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Unlisted Investments by Pension Funds in Namibia: An Evaluation of Social Impact

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ABSTRACT

Empirical evidence indicates that private equity in Africa is important for proliferating social and economic development in the form of job creation, poverty reduction, economic empowerment and reducing dependency on foreign aid. Namibia presents a unique case in that ‘unlisted investments’, as they are known in the country, are both required and regulated for pension funds, creating an opportunity to evaluate the impact thereof. This study uses objective company data to examine the effect of pension fund unlisted investment capital on social outcomes in Namibia, by reviewing this data qualitatively in the first instance and then quantitatively.

The qualitative findings indicate that 92% of the Special Purpose Vehicles (SPVs) examined have impact objectives in their investment plans and therefore aim to have some kind of impact as a starting point. However, it is found that frameworks for measuring the desired impacts are not well demonstrated. The quantitative regression analysis does not provide enough evidence to prove a significant and positive relationship between incremental unlisted investment capital contributed and variation in total employment (used to represent social impact).

The study identifies the lack of impact data in the industry as a concern and recommends the incorporation of an impact measurement framework as part of the regulatory framework for unlisted investments, in order to appropriately meet the objectives for which the unlisted investment requirement was created.

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LIST OF ACRONYMS

ANOVA	Analysis of Variance
BEE	Black Economic Empowerment
BVCA	British Private Equity and Venture Capital Association
DCP	Development Capital Portfolio
DFI	Development Finance Institution
ESG	Environmental, Social and Governance
EVCA	European Private Equity and Venture Capital Association
GDP	Gross Domestic Product
GIIN	Global Impact Investment Network
GIIRS	Global Impact Investing Reporting Standards
GIPF	Government Institutions Pension Fund
GP	General Partner
IMM	Impact Multiple of Money
IRIS	Impact Reporting and Investment Standards
IRR	Internal Rate of Return
JSE	Johannesburg Stock Exchange
KPI	Key Performance Indicator
LP	Limited Partner
NAMFISA	Namibia Financial Institutions Supervisory Authority
NDP5	Fifth National Development Plan
NPC	National Planning Commission
NSX	Namibia Stock Exchange
PE	Private Equity
ROI	Return on Investment
SADC	Southern Africa Development Community
SAICA	South African Institute of Chartered Accountants
SME	Small and Medium Enterprise
SPV	Special Purpose Vehicle

UIM	Unlisted Investment Manager
UNCTAD	United Nations Conference on Trade and Development
UNSDG	United Nations Sustainable Development Goal
USD	United States Dollar

CHAPTER 1: INTRODUCTION

1.1 Background and Context of the Study

Namibia's business sector is highly dominated by commercial bank financing for investment and working capital (Sherbourne, 2018). Commercial bank financing may not always be suitable for Small and Medium Enterprises (SMEs) due to the fact that banks oftentimes require businesses to possess assets for collateral before they can lend to them, and borrowing from a commercial bank requires businesses to make fixed and regular payments to meet the interest and principal obligations of the loan (Sherbourne, 2018). These factors make commercial bank financing inaccessible to most small businesses in their start-up and early growth phase, and provide good grounds *a priori* for the need and importance of a more patient type of financing in the form of private equity capital (Sherbourne, 2018).

Namibia is a country where unlisted investments (known elsewhere as 'private equity' or 'alternative investments') are specifically required by legislation for large institutional investors such as pension funds and long-term insurance companies (World Bank Group, 2020). This sets the stage for institutional investors to invest for impact, as scientific evidence indicates that private equity investments are important for proliferating social and economic development (Wright et al., 2009). 'Investment in SMEs' is among the top 5 impact investment themes in each of Western, Southern and Eastern Africa (Dhlamini et al., 2017), which solidifies the importance of private equity investments as an instrument for impact. Most investors are, however, still disproportionately focused on financial returns and do not specifically account for the non-financial impact of their investments, particularly in the Namibian market (de Klerk, 2016). De Klerk (2016) found that although private equity firms consider Environmental, Social and Governance (ESG) factors in their investment practices, the procedures and processes for ESG implementation have not been formalised. This potentially creates a situation where more private equity investments have impact than what is accounted for, or where the impact of private equity investments is unknown, and necessitates the proper quantification and analysis of the non-financial impact of private equity capital.

Through Regulation 29 under the Pension Funds Act of 1956, Namibia devised a targeted approach to create an enabling environment to deploy domestic savings from pension funds into Namibian companies for the benefit of the country's development (World Bank Group, 2020). These investments are deployed into the unlisted investment market through SPVs, which are companies or trusts licensed by the Namibia Financial Institutions Supervisory Authority (NAMFISA) to hold unlisted investments on behalf of institutional investors (Namibia Financial Institutions Regulatory Authority, n.d.). Unlisted investments have the potential to contribute to Namibia's 5th National Development Plan (NDP5), which is centred around the pillars of Economic Progression, Social Transformation, Environmental Sustainability and Good Governance (National Planning Commission, 2017). This is particularly true for the second pillar (Social Transformation), which is the focus of this research. Private equity investments also have the potential to contribute to the country's agenda towards the achievement of its efforts towards the United Nations Sustainable Development Goals (UNSDGs), due to the economic and social benefits that normally ensue from these types of investments (Wright et al., 2009).

According to the Global Impact Investing Network (GIIN), sub-Saharan Africa makes up only 6% of formal global impact investment capital (Mudaliar and Dithrich, 2019). Lalu et al. (2019) found in the Africa Impact Report of 2019 that government-backed Development Finance Institutions are the most prominent impact investors in Africa. This leaves a lot of room for private equity to play a vital role in this space, considering its potential for delivering and catalysing change in Africa and shifting the economic trajectory of African communities (Lalu et al., 2019). In the Namibian context, unlisted investment companies operate closer to the micro level and as a result have greater potential for impact at that level, resulting in a multiplier effect into the rest of the economy. Furthermore, pension funds have a long-term investment horizon and therefore could supply a crucial additional source of patient capital in the form of unlisted investments to help SMEs flourish over a longer period, as it has been demonstrated by the experience of advanced economies that there is potential in emerging markets for institutional investors such as pension funds to play a stronger role in SME financing (World Bank Group, 2020).

The economic and other impacts of private equity all over the world are well researched and the benefits well documented (Babarinde, 2012; Jensen, 2007; Wright et al., 2009). The situation may differ in Namibia, however, firstly because private equity is still in its infant

stages and its impacts are not yet widely researched, and secondly because a large proportion of Namibian private equity (that is, unlisted investments) is both required by legislation and regulated. These nuances have the potential to alter the results observed in international markets in the context of Namibia.

Available academic, practitioner and policy research on unlisted investments in Namibia provides insight into the importance of unlisted investments for stimulating development in the country (de Klerk, 2016; Government Institutions Pension Fund, n.d.; Zaaruka et al., 2005; World Bank Group, 2020), and highlights the sectors in which the unlisted investments of the Government Institutions Pension Fund (GIPF) have the highest economic impact by looking at economic multiplier effects (Bertrand and Kasuto, 2019). Further research has studied the use of pension fund money to fund infrastructure development (Benedictus, 2020). This study aims to evaluate what the social impact of pension fund unlisted investments has been, leveraging the investment concept of ‘impact investing’ as well as the impact measurement principles relating thereto. The study focuses specifically on the unlisted investments of pension funds in Namibia, as these are specifically regulated and therefore the data is readily available. At the same time, the study provides an opportunity to evaluate the effectiveness of the aforementioned regulation on unlisted investments, from the perspective of its impact.

1.2 Research Problem Statement

Impact investing is investing with the intention to generate positive, measurable social and environmental impact alongside a financial return (Global Impact Investing Network, n.d.). Impact investing has been described as ‘one of the most innovative ways to bring the resources of the world’s financial markets to the world’s seemingly intractable problems’ (Clarkin and Cangioni, 2016).

The theory of impact investing is refined further to posit that publicly traded large-cap companies are unable to have an impact without financial sacrifice due to the fact that capital markets are essentially perfect (Brest and Born, 2013). Perfect, in the sense that they are functionally omniscient and the same information is available to all participants. Smaller, private companies are better able to achieve both market returns and social impact, due to the frictions and imperfections that exist in private markets (Brest and Born, 2013). In private markets, imperfections result from certain participants, such as those in social, environmental

or other niche markets, having special expertise or intelligence on the ground that enables them to see things that others cannot (Brest and Born, 2013).

Private equity in Africa has not only been about financial gain; social impact in the form of job creation has been at its forefront over the period 2009 to 2016 (Lalu et al., 2019). Moreover, there is a massive opportunity for private equity to catalyse change in Africa and to deliver on the UNSDGs (Lalu et al., 2019)—an opportunity born of both the significant UNSDG financing gap and the significant developmental gap on the continent.

An overview of Namibian private equity literature revealed that some of the private equity firms have impact requirements in their mandates such as the empowerment of previously disadvantaged individuals, and requirements for regional socio-economic impact (Sherbourne, 2018). A study conducted in the Namibian market revealed that unlisted investments result in economy-wide multiplier effects as far as impact is concerned (Bertrand and Kasuto, 2019). This means that, for example, an investment into solar energy results in employment creation, then an increase in household spending, then access to renewable electricity by under-served communities, then reduced pressure on the electricity grid, and further associated ripple effects. There is therefore consensus in both international and Namibian literature on the impact potential of private equity/unlisted investments.

The preliminary finding that Namibian private equity firms have impact requirements in their mandates (Sherbourne, 2018), coupled with the fact that the unlisted investment market in Namibia is still somewhat infant, creates the need to study what the impact of these unlisted investments has been since the inception of the regulation on unlisted investments, with a particular focus on social impact. There is a gap in the existing literature in this area because available research on the Namibian unlisted investment market has only studied the importance of unlisted investments for stimulating development in the country (de Klerk, 2016; Government Institutions Pension Fund, n.d.; Zaaruka et al., 2005; World Bank Group, 2020), as well as the economic impacts of the unlisted investments of one particular pension fund, the GIPF (Bertrand and Kasuto, 2019).

1.3 Research Questions, Objectives and/or Hypotheses

The overarching aim of the study is to determine if and how pension fund unlisted investments have impacted on social outcomes in Namibia, which is directly related to the gap in the existing literature highlighted in section 1.2. The study therefore aims to assess the relationship between unlisted investment capital and the social outcomes and impacts ensuing from that capital. The study aims to answer the following questions:

1. To what extent are impact objectives formally embedded into the unlisted investment plans of SPVs?
2. Where impact objectives are present, how is actual impact measured against the objectives?
3. What has been the social impact of unlisted investments in Namibia since inception of the regulation on unlisted investments?

In answering these research questions, the study seeks to meet the following research objectives:

1. To understand the extent to which impact objectives are embedded into the unlisted investment plans of SPVs.
2. To explore how SPVs measure the impact of their investments vis-à-vis their impact objectives.
3. To determine what the social outcomes of unlisted investments have been since inception of the regulation on unlisted investments.

The study examines one hypothesis, which empirically tests the relationship between unlisted investment capital and social impact.

Hypothesis 1

H₀: there is no statistically significant relationship between incremental unlisted investment capital deployed and social impact for unlisted investment SPVs in Namibia.

H₁: there is a statistically significant relationship between incremental unlisted investment capital deployed and social impact for unlisted investment SPVs in Namibia.

1.4 Significance of the Research

With government budgets under pressure, private capital is increasingly having to be relied upon to effect the necessary social, environmental, economic and other changes in the country while still generating sufficient returns for investors. This study is important because it will provide a better understanding of the social impact of pension fund unlisted investments to the relevant stakeholders. Having a better understanding of the social impact of unlisted investments will provide insights into whether capital is being allocated into the country's highest need areas, which can be used to drive even greater impact through more effective allocation of capital.

Policymakers could benefit from this research as it will highlight whether unlisted investment legislation has been beneficial socially, or whether there is a need to change the requirements. Impact-conscious investors and private equity firms could benefit from the results of this research as it will become clear to them what areas have the potential to generate the highest impact, therefore improving their investment portfolios. This argument is advanced from the perspective of the universal owner theory, which posits that large holders of capital – such as pension funds – effectively own the economy because they own a small portion of almost every marketable company, such that positive social and economic growth in the larger economy results in positive growth in their own portfolios (Hawley and Williams, 2006, as cited in Bertrand and Kasuto, 2019, p. 53).

1.5 Organisation of the Research

The study consists of five chapters. The first chapter introduces the research idea and research problem. The second chapter reviews the literature on the work already completed on the research topic, and analyses the concepts pertaining to the research topic. The third chapter outlines the methodology employed in conducting the research. The fourth chapter discusses

the findings of the empirical study in relation to the theoretical literature. The final chapter offers conclusions on the research findings and recommendations for future studies.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In this chapter, existing research is used to draw parallels between 1) private equity in the international and African context vis-à-vis unlisted investments in the Namibian context; 2) the impact investing principle vis-à-vis using unlisted investment capital to meet Namibia's social developmental objectives, and 3) theories of impact measurement vis-à-vis the metrics embedded in Namibia's NDP5 social developmental objectives. The goal of the literature review is to provide background context and facilitate a better understanding of private equity as well as the global theory of impact investing and how it may be leveraged to evaluate the social impact of the unlisted investments of pension funds in Namibia.

The chapter starts by defining the key terms and concepts relevant to the research. It then provides a brief conceptualisation of private equity in the international and African context and thereafter zooms into private equity in Namibia and the structure of the investment management market in Namibia, of which unlisted investment management is a part. The chapter further reviews the literature on the history of unlisted investments in Namibia, the importance of unlisted investments for an emerging economy, the regulatory arena of unlisted investments in Namibia as well as the sectors into which pension fund unlisted investment capital is deployed. The chapter further provides a synthesis of the different impact measurement theories and the benefits and limitations of impact measurement, as well as what social impact measurement looks like from the perspective of Namibia's developmental objectives. The chapter concludes with an analysis of the link between private equity and social impact, a brief summary of the literature reviewed, and the gaps in the existing literature to support the necessity of this study.

2.2 Definition of Key Terms and Concepts

Private Equity (International Context)

Private equity is defined as medium- to long-term equity investments that are not publicly traded on an exchange (Cendrowski et al., 2012). This makes private equity investments generally illiquid, being held for between 3 to 7 years before a liquidity event or harvest (refer to definition) occurs (Cendrowski et al., 2012). Private equity investments are structured in two possible ways: one where capital is placed in private equity funds (fund investing) and one

where the investor places the capital directly into the portfolio company (direct investing) (Cendrowski et al., 2012).

Private equity involves purchasing the shares of early-stage ventures, being venture capital investments, purchasing businesses requiring growth, that is, providing development capital, or purchasing an established business in a buyout (Gilligan and Wright, 2020c). According to Portmann and Mlambo (2013) however, there are two main forms of private equity, being venture capital and buyouts, where venture capital provides seed or start-up capital to early stage high growth companies, while buyout refers to buying the shares of later stage companies. In some literature, the term 'private equity' is used to refer only to the buying of later stage and established companies, while the term 'venture capital' is used to refer to the buying of early stage companies (Gilligan and Wright, 2020c). The term 'private equity' therefore varies slightly in different contexts as well as in different jurisdictions. Other forms of private equity include investment in hedge funds, fund of funds, private investment in public equity, distressed debt funds and other securities (Cendrowski et al., 2012). These are referred to as the strategy of a private equity fund; that is, the manner in which its investments are done (Gilligan and Wright, 2020c). The concept and structure of private equity in the international context forms the basis on which unlisted investments in Namibia have been established and provides a foundation for understanding the structure of unlisted investments in Namibia.

