets are known for their low-volatility, forecastable returns

Residential property has been a consistent performer in the global property market, outperforming all other sectors except industrial property. However, residential property has a lower risk profile than industrial property, possibly making it a more attractive investment for some investors. This is reflected in international residential income yields (a proxy for capitalisation rates) being consistently well-below that of all other real estate asset classes over the past 20 years – contrary to the case in South Africa.

Residential, less reliant on market timing, maintained income growth through pandemic

Globally, residential property was the only sector that managed to maintain its net operating income growth at a similar level to what it was pre-pandemic. This relatively stable income may make residential sector returns less reliant on market timing and as a result may be appropriate for institutional and other long-term investors. It is also a key factor behind the residential sector's superior risk-to-return profile compared to the other property types.

Does the international experience hold true for South African residential property?

MSCI has been measuring residential property returns as part of the MSCI South Africa Annual Property index since 2018. With 5 years of data, we are now able to start comparing the performance of South African residential assets to other asset classes.

South African residential property performed in line with global market but asset selection proved important

South Africa's residential property market has been relatively strong, with a 5-year annualized total return of 70bps below the global residential average. This is despite a negative capital growth, which was offset by the country's relatively higher income return.

Residential property returns varied widely within and across countries. For the five years to the end of December 2022, global residential property total return varied from -0.1% at the 10th percentile to 12.9% at the 90th percentile. South Africa was among the countries with a larger spread of total return among its underlying residential assets which implies a higher risk in asset allocation.

Despite post-pandemic woes, South African residential property outperformed other sectors in 2022, suggesting it may have been undervalued

Residential property was the only sector to record an improved net operating income yield in 2022, suggesting that it was perhaps underpriced given the bad news that priced into the sector through the pandemic. It also highlights how South African residential fundamentals and performance reacted faster than the other property sectors – like the trend observed across other global markets.

Higher quality residential property in South Africa had higher and more stable returns than lower quality properties, making it attractive to institutional investors

Quality emerged as one of the factors impacting investment returns. Residential property with a net operating income per square meter in the top quartile (which translates into a gross rental of R8,800-R11,500 per unit per month) outperformed those in the bottom quartile by an annualized 9.6%. In our analysis we also found that South African residential property had a significantly lower inter-asset volatility of net operating income per square meter compared to the other main property sectors. The consistently lower inter-asset volatility for residential BTR property implies more stable forecastable returns for institutional investors.

In conclusion

While residential property is a relatively small and emerging asset class in South Africa it is far from homogenous with property's characteristics varying in terms of location, size, quality, and type of occupiers. This was evident in the wide range of investment performance outcomes across time periods and property types. Despite the wide range of returns within the residential sector, we found that it came both at a lower overall risk and a lower inter-asset volatility compared to the other property sectors. The sector's relatively wider spread between its capitalisation rate and net operating income yield suggests a possibility of re-pricing as the sector matures and attracts higher volumes of institutional investment.

Introduction & Methodology

This report aims to assist South African institutional investors to better understand residential real estate as a distinct asset class. Residential investment property, often simplistically referred to as “Multifamily” in the United States and “Build-to-Rent” in the UK and Europe, has emerged as a growing asset class in many markets in recent years. While the segment is still comparatively small in a South African context, there is a growing interest from local institutional investors.

The analysis focuses on residential property performance in a global and South African context with specific reference to institutionally held, professionally managed real estate and how it compares to other types of real estate which may already be well understood.

MSCI’s suite of real estate performance indexes form the basis of the quantitative analysis. These indexes offer institutional investors a consistent view of the financial and operating performance of investments in real estate and infrastructure assets in more than 30 countries.

The indexes are governed by a rules-based methodology and data standards designed to meet the needs of investors for globally consistent performance measurement. The data standards are based on extensive consultation with clients and other industry participants globally. Real estate is increasingly invested in by a broadening class of asset owners and managers who share global mandates and is no longer just the focus of domestic investors whose mandates are defined by national boundaries.

In the context of this analysis, the term residential refers to real estate assets that are “Built-to-Rent” (BTR) – *inclusive of Multifamily Residential*. BTR is an emerging sub-market in private rented residential stock, designed specifically for renting rather than for sale, typically owned by institutional investors and managed by specialist operators.

BTR properties can either be single or multi-let but across the MSCI Global Annual Property Index, 95% of the residential sample by value is classified as Multifamily Residential – a sub-sector of the BTR asset class. Multifamily Residential represents a classification of housing where multiple separate housing units for residential inhabitants are contained within one building or several buildings within one complex/estate. Units can be next to each other (side-by-side units) or stacked on top of each other (top and bottom units). A common form is an apartment building. This classification represents large-scale residential property rental supply, while providing alternate opportunities for residential developers and stable long-term income for institutional investors.

The first section of the analysis is based on the asset-level data underlying the MSCI Global Annual Property Index which tracked the unlevered investment performance of institutional property investments across 27 countries. As at the end of 2022, the index comprised 58,827 properties valued at USD2.1 trillion. By value, the United States accounted for 27% of the overall index followed by France and the United Kingdom at 11% each.

MSCI measures direct portfolio level investment performance bottom-up from records of individual property assets. Data contributors to MSCI are required to provide external or independent professional valuations, in accordance with international or local valuation standards, for each of their assets. Valuation reports should be provided to MSCI to the frequency at which the investments are being measured, at least once annually.

At a global level, offices were the largest sector in the index at 35% of the overall capital value, followed by industrial and residential at 21% apiece. Residential and industrial property were also the two fastest growing segments globally. Since the index's inception in 2001 the allocation of capital to these two sectors grew by 13% and 10% respectively, when expressed as a percentage of the total index value. In 2001, residential property comprised 11% of the index's total capital value but by the end of 2022 this had increased to 21% as the sector gradually emerged as a large, invested asset class globally. Within the residential sector, the United States accounted for 38% of the sector's capital value followed by Switzerland and the Netherlands at 16% and 11% respectively. However, expressed as a percentage of asset count the geographical spread was more even with Switzerland, the Netherlands, the UK, Sweden, and France all having more residential properties than the US.

Summary of residential sector data in MSCI Global Annual Property Index

Country	Number of Properties	Capital Value (USD bn)	% of Sector Value
Switzerland	2,800	69.2	16.0%
Netherlands	2,392	48.6	11.2%
UK	2,357	26.9	6.2%
Sweden	1,949	21.2	4.9%
France	1,889	28.6	6.6%
US	1,728	161.7	37.4%
Japan	1,020	17.5	4.0%
Germany	516	13.0	3.0%
Canada	419	18.8	4.3%
South Africa	338	1.2	0.3%
<i>All other markets</i>	<i>1,750</i>	<i>26.0</i>	<i>6.0%</i>

Source: MSCI Real Assets

In a South African context, residential property is still comparatively small but growing as institutional investors look beyond the traditional, main sectors like retail, office and industrial. The past decade has witnessed the emergence of several specialist, professionally managed funds in the listed space, reflecting the sector's dynamic evolution. Some of the established diversified REITs (Real Estate Investment Trusts) have allocated capital to the BTR sector – either indirectly through holdings at a vehicle level or via directly owned property. Many of these funds contributed to the growth in the segment's coverage in the MSCI South Africa Annual Property Index.

At present, the South African residential property sector mainly comprises affordable, Multifamily housing with the balance of the allocation consisting largely of student housing. At December 2022, the MSCI South Africa Annual Property Index included 338 residential properties and approximately 45,000 units valued at R20.6bn – which constitutes roughly half the value of residential property owned by SAMRRA's founding members. For each asset detailed, audited valuations and financial

data is collected from the owner to calculate investment performance and other fundamental property metrics.

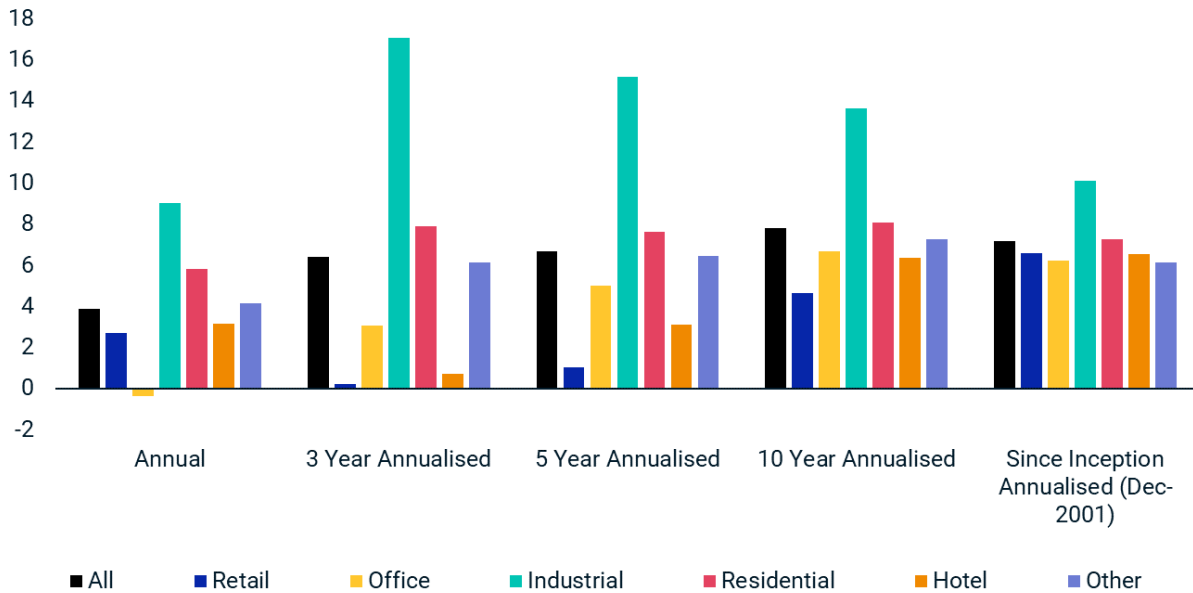
The measures most widely used and relied upon to evaluate the investment performance of commercial real estate are total return and its income and capital components, i.e. the total return, capital growth and income return. MSCI calculates these measures monthly and compounds them on a time-weighted basis over longer periods. Each months' measures are value weighted, meaning that the contribution of each asset is in proportion to its capital value weight.

