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THE PERFORMANCE OF REAL ESTATE PRIVATE EQUITY FUNDS IN SOUTH AFRICA

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ABSTRACT

Using a sample of seven real estate private equity funds in South Africa, we firstly investigate the actual performance of these funds relative to their targeted returns at inception, and the performance of the market over the holding period. Results indicate that South Africa's REPE funds were able to meet and surpass their targeted returns, including those that were promised to prospective clients during the prospectus stages. Furthermore, REPE performed above market expectations and were able to exceed market returns.

1 INTRODUCTION

1.1 Introduction

This research paper will provide a brief background of the recent performance of real estate private equity funds. The paper will explain what a real estate private equity fund is, its structure and the key considerations accounted for during its establishment. Thereafter, the various types of private equity funds are explained, and the factors that affect a fund's performance. The performance of South African private equity real estate funds will then be investigated, using empirical evidence.

1.2 Background of the study

Real estate private equity funds are an investment vehicle for both institutional investors and high net-worth individuals. They generally exhibit a high risk/high return profile, usually driven by redevelopment 'turnaround' properties. Additionally, real estate private equity is one of the fastest-growing segments of the real estate asset class over the last two decades, internationally. Globally, equity commitments increased from under $5 billion (USD) in 1993 to over $100 billion by 2005 (Preqin, 2019). In the USA and Europe, these funds have progressively gained traction over the last 25 years. Thus, a quantitative analysis of their performance is possible. The targeted net equity returns on investments decreased from 20% and above in the 1990s to between 15% to 20% (Preqin, 2019). However, the number of funds being established, and the total equity capital raised are continuously rising (Hahn, Geltner and Gerardo-Lietz, 2005).

Investors globally have increased their investments in alternative real estate investment vehicles over the last decade, specifically through private equity real estate funds. According to data collected by Preqin (2019), private real estate assets under management has experienced positive growth over the last ten years, with a record high of $909 billion (USD) as of June 2018. Of the $909 billion (USD) invested, approximately 80% of investments have been directed to three types of real estate private equity funds being opportunistic funds (36%

or $327 billion), value-added funds (25% or $231 billion) and distressed debt funds (18.5% or $168 billion) (Preqin, 2019). Based on the types of funds which are enjoying the lion's share of investment, investors have high-risk tolerance and are interested in pursuing high returns (Preqin, 2019).

Furthermore, investors have a long-term view on the asset class and focus on achieving capital appreciation. The data collected shows that net cash flows to limited partners weakened between the period 2016 and 2018, as the average distributed amount from the investments decreased from $95.7 billion to $19.6 billion (Preqin, 2019).

The data collected also reveals that the rate at which these funds have been raised over the last four years (2015 to 2018) has slowed. However, there has been a consolidation of capital which has gone into the hands of fewer managers who are responsible for investment decisions. Despite fundraising by general partners being more challenging, the current outlook is positive (Carr, 2019). However, over the next five years, total investments in real estate private equity funds are expected to grow 50% to approximately $1.2 trillion by 2023. In particular, emerging markets are expected to present the best opportunities over the period with family wealth expected to drive the growth. Considering that high-net-worth individuals and families generally constitute a large portion of private equity funding, it provides a positive indicator of growth for existing and new funds in emerging markets (Preqin, 2019).

The demand for private equity real estate funds as an investment vehicle can be measured by comparing the size of the fund achieved post-fundraising to the targeted amount determined by the sponsor at the beginning. Additional factors that determine the demand for specific funds include historical returns. Favourable historical returns can attract new investors who wish to take advantage of potential opportunities, and increase the commitments of the existing investors in the asset class.

Real estate is a physical asset that provides passive income but requires continuous management of facilities. Its income stream is governed by lease agreements that can be long-term or short-term in nature, depending on the asset in question (Tomperi, 2010). As with all asset classes, the prevailing macroeconomic performance and capital markets, both locally and globally, influence the performance of real estate. Real estate performance is widely accepted as cyclical in nature. Local supply and demand factors and market conditions contribute to the performance of rental growth and property yields (Tomperi, 2010). Fundraising is positively correlated to the performance of the underlying real estate investment markets. The positive correlation implies that there is a greater amount of capital raised and an increase in the number of funds when real estate values rise (Tomperi, 2010).

Real estate is a capital-intensive asset class with a long lead time or holding period. Hence, the geopolitical landscape, and current and expected future interest rates, affect investor confidence, their appetite for the asset class and the performance of the sector. There is a negative correlation between investor confidence and their respective investments in funds, relative to interest rates and the geopolitical landscape.

The benefits of the asset class include diversification and the reduction of the overall risk in a multi-asset portfolio, providing a hedge against inflation and providing favourable returns which in most cases exceed that of bonds and are comparative to the returns on equities (Tomperi, 2010).

1.2.1 What is a real estate private equity fund?

A real estate private equity fund is a closed-end limited liability partnership that is established to raise equity for ongoing real estate investment opportunities. The fund takes on a structure similar to an English LP or Luxembourg Fonds Common de Placement (Tomperi, 2010). A real estate private equity fund is founded by general partners (GPs). GPs are also referred to as sponsors, who may provide a portion of the equity capital. However, sponsors are responsible for securing the bulk of the fund's equity from investors who are referred to as limited partners (LPs). These funds, and the funds secured from traditional lenders (such as banks), are invested in property development and property acquisition opportunities (Tomperi, 2010).

GPs have an active role in the fund. They are responsible for the establishment and management of the fund, identifying real estate opportunities, securing funding and the execution of the identified opportunities. GPs share in the profits of the fund and earn fees based on the fund's performance (deRoos and Bond, 2019).

The sponsoring organisation acts as the GP, and it usually has an agreement with a management company. The management company's role is to act as an advisor to the GP and the fund as a whole. Additionally, the majority of the fund's management team is employed by the management company (Tomperi, 2010). However, LPs are passive investors that provide the majority of the fund's equity. The amount of capital invested by LPs is equivalent to a prespecified amount committed in a subscription document. The prespecified amount is determined during the fundraising period, which can last up to 12 months (deRoos and Bond, 2019).

The fundraising commitments are usually invested across 10 to 20 real estate investment opportunities for a period of 3 to 4 years from the date of fundraising. The holding period

thereafter ranges between 2 to 5 years. These timeframes depend on several factors such as the fund's investment strategy, market conditions and the cyclical nature of the asset class.

Real estate private equity funds prefer investing in assets where the sponsor can actively increase value over a short period, after which the asset is sold. The primary focus of returns is capital appreciation as opposed to the income-based return of 'core' real estate (Hahn, Geltner and Gerardo-Lietz, 2005). The investment objective of real estate private equity funds results in sponsors taking on a role as a trader or value enhancer, instead of an operator. The extent of focus on capital appreciation versus income-based returns varies between different funds and their respective general partners (Hahn, Geltner and Gerardo-Lietz, 2005).

LPs receive their original capital outlay back together with potential capital gains or losses that would have been realised when the assets are sold. The excess returns that are achieved by real estate private equity funds are viewed as compensation for the illiquid nature of the asset class and long holding period associated with it (Tomperi, 2010).

1.2.2 Determinants of the successful establishment of the funds:

1. The fund must have a clear, well-defined investment strategy. This strategy should define the geographic locations and sectors of real estate that will be invested in; the risk profile of the investments; leverage that will be used; and the expected return that the fund is targeting.

   In certain cases, experienced sponsors with good reputations can raise funds for 'blind pools', wherein no specific investments have been identified at the time of fundraising. However, this is not the case for first-time sponsors (deRoos and Bond, 2019).

2. The fund has a required amount of capital, including organisational fees. Traditionally, in developed markets, $20 million (USD) is considered to be the minimum amount required for a real estate private equity fund. However, the emergence of crowdfunding platforms recently reduced this figure. This required figure may also vary depending on the geographic location of the fund and the prevailing market conditions at the time of fundraising.

   Regarding organisational fees, the amount required is usually proportionate to the size of the fund. GPs are required to provide these funds during the fund formation process to cover costs, including but not limited to, company formations, legal fees, accounting fees, regulatory costs and marketing costs. In developed markets, the figure is approximately $400 000.00 (USD).

The size of the fund should be sufficient to provide for the potential deal stream of the GP to ensure that the required returns are achieved (deRoos and Bond, 2019).

3. Sponsors/GPs must have realistic expectations regarding the amount of time, energy and seed funding necessary to start a private equity real estate fund. The GPs expectations are imperative as the GP is responsible for the majority of the functions related thereto. Furthermore, the GP is required to operate within the strict constraints set out in the partnership agreement and offering memorandum (deRoos and Bond, 2019).

1.2.3 Types of Real Estate Private Equity Funds

This section is drawn largely from deRoos and Bond (2019).

There are five typical types of real estate private equity funds. The funds are risk-adjusted and listed in ascending order of their risk and return characteristics.

1. Core Funds invest in high-quality assets (A or P grade), that have stable income streams, with minimal vacancies, located in high barrier to entry primary markets. The investments are made using conservative leverage. The fund focuses on assets that generate high annual rentals, relative to capital appreciation. Holding periods are long, with expected returns ranging from 6% to 8%. Examples of core fund markets are New York, San Francisco and Hong Kong.

2. Core-Plus Funds are a hybrid of core funds that invest in high-quality assets in secondary markets or riskier assets located in primary markets. Moderate levels of leverage are used (limited to 50%) to increase the net equity internal rate of return (IRR). Due to the increased risk, investors' expected returns range from between 8% and 12%.

3. Value-add Funds invest in assets where there is potential for further improvement or value-add. Therefore, capital appreciation forms a significant part of the return on the investment. Improvement can be achieved in various ways that include re-leasing, operational efficiencies, redevelopment of existing properties and the development of new properties. The location of the property is a secondary consideration relative to its improvement potential. Value-add funds use moderate leverage (limited to 70%) and offer net equity IRR to limited partners of between 11% to 15%.

4. Opportunity Funds invest in assets with a relatively high risk-to-return ratio. These typically include:
    - Redeveloping existing properties that might be outdated, poorly operated or vacant.
    - The development of greenfield sites.

    These funds target net equity IRR returns for limited partners in excess of 15%. Capital appreciation is the dominant return factor, with the bulk of it being realised at the end of the holding period.

5. Distressed Debt or Mezzanine Funds do not invest directly in physical real estate. They instead purchase senior loans, mezzanine loans or non-rated commercial backed mezzanine loans. However, distressed funds are not averse to taking ownership of properties in the event of non-performing loans. These funds utilise significant leverage to maximise investors' equity IRR. Returns usually range from 8% to 12%.

1.2.4 Factors that affect fund performance

The performance of real estate private equity funds is dependant on the skill and expertise of the general partner, and their fee incentives. In addition, the sponsor's record from previous funds is also a factor that could affect performance. Fund structures give GPs residual decision-making power. Hence, GPs have the discretion over which investments to commit to for the duration of the fund. Limited partners are passive investors with minimal control as to how the fund is managed and when capital is paid them (Hahn, Geltner and Gerardo-Lietz, 2005).

Furthermore, management performance is a key factor in current and future fundraising. Private equity real estate funds are closed-ended. Thus, investors can no longer invest in a fund once the capital target has been achieved. Hence, the potential additional investors would have to invest in a new fund. A study by Ernst and Young Corporation (2015) states that real estate investors are selective when partnering with new funds. In most cases, investors re-partner with existing sponsors that they have experienced previous success with. The decision to re-partner with GPs indicates that the skill, expertise and experience of general partners are key to performance (Ernst and Young, 2015).

In addition to management experience, Ernst and Young (2015) highlighted the importance of the fund having a clearly defined and differentiated strategy that is aligned to investors' interests with a clear capital-raising objective (Ernst and Young, 2015).

The types of real estate projects/developments that funds invest in (such as residential, commercial, offices, mixed-use, healthcare and student accommodation), will also affect the performance of the fund, as each sector provides different yields based on market conditions. From a macroeconomic perspective, factors that could affect fund performance include the demographics of the areas where investments are made, the prevailing and future economic conditions which would affect supply and demand of the asset class, interest rates and the geographic location of the properties invested in (Wenner, 2018).