Unlisted Investments (Namibian Context)

Within the Namibian context, unlisted investments are defined as investments in the form of equity or debt capital in a company incorporated in Namibia and not listed on any stock exchange (Ministry of Finance, 2013). In terms of Regulation 28 of the Pension Fund Act of 1956 and Regulation 15 of the Long-term Insurance Act of 1998, the Namibian Government introduced unlisted investments as an asset class whereby pension funds and long-term insurers are required to invest between 1.75% and 3.5% of the total market value of their investments into this class (Ministry of Finance, 2013). Unlisted investments in Namibia are therefore a particular type of private equity that is specifically required by legislation for certain institutions and is regulated. The unlisted investments of pension funds in Namibia are the subject of this study, due to the fact that pension funds invest the largest amount of capital in this sector and also due to the availability of the data on pension funds' unlisted investments.

Regulation 29

Regulation 29 is a Namibian regulation issued under the Pension Funds Act of 1956. It was issued to introduce and regulate the investment of pension fund assets into unlisted investments, setting out the exact requirements that pension funds must comply with when they invest in unlisted instruments (World Bank Group, 2020). Regulation 29 stipulates that pension funds must invest in unlisted investments through a registered SPV, and stipulates how unlisted investment managers and their SPVs are to conduct their business and how they are to be regulated (World Bank Group, 2020). Regulation 29 is therefore the enabling legislation for the subject matter of this study and provides a framework for regulating SPVs and their unlisted investments.

Leveraged buyout

A leveraged buyout is a type of private equity transaction where a private equity fund acquires the shares of a company using bank debt as a major source of finance in addition to the private equity funding from investors (Gilligan and Wright, 2020c). To illustrate, the debt component in leveraged buyouts typically ranges between 60 to 80 percent in Europe (De Maeseneire and Brinkhuis, 2012). Leveraged buyout transactions are usually structured in such a way that a newly formed company receives the financing from the private equity fund (private equity capital) and the bank (debt capital), with the debt from the bank being lent to the newly formed company through a subsidiary of that newly formed company (Gilligan and Wright, 2020a). The newly formed company is responsible for the purchase consideration, while its subsidiary is responsible for contracting for the debt and holding the shares in the target company, as illustrated in Figure 1. The literature on leveraged buyouts is relevant to this study as it highlights the key difference between how private equity acquisitions are structured in advanced economies versus how they are structured in the Namibian unlisted investments market. The difference in leverage between the advanced economies and the Namibian context could have an impact on the incentives arising from the transactions and therefore on the outcome of these transactions as well.

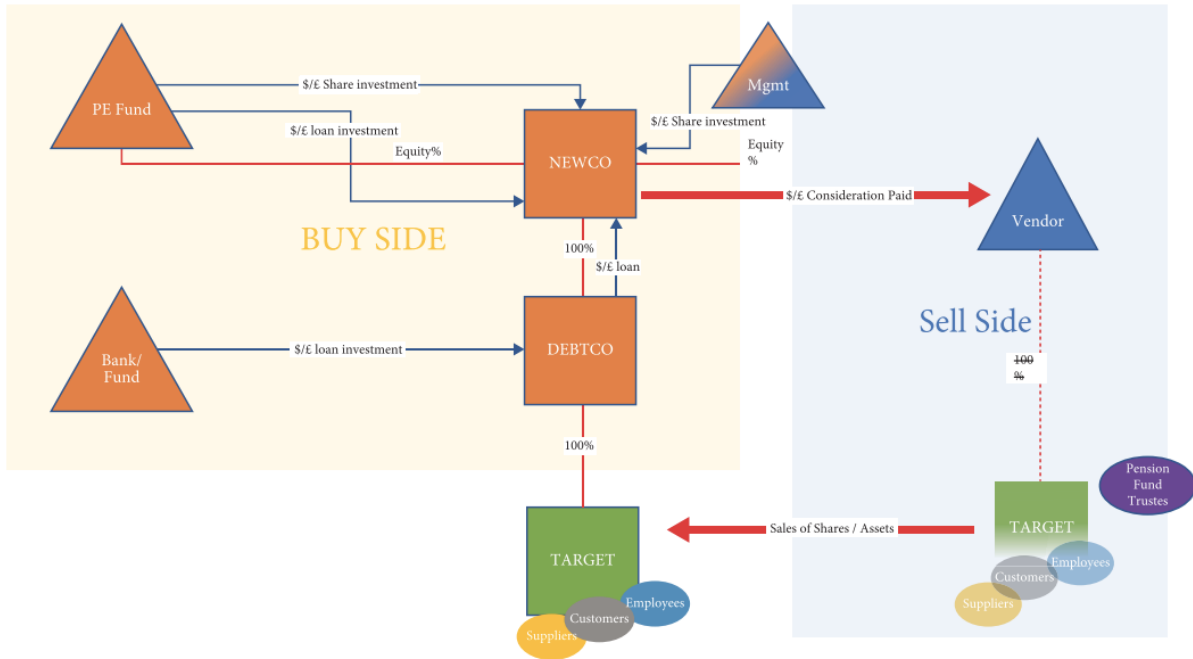


Figure 1: Illustration of a leveraged buyout (Gilligan and Wright, 2020a)

Special Purpose Vehicles (SPV) (Namibian Context)

A special purpose vehicle is a company or trust licensed as such by NAMFISA and organised and operated for the purpose of holding unlisted investments on behalf of investors (Namibia Financial Institutions Regulatory Authority, n.d.). SPVs are juristic persons that are the subject of this research and whose documents are reviewed in order to meet the research objectives.

Unlisted Investment Managers (UIM) (Namibian Context)

An unlisted investment manager is defined in Namibian legislation as a person who is licensed by NAMFISA as such and engages in the buying, selling or otherwise dealing with unlisted investments on behalf of an SPV (Ministry of Finance, 2013). Unlisted investment managers are required by legislation to have skin in the game by co-investing a minimum of 1 percent of the contributed capital into an SPV on the same terms applicable to other investors (Ministry of Finance, 2013). This makes unlisted investment managers relevant to this study as co-providers of the capital invested into unlisted portfolio companies.

Impact Investing

Impact investments are investments made with the intention or objective of generating positive, measurable social and environmental impact in addition to a financial return (Global Impact Investing Network, n.d.). Impact investments differ from traditional investments in that they have an active and intentional social or environmental objective alongside a financial objective (Clarkin and Cangioni, 2016). The impact investment market avails capital to address the world's most pressing challenges in sectors such as renewable energy, sustainable agriculture, microfinance, conservation, and affordable and accessible basic services such as housing, healthcare, and education (Global Impact Investing Network, n.d.). The theory of impact investing is leveraged in this study to posit unlisted investments as an instrument for social impact in Namibia.

Ultimate Beneficiary Theory

The ultimate beneficiary theory is the theory that pension fund money is invested for the benefit of the economy within which the pension contributors live so that they may be the ultimate beneficiaries of the investments (Bertrand and Kasuto, 2019). Pension fund capital makes up a significant proportion of total investment capital in Namibia and thus it is important for this capital to have positive impacts in the economy that may eventually benefit the people making pension contributions.

Universal Owner Theory

The universal owner theory is the theory that large holders of capital such as pension funds effectively own the economy because they own a small portion of virtually every company, asset class and sector such that positive economic growth in the larger economy results in positive growth in their own portfolios (Hawley and Williams, 2006, as cited in Bertrand and Kasuto, 2019, p. 53). This asset diversification ties large holders of capital to the economic viability of a wide array of social and environmental factors, because these factors invariably affect investment performance (Sherwood and Pollard, 2018). Pension funds in Namibia own a significant portion of the economy due to the size of the capital they have invested locally. This makes the universal owner theory important for this study, as the social, environmental and other outcomes in Namibia will invariably affect the returns of pension funds and their balance sheets in general.

2.3 Overview of the International Private Equity Market

The term ‘private equity’ was adopted from the late 1980s, with the US being the historic home of large-scale private equity (Gilligan and Wright, 2020c). Before then private equity firms referred to themselves as venture capitalists in the UK and leveraged buyout (LBO) firms in the US (Gilligan and Wright, 2020c). Though equity investments outside of public capital markets have always existed, private equity as it is known today emerged in the 1980s from broadly speaking venture capital and development capital (Gilligan and Wright, 2020c). Venture capital provides equity capital for early stage emerging businesses while development capital provides equity capital for expanding existing businesses (Gilligan and Wright, 2020c).

Private equity refers to transactions taking place outside of the public (quoted) markets, where the amount of capital that is at risk in a transaction (debt or equity) has a share in the capital gains of the company invested into (Gilligan and Wright, 2020c). This means that the capital provided in a private equity transaction is not only in the form of equity but involves complex financial engineering instruments that are packaged together using both equity and debt. Figure 1 shows an example of this.

Most private equity investors are predominantly focused on generating capital gains as opposed to income, through buying equity stakes in businesses, actively managing those businesses and then realising the value created by selling the entire business (Gilligan and Wright, 2020c). The exit strategy is therefore a critical component of private equity investing (Abor, 2017), as the ability to exit as well as the terms of exit are ultimately what determines the success of the private equity investment from a financial perspective.

There are three important measures of the size of the private equity market: the amount of new funds raised or committed, the amount invested into private equity or drawn down, and the amount of assets under management or the value of the investments (Gilligan and Wright, 2020c). This study focuses on the amount of invested capital, as this is the tangible capital that is ‘at risk’ and that has been made available to make an impact.

A private equity fund is a ‘pool of investment capital’ in which the principal investors are institutional investors such as pension funds and insurance companies, high-net-worth individuals, sovereign wealth funds, banks, funds of funds as well as private equity fund

managers themselves (Gilligan and Wright, 2020b). Private equity fund managers manage one or more funds (Gilligan and Wright, 2020b). The funds have a limited life, meaning that at set-up, each fund has a pre-agreed date on which it will cease making new investments and a pre-agreed date on which it will be wound up (Gilligan and Wright, 2020b). For example, a fund would invest in new projects for the first six years and be wound up in ten years. The external investors into a fund (that is, the pensions funds, insurance companies, banks, etcetera) are known as limited partners (LPs), while the general partner (GP) is usually an entity established and owned by the private equity fund manager (Gilligan and Wright, 2020b). Both invest directly into the fund, typically on the same economic terms (Gilligan and Wright, 2020b). Figure 2 shows the general structure of a private equity fund.

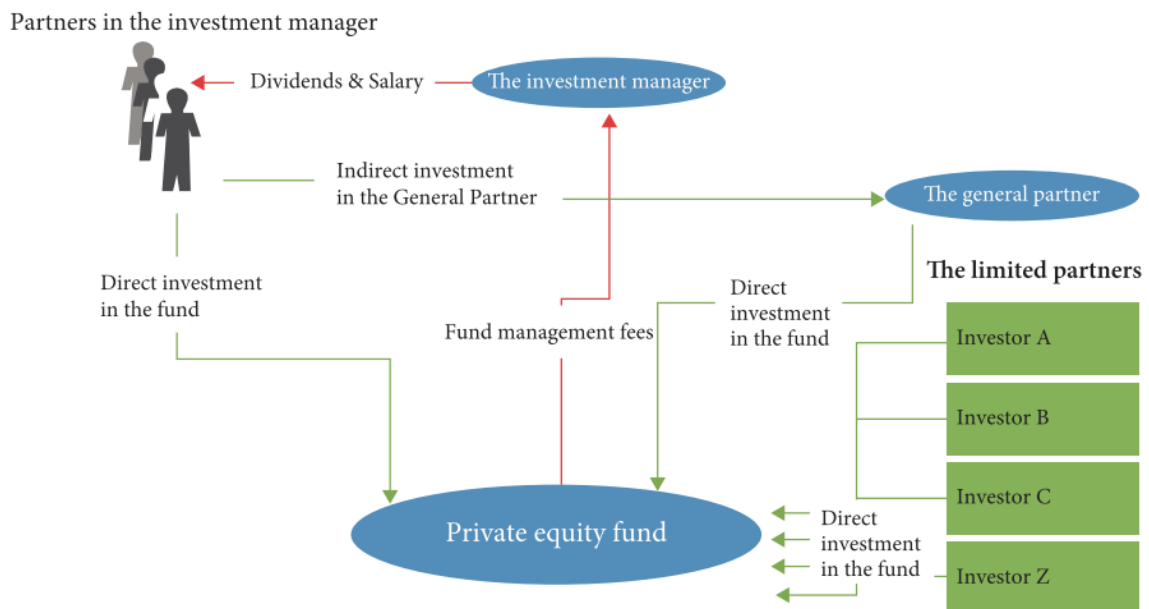


Figure 2: Structure of a private equity fund (Gilligan and Wright, 2020b)

LPs and GPs invest capital directly into the fund (known as committed capital) from which investment managers draw down in order to invest into deals (known as drawn down or invested capital) (Gilligan and Wright, 2020b). The investments may or may not pay returns in the form of dividends or interest to the fund, for distribution to the LPs and GPs in accordance with the pre-agreed terms (Gilligan and Wright, 2020b). When the investments reach their maturity, capital gains or losses are earned by the fund for distribution to the LPs and GPs in accordance with the pre-agreed terms (Gilligan and Wright, 2020b). LPs and GPs therefore co-invest into private equity funds as a mechanism to ensure that both partner types have skin in the game.

Private equity funds in the United States and United Kingdom are typically structured as limited partnerships, where partners (LPs and GPs) come together to invest for a finite period (Gilligan and Wright, 2020b).

Much like in Namibia, the largest category of investors in private equity funds in the United Kingdom are pension funds, meaning that the largest category of investors are ultimately members of the general public who pay pension contributions (Gilligan and Wright, 2020b). The same is true in the United States and Europe (Chemla, 2004; Sylvester and Egeli, 2000). Pension funds therefore appear to play a critical role in private equity in other jurisdictions, as they do in Namibia.

2.4 Overview of the Private Equity Market in Africa

The private equity structure found in developed countries as discussed under section 2.3 is typically the same one found in Africa, particularly South Africa which is the largest African private equity market, with the fund managers as general partners and the investors as limited partners (Hamman et al., 2021). The emergence of private equity funding in South Africa in the mid-1980s was largely out of necessity, when foreign companies were cutting their ties to South Africa (Sylvester and Egeli, 2000). According to Babarinde (2012), however, the private equity market in Africa started gaining momentum when the global financial downturn forced fund managers to diversify their portfolios and look for new opportunities outside of the developed and mature markets of Western Europe and North America, particularly to earn a higher return on investment (ROI) as it is often higher in emerging markets compared to developed markets. This is due to the higher risk premium often present in markets such as Africa. A study by External Finance for Africa found that most funds investing in Africa outperform the average for emerging market funds, with returns on African investments averaging 35.5% in 1995 according to United Nations Conference on Trade and Development (UNCTAD) (Sylvester and Egeli, 2000). Average returns in Africa are also much higher than they are in the developed world, averaging around 18% in the United States (Sylvester and Egeli, 2000).

The fact that Africa is underdeveloped is in itself an attractive opportunity for private equity investors to invest in its development (Babarinde, 2012). This implies that the demand for private equity in Africa will endure in the long term as it will take years to develop the continent (Babarinde, 2012). Despite this demand for private equity development capital, using sub-

Saharan Africa as a proxy, Africa's share of global private equity funds raised and invested in the 2000s was less than one percent per annum (Babarinde, 2012), indicating immense room for growth.