MSCI's global methodology and data standards can be viewed at <https://www.msci.com/real-estate-methodology>.

Global Residential performance

Global Residential performance: Total Return of residential property against other sectors

Graph 1: Global real estate returns by sector



Source: MSCI Real Assets

Graph 1 shows the global real estate returns by sector for different time periods to December 2022.

Investment performance varied widely across the major sectors represented in the MSCI Global Annual Property Index. Since the index's inception in 2001, the overall total return across all assets was an annualised 7.2% measured in local currency terms.

Industrial property has been the top performer over the period at 10.1% with much of the outperformance stemming from significant yield compression since 2018. Among the other sectors, residential property returns only lagged industrial over all annualised periods. However, this is before other traits like volatility are considered.

Global Residential performance: Risk vs Return

Graph 2: Global Property- Risk and return by sector; 20 year annualised to December 2022



Source: MSCI Real Assets

Annualised Risk/Return – short and longer term

Despite local perceptions to the contrary, the global experience is that residential investment property had a similar risk profile to office assets and is less risky than the retail and hotel sectors – while outperforming all of these on a returns basis.

Graph 2 shows the annualised total return of different property sectors versus the standard deviation of their total return. The property sectors shown are industrial, residential, retail, office, hotel and other. We also show the All Property figure which is the average of these sectors weighted by capital employed.

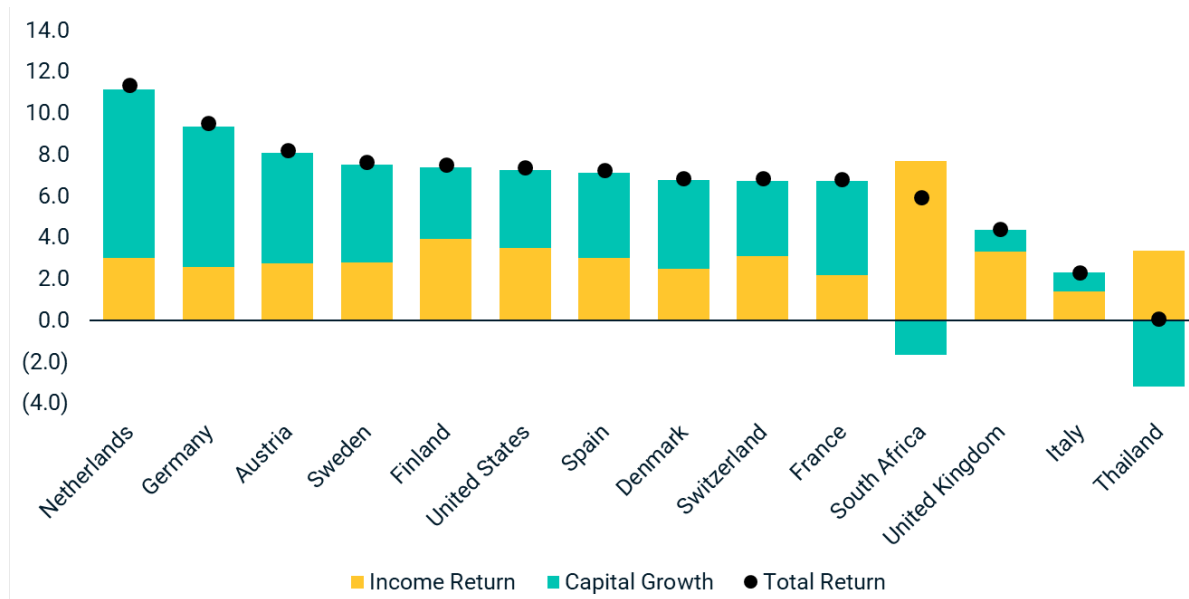
The y-axis shows the annualised total return, which is the average percentage of return (compounded annually) that an investment earns over a year. The x-axis shows the standard deviation of total return, which is a measure of how volatile an investment is. A higher standard deviation indicates that an investment is more volatile, meaning that its return can fluctuate more widely from year to year.

For the twenty years ended December 2022, industrial assets in the MSCI Global Annual Property Index had the highest annualised total return, but also the highest standard deviation. This means that the performance of industrial assets was more volatile, but they also generated higher returns. It is important to note that past performance is not indicative of future results and the sectoral drivers of

performance does differ and evolve over time. While industrial performance benefitted tremendously from the pandemic’s positive impact on logistics and warehousing it can’t be assumed that this impact will continue. Similarly, the drivers of residential property performance will continue to evolve as the BTR sector grows as an asset class.

Global Residential performance: Total Return of the residential property sector across countries

Graph 3: Residential Total Return by Country, 5 year annualised, 2017-2022, local currency



Source: MSCI Real Assets

Graph 3 shows the income return, capital growth, and total return for residential property of countries included in the MSCI Global Annual Property Index on an annualised basis for the five years to the end of December 2022.

Residential property performance has been relatively consistent among the different countries underlying the global residential return. Of the 14 markets where a five-year annualised return is available for the residential sector, 9 returns were within 230bps of one another. Most of the measured markets are advanced economies where income return is typically lower, but the total return was driven above inflation by positive capital growth.

South Africa’s 5-year annualised residential total return was only 70bps below the global average despite a negative capital growth. Instead, it was the country’s relatively higher income return that underpinned its total return. While the South African dataset is still relatively small compared to other countries and other sectors it’s clear that these assets produced strong income returns. The South African capital growth is explained in section 13 when it is decomposed into income impact, yield impact and investment impact.

Global Residential performance: Capital Growth Decomposition

To better understand the drivers of performance, the capital growth component of total return can be decomposed into yield, net income growth and investment impacts. In this analysis we use net operating income as the basis to calculate these impacts as this is a measure available across all measured markets and calculated on a globally consistent basis.

Income return measures the net income receivable in relation to the capital employed over a period.

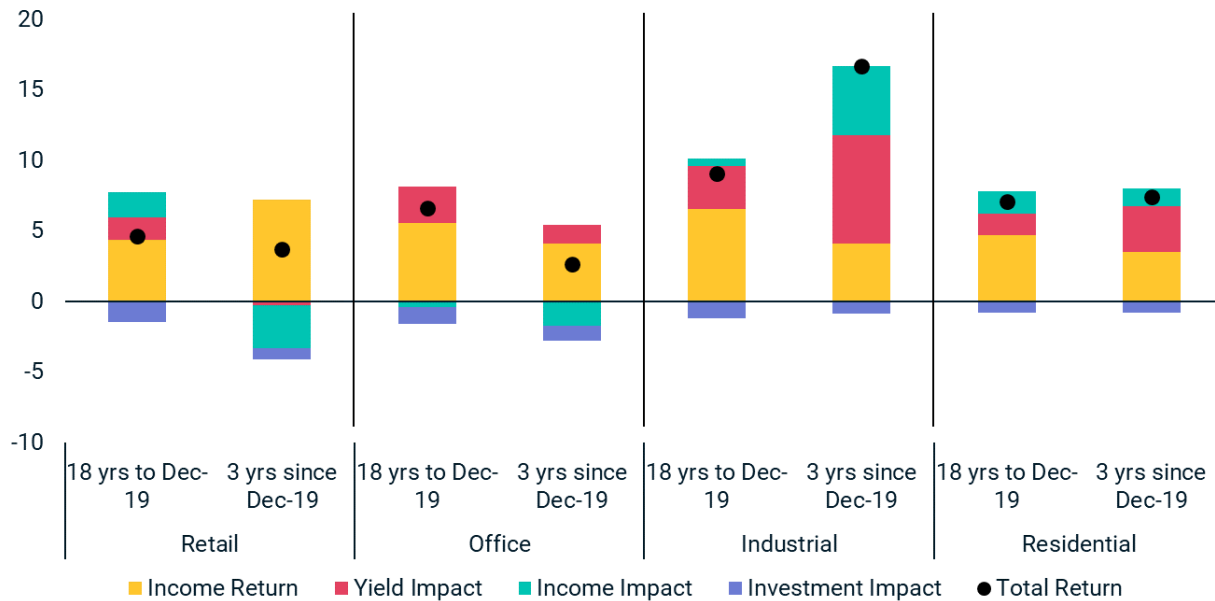
Yield impact shows how much the change in asset values was attributable to movements in net operating income yield.