1.3 Research problem

The majority of research work on private equity real estate funds has been done in Europe and the USA, with minimal research having been done in South Africa. Therefore, investors in these markets are more informed about the investment opportunitythat they are investing in, compared to South African investors. The limited research on private equity real estate funds in South Africa hampers informed investment decision making by South African investors. The potential outcomes of uninformed investment decision making by investors include investors realising a lower return or loss on an investment, due to lower growth and awareness of REPE in South Africa, and investors missing potential opportunities to invest in these investment opportunities.

From an academic point of view, this research paper will contribute towards creating a platform for future research into REPE in other African countries aside from South Africa. Furthermore, future research could also be directed at researching specific property sectors in geographic locations. This will enable investors to make much more informed investment decisions in multiple markets.

1.4 Objective of the study

The objective of this study is to fill the above-mentioned gap (in subsection 1.3) by giving investors an informative perspective of private equity real estate funds in South Africa. The study will analyse the performance of South African Private Equity Real Estate (REPE) funds, and the extent to which the above-mentioned factors affect performance. This will be done by analysing the performance of various South African (REPE) funds, their management expertise and track record, and the types of real estate projects that the REPE funds invested in.

1.4.1 Research Questions

1. By using Jensen's alpha as a risk-adjusted performance measure, to what extent does the expertise and experience of general partners affect the performance of a REPE fund relative to the average market return?
2. What category of real estate projects (such as residential, commercial, offices, mixed-use, healthcare and student accommodation) provide the best returns for REPE funds?
3. How does the actual performance of REPE funds compare to the targeted returns (stated in the respective funds' prospectuses) at the time of fundraising?
4. How do the REPE funds compare to the returns provided by IPD South African All-Fund Index?

1.5 Potential benefits/significance of the study

The research would contribute to the existing literature on real estate private equity funds in the following ways:

- It explores the performance of real estate private equity funds in South Africa, which is useful to both existing and potential investors.
- It indicates the actual performance of private equity real estate funds relative to the targeted performance at the fund's inception.
- It informs investors of the key factors that affect performance, which can influence their future investment decisions.

1.6 Limitations

- There may be limitations regarding the amount of information available and the disclosure of potentially confidential information from private equity funds.
- The focus of the study is on the South African REPE market, with less focus on the international market.
- The study is limited to the latest information available/accessible regarding the South African market.

1.7 Overview of data and methodology

Data and information for the study will be from the historic performance of real estate private equity firms in South Africa. Information was sourced from seven REPEs through a structured questionnaire administered to one nominated participant from each fund. The information about the South African economy was sourced from the South Africa Reserve Bank. The method for the study is a quantitative analysis, using cross-sectional data. This method allows

for the analysis of several variables across different economic units at a given time. Fund performance in this study will be based on the overall returns that the South African real estate private equity funds have achieved. An absolute analysis, comparing the respective REPE funds' individual performance, will be done. The results will then be benchmarked against the IPD South African All-Fund index. The performance will be measured over the same period of the REPE performance data obtained.

1.8 Outline of the study

The report of the paper will be presented in the following order:

i. Firstly, the report will explain what a fund is, the advantages of a fund as an investment asset class, an explanation of what private equity is, real estate investment as an asset class and the benefits of real estate as an asset class in a private equity setting.
ii. Secondly, the literature review will summarise existing findings on the topic. This entails a review of publications including journals, online articles, theses and papers reflecting work already done on real estate private equity funds in South Africa and internationally. This will assist in understanding the performance of the asset class, and areas which need to be further researched on the topic.
iii. Thirdly, the report will capture the research methodology used in the analysis of the data and information of the study.
iv. Fourth, the report will contain the results of the study.
v. Finally, conclusions will be drawn based on the empirical results obtained for the objectives of the study.

2 LITERATURE REVIEW

2.1 Introduction

In this chapter, literature that relates to real estate private equity funds is discussed. The chapter starts by defining and discussing the concept of a fund. It also presents a discussion on the advantages and the disadvantages of funds as asset classes. The chapter gives a detailed contextual setting on real estate private equity funds within the broader investment world and the narrower real estate investments environment.

2.2 What is a fund?

An investment fund is an investment vehicle where capital that is provided by multiple investors is used to collectively purchase securities. In return for the supply of capital, each investor retains ownership and control of their shares held in the investment fund. Each investor has a claim to the portfolio formed by the fund in proportion to the number of shares

purchased. By investing in such a fund, investors benefit from a broad selection of investment opportunities, professional management expertise, whilst paying lower investment fees compared to when investing in funds on their own (Chen, 2019).

The operation of an investment fund is managed by a professional fund manager who is responsible for the day-to-day management of the fund. In addition, the fund manager decides which securities to hold, the number of securities held and the timing of when they are bought or sold. Investors in the fund are thus passive investors, with no input in the investment strategy or management of the fund (Chen, 2019).

Investment funds can be categorised into several categories. These include but are not limited to open-end funds, closed-end funds, exchange-traded funds (ETFs), hedge funds and mutual funds.

Open-end funds have continuity. New shares are issued as investors increase their capital contributions into the fund, whilst existing shares are retired when investors redeem their shares in the fund. Globally, the majority of investment fund assets are held in open-end mutual funds. These funds are generally priced at the end of each trading day (Chen, 2019).

However, closed-end funds issue a pre-determined number of shares that are fixed. These shares usually trade on an exchange at prices determined by investor supply and demand. Therefore, although a net asset value can be calculated, it does necessarily mean that the fund will trade at its par value. A closed-end fund can trade at a premium or a discount (Chen, 2019).

Exchange-traded funds are listed investment products that generally track a select group of equities, bonds or commodities. These groups or baskets are known as indices, and they can be traded in a similar manner as ordinary shares. The benefit of ETFs is that they allow investors to invest in several asset classes through one investment product (Chen, 2019).

A hedge fund is an investment vehicle that allows private investors to pool funds together. They are managed by a professional fund manager who usually has a substantial portion of their personal wealth invested. Hedge funds usually take large risks on speculative strategies using a high level of leverage. These include leverage bets, program trading, swaps, arbitrage and the use of derivatives. The aim is to offer maximum possible returns (Kennon, 2019).

In terms of structure, hedge funds are usually structured as private partnerships with select investors. These investors are typically wealthy individuals or institutional investors. They are considered to be experienced investors with a high-risk appetite. The investor profile for hedge funds allows for hedge funds to be lightly regulated. In the USA, hedge funds are not required

to register with the U.S. Securities and Exchange Commission (SEC) and disclose their asset holdings (Kennon, 2019).

Hedge funds have special fee structures designed to motivate managers. A management fee is based on asset size, and an incentive fee is established separately to align the manager's interest with the fund's performance. The incentive fee is usually paid after a hurdle rate has been achieved. In addition, the majority of hedge funds also have a watermark provision, under which the fund manager must make up any previous losses before an incentive fee is paid (Kennon, 2019).

Mutual funds pool money from individuals and organisations to invest in stocks, bonds and other assets in different industry sectors and regions of the world (Vyšniauskas & Rutkauskas, 2014).

The money collected from investors is invested by the fund manager in different types of securities depending on the objectives and needs of the investors. The types of security could range from shares and debentures to money market securities. In return for this, investors can receive income as dividend or interest based on the number of units owned by them (Vyšniauskas & Rutkauskas, 2014).

Mutual funds are risk-averse investment vehicles. Each fund has a specific investment policy and only invests in assets that are clearly defined in the respective fund’s investment prospectus. Mutual funds are therefore classified according to their investment policy. These include but are not limited to money market funds, equity funds, index funds, bond funds and international funds (Ojah, 2019).

A mutual fund is highly regulated. It is the most suitable investment vehicle for the common person as it offers an opportunity to invest in a diversified, professionally managed portfolio at a relatively low cost (Vyšniauskas & Rutkauskas, 2014).

2.2.1 The advantages of a fund

Taking the above into consideration, it is evident that investing in a real estate private equity fund enables an investor to build a diversified portfolio. Investors can hold fractional shares and obtain exposure to a number of securities across geographies and industries that would not be possible through direct investment by the investor (Liontrust, 2019).

Professional management of funds reduces the likelihood and risk of uninformed investment decision making if the investor were to invest in assets directly. Fund managers and analysts can react faster to any potential investment opportunities that may arise or changes in the market environment. This is beneficial in volatile markets and is conducive to maximising potential returns (Ojah, 2019).

Funds can carry out block trades which reduce the average cost per transaction compared to direct individual investment (Ojah, 2019).

Funds, particularly mutual funds, offer good liquidity to investors as they can be transacted at the end of each trading day once the net asset value has been calculated. This is subject to transaction fees and associated costs (Ojah, 2019). Other funds such as hedge funds do not offer the same liquidity benefit as they usually have lock-in periods where investors are not able to withdraw their investment in the fund.

From an administrative perspective, investors benefit from good record keeping and administration practices by investing in funds. The reason being is that funds are required to issue periodic status reports, and monitor all capital gains distributions, dividends issued, investments made and redemptions (Ojah, 2019).

In specific geographic locations such as the United Kingdom, there are tax benefits for investing in funds, as switches between shares within funds are free of capital gains tax for the saver. This would not be possible if the investor directly managed a portfolio of securities unless they were held in 'tax-efficient wrappers' such as tax-free savings accounts (Liontrust, 2019).

2.2.2 Defining private equity

Private equity funds can be defined as collective investment schemes that obtain debt and capital in the financial system to acquire stakes in companies and other business ventures/investment opportunities to sell at a profit after a certain number of years (Ojah, 2019).

These funds are usually structured as limited partnerships for a finite life which can range up to ten years. This period may vary depending on the fund (Ojah, 2019).

Operationally, private equity funds are actively managed by general partners who may have shares in the fund. However, the majority of the capital is provided by limited partners who act as passive investors. LPs can be institutional investors and individual investors (Ojah, 2019).

General partners are responsible for identifying potential investment opportunities that are presented to the limited partners. GPs call for funds or commitments from LPs, commonly known as "drawdowns" or "takedowns". GPs are incentivised for their efforts in the form of a management fee and a performance fee which is often equal to an agreed percentage of the fund's profits (Ojah, 2019).

Private equity can be broadly defined to include the following four forms of investment: leveraged buyout, growth capital, mezzanine capital and venture capital. Although private

equity can be defined to include all four forms of investment, leveraged buyout activities can be considered to be the primary descriptor for private equity. Large private equity funds generally participate in all four investment strategies (Stowell, 2013).

Real estate private equity funds derive their roots from the private equity leveraged buyout funds which gained prominence in the USA between 1970 and 1980. Investor awareness grew as a result and general partners of funds responded by looking for a wider range of investments that included real estate. Soon thereafter, private equity funds focussing solely on real estate began to emerge (Wylie and Marrs, 2018).

In general, private equity funds seek to acquire equity stakes in target companies or other investment opportunities, which are to be held and developed over a multi-year period and sold at a higher valuation thereafter. These positions can be sold in several ways which include selling to other firms and through a stock market listing. The holding period prior to disposal usually ranges between three to seven years, after which realised profits or losses are distributed to the GPs and LPs in proportion to their commitments to the fund (Ojah, 2019).

2.2.3 Defining real estate investment as an asset class

This section is drawn largely from Mercer LLC (2019).

Real estate can be defined as tangible property consisting of land, buildings and other improvements.

Real estate assets are predominantly used for residential and commercial purposes, of which both segments of the market offer various investment opportunities across geographies and risk spectrums.

Globally, users of real estate (commercial or residential) often rent a property as a tenant instead of owning a particular property. The rationale behind this decision often includes cost and capital requirements, property maintenance, flexibility and time. This provides an investment opportunity for the owners of real estate as tenants to compensate owners in the form of rent according to a lease agreement. Lease agreements vary in terms of their validity periods, based on the type of property in question. For example, in the case of a hotel, it can be a daily agreement, whereas office properties are often leased for a number of years.

In addition to real estate owners benefiting from rental cashflows, they could potentially generate returns through capital appreciation in property values. These returns can be realised when the asset is sold in the future.

Investments in the real estate asset class can either be made through debt or equity positions, held in private or public markets. Debt investments refer to a loan on a property, whilst equity

investments refer to an ownership stake in a property. Investing in either option can be done through several investment vehicles that can be privately or publicly traded on an exchange.

Real estate as an asset class can be separated into four quadrants, being private equity, public equity, private debt and public debt.