Private equity in South African, exists in three categories: 1) investment banks, 2) funds listed on the private equity exchange of the Johannesburg Stock Exchange (JSE), and 3) private or unlisted funds (Sylvester and Egeli, 2000). These categories of private equity participants are mainly investing in agro-business, infrastructure, banking, utilities, base metals, real estate, mining and extractive industries, retail, basic industries, financial services, hydrocarbons, telecommunications, media and IT (Babarinde, 2012).

Private equity capital is important for growing enterprises and creating jobs in Africa, and contributes to the broader financial system in this manner (Babarinde, 2012). Accordingly, economic growth in Africa is likely to be dependent upon private equity investments due to the underdeveloped financial and stock markets on the continent (Babarinde, 2012). SMEs are the backbone of any economy as it pertains to entrepreneurship and job creation (Babarinde, 2012). Therefore, the rise of well-managed SMEs will proliferate the emergence of a growing middle class that will in turn increase the demand for consumer goods on the continent (Babarinde, 2012; Sylvester and Egeli, 2000), which can be funded by private equity investment into retail. There appears to be a symbiotic relationship between SME development and private equity, where SMEs create a demand for private equity capital, while private equity capital also proliferates the growth of SMEs, creating more demand for private equity capital. This chain of events leads to an increase in jobs, a decrease in poverty for both employees and business owners and other associated social impacts.

Private equity capital serves a social role by discouraging talented African entrepreneurs from going to seek funding from developed markets, thus reducing brain drain and opportunity drain, loss of employment-creating businesses, loss of tax revenues and loss of valuable leadership on the continent (Sylvester and Egeli, 2000). Private equity capital is also in a position to be a catalyst for social change by participating in black economic empowerment (BEE) and by creating jobs for marginalised demographic groups (Sylvester and Egeli, 2000). Indeed, BEE dominates the South African private equity industry and is promoted at one of two levels: 1) through the funding sources used for the private equity transactions, or 2) through the

ownership and management structure of the private equity managers (Portmann and Mlambo, 2013).

Another way in which private equity is important for Africa is that it acts as an alternative development model on the continent, replacing foreign aid which has not been successful in securing sustained economic growth (Sylvester and Egeli, 2000). Ownership creates a constellation of incentives that are not present with direct aid, ensuring the efficient use of capital.

The private equity perspectives in Africa are markedly different from those in the developed world. In Africa, private equity is viewed as a mechanism for enabling private-sector-led expansion of underdeveloped economies (Babarinde, 2012; Jover and Mlambo, 2014), facilitating job creation, poverty reduction and economic empowerment (Jover and Mlambo, 2014; Sylvester and Egeli, 2000), diversifying and restructuring commodity-dependent economies into more labour-intensive economies (Jover and Mlambo, 2014), and reducing developing countries' dependency on foreign aid (Sylvester and Egeli, 2000). The aforementioned perspectives are made possible by the fact that private equity in emerging markets is focused on the growth and efficiency of the enterprises invested into thus enabling a constellation of economic and social knock-on effects, while in developed markets it is more focused on maximising IRR by using high leverage to fund acquisitions (International Finance Corporation, 2010).

2.5 Overview of the Unlisted Investment Market in Namibia

The private equity industry in Namibia is relatively nascent, with the first private equity firm commencing business in 2004 (de Klerk, 2016). The market has since grown with more private equity firms entering the market, particularly after the Namibian Government introduced the unlisted investment requirements for pension funds in 2013 (Ministry of Finance, 2013). Figure 3 shows the increase in unlisted investment SPVs and UIMs registered with NAMFISA since 2014, which was driven by the fact that there was now significantly more capital available to be invested into private equity and private debt since it became a legal requirement. An important piece of context is that private equity firms that existed prior to the introduction of the unlisted investment requirement had to register with NAMFISA as unlisted investment managers if they wanted to manage the unlisted investments of pension funds. A distinction

should be made between the formation of a private equity firm as a business and its registration with NAMFISA as an unlisted investment manager, as the two events do not necessarily coincide. This will become evident in Figure 4.

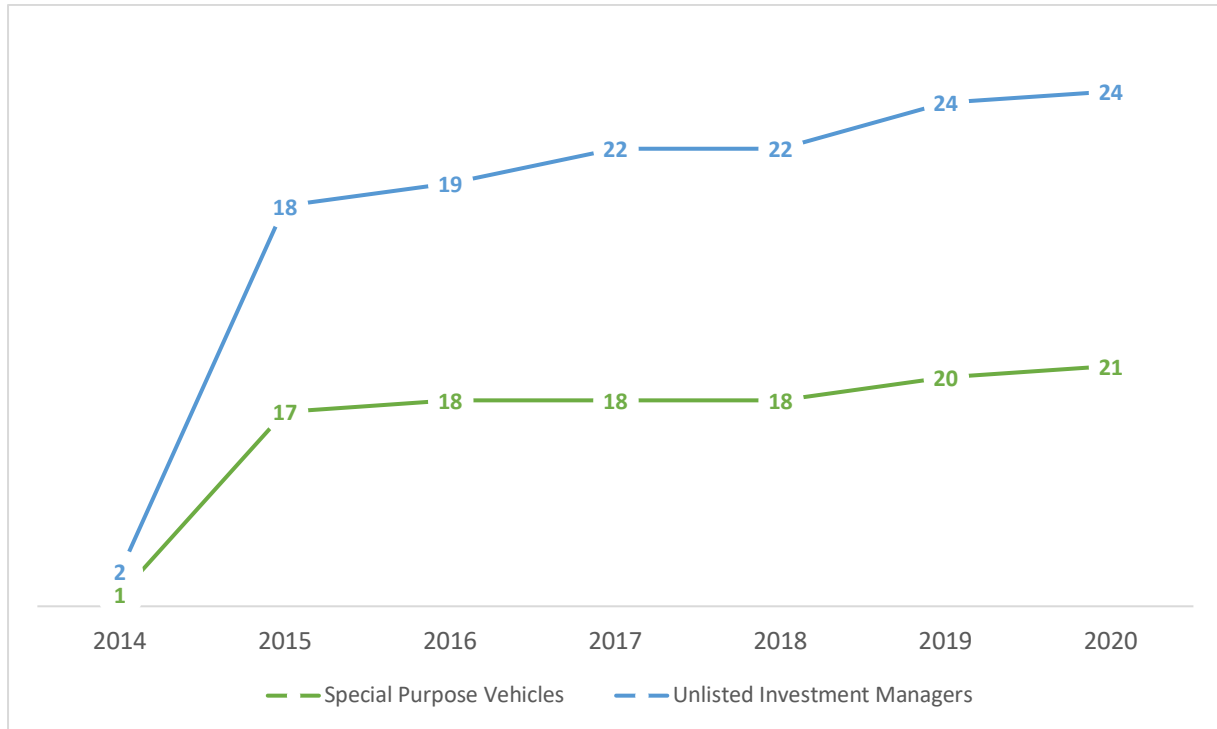


Figure 3: Number of SPVs and UIMs from 2014 to 2020 (compiled with data obtained from www.namfisa.com.na)

Historically, Namibian capital markets were illiquid, underdeveloped and small in size, and could not absorb large pension fund assets. As a result, the country was suffering from capital outflows towards offshore investments, which resulted in low Gross Domestic Product (GDP) growth (World Bank Group, 2020). The first attempt at direct investing into Namibian unlisted companies was undertaken by the GIPF in 1996 through the establishment of its Development Capital Portfolio (DCP), whose objectives were to promote developmental projects and to assist previously disadvantaged Namibians to enter the mainstream of economic activity, whilst achieving investment returns (World Bank Group, 2020). The objective of the DCP meets the definition of ‘impact investing’ because its investments aimed to achieve a social and financial objective simultaneously. The GIPF through its DCP found it necessary to focus on unlisted companies due to the lack of domestic publicly listed companies and the predominance of dual listed companies on the Namibian Stock Exchange (NSX) with primary listings on the Johannesburg Stock Exchange (JSE) at the time (World Bank Group, 2020). The GIPF’s

investment into the DCP was not mandated by any legislation and occurred without a regulatory framework or supervision, as NAMFISA was only established in 2001.

Owing to the lack of proper governance and a supervision framework, the DCP incurred significant losses and eventually failed and the portfolio was closed in 2010 (World Bank Group, 2020). Soon thereafter, the government of Namibia, through NAMFISA as financial sector regulator, issued unlisted investment requirements for pension funds and long-term insurance companies in 2013. These requirements were introduced by Regulation 28 of the Pension Funds Act of 1956, and Regulation 15 of the Long-Term Insurance Act of 1998. Regulation 29 was further issued in 2014 as an implementation framework for Regulation 28 of the Pension Funds Act, due to the more stringent requirements for pension fund unlisted investments compared to those of long-term insurance companies (World Bank Group, 2020). Under Regulation 29, pension funds were required to invest into unlisted investments through SPVs registered with and regulated by NAMFISA, unlike the direct investment approach that was followed under the DCP of the GIPF (World Bank Group, 2020). The unlisted investments of long-term insurance companies, though mandated, are not specifically regulated like those of pension funds, nor are they required to be made through registered and regulated SPVs.

Figure 4 illustrates the structure of the investment management industry in Namibia from the perspective of the types of investment managers operating in the market, and highlights the areas of the industry that are the focus of this research. Figure 4 shows that this research is focused on the unlisted investments of pension funds, invested by unlisted investment managers through SPVs (light blue). It is also evident from Figure 4 that the unlisted investments to which this research applies are specifically regulated by NAMFISA.

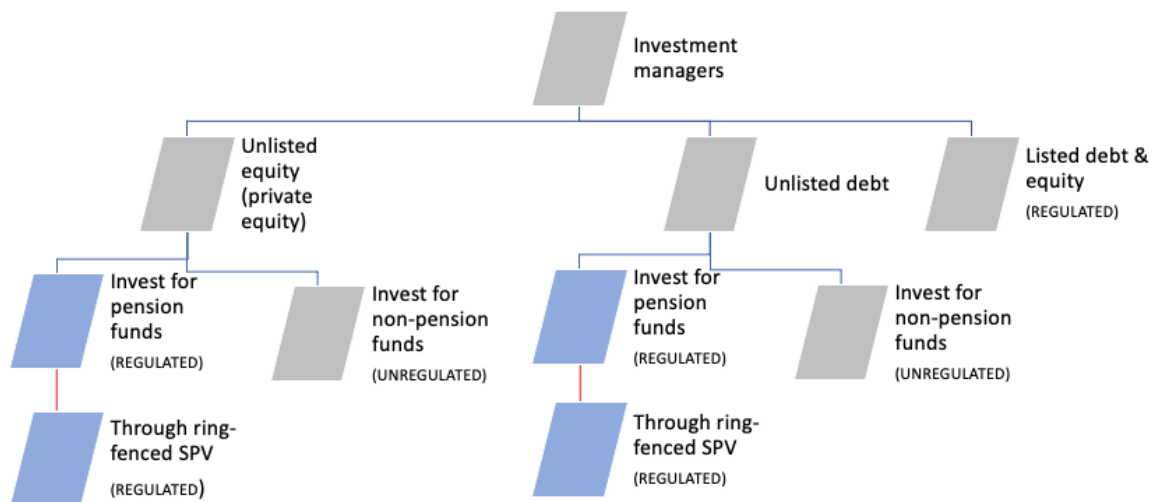


Figure 4: Investment management industry in Namibia

The aim of introducing the unlisted investment requirement was to provide development capital to SMEs with high growth potential, thereby making a meaningful contribution to the development needs of Namibian communities (Government Institutions Pension Fund, n.d.). The unlisted investment requirement also sought to:

- (1) increase domestic economic development by investing contractual savings into the local economy;
- (2) enable domestic projects otherwise struggling to acquire funding from traditional sources of finance such as commercial banks;
- (3) bolster promising investment projects with high potential to contribute to development;
- (4) formalise the unlisted investment market and create specialised intermediaries, such as IUMs;
- (5) develop a supply of Namibian private portfolio companies that, once public, would contribute to the expansion of the domestic equity market which was dominated by dual listed companies at the time; and
- (6) provide a framework for NAMFISA to regulate these activities (World Bank Group, 2020).

Additional literature on the objectives of unlisted investments brings to the fore the ultimate beneficiary theory, which advocates that pension fund money is invested for the benefit of the economy within which the pension contributors operate or live (Bertrand and Kasuto, 2019). Pension funds are ‘universal owners’ of capital. This means that their investments into the

Namibian economy are so significant that the fortunes of the Namibian economy are intertwined with their own; their investment success will lead to the success of the Namibian economy and vice versa (Bertrand and Kasuto, 2019). From the perspective of the objectives of this study, the ultimate beneficiary theory can be said to mean that unlisted investments should have an impact in the (Namibian) economy wherefrom the invested funds originate.

Namibian pension funds are disallowed by legislation to make direct investments into unlisted portfolio companies or to provide debt directly to such companies; they are required to commit unlisted investment capital to registered SPVs which are ring-fenced structures that are similar to private equity funds, wherefrom unlisted investment managers draw down the capital for investment into different portfolio companies (Ministry of Finance, 2013). Figure 5 shows the structure of unlisted investments for pension funds in Namibia, from the perspective of the different players involved and the flow of funds. The SPVs together with the UIMs are regulated by NAMFISA, through Regulation 29 of the Pension Funds Act, which is the implementation framework of Regulation 28 that requires SPVs to be either a public or private company or a Trust (World Bank Group, 2020). Regulation 29 also requires the SPVs to enter into management agreements with their unlisted investment managers, and to have their investment plans and directors approved by NAMFISA, among other requirements (World Bank Group, 2020). In practice, however, investment managers managing unlisted investments, that is, UIMs as defined by the Regulation 29, establish their SPVs and each SPV serves as a unique fund with a unique investment strategy for the unlisted investment manager (World Bank Group, 2020).