Income impact represents how much of the change in asset values came from growth in net operating income. This could be driven by a letting of vacant space, positive rent reversions, contractual rental escalations, or a reduction in operating expenses.

Added together, the net operating income yield impact and income impact show the total change in asset values.

Investment impact, the difference between asset-value growth and capital growth, equals the amount of capital expenditure reinvested.

Graph 4: Global Property - Decomposition of Total Return by Sector; 20 year annualised



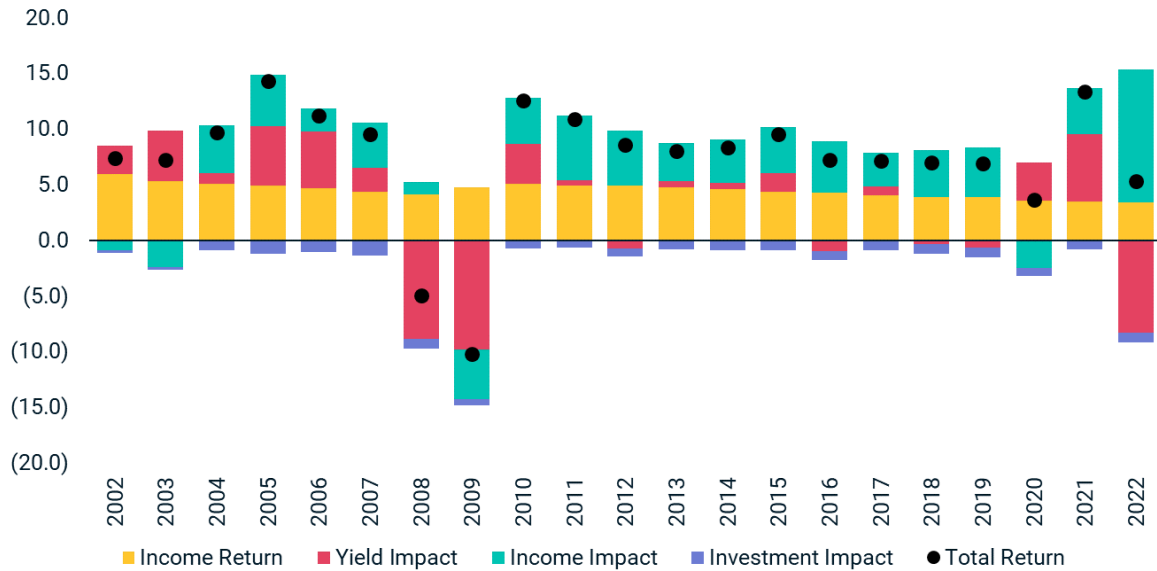
Source: MSCI Real Assets

Decomposing the long-term sector-level returns of the major property sectors in the MSCI Global Annual Property Index revealed that industrial property had the highest total return – both in the 18 years leading up to December 2019 as well as the subsequent 3 years which included the impact of the COVID-19 pandemic (“COVID” or the “Pandemic”). While industrial property’s total return was mainly driven by a positive yield impact during both time periods, the impact was amplified during the

Pandemic when the heightened demand for especially industrial logistics and distribution space drove yields down which boosted capital growth.

Despite industrial property’s strong net operating income growth since the start of 2020, it still lags the residential sector over the full 20-year analysis period. For the 20 years to the end of 2022, residential property delivered an annualised net operating income growth of 1.6% p.a.; which was 30bps higher than the industrial sector and double the 0.8% p.a. of retail property. Office property experienced a negative income impact of -0.6% p.a. over the same period. Meanwhile the residential property sector was the only sector that managed to maintain its net operating income at a similar level to what it was pre-Pandemic. This relatively stable income may make residential sector returns less reliant on market timing and as a result may be appropriate for institutional and other long-term investors. It is also a key factor behind the residential sector’s superior risk to return profile compared to the office, retail, and hotel property sectors.

Graph 5: Global Residential Property - Long term Total Return decomposition



Source: MSCI Real Assets

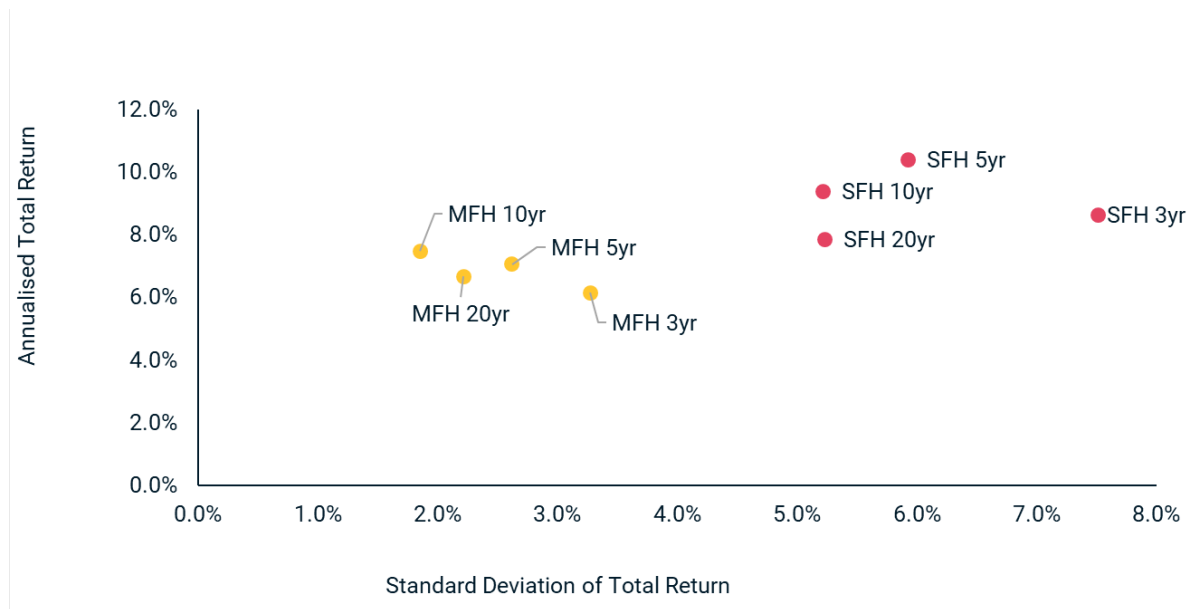
The long-term Total Return decomposition of the global residential sector shows the annual trend since 2002. The drivers of return shown are income return, yield impact, income impact, investment impact, as well as total return since 2002.

Post the Global Financial Crisis (“GFC”), the impact of the residential sector’s annual net operating income growth on its capital growth has been relatively consistent. During every year from 2010 and 2019, global residential property had a positive net operating income growth of between 3% and 6% per annum. When COVID hit, there was a 2.5% decline in net operating income amid an increase in both vacancy and rental concessions. However, in 2021 there was a rebound of 4.1% which offset the previous year’s decline. During 2022, the yield on residential property weakened which resulted in a negative yield impact on capital growth of -8.3%. However, this was more than offset by a net operating income growth of 12.0% which returned the annualised net operating income growth of the three years to the end of 2022 back to 4.4% -in line with the sector’s long-term average of 4.1%.

Global Residential performance: Multifamily segment performance relative to other residential property types

Like the other property sectors, not all residential assets are made equal. While residential investment property might be perceived as being quite homogenous, the reality is that BTR assets within the MSCI Global Annual Property Index varied significantly in terms of quality, location, size and the type of occupier over the past 20 years. At a headline level, residential assets can be differentiated by whether they are Single Family Residential (“SFH”) or Multifamily Residential (“MFH”). SFH typically refer to standalone houses which accommodates a single occupant or family and over which there is one lease and therefore one income stream. This means that if that tenant moves out or defaults on their lease, the property owner could experience a significant loss of income and will have to incur additional costs to recover outstanding rental and possibly install a new tenant into the unit.

Graph 6: Global Residential Property- Risk vs Return of Single and Multifamily Residential



Source: MSCI Real Assets

Multifamily Residential is set apart by the fact that its income stream is more diversified and its tenants typically offer differentiation across lease terms, income levels, and employment sectors. This diversification helps to reduce the risk of income loss if one tenant or group of tenants moves out or defaults on their lease.

The Risk vs Return of Single and Multifamily Residential graph shows the annualised total return and standard deviation for SFH and MFH real estate for different time horizons. The results show that over the past 3, 5, 10, and 20 years, SFH had a higher annualised total return than MFH. However, MFH had a significantly lower standard deviation of total return, which means that there is less risk associated with investing in MFH. Over a twenty-year horizon, SFH produced a 120bp higher total return than that of MFH but at 2.5x the risk. Over shorter and longer periods, this relative risk of SFH remained consistent at between 2.3x to 2.8x higher than MFH. MFH’s risk over the time horizons was between

1.8% and 3.5%. and the relative outperformance got progressively smaller over longer time horizons. Given the superior risk/return profile of Multifamily Residential, stripping out SFH from the broader residential dataset improves the sector’s position relative to the other main property sectors like retail, office and industrial.