Private equity real estate refers to an investor acquiring an equity stake in a property or a portfolio of properties. Institutional investors and wealthy individuals often use private equity vehicles such as commingled funds to invest in this asset class. In doing so, a pool of funds is committed, which is to be managed by an investment management firm known as the general partner. As previously discussed in this paper, the general partner is responsible for the acquiring, management and disposal of the properties on behalf of the investors known as limited partners. The capital provided is invested in real estate assets, and the investors benefit from the performance of the underlying portfolio of real estate assets.

Other forms of private market vehicles that are used to acquire equity interests in real estate assets include a separate account, joint venture and direct investment. The underlying motive of all of these vehicles is to provide investors, using private capital, an equity interest in the asset class.

Public equity real estate is similar to private equity, as it allows investors to acquire an interest in real estate assets. However, the differentiating factor is that the acquisition of the real estate assets is financed through publicly traded markets. An example of this is a real estate investment trust (REIT) that trades publicly on a stock exchange. Investors become shareholders in the REIT, and due to the legislation governing REITs, they are required to distribute a percentage of their taxable income to investors in the form of dividends. A benefit of public equity real estate such as a REIT is that it provides an investor with a liquidity benefit as shares are continuously traded on a stock exchange. This is not possible in private equity real estate.

Private real estate debt, like private equity, also uses a commingled fund structure. However, investments are made in various debt instruments used to fund real estate properties. These investment vehicles extend debt financing in the form of a loan to finance the acquisition or improvement of real estate properties. The debt instruments can include senior debt, mezzanine debt or preferred equity.

In terms of the income and returns generated by private debt, it differs to private equity in that income is not linked to the performance of the underlying real estate assets. Instead, the debt instruments operate like a bond where they receive a combination of interest payments and

fees, with the principal debt amount being repaid at the maturity date. This investment category is not publicly traded and does not offer high liquidity for potential investors.

Public real estate debt is similar to private debt. However, the vehicle in which investors pool their funds together is traded on a public exchange. This is usually in the form of a commercial mortgage-backed security structure (CMBS). A CMBS structure is usually divided into various tranches which allow investors to invest their funds at various levels of risk. These tranches represent how the capital structure is divided and the priority it has in terms of payment, which affects the level of risk. For example, senior tranches are low risk as they receive both principal and interest payments from the underlying mortgages before any other tranches. Naturally, as investors move down the CMBS tranche structure, investors are exposed to higher potential risk. However, investors are compensated with higher returns compared to senior tranches.

Residential mortgage-backed securities (RMBS) function in the same way that CMBS do. However, the underlying mortgages are primarily focused on single-family residential properties. Other types of real estate debt investment vehicles include mortgage REITs. These mortgage REITs operate in a similar manner to a property REIT in that they are publicly traded and distribute a certain portion of their taxable income to investors as dividends. The rationale behind mortgage REITs is to originate or purchase loans on their balance sheet with the intention of either holding the debt or selling it to a CMBS pool.

2.3 Special features of real estate as an asset class in a private equity setting

This section is drawn largely Wylie and Marrs (2018).

Based on the research conducted, there are several unique features of real estate as an asset class in a private equity setting. However, to get a clear understanding of these features, they will be categorised according to the REPE fund's goals, fund structure, legal requirements and fund economics.

2.3.1 REPE fund type and goals

As previously discussed in section 1.2.3 Types of Real Estate Private Equity Funds, proposal REPE funds are classified according to their risk/return profile as either core, core plus, value add or opportunistic funds. These are categorised in ascending order of their risk/return profile and are therefore targeted at different investment goals.

Furthermore, REPE funds are also product and geographically specific.

Regarding product types, these include property types such as industrial, retail, multifamily or high-rise residential, offices, healthcare, hotel and leisure, and mixed-use developments (Mercer LLC, 2019).

The above can be further categorised according to specific geographic locations where investments are made. Geographies are divided by metropolitan statistical areas (MSA) within a country into primary, secondary and tertiary categories.

Primary markets refer to areas with a high population density, diversified local economies, with high disposable income and the largest and liquid real estate market. These markets offer the lowest risk to investors.

Secondary markets lag slightly behind primary markets in the abovementioned categories and offer a higher risk/return profile. Lastly, tertiary markets lag on secondary markets in the same categories and offer the highest risk/return profile. Geographic diversification by a fund helps eliminate the risk exposure to a particular market or region, whilst product/property type diversification reduces GDP linked risk factors (Mercer LLC, 2019).

In addition to the above categories of REPE funds, they can be divided according to the general partner's strategy to include allocator funds and operator funds.

Allocator funds invest in real estate assets alongside local joint venture partners. The local partners act as the operators of the property, usually in a development manager capacity, thereby providing operating services to the properties invested in.

As compensation for their efforts, allocator funds are generally required to pay the local JV partner a profit element in addition to other fees incurred. This is known as a carried interest or a promoter fee.

Operator funds invest in real estate assets and provide the operating services to the respective properties directly. These funds aim to add value to the assets invested in on a local basis compared to allocator funds, and are therefore smaller in terms of the fund size. In practice, it can be challenging to distinguish between the two types as some larger REPE funds may be involved in both allocator and operator activities depending on the assets invested in and the respective investment strategies for those particular assets.

2.3.2 REPE fund structure

The primary vehicle for REPE funds is generally a limited partnership. The broader fund structure can comprise a number of other fund vehicles such as feeder and parallel funds, which in turn can include corporations and private REITs. This tends to occur in the USA for tax purposes. Certain REPE funds wish to limit unrelated taxable income for US tax-exempt investors and the tax that is payable for non-US investors.

The key features of a limited partnership REPE fund structure include:

- The general partner has management control over the limited partnership and unlimited liability to third parties for the debts and obligations related to the limited partnership.
- Limited partners are passive investors with no active management control. Their exposure to creditors and other third parties is limited to the amount of capital contributed to the limited partnership.
- The form of ownership is taxed in a similar manner to a partnership, which implies that the partners are taxed individually, with no (or limited tax) at a company level.

There is no single unique fund type structure that is applied globally. Instead, if a REPE fund aims to attract investment internationally from multiple jurisdictions, the fund can use several fund vehicles specific to each foreign country that act as feeder or parallel funds to the local REPE fund.

In the USA, the most common company form used for REPE funds is a limited partnership established under the state laws of Delaware, USA. Whereas in Europe, similar limited partnership forms are used which are registered in jurisdictions such as the Cayman Islands, Guernsey and Jersey. The main reason behind such fund vehicles and structures relates to the tax benefits and the limited disclosure of information required by governments and tax authorities in these jurisdictions.

2.3.3 Personnel

Most REPE funds have an advisory committee/board that is responsible for consulting and advising the general partner on issues relating to conflicts of interest and valuations of assets. They are appointed by the general partner but have no active management role in the fund.

In addition to the advisory committee, a REPE fund may establish an investment committee comprising of representatives from both the general partner and limited partners. The representatives in the investment committee are not investors in the fund but provide expertise in terms of the investment decisions for the REPE fund.

2.3.4 REPE fund economics

Special features regarding the economic aspects of REPE funds relate to capital contributions, distribution provisions and management fees.

In terms of capital contributions, the limited partners are responsible for providing the bulk of the funds required. The amount committed by the limited partners is used to fund investments identified by the general partners and pays for the general expenses of running the fund.

Generally, the limited partners do not provide the entire capital contribution at the inception of the fund but will provide the capital on an “as needed” basis when draw-downs are called for

by the general partners. These drawdowns are usually made on a ten-day notice period to limited partners.

Once the capital has been contributed, limited partners are subjected to a lock-in period where they cannot withdraw their funds or transfer any ownership interest. This period is agreed upon in the limited partnership agreement.

Limited partners will, in most cases, require that the general partners invest a certain amount of their own capital into the fund. This ensures that their interests are aligned.

With regards to distributions made by a REPE fund, the provisions are contained in the limited partnership agreement. They include information about the timing and manner in which distributions are made. In certain cases, the general partner may have the discretion regarding the timing of distributions made. The provisions are commonly termed as the “waterfall”. Profits are shared between the limited partners and the management team. The management team usually receives a profit that is disproportionate to their capital contribution, known as “carried interest”. The intention behind this distribution structure is to incentivise the management team to ensure the fund’s success.

The manner in which the waterfall functions is as follows:

- The fund will first pay back the original capital contributions to the limited partners, and the minimum agreed hurdle rate relating to their commitments.
- In most limited partnership agreements, there is often a “catch up provision” for the general partners. The provision entitles them to receive approximately 20% of the hurdle rate profits received by the limited partners.
- The remaining profits are then split between the limited partners and the general partner. This is, in most cases, an 80:20 split (LP:GP).

Additionally, distributions can be made on a deal by deal basis.

Management fees are paid quarterly in arrears, and they range from 1% to 2.5% of the total capital committed.

2.4 The benefits of real estate as an asset class in a private equity setting

To fully understand the benefits of real estate as an asset class in a private equity setting, it is important to understand the benefits of each component individually, i.e. real estate as an asset class, and private equity as these individual benefits combine in the form of a REPE fund.

Real estate as an asset class provides investors with benefits that include, but are not limited to, providing high stable cash flow returns, portfolio diversification and a hedge against inflation.

Real estate provides stable and significant total returns over a long-term period. In the USA, over a thirty-year period between 1977 and 2008, approximately eighty percent of real estate returns were generated from rentals. This reduces the volatility in expected returns for investors (Palmer, 2019).

Real estate provides the benefit of portfolio diversification when combined in a portfolio of other assets. The reason for this is that real estate has a low correlation to other major asset classes, thus reducing the volatility of a portfolio to provide a higher return per unit of risk taken (Palmer, 2019).

In addition to this, a real estate portfolio can be diversified even further by investing in specific types of real estate assets and in different geographic locations.

The benefit of the asset class providing a hedge against inflation originates from the linear relationship between the demand for real estate and the GDP growth rate of a country. As economies perform and GDP growth rates increase, the demand for real estate increases. This results in rentals and property values appreciating. Thus, the asset class maintains its purchasing power of capital as a portion of the inflationary pressure is passed on to tenants, whilst a portion is absorbed in terms of capital appreciation (Palmer, 2019).

The benefits of private equity as an investment vehicle include large financial resources as a result of pooled capital contributions. The capital leverages off a strong network of skilled professional expertise, a healthy deal flow of potential investment opportunities, management incentives that are aligned with funding performance and a proven record (Bushkie, 2018).

The abovementioned benefits of the asset class and the investment vehicle serve as a basis for understanding the benefits of investing in real estate, using private equity as the investment vehicle holistically.

In addition to this, specific benefits of investing in the real estate asset class through REPE funds compared to other investment vehicles such as REITs include:

- REPE funds are not affected by stock market fluctuations that publicly-traded REITs are exposed to. The market value of REITs is directly affected by macroeconomic events or conditions. Such events may not necessarily have any relationship to real estate fundamentals (Episcope, 2019).

- Publicly traded REITs are a more volatile investment vehicle compared to REPE funds. In the USA, publicly-traded REITs are the second most volatile asset class, of which first place has been held by emerging market stocks, since the year 2000 (Episcope, 2019).
- REPE funds have different investment goals compared to publicly-traded REITs, which in theory, offer investors greater returns. This can be explained by understanding the alpha and beta values which are considered when evaluating an investment decision. The beta value measures a fund's volatility relative to a market index, which publicly-traded REITs place a significant amount of emphasis on. However, the alpha value refers to the difference between a fund's expected return (which is based on its beta value) and the actual return achieved. The difference between the alpha and beta values is often interpreted as the added value achieved through the skill of a portfolio manager or general partner. REPE funds place a significant amount of emphasis on the alpha value as they often intend to outperform the market on a risk-adjusted basis and achieve returns above the index (Episcope, 2019).
- REPE funds provide a more sustainable fee structure compared to private REITs through direct investment in properties on behalf of investors and thereafter, acting as the operator. This serves investors' interests more and eliminates any costs associated with intermediaries. This fee benefit has been more apparent in the USA as private REITs have declined due to the high upfront fee structure which could amount to 15% of the offering price. This results in less of the funds being invested in the actual assets for the investor. In addition, private REITs also charge high transaction costs and asset management fees. Therefore, the American Financial Industry Regulatory Authority (FINRA), set requirements to increase transparency and protect investors. The requirements require private REITs to issue financial statements to investors. This led to private REITs attracting one-fifth of the investment in the year 2016 compared to what was raised in 2013. This statistic has held in the years thereafter (Episcope, 2017).
- The investment process in REPE funds is in theory less risky and offers potentially greater returns compared to private REITS. The reason for this is that private REITs require cash upfront from any potential investor before the REIT actually acquires any properties. The intention of a REIT is for investors to acquire a stake in a diversified pool of real estate assets. However, this pool of assets may not exist at the inception of the REIT. Furthermore, REITs are required to pay dividends to investors quickly, which places asset managers under time pressure to acquire properties to generate returns. This time-pressure factor can result in fund managers not investing in the

assets which offer the best future returns potential, the most competitive current asking price or even the assembling of the most diversified portfolio. However, REPE funds operate on a capital call system where investors are only required to commit funds if the fund's investment criteria and overall investment goals are suitable, which is identified following a due diligence process for properties (Episcope, 2017).