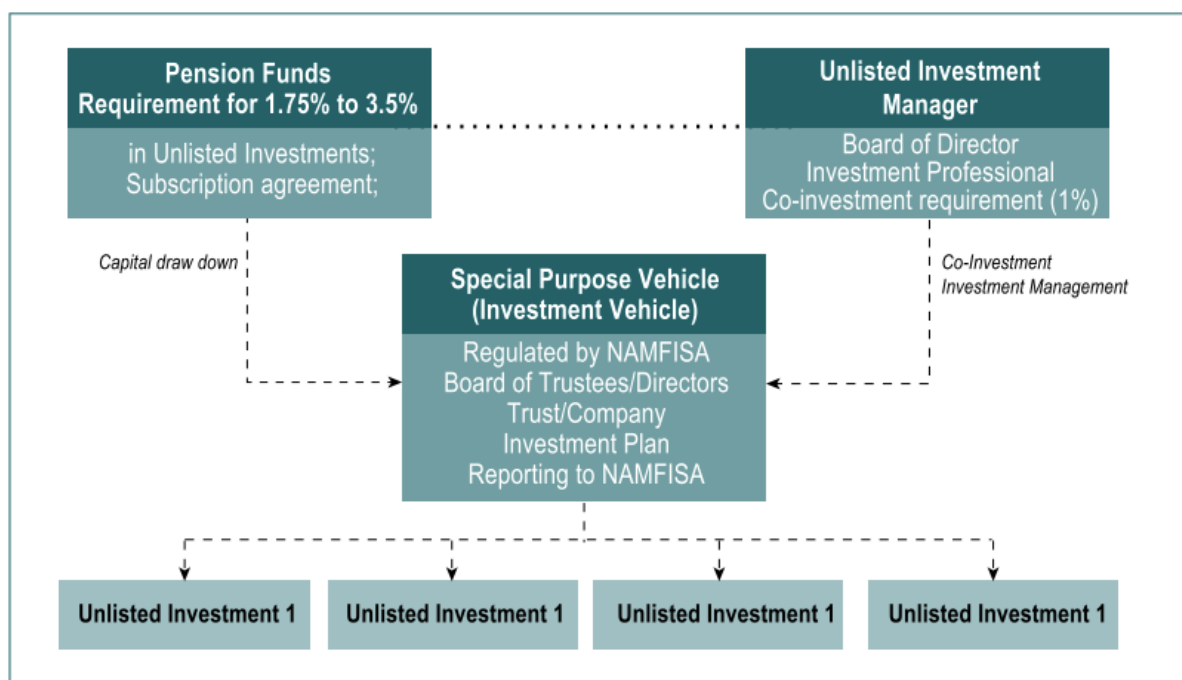


Figure 5: Structure of unlisted investments for pension funds in Namibia (World Bank Group, 2020)

All investors, other than pension funds looking to invest into unlisted investments, are permitted to make direct investments into unlisted investments (Ministry of Finance, 2013), though they will ordinarily prefer to make use of investment managers as well. They are not required to invest through registered SPVs. Other Namibian investment managers (non-IUM) managing public assets are also not required to register each of their funds or investment strategies that they offer to investors, as SPVs; this is depicted in Figure 4.

At the time of writing, Namibia does not have legislation for limited liability partnerships in the unlisted investments market, thus the standard GP/LP structure used in private equity in the rest of the world is not possible in Namibia (World Bank Group, 2020). Private equity vehicles in Namibia are commonly set up as bewind trusts or private companies (Sherbourne, 2018), while pension fund unlisted investment SPVs are specifically required by legislation (Regulation 29) to be in the form of a trust or private company (Ministry of Finance, 2013). A bewind trust (also called a vested trust) is a trust where the founder (private equity firm) transfers ownership of the trust assets to the beneficiary (investor), while the trustees are responsible for the administration of the same assets (South African Institute of Chartered Accountants, 2012). In contrast, an ownership trust is one where the founder transfers ownership of the trust assets to the trustees and the rights of the beneficiary in respect of the

trust assets are determined solely by the trust deed (South African Institute of Chartered Accountants, 2012). The benefit of using bewind trusts is that they utilise the ‘look-through’ approach, which means that the pension fund investors remain the ultimate owners of the assets (that is, portfolio companies) and that the assets are not transferred to the investment managers or trustees at any point (Sherbourne, 2018).

The size of the Namibian pension funds market amounts to N\$172.5 billion in assets as at 31 December 2019 (Namibia Financial Institutions Regulatory Authority, 2020). This means that the pension fund industry is required by regulation to invest between N\$3.02 billion (1.75%) and N\$6.04 billion (3.5%) into unlisted investments as at 31 December 2019. The capital deployed for unlisted investments by pension funds is therefore significant for impact in an economy with a GDP of N\$181.2 billion in 2019 (Bank of Namibia, 2020) and a population of 2.3 million people at the same point in time (National Planning Commission, 2019). The upper limit of this unlisted investment capital amounts to circa 3.33% of Namibian GDP as at 31 December 2019.

Figure 6 depicts the distribution of unlisted investment capital by pension funds per industry in Namibia as at 31 December 2018. Figure 6 essentially highlights the industries (including the SMEs in those industries and the communities and households affected by them) in which pension fund unlisted investments have the potential to have had an impact since the unlisted investment requirement was promulgated. Figure 6 shows that the majority of unlisted investment capital is invested in manufacturing and renewable energy as at 31 December 2018, which are traditionally good generators of employment and therefore generate social value. These results can be compared to research conducted by Bertrand and Kasuto (2019) which indicated that unlisted investments into electricity generation, agriculture, communication, finance and real estate produce the greatest economic impact using economic multipliers. Ideally, more capital should be deployed into the sectors of the economy that produce the highest social, economic and other impacts.

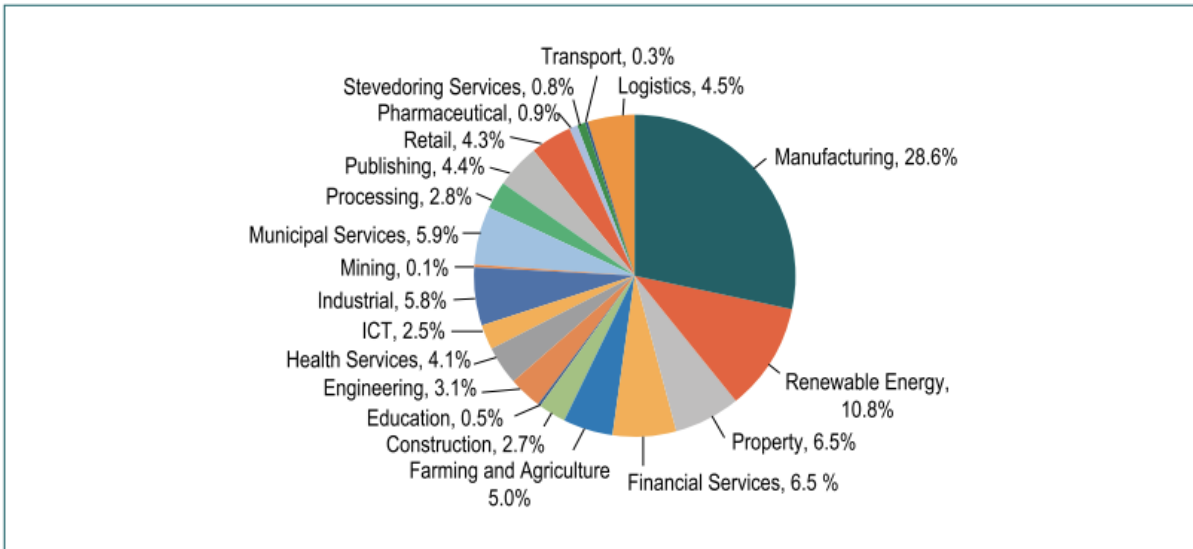


Figure 6: Pension fund unlisted investments per industry 31 December 2018 (World Bank Group, 2020)

2.6 Differences and Similarities Between Private Equity Around the World and Unlisted Investments in Namibia

It is evident from sections 2.3 and 2.5 of the literature review that the unlisted investments market and regulations in Namibia was built around the principles of private equity as it is known around the world, particularly with reference to the structures depicted in Figures 2 and 5. Functionally, private equity around the world and unlisted investments in Namibia are the same. In both instances, a separate vehicle holds the funds to be invested into investee companies, investment managers and institutional investors co-invest into the separate vehicle, and the returns from the investee companies are distributed back to the co-investors in accordance with the agreed proportions. In some instances, different names are used for the exact same thing; for example, an SPV in the Namibian context is a private equity fund in the international context, and an IUM is an investment manager; they serve the same function in both jurisdictions though they are named differently.

There is, however, a structural difference arising from the different laws in the different jurisdictions. While private equity funds in the developed jurisdictions use the limited partnership structure with limited partners and general partners, unlisted investment funds in Namibia are required by law to be structured as private companies with shareholders or trusts with trustees. Another distinct difference is that private equity involves the holding of shares

by the fund in the investee companies, while unlisted investments can be in the form of shareholding or loans to the investee companies. Lastly, private equity is often highly geared at fund level, which is not the case for unlisted investment SPVs.

2.7 Theories of Impact Measurement

Impact measurement is arguably the most important and most difficult aspect of investing for impact, particularly when it comes to the opposing forces of standardisation and customisation (Starting Up Good, 2018). Standardisation is important because investors need to be able to compare the impact of their investments across companies, industries and geographies (Starting Up Good, 2018). On the other hand, different investor types are pursuing a wide variety of outcomes so a one-size-fits-all approach is inappropriate (Starting Up Good, 2018).

Several theories have been developed over the years on the evaluation and measurement of impact. Ormiston and Seymour (2011) outline qualitative and quantitative social metrics for measuring impact. The qualitative social metrics include triple bottom line, the balanced scorecard for non-profits, the family of measures and social reporting (Ormiston and Seymour, 2011). Quantitative social metrics include social return on investment and blended value (Ormiston and Seymour, 2011). In their study, Ormiston and Seymour (2011) advocate for mission-aligned impact measurement in order to develop useful and meaningful measures that reflect the objectives pursued. This essentially means that impact measurement is not an exercise of standardisation.

The theory of change is another tool that according to Jackson (2013) is an indispensable element in the evaluation of impact investing, particularly as it pertains to the micro-level impact on poor and marginalised communities, households and individuals, as this is where the results of impact investment matter the most. The theory of change is a tool drawn from the programme evaluation and monitoring world and involves the construction of a visual model that specifies the underlying logic, assumptions, causal linkages, influences and expected outcomes of a programme (Jackson, 2013). Figure 7 depicts the theory of change for a debt fund, which would essentially be the same for an unlisted investment fund (that is, SPV). The theory holds that the provision of capital to small businesses helps them flourish and generate more revenue streams and employ more people. This in turn results in better outcomes at household level, community level and capital market level, which can all translate to social

value (Jackson, 2013). It therefore follows that the theory of change would find application at multiple levels of the investment process, such as in evaluating the multiplier effects of unlisted investments as documented by Bertrand and Kasuto (2019). The theory of change is key in determining what exactly should be measured in answering the question: ‘to what extent do impact investments really make a difference in the lives of the poor and marginalized?’ (Jackson, 2013). In his study, Jackson (2013) posits that the qualitative and quantitative social metrics advocated for by Ormiston and Seymour (2011) could be blended with the theory of change in order to produce more useful results.

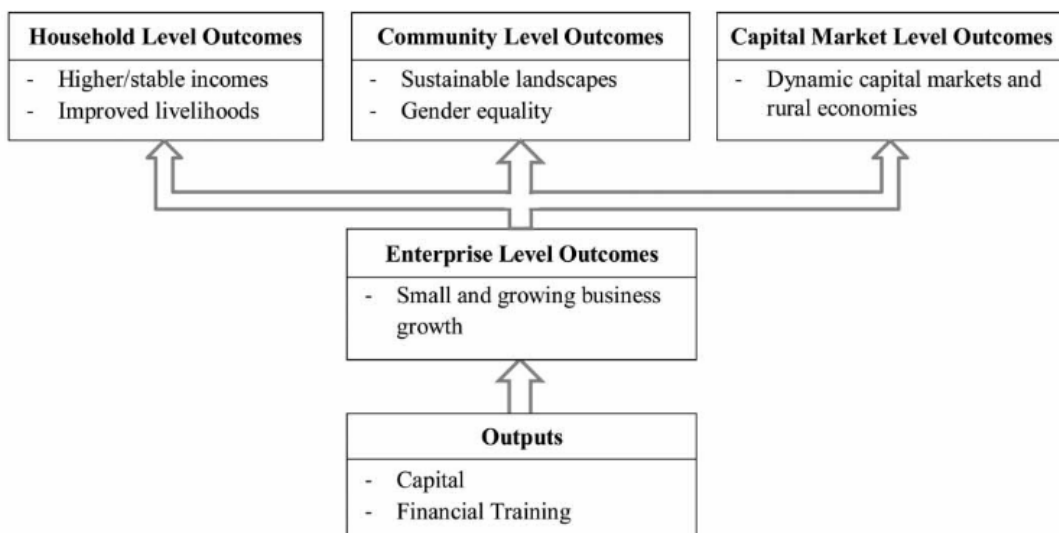


Figure 7: Diagrammatic illustration of the theory of change for a debt fund (Jackson, 2013)

A nascent theory to impact measurement is the Impact Multiple of Money (IMM) produced by the Rise Fund, a \$2 billion impact-investing fund for growth-stage companies managed by TPG Growth and the Bridgespan Group, a global social impact advisory firm (Addy et al., 2019). The IMM aims to put impact underwriting on the same standing as financial underwriting by estimating impact in dollar terms (Addy et al., 2019). The IMM estimates the financial value of the social and environmental good likely to result from each dollar invested by measuring outcome (the extent of the impact) as opposed to output (number of people, firms, communities impacted) (Addy et al., 2019).

The most notable impact measurement methods that aim to achieve standardisation are the Impact Reporting and Investment Standards (IRIS) and the Global Impact Investing Reporting

Standards (GIIRS). The IRIS, promoted by the GIIN, contains a set of terms with standardised definitions that govern the way investors define and measure their social and environmental performance, using a set of generally accepted metrics (Starting Up Good, 2018). The GIIN is an impact ratings tool and analytics platform that uses IRIS metrics in conjunction with additional criteria with an overall company rating as well as sub-ratings for different categories such as workers, community, environment etcetera (Starting Up Good, 2018).

Research conducted by McCallum (2018) on South African impact investors' ability to channel private sector capital to address water purification challenges, found that research interviewees preferred the use of bespoke metrics as opposed to internationally recognised and standardised measurement frameworks. The interviewees indicated that they prefer the customised metrics as they are tailored to the specific context and investment to which they are being applied, while standardised metrics were found to be restrictive and limiting (McCallum, 2018). This aligns to Ormiston and Seymour's (2011) findings.

Though some of the theories discussed have been studied in the context of social programmes, they can be applied to unlisted investments insofar as the investments are expected to have positive social outcomes. This is because the performance of investments is often linked to the social stability of the ecosystem in which they are made.

The question of impact becomes particularly urgent as the world moves towards the achievement of its UNSDGs by 2030, which is only 9 years away at the time of writing. The annual financing gap of USD 2.5 trillion in 2020 has been attributed to an inappropriate approach to financing where institutions finance one or two UNSDGs in isolation, usually through low-risk investments (de Schrevel, 2020). De Schrevel (2020) advocates for blended finance impact investment vehicles as a more effective way to finance the UNSDGs due to their catalytic effect. Unlisted investments are such a vehicle as they offer both debt and equity in a way that has a spill-over effect into different layers of society.

2.7.1 Benefits and Limitations of Impact Measurement

A study conducted by Schiff et al. (2016) on impact investors, investee companies and service providers in Europe, North and South America, Asia and Africa concluded that the following are the benefits of effective impact measurement: better informed investment decisions, driving

revenue growth, improving and informing operational effectiveness, marketing and earning the trust of important stakeholders, and ensuring mission alignment between all parties involved and therefore mitigating risk. The most important of these benefits for the Namibian pension funds' unlisted investments is better informed investment decisions, as unlisted investment capital can be better allocated when its impact in various areas is known. Mission alignment is an important benefit for Namibian policymakers, as it is paramount that the impact observed within the industry aligns to the objective for which the unlisted investments requirement was introduced in the first place.

Social enterprises and social entrepreneurs also use impact measurement and reporting to access financial and other types of resources, to gain better insights into how to optimise their operations and enhance their performance (Nicholls, 2009) and to fulfil external accountability expectations of funders, governments and taxpayers (Ebrahim and Rangan, 2014).