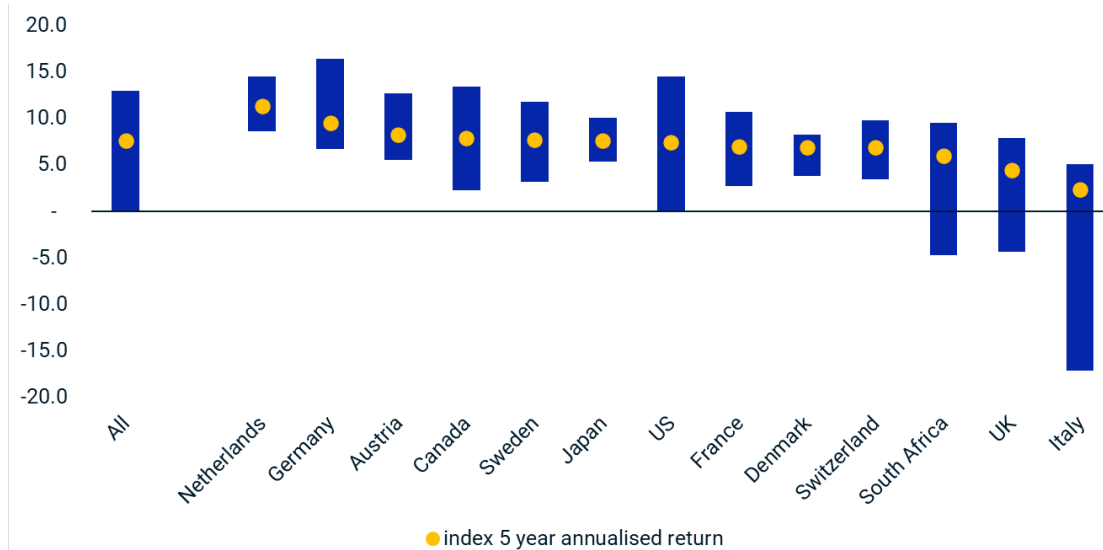
Global Residential performance: Range of residential returns across major residential investment markets

Residential property returns varied widely within and across countries. For the five years to the end of December 2022, global residential property total return varied from -0.1% at the 10th percentile to 12.9% at the 90th percentile. While the range of returns was narrower in markets like Denmark, the Netherlands and Japan it was wider in markets like the United States, Canada, the United Kingdom, and Italy. South Africa fell into the latter category with a spread of ~14% which implies a higher risk in asset allocation. This implies that asset selection remains a critical driver of relative return whether it is in large, highly evolved markets like the UK, US, and Canada or in smaller, growing markets like South Africa.

Graph 7 illustrates the range of five-year annualized total returns for residential assets in various countries, from the 10th to the 90th percentile. The x-axis represents the countries, while the y-axis displays the five-year annualized total return.

The 10th percentile represents the return that outperformed 10% of the residential assets within the dataset for that specific country while the 90th percentile represents the return that outperformed 90% of the residential assets within the dataset for that specific country.

Graph 7: Global Residential. Total Return range by country; 10th-90th percentile, 5-year annualised

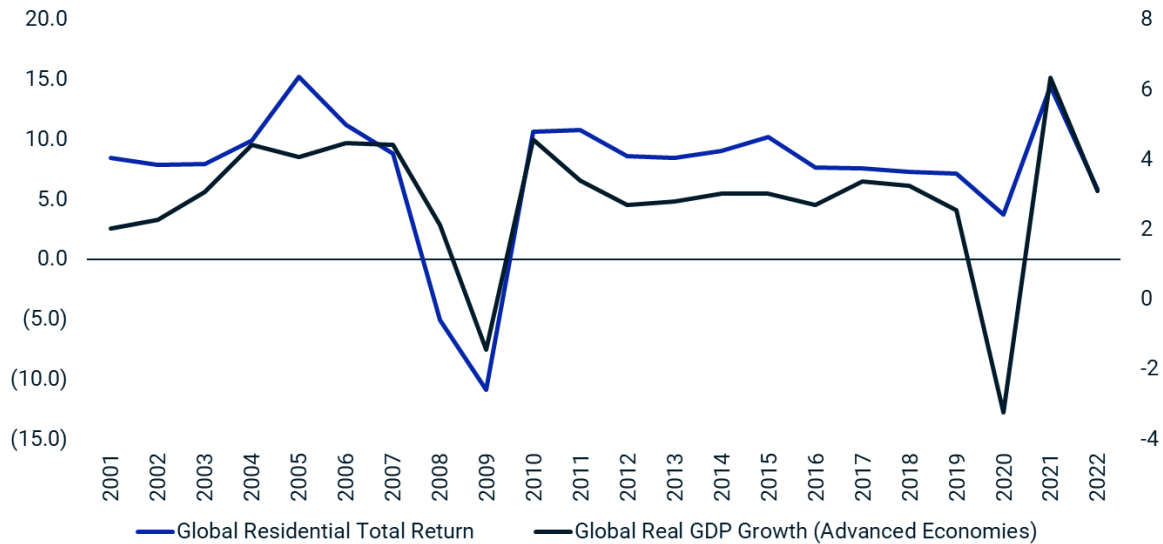


Source: MSCI Real Assets

Global Residential performance: Residential property performance during economic shocks

In the 20-year history of the MSCI Global Annual Property Index, the global economy has weathered two significant financial storms: the GFC of 2008-2009 and COVID . These crises sent shockwaves through the real estate industry, causing property values to plummet and cap rates to spike. However, despite these turbulent times, the residential Built-To-Rent (BTR) sector demonstrated resilience and emerged from both crises with its investment fundamentals intact.

Graph 8: Global Residential: Total Return vs Economic Growth

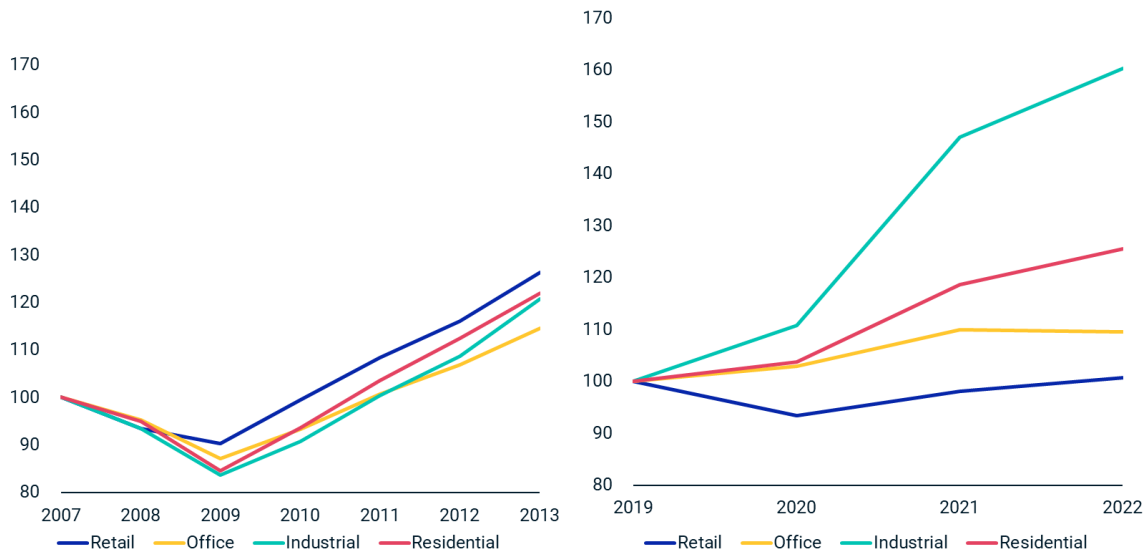


Source: MSCI Real Assets

The GFC triggered by the collapse of the US subprime mortgage market, had a devastating impact on the overall real estate landscape. Home values plummeted as foreclosures surged, and cap rates weakened dramatically. This decline reflected the perceived association between residential property and the broader economic crisis. The ripple effects of this crisis reverberated throughout the economy, disrupting financial markets, and casting a pall over consumer confidence. Amidst this turmoil, the residential BTR sector experienced some negative knock-on impacts, as investors initially shied away from real estate, more broadly.

However, the sector's underlying strength quickly became apparent as BTR properties continued to generate stable income returns, proving their worth as a reliable asset class. From the depths of the Global Financial Crisis, the main property sectors exhibited a synchronized recovery, with yields closely mirroring each other's movements. Capitalisation rates for BTR assets bounced back and the sector was only outperformed by the retail sector in the five years following the 2007 peak, underscoring the sector's resilience.