- In addition to the above point, private REITs have a commitment to pay dividends to investors which puts them under cashflow pressure and increased risk compared to REPE funds which pay dividends to investors at the discretion of the general partner. This can lead to private REITS having to borrow money or raise more equity to pay its investors rather than focussing efforts on deriving higher cashflows from its properties (Episcope, 2017).
- Private REITs pose potential conflicts of interests to their investors compared to REPE funds. The reason for this is because private REITs are often externally managed, compared to REPE funds where the general partners often have a vested interest in terms of equity in the fund. These external managers are compensated in terms of transaction fees and assets under management, whereas REPE fund general partners are compensated based on fund performance. Hence, the interest of the REIT management team's compensation may not align with shareholder interest and in the case of REPE funds. Furthermore, the external managers may have affiliations to other companies that could be competing with the REIT in question (Episcope, 2017).

3 CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter identifies and explains the philosophies, methods and processes that guided the collection, analysis and presentation of the data in this study. It starts with a brief discussion on the philosophical views surrounding modern-day business research before discussing the research design that was inspired by these philosophies. In the chapter, the study sample and the data analysis methods applied to collect the data are also discussed. The chapter closes with an outline of the research ethics that were adhered to in the study.

3.2 Research paradigm

A paradigm is a world view that society applies in an attempt to understand phenomena around it (Saunders, Lewis, & Thornhill, 2015). In research, there are three broad world or philosophical views, these being the interpretivist view, the positivist view and the pragmatic view (Kumar, 2014). Interpretivism is the philosophical view that supports the notion that social research best answers research questions if it accommodates subjectivity. This is because

subjects or candidates of research hold different perspectives about the same phenomena, these perspectives being a result of various experiences, environments and internal mental and behavioural facets (Cohen, Manion, & Morrison, 2011). Hence different persons can hold different views about the same phenomena without any among them being rendered wrong. Interpretivism supports research designs that take cognisance of human dynamism, such designs being flexible enough to accommodate diversities (Blaikie & Priest, 2017).

Positivism, on the contrary, is a philosophical view premised on the belief that research is meaningful if it produces scientifically-testable and objective results (Creswell, 2014). Positivists believe that there is objective common truth in every phenomenon under study (Bryman & Bell, 2014). A good research design can display this objectivity, resulting in reliable research conclusions. Positivism is argued to have been born in the natural sciences where the need for rigorous, structured tests that bring out reliable results is high. In the economic, financial and business fields, the application of positivist, scientific methodologies to study phenomena increased due to the need for reliable results (Blaikie & Priest, 2017). Positivists believe in using quantitative research designs that consist of large structure samples and the use of standardised data analysis tests to extract objective truths (Cohen, Manion, & Morrison, 2011). However, Kumar (2014) argues that positivism as a paradigm can also guide qualitative studies.

Pragmatism, according to Kumar (2014), is a philosophical view that asserts that the best research design is guided by research questions that need to be answered. Kumar states that under pragmatism, both interpretivist views and positivist views are often combined to get the best of the two. Pragmatism is associated with mixed-method studies that combine aspects of both qualitative and quantitative research designs (Kumar, 2014).

A positivist world view guided this study. The phenomena under study were mostly of an objective and structured nature. Therefore, the variables were required to be tested under the guidance of a philosophy that supports this aspect. The study assessed rates of returns, risk profiles and fund performances, all being phenomena that required objective scores.

3.3 Research design

Research designs, as argued by Creswell (2014:12) “are types of inquiry within qualitative, quantitative and mixed-methods that provide specific directions for procedures in a research”. Kumar (2014) defines them as blueprints that guide how a study will be conducted so that it can effectively answer posed research questions. Creswell (2014) believes there is no universal definition of a research strategy; some scholars classify research designs as research methods and research strategies. However, Saunders et al. (2014) call what Kumar (2014) notes to be research designs as strategies. Kumar (2014) lists experimental,

descriptive surveys, explanatory designs and exploratory designs as the core research designs.

A descriptive survey is the strategy of choice for this study (Kumar, 2014). The survey involves selecting part of a population that provides data through answering standardised, descriptive, guided questions, often of a structured or semi-structured nature (Bryman & Bell, 2014; Gray, 2017). A descriptive survey was selected because the research questions were best answerable through standardised or structured data collected from a knowledgeable and involved sample, specifically the fund managers of real estate private equity (REPE).

Other research designs discussed by Kumar (2014) include explanatory designs, where the goal is to explain causality relationships; and exploratory studies, that aim to extract new truths from new or poorly understood phenomena and experiments. These were not suitable for this study's research questions, which required a description of known phenomena within a REPE setting.

3.4 Research methods

Research methods are the procedural manner in which a study is carried out (Creswell, 2014). Creswell (2014) also puts research designs as occurring within broader methods, these being qualitative, quantitative and mixed methods. Saunders et al. (2015) classify methods as research choices. These methods can be used singly (mono-methods) or jointly (multi-methods). Regardless of extensive debate relating to what is a research method and what is a research design, research scholars agree on the following differences between qualitative and quantitative methods/designs:

Table 3.1: Differences between qualitative and quantitative methods

Quantitative Methods	Qualitative Methods
Relies on data that is or can be reduced to numerical form.	Data analysed can take many forms, including textual and pictorial forms.
Relatively large samples are required for testing hypotheses and making descriptions.	They make use of small samples.
Are generally deductive.	Are mostly inductive.
Detailed, concise and standardised data is preferred.	Subjective data that can be both standardised and unstandardised.
Concerned with the generalisation of sample findings to a wider population.	Results are not generalisable to a wider population.

Argued to produce highly reliable results.	Results reliability is argued to be low.
The researcher plays a neutral role in data generation.	The researcher is involved in or is a participant in data generation.

Source: (Cohen et al., 2011; Creswell, 2014; Saunders et al., 2015; Gray, 2017)

The study used quantitative methods to ensure greater reliability of results given that data to be collected and analysed was mainly numerical and required objectivity.

3.5 Research horizons

There are two common types of research horizons. These are cross-sectional and longitudinal. With cross-sectional research, data is collected at one period in time (Kumar, 2014). Longitudinal studies are carried out over a considerably longer period and are concerned with assessing changes in the phenomena of study over time (Bryman & Bell, 2014). This study applied a cross-sectional research horizon. This type of research is appropriate when the research questions require one to conclude on the phenomena under interest at one point in time. This study was conducted as a cross-sectional study because the primary objective was to assess the performance of REPEs at one point in time. Saunders et al. (2015) justify cross-sectional studies in academic research by stating that, more often than not, academic researchers do not have adequate time and resources to conduct studies that span over various periods.

3.6 Population and sampling

A population is a universal set of all the subjects that meet the criteria to participate in research (Hakim, 2012; Parahoo, 2014). Depending on its nature, a population can be specific or determinable (Bryman & Bell, 2014). If a population is specific, then its units and their volumes will be known. In this study, the population was known as all real estate private equity funds were registered and operating in South Africa as at the time of the study. The population consisted of REPE, who are members of the Southern African Venture Capital and Private Equity Association (SAVCA). A list of 18 funds was identified. The sample was not specifically known but was determined as REPE funds.

3.6.1 Unit of analysis

Babbie (2016) defines units of analysis as the who and what aspects of a study. It identifies the participants/entities under study and the components of study within them. In this study, the unit of analysis was the seven REPE funds that were sampled. The data for the analysis was collected through a structured questionnaire. The units of observation in the study were the funds' performances and perceptions relating to performance and risk.

3.6.2 Sampling methods

Sampling is the process of selecting part of the population to participate in a study (Gray, 2017). There are two types of sampling, probability sampling and non-probability sampling. With probability sampling, every element in the population has got an equal or determinable chance of being part of a sample (Creswell, 2014). Therefore, probability sampling is preferred because it reduces bias risks and enhances the representativeness of a sample (Blaikie & Priest, 2017). However, researchers may have to resort to non-probability sampling. Firstly, the whole population may not be accessible to the researcher, and some population elements may not be willing to participate in the study (Bryman & Bell, 2014). Secondly, identifying and quantifying a whole population may not be possible. Under such situations, non-probability sampling becomes the only sampling option available (Saunders, Lewis, & Thornhill, 2015). This study resorted to non-probability sampling due to the inability to access the whole population, from which a random sample could be drawn.

3.6.3 Sampling procedure

Convenience sampling is a type of non-probability sampling that involves the use of a specific convenience factor to select sample units (Gray, 2017). In this study, the convenience factors that were applied in selecting participating firms were the willingness to participate. This was in addition to the basic requirement of being a registered REPE, operating in South Africa, and a member of SAVCA.

The first sampling stage involved identifying REPEs registered under SAVCA. The second stage involved requesting the participation of the identified REPEs. REPEs that were willing to participate, each had to provide one respondent who would answer the questionnaire.

3.6.4 Sample size

A sample size of 7 firms in a population of 18 firms was noted as adequate. This sample size was guided by Singh and Masuku (2014) who assert that for samples below 500 units, a ratio 222/500 can be used to attain a margin of error below 10% at a significance level of 0.05 and a 0.95 level of confidence. Therefore, this sample was noted as being of an adequate size to represent the REPE sub-sector in South Africa.

3.7 Data collection

Two types of data were collected for the study. Primary data is data that is considered new and unique, while secondary data is data that is already in existence and can be extracted for research purposes (Babbie, 2016).

3.7.1 Primary data collection

Primary data was collected using a structured questionnaire that asked the same questions to all the respondents. Questionnaires were administered to nominated respondents who then filled them in and sent them back. The data collection tool used in the study had two main types of questions. General multiple-choice questions that requested respondents to select either one or more responses from a given list dominated the instrument. It also included Likert scale type questions where respondents were required to select a response that best reflected their perceptions on a phenomenon. Please refer to Appendix B for the questionnaire.

3.7.2 Secondary data

Secondary data was publicly acquired online. This was in the form of a report by MSCI entitled, *MSCI Online Benchmark Report June 2019.* This report was used to provide data that was compared to the performances of the sample. Secondary data used in the data analysis also includes the risk-free rate of return extracted from the South African Reserve Bank's (SARB) website and the beta coefficient extracted from the Johannesburg Stock Exchange (JSE) website. These were used in the calculation of Jensen's alpha discussed later in the chapter.

3.8 Data analysis

Data analysis is the process of making meaning out of collected data as a way of attaining research conclusions (Kumar, 2014). The study applied two main types of data analysis, these being descriptive tests and inferential tests.

3.8.1 Descriptive tests

Descriptive tests that were done were frequency analysis and comparison of means. Data was presented in tabular and graphical formats before being interpreted. In all the tests, results from across the seven funds were compared and contrasted. Details, particularly returns, from the seven funds were also compared with benchmarked returns from secondary data.

3.8.2 Pearson correlations

Pearson correlations are used to test if statistical relationships exist between two numerical and continuous variables. The other assumptions of the tests are that the data should be normally distributed and should suggest a linear relationship (Walker, 2010). Data in the study met the assumption of a normal distribution that was assessed using kurtosis and skewness tests.

A skewness, kurtosis and standard deviation between -3 and +3 were used as a cut-off for normality as discussed by Lussier (2011) and Warner (2013), noting that the further away these indicators are from 0, the more likely that data was not normally distributed. A 5% level

of significance ($p<0.05$) was used to denote statistically significant Pearson correlations. The use of a 5% level of significance as a benchmark in hypothesis testing is an expected norm for business research (Walker, 2010; Lussier, 2011; Sabo & Boone, 2016).