Impact measurement is, however, not without risks and limitations. Studies found that measuring impact can be complicated, expensive and often impractical (Ebrahim and Rangan, 2014), and also requires prohibitive amounts of time and resources (Phillips and Johnson, 2021). The absence of impact data and analysis can also make it difficult for impact investors to assess the social and environmental impact of the enterprises they invest in (Brest and Born, 2013), and as a result investors often end up measuring output rather than impact (Phillips and Johnson, 2021). Impact, particularly social impact, is difficult to understand and calculate with precision because the causal chain running from inputs, to outcomes, to impacts is usually opaque (Molecke and Pinkse, 2017). As a result, some investors use the bricolage approach, blending the formal impact measurement methodologies to create innovative self-constructed accounts of their impact, which are better aligned with their objectives (Molecke and Pinkse, 2017).

There is consensus amongst the research reviewed, that without clear impact definitions and objectives it becomes difficult to identify the correct metrics and processes required to measure the intended impact (Addy et al., 2019; McCallum, 2018; Ormiston and Seymour, 2011) of investments.

2.7.2 Social Impact Measurement in Namibia

Social transformation is listed as one of the pillars of Namibia's NDP5. The NDP5 identifies the following as some of the key areas for effecting social transformation in Namibia:

- 1) gender equality;
- 2) housing and land;
- 3) sanitation;
- 4) youth empowerment;
- 5) empowering people and communities through sports;
- 6) arts and culture; and
- 7) integrating marginalised communities into the mainstream economy (National Planning Commission, 2017).

This suggests that these are the areas of development where Namibian unlisted investment capital should be channelled in order for it to have a meaningful social impact. The same areas would then also form the basis of the impact objectives as it relates to social impact, and would be the origin of the correct metrics to measure the intended social impact of unlisted investments in Namibia. This is important in order to achieve mission-alignment as indicated by Addy et al. (2019), McCallum (2018) and Ormiston and Seymour (2011).

Social impact is centred around community economic development (which is primarily focused around creating jobs and economic opportunities that improve social conditions as well as promoting social and economic inclusion), and affordable housing (Phillips and Johnson, 2021). Housing is regarded as a prime area for social investment internationally because there has been a chronic shortage of affordable housing and therefore demand is very strong (Phillips and Johnson, 2021).

The areas of social impact in Namibia as articulated by the NDP5 (National Planning Commission, 2017) are similar to those articulated by Phillips and Johnson (2021) as gender equality, sanitation, youth empowerment, empowerment through sports art and culture and integrating marginalised communities into the mainstream economy all have the objective of community economic development at their core.

The elements in the social transformation pillar of Namibia's NDP5 can be achieved through job creation, as additional household income results in increased economic participation and a better quality of life at household level. This justifies the use of employment as a metric for social impact in Namibia; quality employment redresses the issues of gender equality, housing and land, sanitation, youth empowerment and integration of marginalised communities to a large extent. Furthermore, employment creation has been a key national development objective in Namibia since independence, identified first in the Transitional National Development Plan, then in the subsequent First, Second, Third and Fourth National Development Plans (Sherbourne, 2017). Because unlisted investment capital is invested into companies and projects that have a demand for labor, it is prudent to use employment creation to measure the social impact of unlisted investments.

2.8 The Link Between Private Equity and Social Impact

Different and often opposing views have emerged around the effect of private equity on employment. Its proponents argue that the new source of funding provided by private equity helps solve the agency problem of managers, reversing their value-destroying 'empire building' attitude, and by so doing disciplining and re-energising employees (Jensen, 2007). To its critics, private equity acquisitions represent predatory financialised capital of the highest form (Folkman et al., 2007), focused on the short-term maximisation of shareholder wealth, often to the detriment of the interests of other stakeholders, especially employees.

Some industry-sponsored studies, such as those by the European Private Equity and Venture Capital Association (EVCA) (Achleitner and Klöckner, 2005), British Private Equity and Venture Capital Association (2006), Kearney (2007), and Shapiro and Pham (2008), claim positive employment effects of private equity. It is worth noting that these studies are all from the developed world of Europe, the United Kingdom and the United States, where the financial markets, business environment and incentives are very different from those observed in Africa. Of further importance is that these studies are industry-sponsored and therefore may not be the most objective.

A study by Davis et al., (2014) posits, however, that firm-level employment changes should be broken down into job creation and job destruction; that is, when assessing the effect on

employment, one should look at the total picture of employment changes because looking only at job creation starts from an overly optimistic position. Davis et al. (2014) found that instead of merely creating jobs, private equity buyouts catalyse the creative destruction process, measured by both job creation and destruction and by the transfer of production units between firms. This study concluded that the net employment changes were not in favour of employment creation, as post-buyout firms typically try to increase operational efficiency by aggressively cutting costs, of which employment costs are the largest. Goergen et al. (2014) also found that private equity institutional buyouts are associated with job losses, lower wages and lower productivity.

In contrast, a study by Bacon et al. (2019) concluded that job insecurity is no higher in leveraged buyout entities than it is in non-leveraged buyout entities and that the concerns over the negative implications of private equity buyouts for employment appear to be misplaced. Davis et al. (2014), Goergen et al. (2014) and Bacon et al's (2019) studies are also from the developed world—the United States and United Kingdom respectively. The effects of private equity capital on employment have not been sufficiently studied on the African continent, and more specifically in Namibia.

The findings of Achleitner and Klöckner (2005), British Private Equity and Venture Capital Association (2006), Kearney (2007), Shapiro and Pham (2008) Davis et al. (2014), Goergen et al. (2014) and Bacon et al's (2019) cannot be extrapolated to unlisted investments in the Namibian context due to the following reasons:

- The aforementioned studies are specifically focused on leveraged buyout transactions, while Namibian unlisted investment deals do not contain a material external debt funding component (note: this reference to external debt is in the context of the source of funding for the private equity fund (SPV), as opposed to the type of funding given to the investee company). Unlisted investment managers in Namibia are required by law to co-invest a minimum of 1% of the contributed capital on the same terms and conditions as all other investors into the SPV (Ministry of Finance, 2013), which may naturally be funded using debt. This is insignificant compared to the level of debt used in leveraged buyouts in the developed markets, with private equity leverage in Europe ranging from 60% to 80% of total invested capital (De Maeseneire and Brinkhuis, 2012). The implication of this is that the capital invested in Namibian unlisted investments is more patient than that invested in leveraged buyouts, due to the

compulsory debt service commitments that are concomitant with the latter at fund level. Furthermore, Goergen et al. (2014) posit that high debt places pressure on firms to outsource functions and to extract more value from their operations through hard-line HR policies. As a result, the drive for cost efficiency (and concomitant job losses) is more urgent for highly levered buyouts.

- The employment dynamics in the developed world are significantly different from those in Namibia. According to World Bank data, unemployment in the year 2020 was 20.35% in Namibia (The World Bank, 2021b), 8.31% in the United States (The World Bank, 2021d), 7.375% in the European Union (The World Bank, 2021a) and 4.34% in the United Kingdom (The World Bank, 2021c). Evidently, the unemployment rate is much higher in Namibia compared to the United States, United Kingdom and Europe. As most private equity projects in Namibia (a developing country) are developmental in nature, the types of projects are typically expansionary in nature and the bulk of the labour demand is predominantly blue collar. This suggests that the excessive downsizing and cost-cutting measures underlying leveraged buyout transactions in developed countries will not necessarily be in demand for unlisted investments in Namibia, and that unlisted investments will not necessarily result in the same net job losses experienced in leveraged buyouts.
- Though the structure of private equity investments in the developed world is similar to the structure of unlisted investments in Namibia as indicated in section 2.6 save for a few technical differences, the investment ecosystems and investee companies are significantly different. Namibian financial markets are particularly shallow and underdeveloped, and the Namibian Stock Exchange illiquid, leaving limited options for exiting unlisted investments (World Bank Group, 2020), compared to the more developed markets in the United States, United Kingdom and Europe. This suggests potentially longer holding periods for unlisted investments in Namibia compared to the developed countries, again making the capital deployed in the Namibian market more patient and able to sustain jobs for a longer period.

2.9 Conclusion

Literature on the pension funds unlisted investment market in Namibia is relatively limited, particularly as it relates to the impact thereof. More literature is available on the Namibian private equity market in general. Nonetheless, an overview of the literature indicates clear consensus on the catalytic role of private equity in general and unlisted investments specifically, in driving positive social change and economic growth.

The literature reviewed indicates that the unlisted investments industry in Namibia is built on the foundations of private equity as it is known around the world and that they are the same thing functionally, save for a few technical differences. However, while private equity in developed markets is usually focused on maximising the IRR by using financial gearing, private equity in Africa is seen to have wider objectives such as facilitating job creation and poverty reduction, reducing Africa's dependency on foreign aid, advancing black economic empowerment and diversifying commodity-dependent economies (Babarinde, 2012; Jover and Mlambo, 2014; Sylvester and Egeli, 2000). While the aforementioned objectives are true for Namibia as well, the tight regulation of pension funds' unlisted investments in Namibia was introduced mainly because of losses of capital incurred due to a lack of proper governance around these types of investments in the past. At a policy objective level, it was introduced to encourage economic development in all its forms.

The literature revealed that pension funds are deemed crucial for impact because they are universal owners of capital, meaning that prosperity of the entire economy (including the social aspects thereof) is prosperity of their own investment portfolios (Hawley and Williams, 2006, as cited in Bertrand and Kasuto, 2019, p. 53). This is further supported by the ultimate beneficiary theory which argues that capital should be deployed in the economy where the investors reside so that they may reap the ultimate benefits (social, environmental and otherwise) of the investments (Bertrand and Kasuto, 2019).

Impact is, however, difficult to measure, with standardisation and customisation being on opposite sides of the impact measurement spectrum (Starting Up Good, 2018). Owing to the importance of employment in meeting the objectives of Namibia's NDP5 social transformation pillar, and because unlisted investment capital is invested into companies and projects that

typically have a high demand for labor, it is deemed prudent to use employment creation to measure the social impact of unlisted investments in Namibia.

The literature reviewed indicates that the impact of private equity on jobs has been widely studied in the developed economies of Europe, the United Kingdom and the United States, while the same is not true for Namibia. The results observed in the developed economies are mixed and cannot be extrapolated to the Namibian economy due to significant differences between the structure of the private equity and employment markets in the developed economies and Namibia.

This research aims to fill the gap on the social impact of Namibian pension fund unlisted investments as this has not previously been studied. Studies have been conducted on the structure of private equity in Namibia, on ESG aspects of private equity, on the importance of unlisted investments, and on the economic impact of unlisted investments of particular individual pension funds. This research is unique due to the metric used to estimate social impact, as well as the financial and non-financial data used to draw inferences about the relationship between unlisted investment capital deployed and social impact.

Refer to Appendix A for a detailed summary of the literature covered, and a review of the different themes emerging from the literature and how they relate to this study.

CHAPTER 3: RESEARCH METHODOLOGY AND DATA

3.1 Introduction

The study used a mixed research method containing both qualitative and quantitative aspects. The methodology seeks to assess the extent to which impact requirements are formally embedded into the unlisted investment plans of SPVs and where impact requirements are present, how impact is measured against the requirements. It further seeks to understand what the social impact of unlisted investments has been since the promulgation of the unlisted investment legislation, by looking specifically at the relationship between unlisted investment capital deployed and the variable representing social impact; employment. This chapter begins with the research approach and strategy, which is followed by an explanation of the units of analysis, the data collection method and the time period covered. Thereafter, a discussion of the qualitative data analysis is conducted, which provides the motivation for, and is followed by, the empirical model for quantitative data analysis. The chapter concludes with the research reliability and validity and limitations encountered during the study.

3.2 Research Approach

Research objectives 1 and 2 aim to produce an accurate representation of the existence of impact requirements in the investment plans of SPVs as well as the measurement criteria for these impact requirements (Saunders and Lewis, 2018). The data that emerges from the study of research objectives 1 and 2 is descriptive, meaning that it is reported in words rather than in numbers (Merriam, 1988). The study of research objectives 1 and 2 is particularly interested in understanding how (under what circumstances, requirements, etcetera) the unlisted investments occur (Merriam, 1988). Data for research objectives 1 and 2 is gathered from multiple sources rather than relying on a single data source, whereafter all the data is reviewed and organised into categories or themes that cut across all of the data sources (Creswell, 2014). The data for research objectives 1 and 2 is collected by the researcher herself and does not rely on the use of questionnaires or instruments developed by other researchers (Creswell, 2014).

Research objective 3 aims to explore whether there is a relationship between unlisted investment capital and social impact as well as to quantify the extent of that relationship should

it exist (Saunders and Lewis, 2018; Creswell, 2014). For research objective 3, the hypothesis that unlisted investment capital has a social impact is tested using statistical procedures in which inferences will be drawn about the population of unlisted investment capital from a study sample.

A mixed methods approach is therefore the most appropriate methodology for this research because research objectives 1 and 2 are qualitative in nature while research objective 3, which is dependent on the results of research objectives 1 and 2, is quantitative and inferential in nature. The research follows the pragmatism philosophy due to the fact that the research problem is at the centre of the study and all approaches available (qualitative and quantitative) are used to understand it (Creswell, 2014); meaning that both qualitative and quantitative methods are used to answer the research questions.

The pragmatism research philosophy creates multiple dimensions to the understanding of a single problem. A mixed method research approach is suitable for this study as it would increase the validity, completeness and confirmation of findings (Dewasiri et al., 2018), by attempting to capture as many dimensions of the problem as possible, and by eliminating the biases that would naturally arise through the use of a purely qualitative or quantitative methodology. Furthermore, a mixed method approach combines the strengths and offsets the weaknesses of purely qualitative and quantitative approaches (Fetters and Freshwater, 2015; Creswell, 2014), thus providing a stronger understanding of the impact of unlisted investments than each individual methodology by itself. For example, the threat of internal validity (which is a threat to a researcher's ability to conclude that unlisted investment capital affects social outcomes and not the other way around) that would arise from the use of purely qualitative methods is reduced by confirming the results with quantitative analysis. In addition, similar studies employed a mixed method approach to explore the impact of private equity transactions on employment outcomes in different jurisdictions (Davis et al., 2014; Goergen et al., 2014), which justifies the use of the same approach for this study.

The study employs an exploratory sequential mixed method research design, as the research topic is first explored with qualitative data analysis, whereafter the results are used to do a quantitative analysis (Dewasiri et al., 2018; Creswell, 2014). The intent of this strategy is to establish whether data from written company documentation (in the qualitative phase) can be generalised to real life financial data in practice (in quantitative phase) (Creswell, 2014).

3.3 Single Case Study: Namibia

Qualitative case study methodology is an approach to research that facilitates exploration of a phenomenon within its context using a variety of data sources to ensure that the phenomenon is explored through more than one lens, allowing for multiple facets of the phenomenon to be revealed and understood (Baxter and Jack, 2008). The case study methodology is suited for asking the questions ‘Why?’, ‘What?’ and ‘How?’ (Saunders and Lewis, 2018). This research makes use of the single case study approach with Namibia’s unlisted investments industry as the case analysed. The literature review, which forms the basis for data collection and analysis, reviewed studies in similar settings, that is, the impact of private equity in international jurisdictions, so the causal relationships between private capital and impact have already been established. However, the findings of the studies in other settings cannot be extrapolated to Namibia because the Namibian context differs materially from the international context as explained in the literature review section (Saunders and Lewis, 2018). This justifies the choice of the Namibian context as a single case to be analysed for this study, in order to place the Namibian case study amongst the case studies that already exist within the literature.