Graph 9: Global Residential Total Return vs Economic Growth



Source: MSCI Real Assets

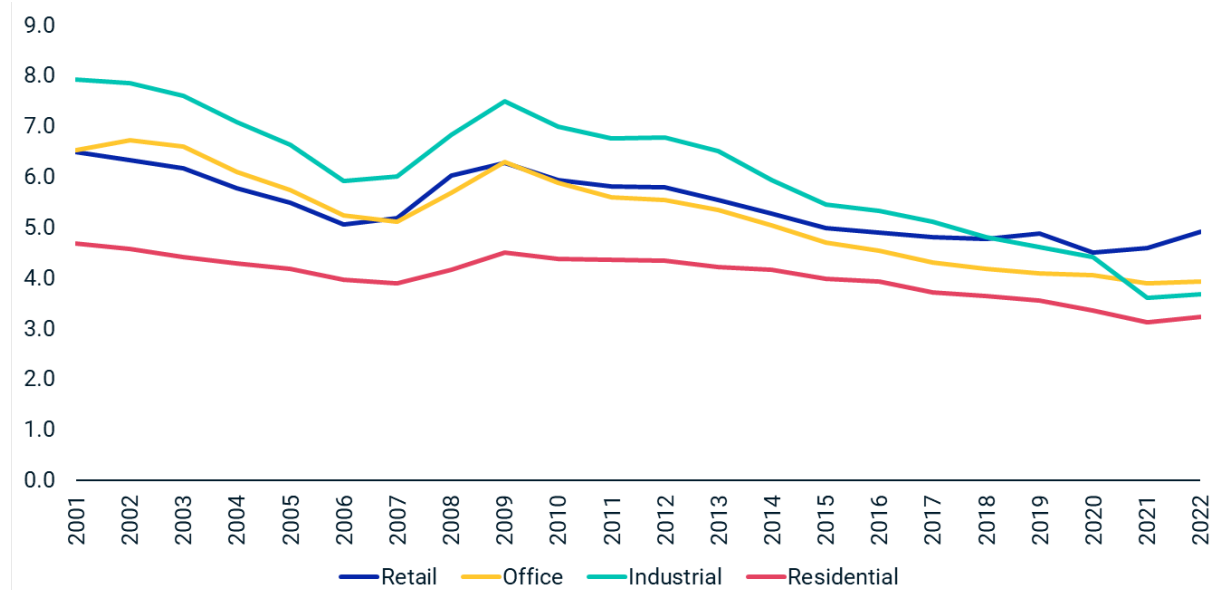
Graph 9 shows the impact of the GFC (left) and the COVID pandemic(right) on the investment performance of the major property sectors.

The Pandemic, while less severe than the GFC in its overall economic impact had a more direct impact on the underlying real estate assets. Initial fears of a prolonged economic downturn led to an increase in cap rates for the BTR property segment. However, as the Pandemic progressed and the economy showed signs of recovery, cap rates stabilised and even began to decline in some markets. The residential BTR segment showed the value of the strong fundamentals underpinning demand and performance as its stable income stream, essential housing need, diversification benefits, and the support of government measures all contributed to the sector's ability to weather storms and emerge stronger.

Since 2019, the BTR segment was only outperformed by industrial property which benefitted from a cap rate driven re-pricing on account of the emerging importance of distribution for the consumer economy. Since the end of 2022, the industrial sector experienced a sharper pullback in return compared to the residential sector according to the MSCI Global Quarterly property index. At the same time, residential property saw a milder yield impact notwithstanding higher interest rates globally.

Global Residential performance: Comparing residential property net operating income yield against the other property sectors

Graph 10: Global property: Net operating income yield by sector



Source: MSCI Real Assets

Net operating income used as a proxy for capitalisation rate

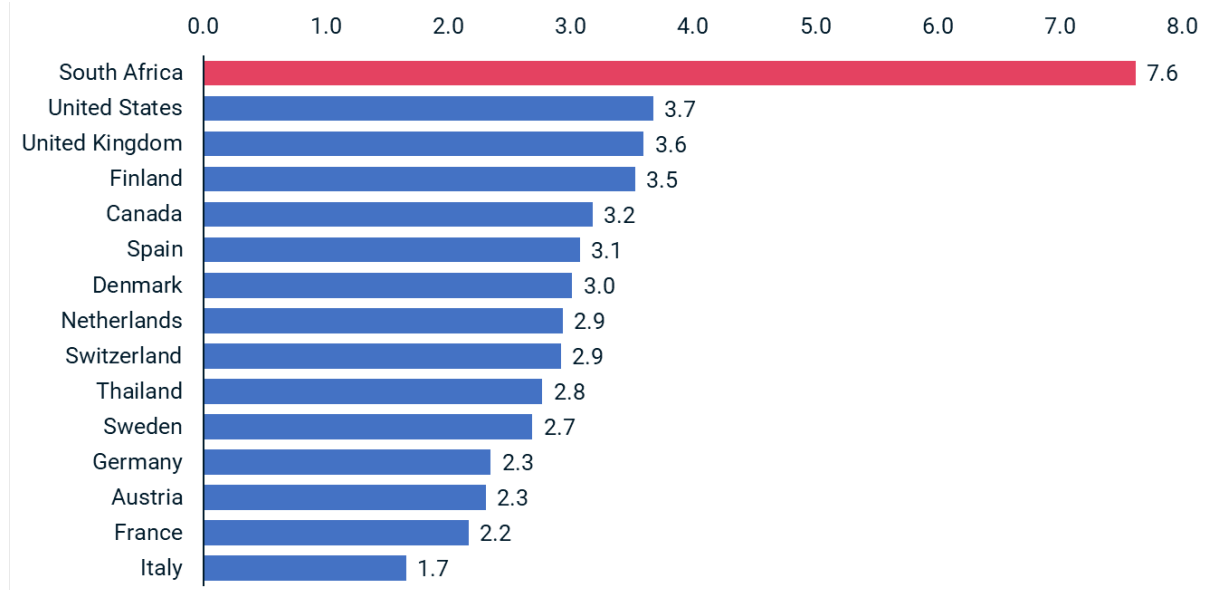
Graph 10 shows average net operating income yield (as a proxy for capitalisation rates) for different property sectors over time, from 2001 to 2022. Net operating income yield is defined as net operating income divided by its end capital value.

Given that the investment returns during and following the Global Financial and COVID crises were both primarily yield driven it is worthwhile comparing the net operating income yield of the residential to the other main property sectors over time. In this analysis we use net operating income yield as a proxy for capitalisation rate as net operating income yield is a globally consistent and available measure.

At a global level, the residential sector’s net operating income yield has historically been lower than the other sectors and did not strengthen to the same extent in the time preceding these crises – implying investors have historically been willing to pay more for income derived from residential assets than those from other real estate. Consequently, when yields began to normalize and asset values faced downward pressure, the residential sector endured a relatively milder impact. In South Africa, the experience has been the opposite where the net operating income yield of the residential sector was at a discount to the other sectors before the COVID pandemic. However, as the sector has matured yields started to strengthen although still at a discount to the retail sector at December 2022.

Global Residential performance: How does South Africa's property sector yields compare against other global markets?

Graph 11: Residential Net Operating Income Yield by Country; at December 2022



Source: MSCI Real Assets

As is the case with its income return, the net operating income yield of South African residential property is also significantly higher than that of similar assets across other national markets.

Graph 11 shows the average real estate net operating income yield for residential property across different countries as of December 2022. The net operating income yield is calculated by dividing the net operating income (which is the total income from the property minus operating expenses) by the property's capital value.

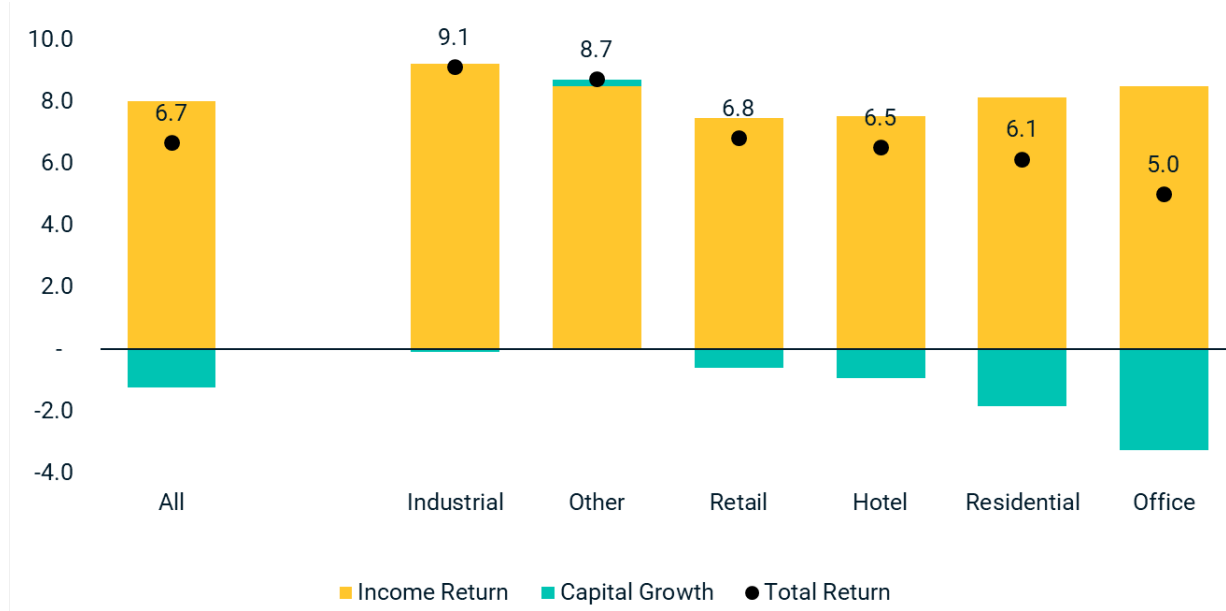
The graphic shows that the highest net operating income yield in December 2022 was in South Africa, at 7.6%. This was followed by the United States (3.7%), the United Kingdom (3.6%), and Finland (3.5%). The lowest net operating income yields were in Italy (1.7%), France (2.2%), and Germany (2.3%).