3.8.3 The Jensen's alpha test

The Jensen's alpha test is used in finance and econometrics to assess whether returns from a portfolio under review had outperformed the market (Francis & Kim, 2013). It is calculated using the following formula:

Jensen's Alpha = R(i) - (R(f) + B * (R(m) - R(f))

Where:

R(i): The realised return of the portfolio or investment.
R(m): The realised return of the appropriate market index.
R(f): The risk-free rate of return for the time period.
B: The beta of the portfolio of investment regarding the chosen market index.

In this study, an alpha was calculated for each of the seven funds to assess if it had outperformed the market or not.

The realised return of the portfolio or investment (Ri) was obtained from the questionnaire as per the response of the nominated respondent for each of the seven funds. The benchmark return from the *MSCI Online Benchmark Report June 2019* was used as the realised return of the appropriate market index (Rm). The one-year Treasury Bill rate of return for June 2019 was used as the risk-free rate of return (Rf).

3.9 Reliability and validity

In research, reliability refers to a study's ability to produce consistent results and conclusions if repeated within the same context (Creswell, 2014; Babbie, 2016). Saunders et al. (2015) assert that reliable data collection, analysis and interpretation processes will produce the same, consistent results. However, Saunders et al. (2015) mostly associate reliability with the data collection tool and note that consistency is controlled at the data collection tool level. Theoretically, if a study is reliable, any part of the population will come up with similar views on the study phenomena. Therefore, reliability is important in quantitative studies that aim to generalise findings to a broader population. In this study, the steps that were taken to ensure consistency in data collection and measurement included a pilot test of the study.

3.9.1 Pilot testing the data collection tool

A pilot test is a smaller version of a proposed test that is done to prepare for the final study (Cohen et al., 2011). A pilot test gives a researcher the opportunity to correct the data collection procedures and the data collection tool (Bryman & Bell, 2014). Four professionals from the REPE sector were approached with a questionnaire for testing purposes. The pilot test assessed whether the respondents understand the questions consistently. Consistency of responses can get lost through respondents failing to understand research questions (Babbie, 2016).

A few adjustments were made to the data collection tool using output from the pilot test. These included the use of standard terms to describe returns from investments, using simpler words and reducing the length of the questionnaire.

3.9.2 Validity

The validity of a study refers to whether it measured what it intended to measure. The concept of validity in research is considered important, given that reliability does not guarantee accurate results (Bryman & Bell, 2014). The validity, on the contrary, seeks to establish if the intended effect was measured in the correct way and therefore, can be analysed and concluded upon (Creswell, 2014; Parahoo, 2014). The pilot test was also important in enhancing the validity of the research. With the data obtained from this test, it was possible to assess if the responses from the sample represented what the research questions intended.

3.10 Ethical consideration

Research ethics refers to a set of moral guidelines that researchers must abide by as they conduct their studies (Wiles, 2012). Saunders et al. (2015) define them as the obligations that a researcher has towards the preservation of the right of his/her subjects. According to Kumar (2014), all the stages of research should be guided by ethics. In this study, confidentiality and anonymity, the right to informed consent and voluntary participation and protection from harm were observed.

3.10.1 The right to anonymity and confidentiality

Researchers are obliged not to disclose information that identifies or can lead to the identification of research participants who would have indicated a preference to stay anonymous (Wiles, 2014; Scheurich, 2014). Seven funds were sampled; one participant from each fund was selected to respond to the questionnaire used to collect data. Neither the fund nor its respondent's identity was disclosed in the study. Therefore, the funds and the participants remain confidential and anonymous.

3.10.2 The right to informed consent and voluntary participants

Participants must consent to partake in a study (Creswell, 2014). Under informed consent, participants should have the details pertaining to the nature of the study, the purpose of the study and how their data will be used (Wiles, 2012; Babbie, Bryman & Bell, 2014; Babbie 2016). According to Kumar (2014), participants can only participate voluntarily once they have been informed of all the pertinent matters of a study and agree to partake. In the study, both informed consent and voluntary participation were observed as participants were informed about the name of the research, its purpose, the researcher and the researcher's institution. The participants were also informed that the research document may be published in future.

3.10.3 Protection from harm

The researcher must ensure that participants to the study are not physically or mentally harmed (Cohen, Manion, & Morrison, 2011). Protection from harm, as an ethical consideration, also includes the possibilities of participants being penalised from participating in a study (Wiles, 2012). In this study, the researcher advised the participants that no known physical or mental harm would befall them for taking part in the study. At the same time, the researcher advised participants to respond only if they are authorised to do so by their organisations.

3.11 Conclusion

To conclude, this study used a descriptive survey research design as part of an overall quantitative research method. A quantitative approach to the study was motivated by the research questions. Convenience sampling was used to select seven REPE firms as participants out of an estimated population of 18. Data was analysed quantitatively using descriptive statistics, Pearson correlations and Jensen’s alpha. The study was conducted under strict ethical guidelines that involved respecting the sample’s confidentiality and anonymity, its right to informed consent and voluntary participation and the protection from known harm. The next chapter presents that data analysis results obtained using the methods discussed in this chapter.

4 CHAPTER 4: DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

In this chapter, data collected from seven fund managers from REPE investments sector is presented. Data was analysed using SPSS version 17 and Microsoft Excel. The analysis was guided with the need to answer the following research questions:

- By using Jensen's alpha as a risk-adjusted performance measure, to what extent does the expertise and experience of general partners affect the performance of a REPE fund relative to the average market return?
- What category of real estate projects (such as residential, commercial, offices, mixed-use, healthcare and student accommodation) provide the best returns for REPE funds?
- How does the actual performance of REPE funds compare to the targeted returns (stated in the respective funds' prospectus) at the time of fundraising?
- How do the REPE funds compare to the returns provided by the IPD South African All-Fund Index?

The results start with the descriptive statistics on the seven funds covering all the questions on the questionnaire used to collect the data.

4.2 Description of the funds

The sample comprised of seven REPE funds. The funds were labelled from Fund A to Fund G. Table 4.1 below comparatively summarises the characteristics of theses seven funds.

Table 4.1: Description of the funds

Fund	Fund A	Fund B	Fund C	Fund D	Fund E	Fund F	Fund G
What is the type/classification of real estate private equity fund that you are involved in?	Value-add Fund	Value-add Fund	Value-add Fund	Value-add Fund	Opportunity Fund	Opportunity Fund	Opportunity Fund
What is the risk appetite of the fund?	Moderate	moderate	low	low	moderate	moderate	moderate
What is the average time horizon of the REPE fund?	5-10 years	5-10 years	5-10 years	5-10 years	5-10 years	5-10 years	5-10 years
What is the lock-in period, in years, for limited partners before they can access their funds invested?	5 years	5 years	5 years	6 years	6 years	7 years	7 years

Funds A, B, C and D were classified as value-added funds while Funds E, F and G were classified as opportunity funds. There were no core funds or core-plus funds in the sample. Two funds, Fund C and Fund D, were classified as low-risk funds. Funds A, B, E, F and G were classified as moderate risk funds. Therefore, moderate risk funds dominated the sample. The average time horizon for all the seven funds was between six to ten years. The lock-in period for Funds A, B and C was five years. The lock-in period for Funds C and D was six years, and the lock-in period for Funds F and G was seven years.

4.2.1 Firms fund sizes

Figure 4.1 below shows the sample response on the size of the real estate funds managed by their firms. Three multiple choice responses were provided, being R50-100 million, R100-200 million, R200-500 million and over R500 million.

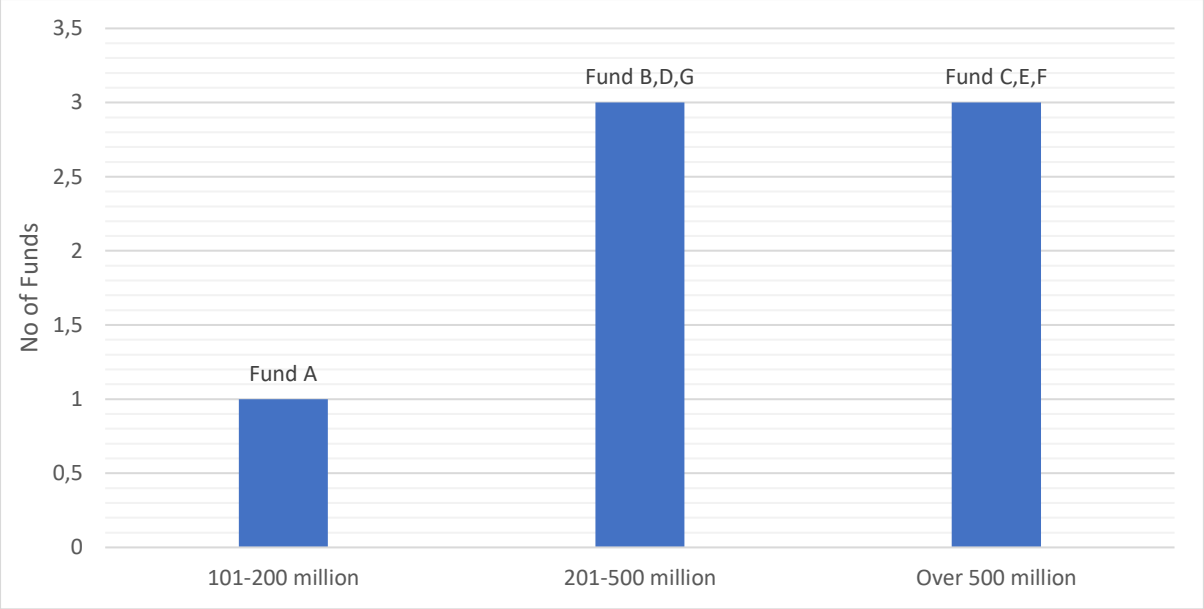


Figure 4.1: What is the average size (in ZAR) of the real estate private equity funds that are formed by the firm?

Three funds were from firms with an average between R200-500 million, these being Fund B, D and G. Another three funds, Funds C, E and F were from firms with average real estate equity funds over R500 million. Fund A was the only one from a firm with an average investment below R200m.

4.2.2 Real estate categories

Table 4.2 below shows the different categories of real estate that the seven funds invested in. The sample was provided with seven categories from which they had to select their areas of investments. These categories were Residential, Commercial, Offices, Mixed-use developments, Healthcare, Student accommodation and Other.

Table 4.2: Which categories of real estate assets does the fund invest in?

	Fund A	Fund B	Fund C	Fund D	Fund E	Fund F	Fund G	Total
Residential	x	x	x	x		x	X	6
Commercial				x				1
Offices				x				1
Mixed-use developments								0
Healthcare				x				1
Student accommodation	x	x	x				X	4
Other					X			1
Total	2	2	2	4	1	1	2	14

Six out of seven funds invested in residential property, these being Funds A, B, C, D, F and G. One Fund (Fund D) invested in commercial real estate, offices real estate and one in healthcare real estate. Four out of seven funds invested in student accommodation, these being Funds A, B, C and G. Five funds were therefore diversified investing in at least two types of real estate except for Funds E and F that invested in one type of real estate. Residential and student accommodation were also noted to be the most invested in categories in the sample.

4.2.3 Investments by province

Table 4.3 below shows the sample's responses to the question regarding the funds' geographic locations.

Table 4.3: Which geographic locations does the fund invest in?

Province	Fund A	Fund B	Fund C	Fund D	Fund E	Fund F	Fund G	Total
Gauteng	X	x	x	x	x	x	x	7
Western Cape	X			x				2
KZN		x	x			x	x	4
North West			x		x	x	x	4
Limpopo					x	x	x	3
Eastern Cape				x				1
Northern Cape				x				1
Free State	X		x	x	x			4
Mpumalanga								0
Total	3	2	4	5	4	4	4	26

All seven funds invested in Gauteng. Four invested in KZN, the North West and the Free State provinces. Two invested in the Western Cape Province, and one invested in the Eastern Cape and the Northern Cape. Fund D was diversified across five provinces, while Funds C, E, F and G were diversified across four provinces. Fund A and Fund B were diversified across three and two provinces, respectively. All funds were therefore represented in Gauteng and none in Mpumalanga.