3.4 Units of Analysis and Choice of Data

The primary units of analysis are the registered SPVs and the portfolio companies that the SPVs have invested in. Figure 8 shows that there are 20 registered SPVs in Namibia at the time of writing, which make up the total population of SPVs. Of this total, only 12 have made investments while the rest are either still in the process of attracting capital or finding viable deals, or in the process of being deregistered. Using non-probability quota sampling, a sample of 12 SPVs are selected for inclusion in this research based on the fact that they all meet the criteria of having made active investments in unlisted investments vehicles that can be tested for impact. Each of the 12 SPVs has investments in a number of portfolio companies, in the form of equity or debt, or both. There are 64 of these portfolio companies and they are all included in this research. The primary sample therefore comprises all the investee companies (64 portfolio companies of the 12 SPVs selected).



Figure 8: Overview of population and sample

3.5 Data Collection and Time Period

Qualitative data such as the investment objectives, investment classes, and investment performance measurement criteria are derived from the investment plans of unlisted investment SPVs, obtained from NAMFISA. These are used to determine whether impact requirements are considered by SPVs and how this impact is measured. Investment plans are set up as part of the NAMFISA registration process of an SPV, therefore each SPV will have only one investment plan (at inception of each individual SPV or as subsequently amended).

The NAMFISA bi-annual returns of SPVs are reviewed to determine the portfolio companies invested into, the industries in which they operate, the amounts invested, and their number of employees. The number of permanent and temporary employees of each portfolio company is used to estimate the social impact of the investments as justified in the literature. Permanent employees are defined as employees whose contracts do not have a fixed termination date, while temporary employees are those whose contracts are for a fixed term. Time series employment data is obtained and reviewed longitudinally at a consistent interval to eliminate bias. The pre-determined interval is 31 December 2016, 2017, 2018, 2019, 2020 and 2021; therefore, the second return (bi-annual) of every year, from the year that the unlisted investment data collection commenced. The justification of the time periods used is that T1-2016 is the year that the bi-annual returns of unlisted investment SPVs commenced, while T5- 2021 is the latest available unlisted investment information at the time of writing. For the years 2018 and

2021, June figures are used because December figures are not available (NAMFISA had a system migration in December 2018, whereas data for December 2021 has not yet been submitted to NAMFISA at the time of writing).

NAMFISA as a financial sector regulator and custodian of the unlisted investment market in Namibia is considered to be a reliable source for unlisted investment data because the data is submitted directly to them from the regulated entities. The data is therefore in its raw and unadulterated state and can be relied upon. Organisational consent was obtained from NAMFISA before collecting and using the data in this study.

3.6 Analytical Framework for Impact Objectives and Impact Measurement Criteria

The investment plans of SPVs are reviewed through desktop research to determine whether SPVs have impact objectives in addition to the objective of making financial returns, and to summarise the major themes emanating from those impact objectives. The investment plans are also reviewed for any impact Key Performance Indicators (KPIs) that are used to measure or assess non-financial impact. The impact objectives and KPIs are coded using keywords in order to identify whether impact objectives are contained in investment plans and what the measurement criteria are. This coding process involves analysing descriptions of impact objectives and KPIs qualitatively and categorising each impact objective and KPI into a theme that best represents the essence thereof, with the aim of identifying major themes. This qualitative part of the research enables the researcher to confirm whether the main research question, that is, whether unlisted investments in Namibia have a social impact and what the extent of that social impact has been, is appropriate, by looking at the intentions of unlisted investment SPVs as documented in their company founding documents. It also enables the researcher to identify secondary factors that may influence the social impact associated with unlisted investee companies and that may need to be controlled for in the quantitative analysis.

3.7 Empirical Model for Determining the Social Impact of Unlisted Investment Capital

Total employment, consisting of permanent and temporary employment, is used as a proxy for social impact as narrated in section 2.7.2 of the literature review. This is due to the fact that the elements in Namibia's NDP5 social transformation pillar are best achieved through the creation of jobs.

In examining the relationship between unlisted investment capital and employment in the unlisted investment market in Namibia, this study adopts Nickell's labour demand model (Nickell, 1984, as cited in Goergen et al., 2014, p. 151). The demand for employment model is expressed as follows:

$$D_{it} = \alpha D_{i,t-1} + \beta_1 w_{it} + \beta_2 w_{i,t-1} + \delta_1 Q_{it} + \delta_2 Q_{i,t-1} + \varphi_i + \phi_t + \varepsilon_{it}$$

where D_{it} , w_{it} and Q_{it} are the demand for labor (measured by the logarithm of the number of employees), the logarithm of real wages relative to the user cost of capital and the logarithm of real output over value-added, respectively; φ_i , ϕ_t and ε_{it} are the unobserved firm fixed effects, time-specific effects and an error term, respectively (Goergen et al., 2014).

The focus of Goergen et al.'s study was to determine the decrease in employment numbers in the targets of private equity acquisitions after adjusting for differences in wage costs and differences in productivity between the target firms and the control firms (Goergen et al., 2014). Meaning that the movement in employment related to higher wage costs and lower productivity is controlled for in order to assess the movement in employment relating to the private equity acquisition transactions. The control firms used are firms not acquired, with the same performance (as the target firms) one year before acquisition of the target firm, and surviving until at least 2 years post the acquisition date of the target firm. Goergen et al.'s study is performed in the context of the United Kingdom private equity market, from the perspective that private equity buyouts are expected to result in a decrease in the demand for employment.

In the Namibian context, taking into account the higher unemployment rate compared to the United Kingdom market (The World Bank, 2021b), the same model is used albeit with slightly different inputs and different control variables. The control variable used is to differentiate between employment growth/decline arising from unlisted investment capital contributed and employment growth/decline resulting from organic economic growth/decline. This control is implemented by incorporating an economic growth/decline factor as a covariate in the regression model. The economic growth/decline factor is represented by annual GDP growth/decline obtained from World Bank statistics. The logic of the model is that any movement in the employment numbers of an unlisted investee company that is above the

general economic growth/decline rate of the relevant year can be attributed to the additional unlisted investment capital contributed.

Incremental unlisted investment capital deployed at T_0 is expected to have had an impact in the delta of employment numbers from T_0 to T_1 , ceteris paribus. Therefore, Δ employment demand = $\beta_0 + \beta_1 \Delta$ unlisted investment capital, or

$$(D_{it} - D_{i,t-1}) = \beta_1 (C_{i,t-1} - C_{i,t-2}) + g_{it} D_{i,t-1} + \varepsilon_{it}$$

where D_{it} , C_{it} and g_{it} are the demand for permanent and temporary labour (measured by the number of employees), unlisted investment capital contributed (measured by the Namibian Dollar value thereof) and the economic growth factor (measured by the GDP growth for the particular year), respectively; ε_{it} is an error term.

A one-year time lag was introduced into the model so that the incremental unlisted investment capital contributed at time t is regressed against the employment demand differential at time $t + 1$. This is to account for the fact that any potential impact of capital contributed in a particular year will not become apparent immediately in that year. Similar lagged regression models have been used in social sciences studies (Cho and Galehan, 2019; Wood et al., 2018), justifying the use of a lagged model in this study in so far as the study aims to determine social impact.

If the result of the regression model is positive and significant, then there is evidence of an increase in the demand for employment in unlisted investment portfolio companies that is not observed in the overall economy and that cannot merely be explained by GDP differentials in the overall economy.

The regression analysis is performed using the Microsoft Excel add-in ANALYSIS TOOLPAK.

3.8 Validity and Reliability

This study uses objective company data as opposed to subjective perceptions to examine the effect of pension fund unlisted investment capital on social outcomes in Namibia. The study

uses the data of registered pension fund unlisted investment SPVs that have deployed capital, and that of their investee companies. The data used is objective and reliable because it is obtained directly from company founding documents and financial returns submitted to and approved by the financial sector regulator; the data is therefore auditable and more comparable within the same national and other contexts. Private equity industry surveys are considered less dependable by some researchers as managers are likely to overstate their impact and downplay their failures (Bjorkman and Budhwar, 2007; Razouk, 2011). Although industry surveys may yield more detailed data than the data extracted from company reports, in an industry as controversial as private equity, the use of externally auditable data has considerable value in eliminating bias (Goergen et al., 2014).

The choice of data by the researcher presents a significant opportunity for the introduction of bias into the study. The complete population of unlisted investment investee companies has been included for the purposes of testing research objectives 1 to 2, therefore bias in the sample selection process has been eliminated in this regard. Furthermore, the selection of time series data points to test for research objective 3 has been done in a systematic manner as explained in section 3.5, further reducing any possible bias and improving the validity of the study.

Robustness checks are conducted on the data used for the regression analysis. The distribution of the employment figures is tested for normality in Excel using Z-values and it is confirmed that the distribution of permanent, temporary and total employment figures is sufficiently normally distributed, albeit with only 6 time-series data points from 2016 to 2021 (refer to Appendix G for normal distribution charts). The normality of the employment figures means that regression analysis with ANOVA (Analysis of Variance) can be reliably performed and that statistical inferences may be made on the data (Keller, 2014). The relationship between unlisted investment contributed capital and each of permanent, temporary and total jobs is then tested for heteroscedasticity and linearity using scatter diagrams. The scatter diagrams confirm that the relationship between unlisted investment contributed capital and each of permanent, temporary and total jobs, for the time-series 2016 to 2021, is both linear and homoscedastic (refer to Appendix H for the scatter diagrams). Homoscedasticity of the variables means that the variance of the error term in the model is constant and that the model is reliable and valid (Keller, 2014). It is, however, worth noting that due to the fact that the time-series dataset used is relatively small, heteroscedasticity is unlikely to be evident, which would not be the case if the dataset used was sufficiently large (Corporate Finance Institute, n.d.). The scatter diagrams

also indicate that there are no outlier variables in the dataset, which further confirms its validity and reliability.

3.9 Research Limitations

Unlisted investment SPVs could have impact objectives that are not formally documented in the investment plans reviewed. They could also have procedures and processes in place to measure the non-financial impact of their unlisted investments that are not documented in the investment plans. As a limitation, this study focuses on the impact objectives and measurement criteria that are formally documented in the SPVs founding documents as a way of ensuring the validity and authenticity of the aspects reviewed.

The study has not looked at the multiplier effects of the social impact measured using employment as a proxy. It has only looked at one level of impact, being employment creation, which in reality is much more complex. In reality, impact begets further and larger scale impact as it is usually incremental and cumulative (Phillips and Johnson, 2021). This is a challenge that continues to exist in the measurement of impact as articulated in section 2.7.1 of the literature review.

CHAPTER 4: DISCUSSION OF FINDINGS

4.1 Introduction

This chapter presents the results of the review of the social impact objectives of unlisted investment SPVs and the metrics used to measure impact. The results of the analysis of the relationship between unlisted investment capital and employment then follows. The analysis is conducted for the total population of 64 portfolio companies. The descriptive analysis results are grouped into different sectors of the economy. This section summarises the impact themes that Namibian unlisted investment SPVs strive toward, as well as the impact measurement methods used in the performance appraisal of their investments. It then presents a descriptive analysis of unlisted investments, and an analysis of the results of the regression model of unlisted investment capital and employment. Furthermore, it compares the impact findings of the research study to the concepts and frameworks highlighted in the literature review to show the extent to which the findings are consistent with the discourse on private equity in general and unlisted investments in particular.

4.2 Impact Objectives and the Measurement Thereof

In order to contextualise the impact of unlisted investments, a qualitative analysis was conducted to review the impact intentions and impact measurement criteria of unlisted investment SPVs, as a precedent to the quantitative analysis. A key part of the registration process of an SPV is the compilation of its investment plan, which articulates the nature and purpose of the vehicle, its form (trust or company), investment objectives, term, governance structure, capital structure, performance measurement, etcetera. The investment plan of an SPV therefore contains important information on how and where investments will be made, as well as how their performance will be measured. An investment plan is one of the key founding documents of an SPV, though it may be amended at any time thereafter with NAMFISA's approval.

Review of the investment plans indicates that all 12 SPVs that are the subject of this research cite 'maximising financial returns' as their primary objective in their investment plans. This is the objective for which investors into the SPVs have foregone their capital. In addition to the primary objective of maximising financial returns, however, 11 out of 12 SPVs cite impact-

related objectives as secondary objectives in their investment plans, while 1 out of 12 SPVs cites only financial objectives. Figure 9 shows the impact themes of the 11 SPVs derived from the impact objectives in their investment plans. Appendix E shows which impact objectives have been categorised into which impact themes.

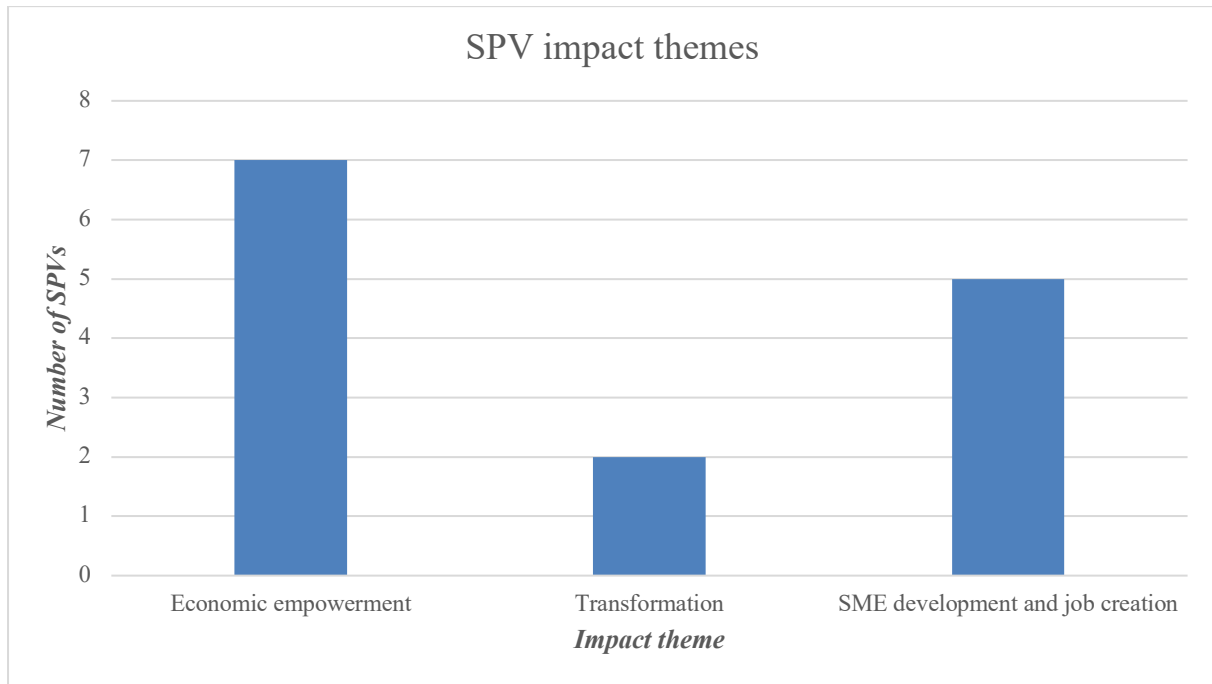


Figure 9: Impact-related objectives cited by SPVs

The fact that 11 unlisted investment SPVs have impact objectives in their investment plans suggests that they aim to have some kind of impact as a starting point. Economic empowerment and SME development and job creation are the dominant impact themes found in the investment plans of SPVs, undoubtedly due to their catalytic effect on households, communities and the economy at large (Brest and Born, 2013; Lalu et al., 2019). The unlisted investment impact perspectives in Namibia align to those articulated for Africa as a whole, primarily in the areas of growing enterprises, creating jobs and advancing the financial system, in light of the underdeveloped and illiquid stock exchange in Namibia (Babarinde, 2012). Like the rest of Africa, unlisted investment capital in Namibia is important for social change by redressing inequalities through economic empowerment and transformation (Sylvester and Egeli, 2000). In Namibia, empowerment is primarily achieved through the ownership and management structures of the unlisted investment managers as articulated by Portmann and Mlambo (2013), but also through the investee companies receiving the unlisted investment funding.