South Africa's relatively higher inflation is likely one reason for its higher residential BTR property segment yields. Additionally, the South African BTR market's relative infancy may contribute to its discounted pricing compared to more mature and better-understood property sectors.

South African investment property performance

South African investment property performance: Comparing the total return of residential property against the main property sectors

Graph 12: South Africa total return by sector; annualised since 2017



Source: MSCI Real Assets

Similar to the global trend, industrial property in South Africa outperformed the other major sectors in the five years ended December 2022. During this period, industrial property delivered an annualised total return of 9.1%, which was 240bps higher than the All Property number.

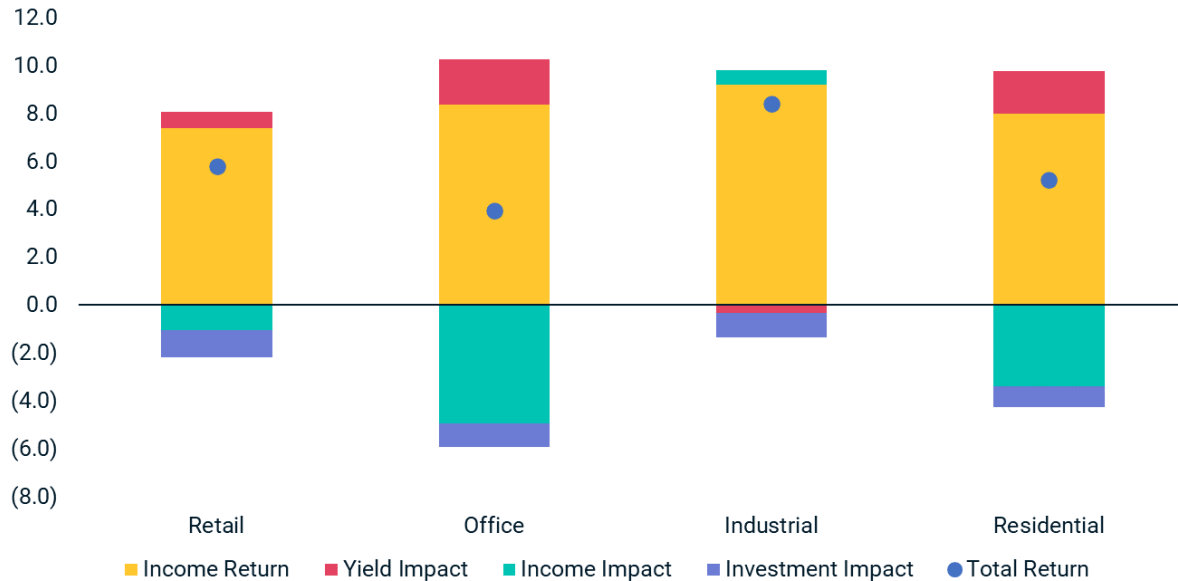
Graph 12 below shows the total return for each property sector annualised for the five years to December 2022.

Over this five-year period, residential property delivered a similar return to that of the retail and hotel sectors, while outperforming office. That said, the size of the South African residential index sample in South Africa is still comparatively small and while the sector is growing quickly it is perhaps too early to infer with certainty that the international experience is also playing out in South Africa.

South African investment property performance: Drivers of residential property returns—relative to the other major property sectors

Over the last five years – a period largely defined by the Pandemic- South African residential investment property lost less of its net operating income than offices but more than retail and industrial. This is partly explained by the fact that the South African index sample has many affordable and inner-city properties that were relatively harder hit by the pandemic than the mid-market segment which makes up the bulk of the indexes in most developed countries. While total return was positive across the property sectors over the period, the drivers thereof varied.

Graph 13: South Africa: Capital Growth decomposition by sector since 2017



Source: MSCI Real Assets

Graph 13 shows the capital growth decomposition of total return for South African property sectors on an annualised basis for the five years since December 2017.

Income return measures the net income receivable in relation to the capital employed over a period.

Yield impact shows how much the change in asset values was attributable to movements in net operating income yield.

Income impact represents how much of the change in asset values came from growth in net operating income. This could be driven by a letting of vacant space, positive rent reversions, contractual rental escalations, or a reduction in operating expenses.

Added together, the yield impact and income impact show the total change in asset values.

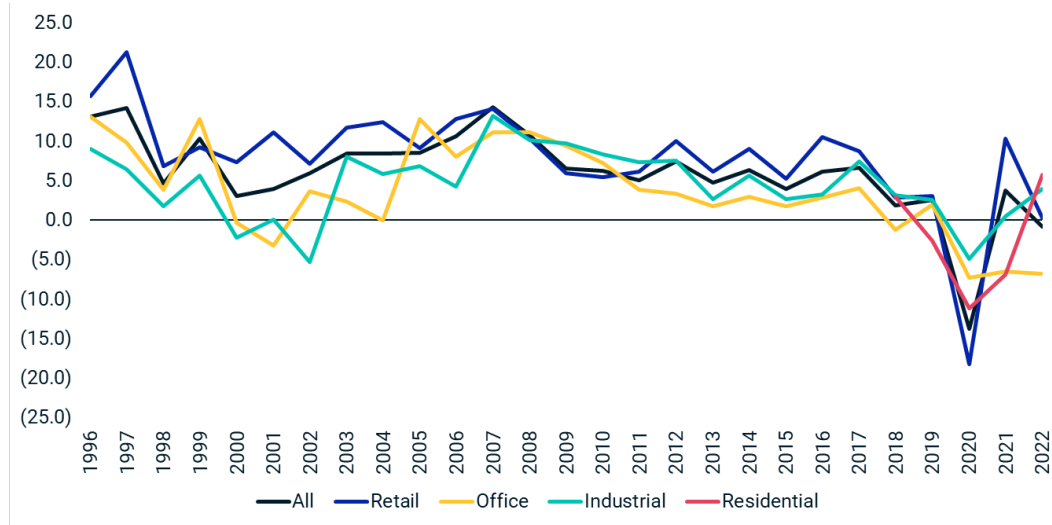
Investment impact, the difference between asset-value growth and capital growth, equals the amount of capital expenditure reinvested.

Over the 5 year period, income impact had a drag on the capital growth for residential property while yield impact had a positive effect. Over the time frame, only industrial property saw a positive income impact.

Graph 14 below shows the year-on-year growth in net operating income by sector for the period 1996-2022. While the residential sample in the MSCI South Africa Annual Property Index is relatively small compared to other markets, we can already see some of the characteristics associated with residential property internationally playing out in South Africa. Amongst these are that, as in many international markets, net operating income did not drop as much during the COVID pandemic than retail and has recovered faster than office. What this chart does not yet show is the very strong rebound in rental growth in 2023 due to higher interest rates. According to the MSCI South Africa bi-

annual property index to June 2023, net operating income in the residential sector grew by 19.0% y/y which put the sector's net operating income just 5% below where it was in December 2019 while the office sector's net operating income was still 17.8% below pre-pandemic levels at June 2023.

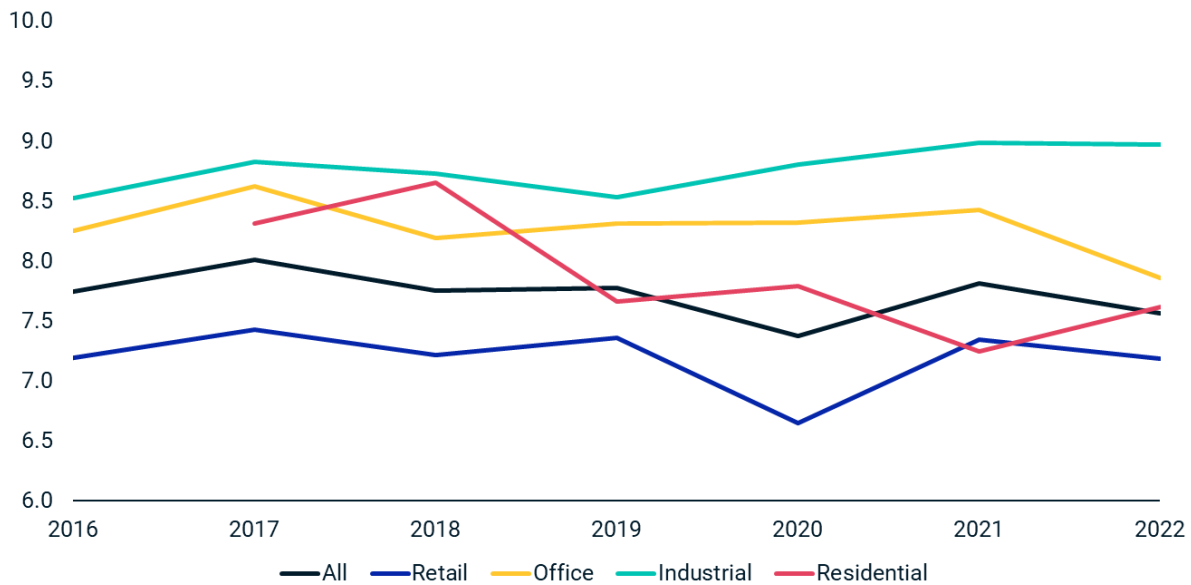
Graph 14: South Africa: Net operating income Growth of residential property against other sectors