4.3 Perceptions on factors affecting fund performance

Figure 4.2 below shows the sample's responses on four statements aimed to test important factors affecting fund performance. Responses to the four questions were on a four-scale Likert with the following options: *no impact, small impact, moderate impact and significant impact.*

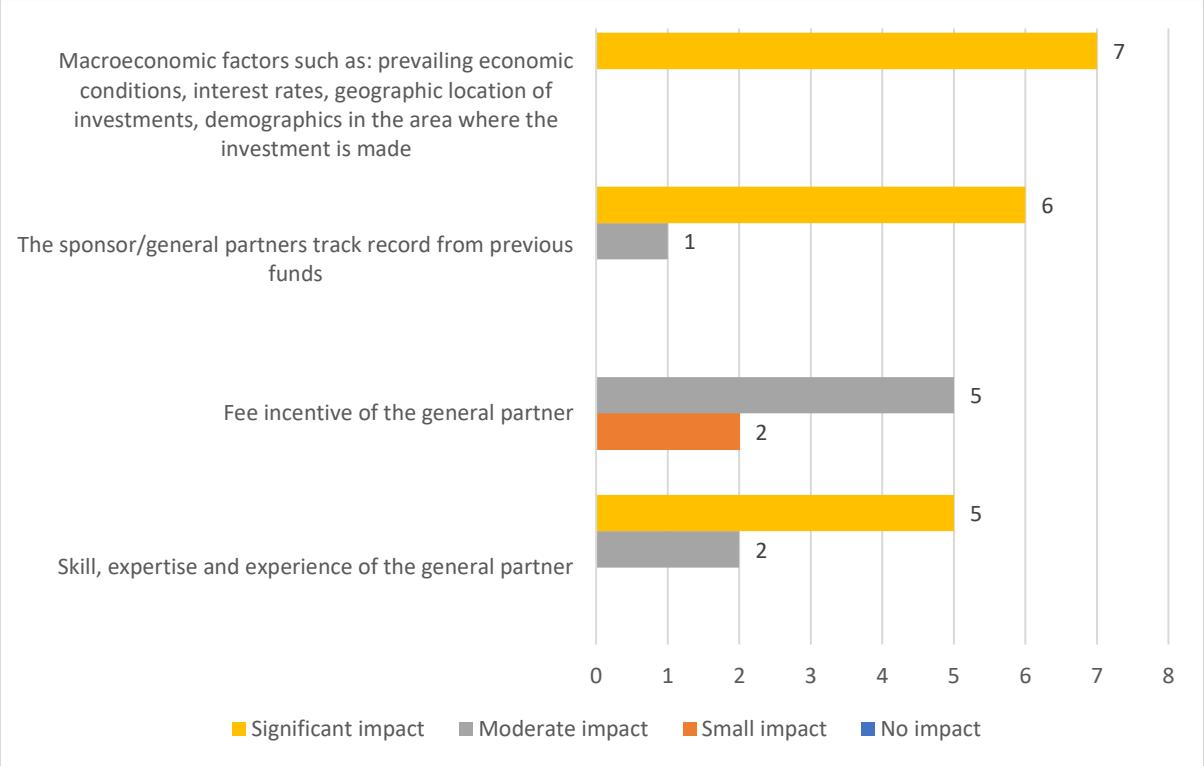


Figure 4.2: What are the key factors that affect fund performance?

All the seven respondents believed that *macroeconomic factors such as prevailing economic conditions, interest rates, geographic location of investments, demographics in the area where the investment are made* had a significant impact on the performance of real estate funds. Six out of seven also believed that *the sponsors/general partners track record from previous funds,* had a significant impact on fund performance. However, one respondent believed that it had a moderate impact on the same. Five out of seven respondents also believed that the *general partner's fee incentive* had a moderate impact on fund performance, while the other two perceived this factor as having a small impact on fund performance. Lastly, five respondents believed that *skill, expertise and experience of the general partner* had a significant impact on fund performance while two, believed that the impact this factor had was moderate. Therefore, the sample was commonly positive that macroeconomic factors had a stronger impact on fund performance than other factors tested above.

4.4 The impact/effect of the experience of the firm

Table 4.4 below shows responses to questions relating to the number of years that a firm and its partners have in existence.

Table 4.4: The effect/impact of experience

Question/statement	Responses	n (respondents)	Funds
How long has the firm been in existence in years?	0-5 years	0	
	5-10 years	2	A, D
	10-15 years	3	B,F,G
	15-20 years	2	C,E
	Over 20 years	0	
	Total	**7**	
Does the establishment period of the managing firm of the REPE fund have any bearing on its fund's performance?	Yes	5	B,C,E,F,G
	No	2	A, D
	Total	**7**	
To what extent does the establishment period of the management firm have an impact on the fund's performance?	No impact	0	
	Small impact	1	G
	Moderate impact	3	A,C,D
	Significant impact	3	B,E,F
	Total	**7**	
How many years of professional experience does the general partner have working in the REPE environment, or within the industry?	0-5 years	0	
	5-10 years	0	
	10-15 years	4	A,B,D,G
	15-20 years	2	C,F
	Over 20 years	1	E
	Total	**7**	

Three funds (B, F and G) were from firms that had existed for between 10 to 15 years. Two funds (A and D) were from firms between 5 to 10 years old. Lastly, another two funds were from firms that were between 15 to 20 years old. All the funds had therefore been in existence for a considerable period.

Five out of seven funds believed that the establishment period of the managing firm of the REPE fund has a bearing on its fund's performance. The remaining two funds (A and D) held a contrasting view.

Out of the seven funds, three funds (A, C and D) believed that the establishment period of the management firm has a moderate impact on the fund's performance. Another three funds (B, E and F) believed that it had a significant impact while one fund (G) believed establishment period had no impact.

4.5 External risk perceptions

Table 4.5 below shows the sample's perceptions on the most significant risks affecting their REPE fund.

Table 4.5: In descending order, what would you consider to be the three most significant risks that affect the performance of the REPE fund?

Factor	Rank 1	Rank 2	Rank 3
Corruption	0	0	1
GDP growth	7	0	0
Location	0	0	3
Interest rates	0	6	0
Skills availability	0	0	1
Construction & Project management	0	0	2
Crime	0	1	0
Total	7	7	7

All seven funds ranked low *GDP growth* as the most significant factor affecting their performance. Six funds ranked *interest rates regimes*, and one fund ranked *crime* as the second most significant risk factors affecting the performance of the REPE fund. Three funds ranked *corruption*; two funds ranked *construction and project management* risks; one fund ranked *skills availability,* and another fund ranked *corruption* as the third most significant risks affecting REPE performance.

4.6 REPE performance

This section presents findings on the performance of the seven funds. Figure 4.3 below shows the seven funds' targeted and achieved returns over their respective lock-in periods.

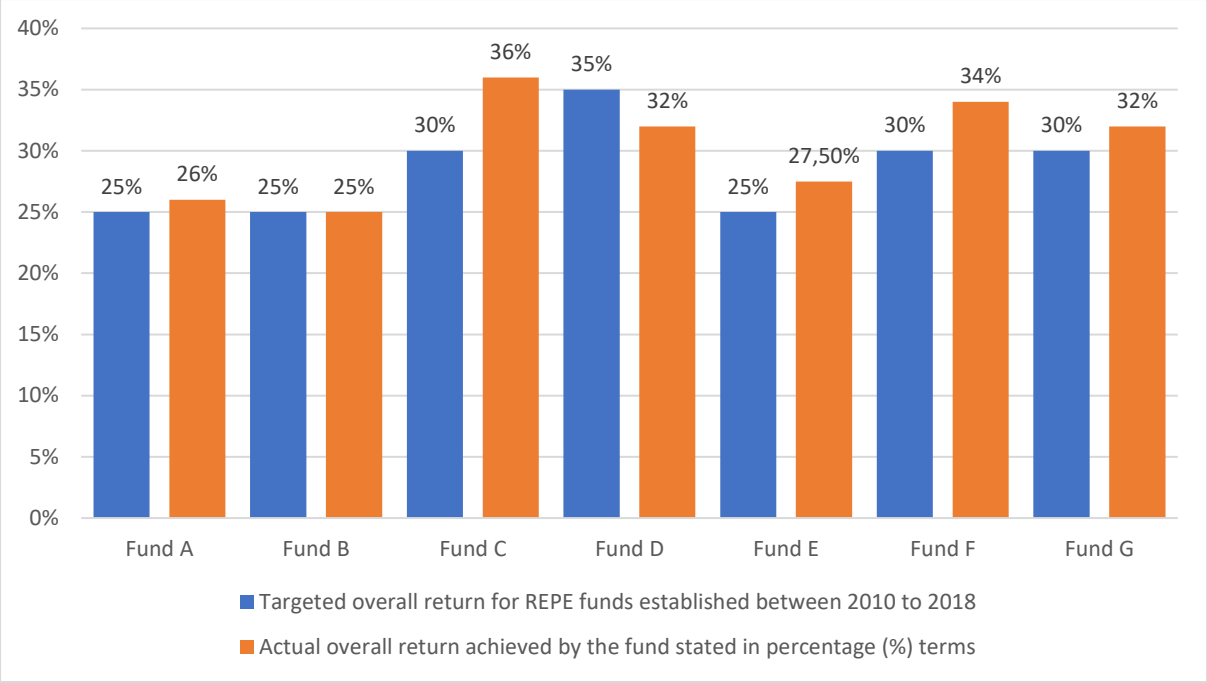


Figure 4.3: Targeted return versus actual return

The targeted return for Fund A was 25% while the achieved return was 26%. For Fund B, the targeted return was 25%, and the achieved return was also 25%. Fund C had a target of 30%, and the achieved return was 36%. These first three funds had a lock-in period of five years each. Fund D had a targeted return of 35% and achieved a 32%, and Fund E had a targeted return of 35% and an achieved return of 32%. Funds D and E each had a lock-in period of six years. Funds F and G had targeted rates of 30% and achieved returns of 34% and 32% respectively, and both had a lock-in period of seven years. Therefore, five of the funds achieved higher returns than targeted returns, these being Funds A, C, E, F and G.

Funds A, D, C and D, which are value-add funds, had an average return of 30% compared to opportunity funds (E, F and G) that had an average of 31.17%.

4.6.1 Jensen's alpha

The total returns by the seven funds over their various lock-in periods were compared with the Jensen's alpha of these funds. The first step in these comparisons was to get the benchmark applicable for each fund given its lock-in period. All seven funds assessed started in 2010. The MSCI Report contained a benchmark index for the particular period corresponding to this lock-in, as shown below:

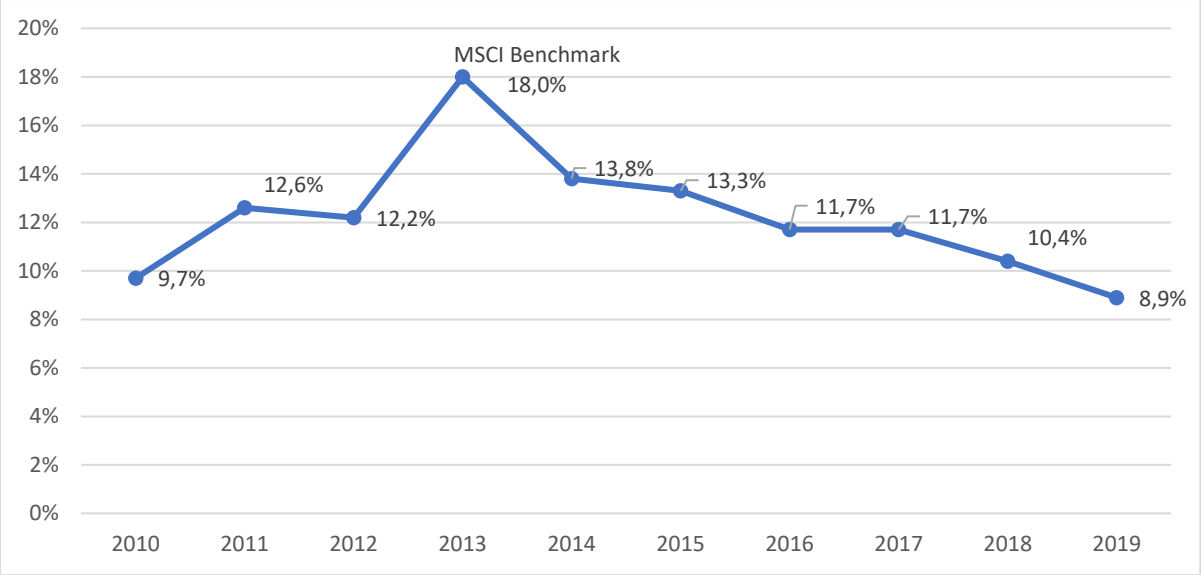


Figure 4.4:Ten-year IPD South African All-Fund Universe Indices (Benchmark)
Source: MSCI (2019)

The second stage was to get the average annual return for each fund. This was done by dividing the actual return of the fund over the lock-in period by the number of lock-in years, as shown below:

Table 4.6: Summary of lock-in periods, benchmarks and annual returns

	Fund A	Fund B	Fund C	Fund D	Fund E	Fund F	Fund G
What is the lock-in period, in years, for limited partners before they can access their funds invested (Years)?	5	5	5	6	6	7	7
Average targeted annual return	5,0%	5,0%	6,0%	5,8%	4,2%	4,3%	4,3%
Average actual annual return	5,2%	5,0%	7,2%	5,3%	4,6%	4,9%	4,6%
Benchmark index over lock-in period	13,3%	13,3%	13,3%	13,3%	13,3%	13,0%	13,0%
Benchmark index over 10 Years	12,2%	12,2%	12,2%	12,2%	12,2%	12,2%	12,2%

The final stage involved getting the risk-free rate of return, and the beta averages over the periods of investments. The alpha was then calculated as below:

Jensen's alpha:

Alpha = R(i) - (R(f) + B * (R(m) - R(f)

Where:

R(i): The realized return of the portfolio or investment.
R(m): The realized return of the appropriate market index.
R(f): The risk-free rate of return for the time period.
B: The beta of the portfolio of investment regarding the chosen market index.