The measurement of the performance of an investment is a key element of investment management, articulated in the investment plans of SPVs. Of the 12 SPV investment plans reviewed, 11 only had financial metrics such as the Internal Rate of Return (IRR) or Preferred Rate of Return as a measure of performance of their investments. For all 12 SPVs reviewed, the IRR required is equated to the hurdle rate, a certain percentage of the prime rate, or a fixed predetermined percentage. One out of 12 SPV investment plans articulated a balanced scorecard method that empirically measures items in various impact areas of their investee companies, in addition to the IRR. The impact areas cited by this SPV are operating performance, finance and reporting, compliance and social development.

This effectively means that although 11 out of 12 unlisted investment SPVs cite impact objectives in their investment plans, only 1 out of 12 have impact metrics as an investment performance measure, while 11 out of 12 have only financial return metrics such as IRR as a measure of investment performance. In terms of intentionality, unlisted investment SPVs demonstrate their commitment to striving toward contributing to the country's social development objectives by including these in their investment objectives. However, their efficacy in providing for frameworks to measure their investments in terms of intended impacts on end beneficiaries and the communities in which they operate over the long term, is not well demonstrated in their investment plans. This confirms that the earlier finding by de Klerk (2016) persists, which is that although private equity firms consider Environmental, Social and Governance factors in their investment practices, the procedures and processes for their implementation have not been formalised.

4.3 Descriptive Statistics and Analysis

A descriptive analysis is conducted in order to sufficiently understand the data. Table 1 shows that the mean of permanent, temporary and total jobs per SPV is increasing steadily over the period analysed, indicating that SPVs have been creating more and more jobs each year. The mean of total contributed capital per SPV is also increasing steadily over the same period, which is indicative of the growth in capital invested by each SPV during the period analysed. Similarly, the growth in the number of portfolio companies invested into by each SPV over the period is reflected by the growth in the mean of the number of portfolio companies. These

descriptive statistics indicate that there has been overall growth in the Namibian unlisted investment market from 2016 to 2021.

		2016	2017	2018	2019	2020	2021
Permanent jobs	Mean	245.4	284.3	276.0	290.3	331.8	331.8
	Median	88.5	178.0	130.0	131.5	240.0	257.5
	Standard dev.	466.6	427.8	419.9	413.1	375.5	372.8
Temporary jobs	Mean	29.0	41.9	57.4	65.5	87.8	95.7
	Median	0.0	6.0	20.5	12.0	27.0	21.0
	Standard dev.	71.1	90.9	83.4	161.0	154.6	174.3
Total jobs	Mean	274.4	326.3	333.4	355.8	419.5	427.5
	Median	88.5	201.0	192.5	135.5	274.5	257.5
	Standard dev.	534.6	514.3	489.8	555.0	501.5	515.5
Total contributed capital ¹	Mean	45,444.6	70,757.3	81,346.8	142,708.2	172,893.4	191,560.4
	Median	15,989.0	50,240.5	42,966.5	125,269.0	159,520.5	191,993.5
	Standard dev.	70,284.4	90,666.8	89,040.5	119,699.2	119,745.6	126,465.8
Number of portfolio company investments	Mean	2.2	3.0	3.7	4.7	5.8	5.3
	Median	0.5	2.0	2.5	3.0	4.5	4.5
	Standard dev.	3.4	3.4	3.8	4.1	4.1	3.5

Table 1: Descriptive statistics (mean, median, standard dev.) for the 12 SPVs

The unlisted investment capital of pension funds in Namibia is invested into 64 portfolio companies in total at the time of writing. The portfolio companies are grouped into 16 different sectors for the purposes of this analysis: technology, engineering, manufacturing, renewable energy, retail, media, stevedoring, healthcare, education, construction, funeral services, financial services, farming and agriculture, transport, distribution, and real estate. Table 2 shows the number of unlisted investment portfolio companies in each sector, the number of total, permanent and temporary jobs created in each sector, as well as the contributed capital per sector. Granular data on the portfolio companies, outside of that which is submitted to

¹ Total contributed capital is rounded to the nearest thousand, that is, N\$'000

NAMFISA by the registered SPVs, could not be analysed for the purposes of this research due to privacy reasons.

Though the social impact of unlisted investments is assessed at individual portfolio company level, the results of the 64 portfolio companies were grouped into the 16 sectors in order to provide more meaningful analysis. The highest number of portfolio companies receiving unlisted investment capital are found in the manufacturing (8), renewable energy (8), retail (8), real estate (8) and farming and agriculture (7) sectors. In terms of total capital deployed, the renewable energy (N\$367 million), manufacturing (N\$338 million), and farming and agriculture (N\$300 million) received the highest investment of unlisted capital. This is partially consistent with the World Bank Group (2020) study, which found that the manufacturing, renewable energy, financial services and property sectors account for the highest total investments in unlisted assets. The manufacturing (916), healthcare (697) and retail (650) sectors have the highest total employment numbers. This means that the manufacturing sector is the one with the highest number of unlisted investment portfolio companies, the one creating the most employment in absolute terms and also receives a substantial proportion of total unlisted investment capital.

The manufacturing sector is an important one for the country's industrialisation; however, with Namibia's population of 2.3 million people (National Planning Commission, 2019) and a relatively small economy, the Namibian market is too small to provide the demand for manufactured goods in the quantities necessary for manufacturers to reach economies of scale (Sherbourne, 2017). Furthermore, manufactured consumer goods are already being produced more efficiently by larger economies such as South Africa, meaning that importing these goods from larger economies is cheaper for the Namibian consumer (Sherbourne, 2017). As a result, the manufacturing sector has struggled to perform since 1990 (Sherbourne, 2017), with large manufacturing plants closing down and jobs being lost. Manufacturing therefore may not be the most reliable or sustainable sector for job creation, despite the substantial investment of unlisted capital.

The state of the Namibian manufacturing industry indicates that sustainable job creation is best achieved in a sector with a sustainable demand for the goods and services produced by those jobs. Because Namibia imports the majority of its electricity from South Africa (Eskom) and other countries in the region, there is an increasing need for the country to become electricity

self-sufficient (Sherbourne, 2017), especially in light of the power shortages in the supplying countries. While the demand for renewable energy exists, there also exists a dilemma of whether locally generated renewable electricity would deliver electricity at an equivalent cost as imported electricity, which is mainly driven by Eskom's low-cost coal-fired power stations (Sherbourne, 2017). Nonetheless, with the global drive for climate action and protecting the planet from environmental damage, renewable energy sources appear to be a better alternative for creating and maintaining jobs in the long run.

Farming and agriculture in Namibia is the mainstay of the rural economy, having a direct social impact on about 70% of the Namibian population (Ministry of Industrialisation and Trade, n.d.). While it seems natural that this sector ought to be the engine of growth and poverty reduction in the country, the farming and agriculture sector has been on the decline between 2007 and 2014 (Sherbourne, 2017). Being a small market that imports a large portion of its food, the same dilemma of competitively priced locally produced food persists in the farming and agriculture sector. The price competitiveness of locally produced food can however be ameliorated by the Green Scheme irrigation programme introduced by the government in 2003 with the aim of substituting an estimated N\$105 million of vegetables and N\$55 million of fruit imported into the country (Sherbourne, 2017). The Green Scheme comprises a series of irrigation projects strategically set up by the government to maximise irrigation opportunities in an arid Namibia, by leveraging water sources such as rivers and dams. The scheme offers opportunities for commercial farmers with irrigation needs, to hold long-term leasehold rights to communal land, as well as government support for water tariff incentives, concessional loans and collateral (Sherbourne, 2017). Utilised effectively, the irrigation projects have the potential to significantly bring down the cost of production and make Namibian produced food more price competitive locally and internationally, making the jobs in this sector more sustainable as a result.

Industry	Permanent employees	Temporary employees	Total employees	Number of portfolio companies	Contributed capital (N\$'000)	IMM total jobs	IMM permanent jobs	IMM temporary jobs
Technology	30	0	30	2	15,114	1.98	1.98	-
Engineering	108	8	116	5	88,281	1.31	1.22	0.09
Manufacturing	812	104	916	8	338,817	2.70	2.40	0.31

Industry	Permanent employees	Temporary employees	Total employees	Number of portfolio companies	Contributed capital (N\$'000)	IMM total jobs	IMM permanent jobs	IMM temporary jobs
Renewable Energy	19	37	56	8	367,681	0.15	0.05	0.10
Retail	642	8	650	8	149,455	4.35	4.30	0.05
Media	218	9	227	3	125,000	1.82	1.74	0.07
Stevedoring	27	409	436	1	10,200	42.75	2.65	40.10
Healthcare	697	0	697	4	62,178	11.21	11.21	-
Education	126	0	126	2	44,421	2.84	2.84	-
Construction	385	205	590	4	105,781	5.58	3.64	1.94
Funeral Services	58	0	58	1	33,066	1.75	1.75	-
Financial Services	28	0	28	1	60,000	0.47	0.47	-
Farming and Agriculture	544	55	599	7	300,854	1.99	1.81	0.18
Transport	69	0	69	1	89,100	0.77	0.77	-
Distribution	14	0	14	1	-	-	-	-
Real estate	159	109	268	8	155,853	1.72	1.02	0.70

Table 2: Descriptive statistics for the 64 portfolio companies in their respective industries as at 31 December 2020

The IMM theory discussed in the literature review estimates the financial value of the impact likely to result from each dollar invested (Addy et al., 2019). An adjusted version of this theory was used to determine the number of jobs created for every unlisted investment dollar invested per sector. The objective of this measure is to determine which sectors have the highest impact in terms of job creation per dollar of capital contributed, which would indicate the sectors in which unlisted investment capital should be prioritised.

In Table 2, an overall IMM is calculated as at 31 December 2020 for total employment, but also separately for permanent employment and temporary employment, for each sector, in order to determine the sustainability of the jobs created per sector. The IMM as at 30 December 2020 is therefore cumulative and all-inclusive as it incorporates the total capital contributed per portfolio company since inception of the unlisted investment requirement, and the total employment numbers as at 31 December 2020. In each case, the IMM calculated is multiplied by a factor of 1000 to make the multiple more presentable as the invested capital amounts are

quite large when compared to the employment numbers. The IMM for total employment in Table 2 is indicative of the overall impact of unlisted investment capital in terms of job creation, while the IMM for permanent employment indicates the sustainable impact of unlisted investment capital as permanent jobs are more sustainable compared to temporary jobs.

It is not automatic that the sectors receiving the highest unlisted investment capital will create the most employment or have the highest number of unlisted investment portfolio companies. Some sectors are more effective at creating jobs with the capital contributed than others; this is the significance of the IMM. The stevedoring (42.75) and healthcare (11.21) sectors have the highest IMM for total jobs, the healthcare (11.21) and retail (4.3) sectors have the highest IMM for permanent jobs, while the stevedoring sector (40.1) has the highest IMM for temporary jobs. This suggests that even though the manufacturing sector is creating the most jobs in absolute terms, the stevedoring and healthcare sectors are creating the highest number of jobs per dollar of capital invested and are therefore utilising unlisted investment capital more efficiently compared to the manufacturing sector from the perspective of job creation. This, however, does not take into account job security and quality, hence the need to look at the IMM for permanent jobs. The healthcare and retail sectors are creating the highest number of permanent jobs per dollar of capital invested and can therefore be said to be the most efficient at creating sustainable jobs per dollar of capital deployed. This finding differs from that of Bertrand and Kasuto (2019), which found that the electricity generation and agriculture sectors presented the greatest impact using economic multipliers; Bertrand and Kasuto's (2019) study was however conducted for the unlisted investments of the GIPF alone, whereas this study is conducted for the unlisted investments of all pension funds in the Namibian market.

The IMM for temporary jobs as at 31 December 2020 is significantly less than that of total jobs and permanent jobs, across most of the sectors. This suggests that less temporary jobs are being created in the unlisted investment market than permanent jobs, to the benefit of social impact in the country. Table 2 shows that temporary jobs are disproportionately concentrated in the stevedoring and construction industries, with these two industries making up 65% of total temporary jobs and indicating job volatility or seasonality.

4.4 Regression of Unlisted Investment Capital and Social Impact

In assessing the social impact of unlisted investments, the employment numbers of all 64 portfolio companies are obtained for each year from 2016 to 2020, classified between total employees, permanent employees and temporary employees. This distinction is important because it provides a measure of the quality and sustainability of employment, and therefore the quality and sustainability of the social impact, by differentiating between jobs that provide lasting social impact and those that provide temporary social impact. Temporary jobs present the complication that they are precarious and vary over time. The incremental jobs created per annum are regressed against the incremental capital contributed per annum (a one year lagged variable), after controlling for GDP growth, to produce the results in Table 4.

Table 3 shows that the control variable, GDP growth, was relatively stable over the period analysed. GDP growth has remained within the narrow margin of 1.5% to -1.027% over the period analysed, apart from the effects of the COVID-19 pandemic in 2020 which caused an 8.5% contraction. The employment numbers of 2020 however did not reflect the same contraction, but instead increased by 18%.

	2016	2017	2018	2019	2020	2021
GDP growth	0.034%	-1.027%	1.06%	-0.888%	-8.5%	1.5%

Table 3: Annual GDP growth over the period analysed (The World Bank, n.d.)

TOTAL JOBS ($R^2 = 0.7780$)

	Coefficients	Standard Error	t Stat	P-value
Intercept	-216.2306675	229.5037159	-0.942166303	0.415614142
Incremental capital	0.00166171	0.000512565	3.241950744	0.047780172

PERMANENT JOBS ($R^2 = 0.6988$)

	Coefficients	Standard Error	t Stat	P-value
Intercept	-251.0420642	222.5920484	-1.127812364	0.341451515
Incremental capital	0.001311562	0.000497129	2.638275009	0.077770881

TEMPORARY JOBS
($R^2 = 0.7555$)

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
Intercept	34.81139677	51.48939409	0.676088686	0.547439405
Incremental capital	0.000350148	0.000114994	3.044912586	0.055650958

Table 4: Regression analysis results for employment and unlisted investment contributed capital from 2016 to 2020, at 95% confidence level²

The GDP-controlled regression results in Table 4 indicate that incremental contributed capital explains 78% of the variation in temporary jobs, 70% of the variation in permanent jobs and 76% of the variation in total jobs. Incremental contributed capital is significant for total jobs at the 5% level; however, it is not significant for permanent and temporary jobs at the 5% level. Furthermore, incremental contributed capital has a positive correlation with the variation in each of temporary jobs, total jobs and permanent jobs.