Source: MSCI Real Assets

South African investment property performance: Residential property performance has benefitted from compressing yields

Graph 15: South Africa: Net Operating Income Yield by Sector



Source: MSCI Real Assets

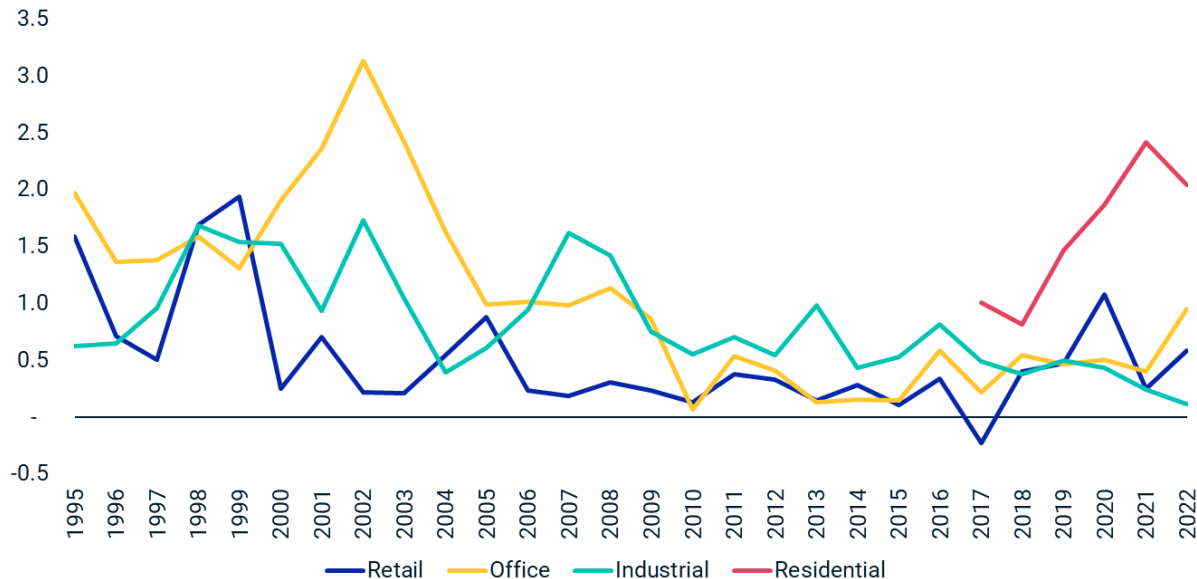
Similar to other residential investment property markets globally, South African net operating income yields compressed across the main property sectors over the last five years. As net operating income yield includes the impact of vacancy, lower occupancy was one of the factors behind the lower trending yields in the residential property sector.

As a constituent of the MSCI South Africa Annual Property Index, the residential sector still largely comprises mostly “affordable” and inner-city units it was relatively hard hit by the pandemic. Compared to other sectors and geographies, these locations saw higher vacancy and more bad debts- especially assets lower on the quality spectrum which dilutes the overall residential sector return. At the end of 2022, 44% of the residential assets by capital value in the MSCI South Africa Annual Index were in the country’s metropolitan CBDs while 51% of the residential sample by value was in metropolitan suburban locations. The balance of ~4% was residential properties located in smaller cities, large towns, and other locations outside the major metros. The suburban residential assets delivered an outperformance of 90bps per annum in the five years to December 2022. For this period, suburban assets delivered a total return of 6.3% compared to the 5.4% of those located in inner city locations.

Residential property was the only sector to record improved net operating income yield in 2022, suggesting that it was perhaps underpriced given the bad news that priced into the sector through the pandemic. It also highlights how South African residential fundamentals and performance reacted faster than the other property sectors- similar to the trend observed across other global markets.

While net operating income yield gives a view of how actual net operating income measured as a percentage of capital value, it may be slightly different to valuers’ capitalisation rate which typically includes some adjustments based on expected changes in income and costs and normalizes for vacancy.

Graph 16: South Africa: Spread of Capitalisation Rate over Net Operating Income Yield by sector



Source: MSCI Real Assets

Graph 16 shows the spread of capitalisation rate over net operating yield per sector. During the five years to December 2022, the average spread of cap rate over net operating income yield was between 40 and 50bps for the retail, office and industrial sectors. However, the residential sector had a larger spread between its capitalisation rate and net operating income yield. For the five years, the residential cap rate’s spread over net operating income yield averaged 160bps but has trended up since 2018 and at the end of 2022 this spread was 200bps. This implies that valuers’ are still attaching a larger risk to the sector’s medium term cashflow relative to the other sectors.

However, looking back further we saw a similar trend across the other sectors. In the late 1990’s, the retail sector had a spread of ~200bps between its cap rate and net operating income yield. At the time, the country’s economic growth was under pressure from a combination of record high interest rates and poor business and consumer confidence. In 2002, the office sector saw its spread widen to 300bps as record high office vacancy eroded investor sentiment in the sector. Many inner-city office assets were converted to residential use during that 2003 cycle. Industrial property went through a similar pattern as the retail sector as its cap rate/ net operating income yield spread widened to 150bps in 2007/2008 as the sector wasn’t at the time a staple part of institutional investor’s portfolios. As industrial property rose in prominence, the sector’s income risk was re-priced and as at the end of 2022 had the tightest spread among the main property sectors. If residential build to rent property continues to gain traction among institutional investors, it could benefit from a similar re-pricing.

South African investment property performance: Distribution of residential property returns over time

Graph 17: South Africa: Spread of Total Return (10th-90th percentile) by Sector



Source: MSCI Real Assets

Similar to the other major property sectors, the investment performance of residential property in South Africa varied widely over the past five years. The range of returns from the 10th to 90th percentile in the residential property market was broadly similar to that of the other major sectors which supports the point that there is a big quality spread in residential property.

What is noticeable when comparing the range of residential returns of the other major sectors is that the top performing residential assets rarely exceed the performance of the best performing assets in the others property sectors – but the worst performing residential assets rarely underperform the worse performing assets across the other sectors. The year 2020 seemed to have been an exception rather than the rule given that residential property tends to be more responsive in the short term to changes in the economic growth cycle given its relatively shorter lease period and direct exposure to the consumer market.

Earlier in the analysis, we illustrated the relatively tighter spread in residential returns globally. For the five years to December 2022, the average spread between the 10th and 90th percentiles was 7.9%, less than half of the 16.2% spread recorded for South African residential assets over this period.

This large difference in returns highlights the difference in quality across the asset universe which places a lot of emphasis on careful asset selection important for South African investors. This may in part be a function of the relatively large percentage of aged, inner-city assets in the index. However, this is also starting to change as more purpose-built investment grade Multifamily properties are being developed outside of the traditional CBDs as the sector grows and matures.

South African investment property performance: Residential returns breakdown by Net Operating Income

Given the large range of returns among the underlying assets across the different property sectors it is worth exploring whether top performing assets have any common characteristics. One such characteristic is building quality which might positively impact tenant retention, energy efficiency and maintenance costs.

In the table below, we segment the residential sample in the MSCI South Africa Annual Property index into quartiles on the basis of their net operating income per square meter as a proxy for quality. This was for the five-year period from 2017 to 2022. Residential property with a net operating income per square meter in the top quartile (R94/sqm and higher per month) outperformed those in the bottom quartile by an annualized 9.6%.

Assuming a 50 square meter unit and a net income/gross income ratio of 50%, a net income of R94/month in the top quartile translate into a rental payment of R9400 (rental plus recoveries) for the tenant. In the bottom quartile, a net income of R23/sqm translates into a monthly rental payment of R2300 using the same assumptions. These hypothetical properties would attract a different profile of tenant given the affordability and likely be located in different types of locations.

For the five years ended December 2022, residential properties in the top quartile delivered an annualized total return of 9.2% compared to a negative -0.4% for properties in the bottom quartile where the net operating income per square meter was R23/sqm/month and lower.