The risk-free rate used was 7.09% for 364-day Treasury Bills (Resbank, 2020). Realised return is each fund's, actual overall return. The market return is 8.9% as indicated by the IPD All-assets Benchmark for the 12 months (8.9%). Beta – 0.55 (JSE all shares).

Table 4.7: Jensen's Alpha calculations

Alpha = R(i) - (R(f) + B x (R(m) - R(f))		**Fund A**	**Fund B**	**Fund C**	**Fund D**	**Fund E**	**Fund F**	**Fund G**
R(i)	:the realized return of the portfolio or investment	5,2%	5,0%	7,2%	5,3%	4,6%	4,9%	4,6%
R(m)	:the realized return of the appropriate market index	13,3%	13,3%	13,3%	13,3%	13,3%	13%	13%
R(f)	:the risk-free rate of return for the time period	7,09%	7,09%	7,09%	7,09%	7,09%	7,09%	7,09%
B	:the beta of the portfolio of investment with respect to the chosen market index	0,55	0,55	0,55	0,55	0,55	0,55	0,55
Jensen's Alpha		0,02	0,01	0,04	0,02	0,01	0,01	0,01

Table 4.7 above shows that all the seven funds outperformed the market by differences ranging from 1% to 4%. Therefore, the fund managers earned higher returns for risks taken in comparison to the benchmark.

4.7 General management fees for the funds

Figure 4.5 shows the general management fees received by the funds' general partners for their efforts.

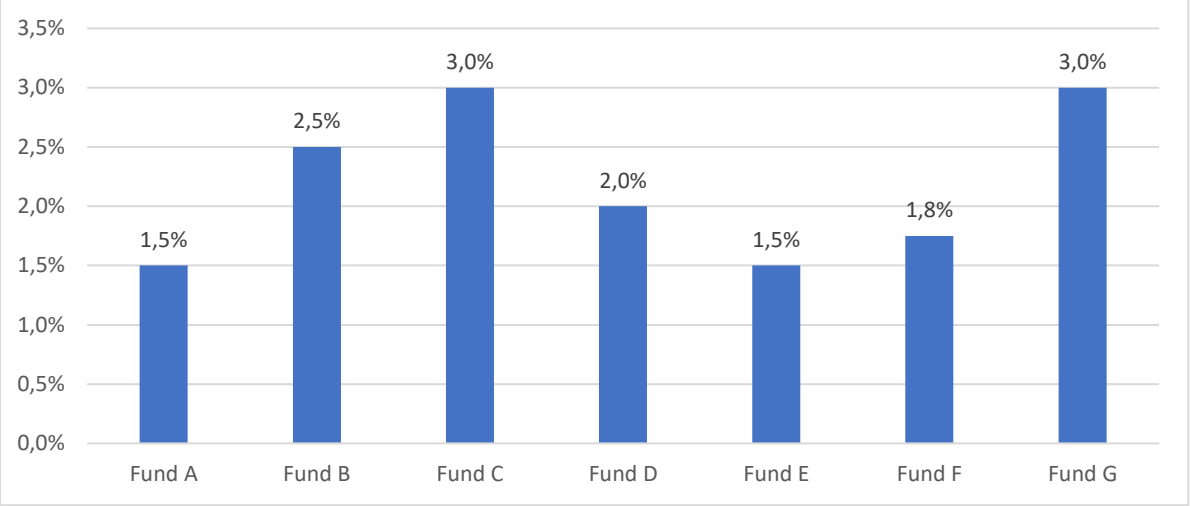


Figure 4.5: What is the agreed general management fee received by general partners for their efforts?

The general management ranged from 1.5% to 3%. Funds C and G had a fee of 3% followed by Fund B (2.5%), Fund D (2%), Fund F (1.8%) and Funds A and E both with a management fee of 1.5%.

4.8 Performance incentive fee

Figure 4.6 below shows the different performance incentive fees paid to the funds' general partners.

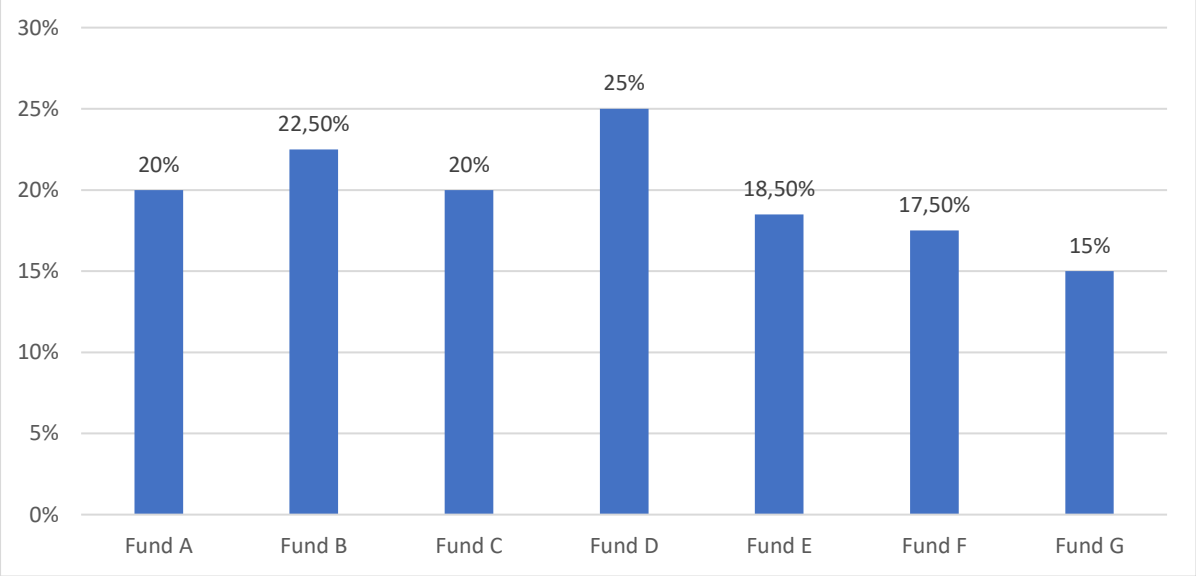
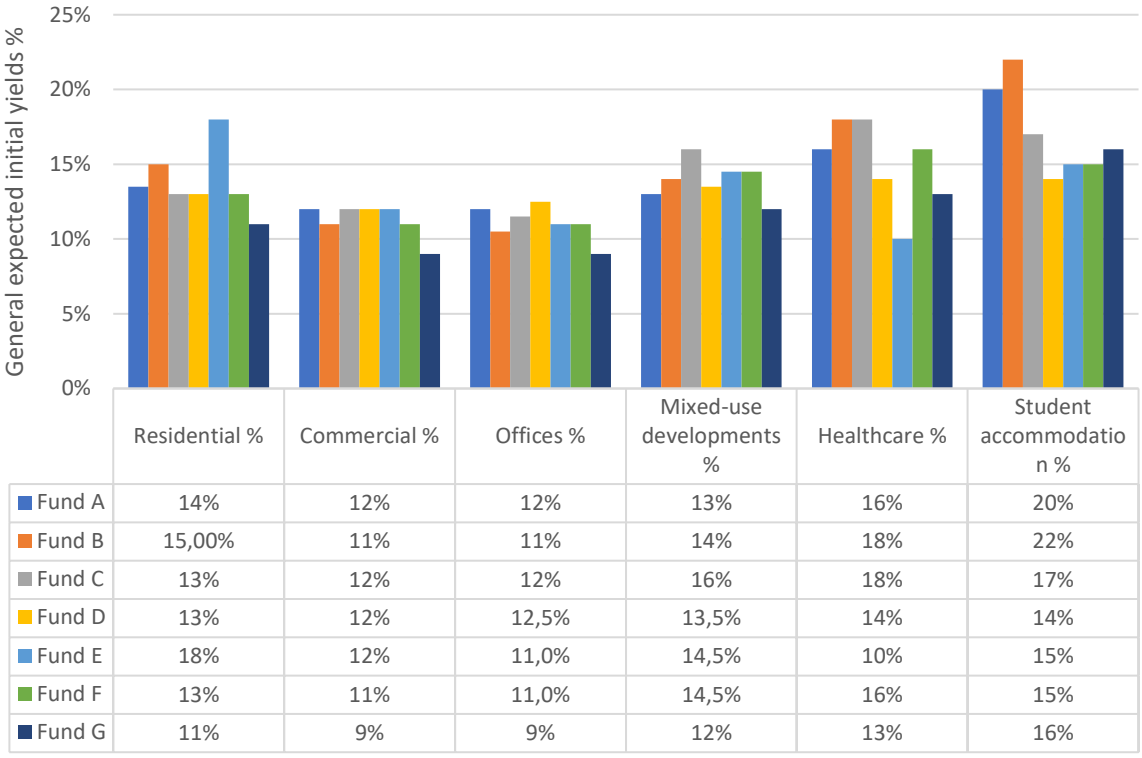


Figure 4.6:What are the different performance incentive fees paid to the funds' general partners?

Fund D had the highest performance incentive fee of 25%, followed by Fund B with 22.5%. Fund C and Fund A offered a performance incentive fee of 20%; Fund E, 18.5%; Fund F, 17.5% and Fund G, 15%. Therefore, the fees ranged from 15% to 25%.

4.8.1 General expected initial yields

Figure 4.7 summarises the sample's responses to the question regarding expected initial yields, stated in percentage terms, for specified categories of real estate assets.



	Residential %	Commercial %	Offices %	Mixed-use developments %	Healthcare %	Student accommodation %
Fund A	14%	12%	12%	13%	16%	20%
Fund B	15,00%	11%	11%	14%	18%	22%
Fund C	13%	12%	12%	16%	18%	17%
Fund D	13%	12%	12,5%	13,5%	14%	14%
Fund E	18%	12%	11,0%	14,5%	10%	15%
Fund F	13%	11%	11,0%	14,5%	16%	15%
Fund G	11%	9%	9%	12%	13%	16%

Figure 4.7: In general, what are the expected initial yields (%) terms, for each of the above categories of real estate assets?

4.8.2 Residential

Fund A respondent believed that the expected general initial yield for residential real estate properties was 14% while Fund B noted 15% and Fund C, 13%. The expected yield ranged from 11% by Fund G to 18% by Fund B. The mean expected yield for this class of asset was 14% (standard deviation of 0.03).

4.8.3 Commercial

The expected general initial yields for commercial real estate ranged from 9% by Fund G to 12% by Funds A, C, D and E. The mean expected yield for commercial real estate was 11% (standard deviation of 0.01).