Figure 1: South Africa Residential Total Return by net operating income quartile; CAGR 2017-2022

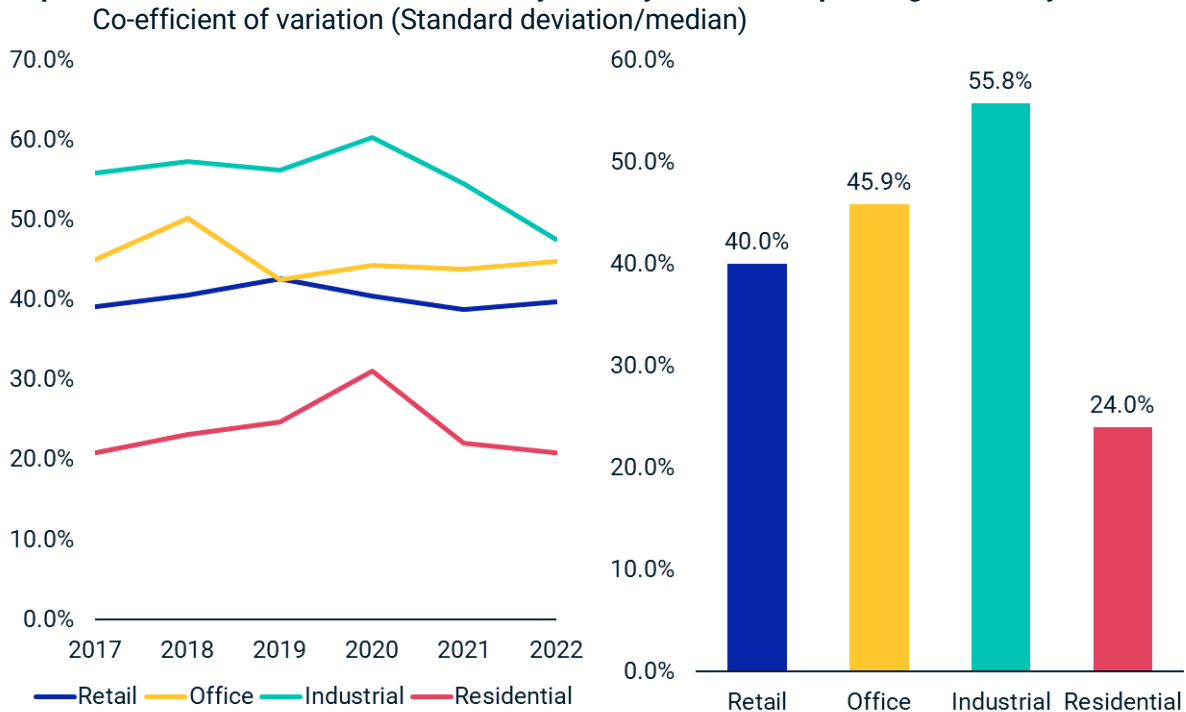
Quartile	Net operating income psqm	Gross Rental Range per unit #	Total Return	Income Return	Capital Growth
Top quartile	94	R8,800 - R11,500	9.2%	8.8%	0.4%
Second quartile	64	R6,200 - R7,600	7.7%	8.2%	-0.5%
Third Quartile	44	R4,300 - R5,600	1.5%	6.7%	-5.2%
Bottom quartile	23	R2,200 - R3,432	-0.4%	4.8%	-5.3%
Total	60		6.2%	7.7%	-1.6%

Source: MSCI Real Assets

Note: the rental ranges above are calculated across the four quartiles and assume a 50 square meter unit and a net income/gross income ratio of 50%

South African investment property performance: Inter asset volatility of South African residential property compared to other sectors

Graph 18: South Africa: Inter asset Volatility over 5 years of Net operating income by Sector



Source: MSCI Real Assets

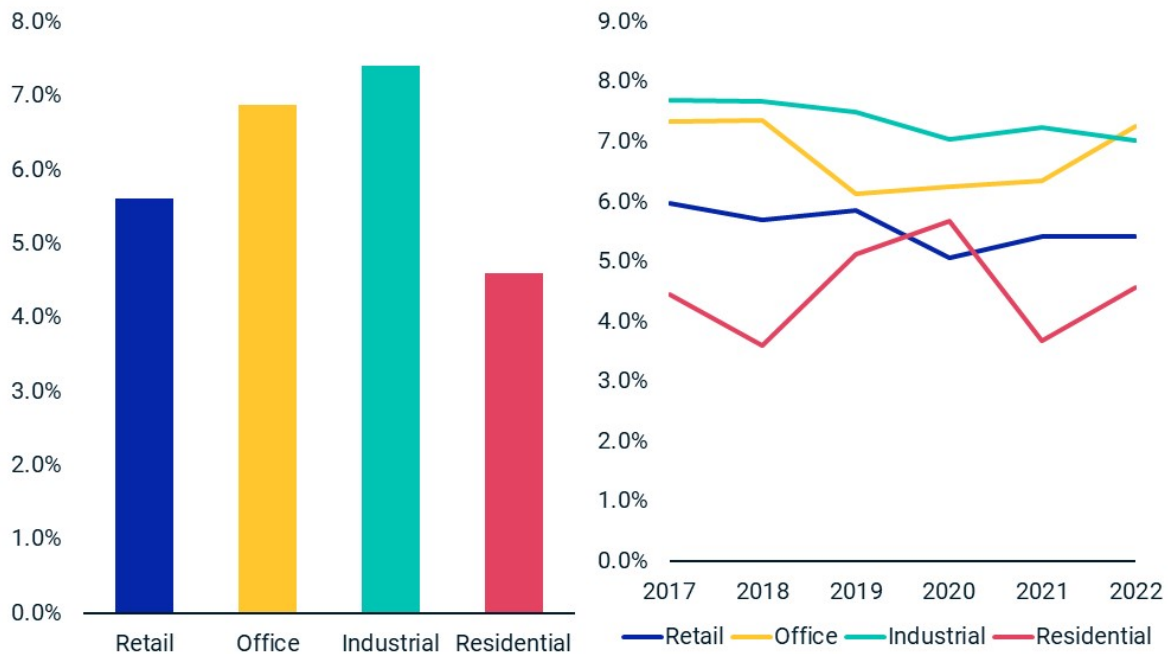
Considering the significant variation in performance observed across the residential sample, it is warranted to examine the inter-asset volatility of net operating income and total return in comparison to the other major property sectors.

For this analysis we calculated the standard deviation of net operating income /sqm across assets divided by the median of asset level net operating income. This is to control for the difference in net operating income per square meter across sectors given that for example, retail net operating income are on average higher than industrial and residential because of the higher rentals charged especially in large format shopping centres.

In the graphic below we compare the co-efficient of variation of net operating income across property sectors for the period 2017 to 2022 (left) and show the average by sector for this period (right). In our analysis we found that residential property had a significantly lower inter asset volatility of net operating income per square meter compared to the other main property sectors. From 2017 to 2022, the sector’s inter asset volatility of net operating income as a % of median net operating income varied between 20% and 30% and averaged 24%. This means that across all the individual residential properties, net operating income per square meter deviated by R18/sqm from the median of R76/sqm.

Over the same period, retail property averaged 40%, office 46% and industrial 56%. Thus, while residential property as an asset class is far from homogenous, its net operating income on a per square meter basis is more stable than the other sectors which might underpin a more stable return and lower asset-selection risk profile.

Graph 19: South Africa: Inter asset Volatility over 5 years of Total Return by Sector
Standard Deviation of TR across individual assets



Source: MSCI Real Assets

Given the impact yield has on investment returns, it would make sense that the relatively lower standard deviation of net operating income would translate into total return.

In graph 19 we replicate the analysis for total returns showing the standard deviation of South African property total return across assets per sector by year – and the average for the five-year period.

In our analysis we found that residential property had a lower inter asset volatility of total return compared to the other main property sectors. From 2017 to 2022, the sector's inter asset volatility of total return varied between 20% and 30% and averaged 24%. This means that across all the individual residential properties, annual total return deviated by 4.6%. Over the same period, this was lower than retail property's 5.6% deviation, office's 6.9% and industrial property's 7.4%. The consistently lower inter-asset volatility for residential BTR property implies more stable forecastable returns for institutional investors.

Conclusion

While residential property is a relatively small and emerging asset class in South Africa it is far from homogenous with property's characteristics varying in terms of location, size, quality, and type of occupiers. This was evident in the wide range of investment performance outcomes across time periods and property types. Despite the wide range of returns within the residential sector, we found that it came both at a lower overall risk and a lower inter-asset volatility compared to the other property sectors.

The sector's relatively wider spread between its capitalisation rate and net operating income yield suggests a possibility of re-pricing as the sector matures and attracts higher volumes of institutional investment. Given the relative infancy of the South African BTR residential sector, valuable lessons could be learned from the international experience. Given the depth and breadth of data now available, analysis and performance benchmarking for the residential sector has become increasingly sophisticated as institutional investment into the sector has grown internationally.

REPORT AUTHOR: MSCI

MSCI is a leading provider of critical decision support tools and services for the global investment community. With over 50 years of expertise in research, data and technology, we power better investment decisions by enabling clients to understand and analyze key drivers of risk and return and confidently build more effective portfolios. We create industry-leading research-enhanced solutions that clients use to gain insight into and improve transparency across the investment process.

To learn more, please visit www.msci.com.

<https://www.msci.com/notice-and-disclaimer>

<https://www.msci.com/notice-and-disclaimer>

COMMISSIONED BY: SAMRRA

SAMRRA promotes the institutionalisation of the South African Multifamily Residential asset class, prioritizing inclusive opportunities, consistent returns, and stakeholder satisfaction. SAMRRA's members include institutional landlords who own and manage large-scale, Multifamily Residential estates as well as entities which have interests in the industry or are sufficiently aligned with the interests of its members.

SPONSOR: DIVERCITY

Divercity is a South African investment platform dedicated to affordable rental housing with supporting amenities in high-density and centrally located urban precincts. Divercity is a founding member of SAMRRA.

SPONSOR: ABSA

Absa Group Limited is listed on the JSE and is one of Africa's largest diversified financial services groups with a presence in 15 countries across the African continent, as well as offices in the United Kingdom and the United States. Absa Bank, a wholly owned subsidiary of the Absa Group, offers a range of retail, business, wealth management, corporate and investment solutions to customers and clients across South Africa.