4.8.4 Offices

The expected general initial yields for office real estate ranged from 9% by Fund G to 12.5% by Fund D. Most funds (B, E and F) had 11% expected initial general yield. The mean expected yield for office real estate was 11% (standard deviation of 0.01).

4.8.5 Mixed-use developments

The expected general initial yields for mixed-use development real estate ranged from 12% by Fund G to 16% by Fund C. The mean expected yield for office real estate was 14% (standard deviation of 0.01).

4.8.6 Healthcare

The expected general initial yields for healthcare real estate ranged from 10% by Fund G to 18% by Fund C. Healthcare real estate had the second-highest upper limit of 18%, with student accommodation below having the highest expected yield of 22%. The mean expected yield for office real estate was 15% (standard deviation of 0.03).

4.8.7 Student accommodation

The expected general initial yields for student accommodation ranged from 14% to 22%. Student accommodation had the highest expected yields. The mean expected yield for office real estate was 17% (standard deviation of 0.03).

Table 4.8: Expected initial yields versus IPD all-assets benchmark

Real estate types	Mean	Std Dev.	Port. Benc 1 Year	Difference (IEY vs 1-year Benchmark)	Port. Benc, 5-Year	Difference (IEY vs 5 year Benchmark)
Residential	14%	2%	8,9%	5,1%	11,2%	2,8%
Commercial	11%	1%	8,9%	2,1%	11,2%	-0,2%
Offices	11%	1%	8,9%	2,1%	11,2%	-0,2%
Mixed-use developments	14%	1%	8,9%	5,1%	11,2%	2,8%
Healthcare	15%	3%	8,9%	6,1%	11,2%	3,8%
Student accommodation	17%	3%	8,9%	8,1%	11,2%	5,8%

The above expected mean general initial yields for different types of real estate were higher than the IPD All-assets Benchmark for the 12 months (8.9%) between June 2018 and June 2019. This shows a general optimism that the funds had.

4.9 Risk classification

Table 4.9 below shows the classification of risks by the real estate category by each fund. Three risk options were available as responses, these being low, moderate and high risk.

Table 4.6: In terms of risk, how would you classify the above-mentioned categories of real estate assets?

	Fund A	Fund B	Fund C	Fund D	Fund E	Fund F	Fund G
Residential	Moderate	Moderate	Low	Moderate	Moderate	Low	Low
Commercial	Low	Moderate	Moderate	Low	Moderate	Moderate	Moderate
Offices	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
Mixed-use developments	Moderate	Moderate	High	High	High	Moderate	Moderate
Healthcare	Low	High	High	High	High	Moderate	Moderate
Student accommodation	Moderate	Low	Low	Moderate	Moderate	Low	Low
Other	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate

Residential real estate risk was classified as being either low or moderate by all the funds. Three funds (C, F and G) classified it as low while four funds (A, B, D and E) classified it as a moderate risk.

In terms of risk, *commercial* real estate like *residential* real estate was also classified as either low or moderate risk, albeit most funds believed it was a moderate risk asset. Funds A and C selected *commercial* real estate as a low risk, while the other five funds associated it with moderate risk.

Mixed-use developments were classified as high risk by three out of seven funds (C, D and E). They were classified as a moderate risk by the remaining four funds (A, B, F and G).

Office real estate was classified as carrying a moderate risk by six out of seven funds (B to G). Fund A classified it as being low risk.

Healthcare was classified as high risk by four out of seven funds (B, C, D and E). *Healthcare* real estate was classified as being moderate risk by two funds (F and G) and low risk by one fund (A).

Student accommodation funds were classified as low risk by four out of seven funds (A, B, F and G). The other three funds (C, D and E) classified it as low-risk real estate.

4.10 Relationship between returns and selected indicators

This section displays the Pearson correlation test results between actual returns from the seven funds and selected indicators. The objective of the test was to identify whether the returns were correlated to any of the factors which included risk appetite, lock-in periods, and management and performance fees, among others. Table 4.10 below shows the results of this test.

Table 4.7: Correlations - Actual returns

Questions/variables	Statistic	What was the targeted overall return for REPE funds established between the years 2010 to 2018?	What was the actual overall return achieved by the fund stated in percentage (%) terms?
What is the risk appetite of the fund?	Pearson Correlation	-.710	-.594
	Sig. (two-tailed)	.074	.160
	N	7	7
What is the average time horizon of the REPE fund?	Pearson Correlation	.a	.a
	Sig. (two-tailed)	.	.
	N	7	7
What is the lock-in period, in years, for limited partners before they can access their funds invested?	Pearson Correlation	.420	.403
	Sig. (two-tailed)	.348	.370
	N	7	7
What is the agreed general management fee received by general partners for their efforts?	Pearson Correlation	.270	.335
	Sig. (two-tailed)	.558	.463
	N	7	7
What is the agreed performance incentive fee received by general partners for their efforts?	Pearson Correlation	.276	-.179
	Sig. (two-tailed)	.549	.702
	N	7	7
What is the average size (in ZAR) of the real estate private equity funds that are formed by the firm?	Pearson Correlation	.167	.538
	Sig. (two-tailed)	.721	.212
	N	7	7
How long has the firm been in existence in years?	Pearson Correlation	-.270	.239
	Sig. (two-tailed)	.558	.606
	N	7	7

How many years of professional experience does the general partner have working in REPE environment, or within the industry?	Pearson Correlation	-.240	.142
	Sig. (two-tailed)	.604	.762
	N	7	7

a. Cannot be computed because at least one of the variables is constant.

*. Correlation is significant at the 0.05 level (two-tailed).

From the above results, it can be noted that there were no statistically significant relationships between actual returns from the seven funds and risk appetite, average time horizon, lock-in period, management and performance fees to general partners, fund size and years that fund has existed. Additionally, there was no statistically significant correlation between the professional experience of partners (in years) and annual returns of a fund.

To test the reliability of the Pearson r tests above, tests for normal distribution were conducted. The data tested was confirmed to be normally distributed and is, therefore, reliability testable using Pearson r.

Actual versus targeted returns

Table 4.11 below displays evidence of a very strong, positive, statistically significant relationship between targeted annual returns and achieved annual returns.

Table 4.8: Pearson correlation: targeted versus actual returns

Questions/variables	Statistic	What was the targeted overall return for REPE funds established between the years 2010 to 2018?	What was the actual overall return achieved by the fund stated in percentage (%) terms?
What was the targeted overall return for REPE funds established between the years 2010 to 2018?	Pearson r	1	.752
	Sig. (two-tailed)		.051
	N	7	7
What was the actual overall return achieved by the fund stated in percentage (%) terms?	Pearson r	.752	1
	Sig. (two-tailed)	.051	
	N	7	7

Actual returns and targeted returns have a Pearson r of .752 (r=.752, p<0.05). As targeted returns go up, actual returns increase. Thus, formulating investment return targets in the industry is important.

4.11 Fund performance and partner effect

Table 4.12 below shows the results on fund performance and the effects of the general partner.

Table 4.9: Funds performance and partner effect

Question/variables	Statistic	What was the actual overall return achieved by the fund stated in percentage (%) terms?	What was the targeted overall return for REPE funds established between the years 2010 to 2018?
Skill, expertise and experience of the general partner	Pearson Correlation	- 0,43	- 0,26
	Sig. (two-tailed)	0,33	0,58
	N	7	7
Fee incentive of the general partner	Pearson Correlation	- 0,75	- 0,26
	Sig. (two-tailed)	0,051	0,58
	N	7	7
The sponsor/general partners track record from previous funds	Pearson Correlation	- 0,59	- 0,17
	Sig. (two-tailed)	0,16	0,72
	N	7	7
Macroeconomic factors such as: prevailing economic conditions, interest rates, geographic location of investments, demographics in the area where the investment is made	Pearson Correlation	.a	.a
	Sig. (two-tailed)	.	.
	N	7	7

a. Cannot be computed because at least one of the variables is constant.

The above results show that there is no statistically significant relationship between both the actual overall return and the targeted overall return of the funds.

4.12 Conclusion

From the findings, opportunity funds had a slightly higher return than value-add funds. Both types of funds were able to exceed the market over the various investment horizons stretching between five to seven years. From the data, 86% of the seven funds performed above their targeted returns and only one fund (14%) performed below target. There was a strong positive correlation between targeted and actual performance which indicated that firms that aimed to get higher returns, in turn, generally got equally high actual returns. This highlights the importance of effective target-setting in the REPE environment. All the seven funds performed above the five-year, six-year and seven-year benchmarks. The funds also achieved actual returns above the ten-year benchmark.

5 CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study assesses the performance of seven REPE funds sampled from South Africa. This chapter summarizes the findings from the study and offers recommendations for further study. The following research questions of the study are also answered:

- By using Jensen's alpha as a risk-adjusted performance measure, to what extent does the expertise and experience of general partners affect the performance of a REPE fund relative to the average market return?
- What category of real estate projects (such as residential, commercial, offices, mixed-use, healthcare and student accommodation,) provide the best returns for REPE funds?
- How does the actual performance of REPE funds compare to the targeted returns (stated in the respective funds' prospectus) at the time of fundraising?
- How do the REPE funds compare to the returns provided to IPD South African All-Fund Index?

The next section summarises the findings across the above four research questions.

5.2 Conclusions to research questions

In the section below, the documented answers to the research questions are recapped.

5.2.1 Research question 1

By using Jensen's alpha as a risk-adjusted performance measure, to what extent does the expertise and experience of general partners affect the performance of a REPE fund relative to the average market return? As noted, all the funds were able to exceed the market when using five-year, six-year and seven-year benchmarks that corresponded to the lock-in period relative to the funds' starting year, which was 2010. However, despite the majority of the respondents agreeing that the partners' track records, skills, experience and fee structure played a significant role in the realisation of targeted and above-targeted returns, there was no statistically significant correlation between the expertise and experience of the partners and Jensen's alpha.

5.2.2 Research question 2

What category of real estate projects provides the best returns for REPE funds? By type of fund, opportunity funds had a slightly higher return than value-add funds. Both types of funds

were, however, able to beat the market over the various investment horizons stretching between five to seven years.

5.2.3 Research question 3

How does the actual performance of REPE funds compare to the targeted returns at the time of fundraising? 86% of the seven funds performed above their targeted returns and only one fund (14%) performed below its target. Additionally, there was a strong positive correlation between targeted and actual performance which indicated that firms that aimed to get higher returns, in turn, generally got equally high actual returns. This highlights the importance of effective target-setting in the REPE environment.

5.2.4 Research question 4

How do the REPE funds compare to the returns provided to *IPD South African All-Fund Index 2019.* All seven funds performed above the five-year, six-year and seven-year benchmarks. The funds also achieved actual returns above the ten-year benchmark.

5.3 Recommendations

Based on the above findings, the following recommendations are made:

- REPEs should prioritise setting return targets as these are positively associated with actual returns. Higher, realistic targets encourage teams to focus on higher returns.
- Student accommodation, as a category, was noted to be less invested in regardless of its superior returns. REPEs are therefore encouraged to consider this sector as part of their portfolios.
- REPEs should also consider working with experienced and skilled general partners as these increase their chances of earning higher returns than targeted returns, and exceeding market returns.

5.4 Limitations of the study

The following research limitations were identified in this study:

- Despite the sample being representative enough in proportion to its population, it was not large enough to effectively run rigorous inferential tests, including Chi-square tests and ANOVAs (Sabo & Boone, 2016).
- Pearson correlation tests done in the study might have been affected by the small size of the sample.
- The study relied on a Johannesburg Stock Exchange beta in calculating the Jensen's alpha, as such a beta on real estate investments could not be found.

Despite the above, the researcher strongly opines that the study was able to effectively answer its research questions.

5.5 Conclusion

This study assessed the performance of real estate private equity funds in South Africa. The study was successful in drawing a significant sample of currently operating REPEs in South Africa from which a nominated representative provided data in response to a structured questionnaire. The ability to draw data from the actual funds and the professionals in real estate private equity investments enhanced the study's ability to provide insightful, meaningful and detailed information that can be applied in REPE investment decision-making. It was concluded that South Africa's REPE generally performed above market expectations and were able to exceed market returns despite the sample alluding that negative growth in GDP was a major risk factor in their performance. The same funds were also able to meet and surpass targeted returns, including those that were promised to prospective clients during the prospectus stages.

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