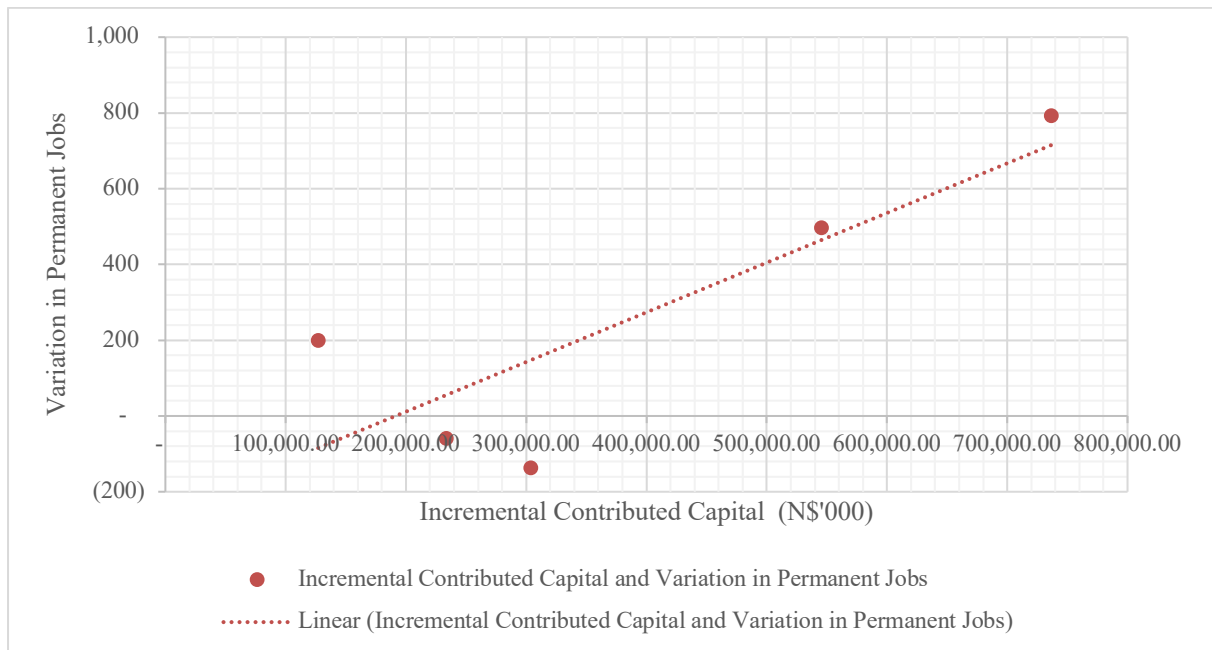


Figure 10: Correlation of incremental contributed capital and variation in permanent jobs

² Incremental capital is rounded to the nearest thousand, that is, N\$'000 in the regression

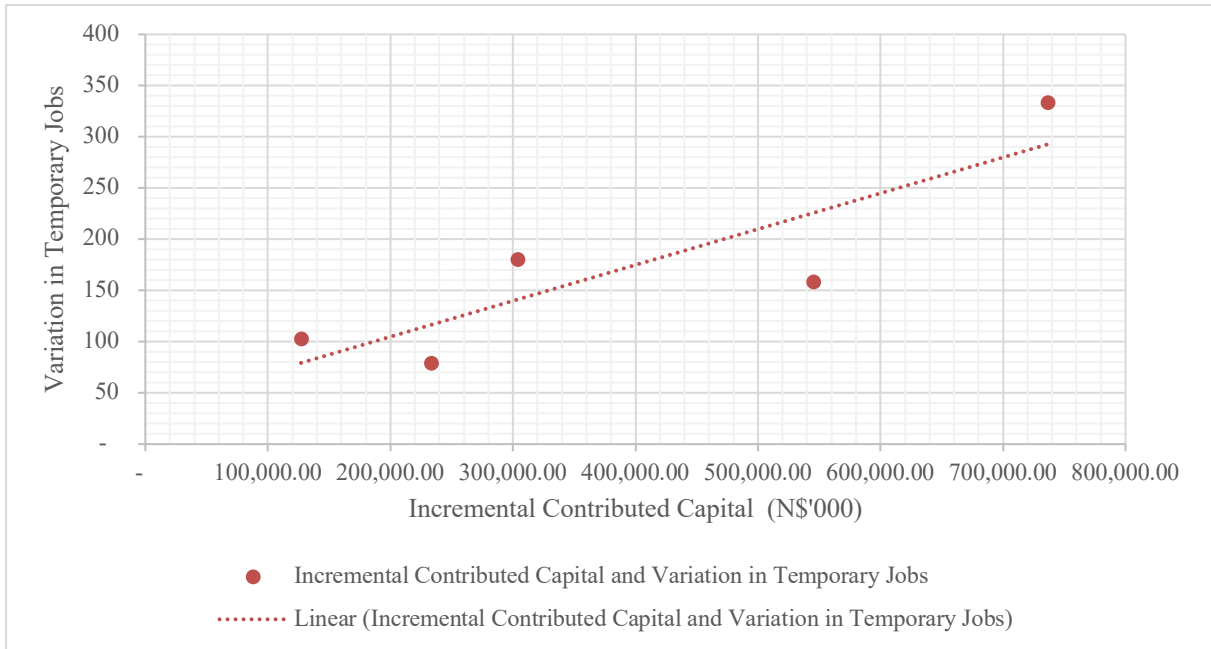


Figure 11: Correlation of incremental contributed capital and variation in temporary jobs

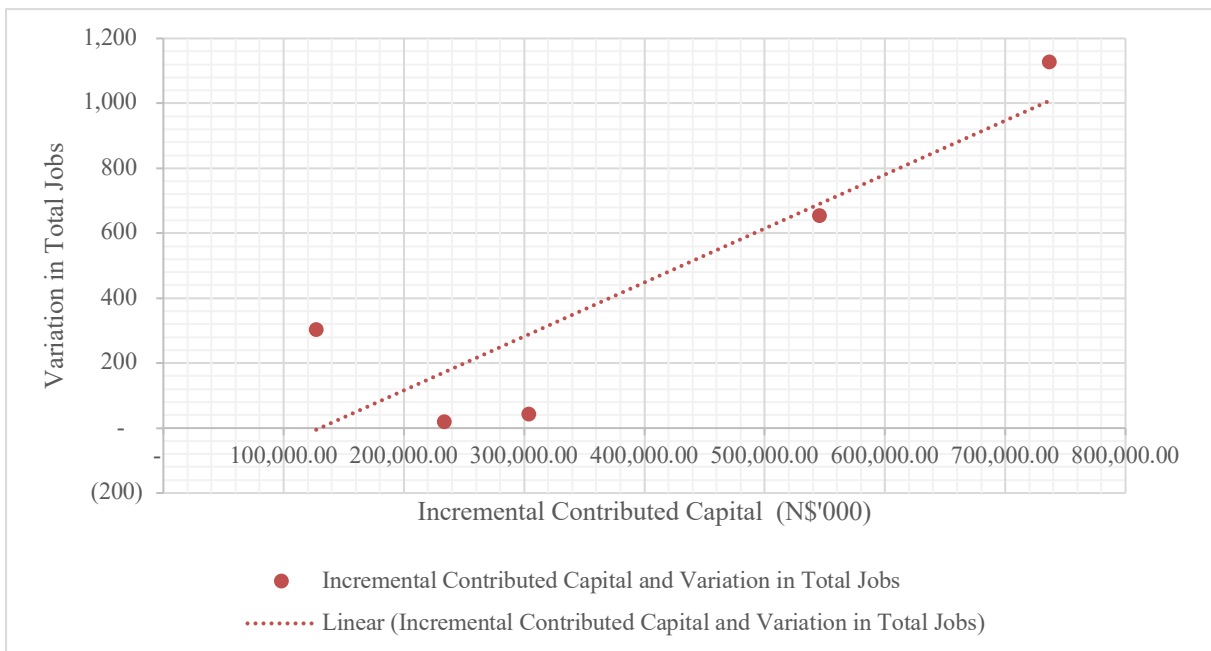


Figure 12: Correlation of incremental contributed capital and variation in total jobs

The regression analysis results indicate that incremental unlisted investment capital contributed is in favour of temporary, permanent and total jobs in general, evidenced by the positive correlation coefficient of all three variables. The correlation coefficients for all three job types are, however, quite low, indicating a weak relationship between the variation in contributed capital and the variation in jobs. Analysis of the GDP-controlled time series data however

shows a decline in permanent jobs in two out of the five years analysed. The same decline is not evident in the GDP-controlled time series data for temporary jobs. This, coupled with the large negative intercept for permanent jobs indicates that it takes much more unlisted capital to make a positive impact on permanent jobs compared to temporary jobs. The large negative intercept for permanent jobs is the inevitable cause of the large negative intercept in total jobs, due to the fact that permanent jobs outnumber temporary jobs in the Namibian unlisted investment industry by far. As the regression analysis is only over a period of 5 years, there is a possibility that a different correlation result may become apparent for permanent jobs if the regression is done over a longer period. This is an area of possible future research once more time-series data on unlisted investments becomes available. Overall, the results of the regression analysis do not provide enough evidence to reject the null hypothesis that there is no statistically significant relationship between incremental unlisted investment capital deployed and social impact for unlisted investment SPVs in Namibia. This is attributable to the low correlation coefficients for temporary, permanent and total jobs, the statistical insignificance of the regression results for temporary and permanent jobs and the limited time series period of only 5 years.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This study investigates the social impact of pension fund unlisted investments in Namibia, using 12 registered unlisted investment SPVs and their 64 portfolio companies, over the period 2016 to 2020. The portfolio companies included in the study represent 100% of the unlisted investment capital deployed (that is, actually invested) by unlisted investment SPVs in Namibia. The objective of the study was to investigate whether Namibian unlisted investment SPVs have impact objectives and associated impact measurement frameworks in place, and to assess the relationship between unlisted investment capital and social impact and the extent thereof. This chapter presents a summary of the study and conclusions, followed by recommendations to the unlisted investment industry and policymakers based on the findings of the study as well as recommendations for future research studies based on the limitations of the study.

5.2 Summary of the study

In the first stage of the analysis, a desktop review of the investment plans of unlisted investment SPVs is conducted to determine whether unlisted investment SPVs have impact requirements and how this impact is measured. In the second stage of the analysis, the IMM is determined for each sector and per type of employment using data at a point in time (31 December 2020), and a descriptive analysis is conducted on the state of the key unlisted investment industries in Namibia, being manufacturing, renewable energy and farming and agriculture. In the third stage of the analysis, the simple linear regression technique is employed to examine the relationship between unlisted investment capital and employment, which is used as a proxy for social impact. Nickell's labour demand model (Nickell, 1984, as cited in Goergen et al., 2014, p. 151) is used in the regression analysis.

The first stage of the analysis indicates that 92% (11 of 12) of unlisted investment SPVs have impact objectives, however only 9% (1 of 11) of these have a framework in place to measure impact in various areas of their portfolio companies. The regression analysis results show a significant relationship between unlisted investment capital contributed and total employment, while the relationship with temporary and permanent employment is not significant. In addition,

unlisted investment capital contributed has a positive relationship with the variation in total jobs. Although not significant, the variation in temporary and permanent jobs were also found to have a positive relationship with unlisted investment capital contributed.

Notwithstanding the statistical insignificance of the regression results for temporary and permanent employment, the descriptive analysis results show that the manufacturing (916;812), healthcare (697;697) and retail sectors (650;642) have the highest total and permanent employment numbers, while the stevedoring (409) and construction (205) sectors have the highest numbers for temporary employment. The stevedoring (42.75) and healthcare (11.21) sectors have the highest IMM for total jobs, the healthcare (11.21) and retail (4.3) sectors have the highest IMM for permanent jobs, while the stevedoring sector (40.1) has the highest IMM for temporary jobs. The healthcare and retail sector are therefore the most successful industries at creating sustainable jobs. Temporary employment makes up 19% of total employment in the unlisted investment portfolio companies, while permanent employment makes up the rest. The descriptive analysis shows that the highest amount of unlisted capital is invested into the renewable energy, manufacturing, and farming and agriculture sectors. Analysis of these sectors indicates that jobs created in the Namibian manufacturing sector may not be sustainable due to issues of economies of scale, while jobs created in the renewable energy and farming and agriculture sectors have the potential to be more sustainable due to the drive towards climate action and food security in Namibia and the world over.

5.3 Conclusions of the study

The academic and practitioner literature reviewed covered private equity in developed markets (the United States, United Kingdom and Europe), in Africa, as well as literature on the unlisted investment market in Namibia, although limited. The limited availability of local research is due to the fact that the concept of unlisted investments in Namibia is relatively nascent, having been introduced and mandated through government legislation in 2013 (Ministry of Finance, 2013).

Namibia's socio-political history provides context to the focus on job creation through SME development, economic empowerment and transformation as the predominant impact themes that unlisted investment SPVs strive towards (section 4.2 of research findings). Similarly, the

Namibian Government's developmental policies include objectives aimed at creating a more inclusive and equal society (National Planning Commission, 2017), which can be achieved through the creation of sustainable jobs and the reduction of the high unemployment rate in Namibia.

The findings of the research study reveal that although most unlisted investment SPVs have impact objectives, the mechanisms to track and measure this impact is not captured in their investment plans. This indicates that unlisted investment SPVs have impact intentions, but that these intentions are not formally operationalised and hence the impact cannot be tracked or measured against specific targets. The positive and statistically significant relationship between incremental unlisted investment capital contributed and the variation in total employment preliminarily suggests that unlisted investment capital benefits total employment. This aligns with the results of the studies conducted by Jensen (2007), Achleitner and Klöckner (2005), British Private Equity and Venture Capital Association (2006), Kearney (2007) and Shapiro and Pham (2008) which found that private equity has a positive impact on employment. The results are at odds with the findings of Davis et al., (2014) and Goergen et al. (2014), and the general perception particularly held in developed economies such as the United States, United Kingdom and Europe, that private equity is predatory in nature and generally aims to make the highest returns at the lowest operational cost, usually at the expense of employees. However, owing to the low correlation coefficients for temporary, permanent and total jobs, the statistical insignificance of the regression results for temporary and permanent jobs and the limited time series data, there is insufficient evidence to reject the null hypothesis that there is no statistically significant relationship between incremental unlisted investment capital deployed and social impact for unlisted investment SPVs in Namibia. The results of the study also indicate that it takes more unlisted investment capital to make a positive impact on permanent jobs compared to temporary jobs. The regression results should however be used with caution because the regression uses a limited number of data points and analysing the data over a longer period has the potential to produce different results. The descriptive analysis indicates that the healthcare and retail sectors are creating the highest number of permanent jobs per dollar of unlisted investment capital contributed, albeit that the relationship is statistically insignificant. This suggests that these two industries represent the most efficient use of unlisted investment capital from the perspective of sustainable job creation.

5.4 Recommendations to Unlisted Investments Industry

Based on the findings of this research study, unlisted investment SPVs are encouraged to put in place impact measurement tools to track and measure their intended short-term, medium-term and long-term impact objectives. This will help to align the SPVs' performance, financial and otherwise, with its financial and impact objectives; which would not be achieved by measuring only financial returns.

Furthermore, SPVs that have job creation as a priority impact objective may find value in channelling more capital into the healthcare and retail sectors, as these are the sectors with the highest impact multiple for the creation of permanent jobs, as well as into the renewable energy and farming and agriculture sectors as these are the sectors for which demand for goods, and therefore employment, will only continue to increase in the future.

5.5 Policy Recommendations

The non-availability of impact data in the Namibian unlisted investment industry poses challenges in measuring the social and other impacts of unlisted investment capital at an outcome level, outside of employment data which is readily available. The lack of impact data should be a cause for concern for policymakers since, without meaningful impact data they are unlikely to be able to determine the success of such an important policy regulation.

Further research is therefore required on the ways in which impact measurement techniques can be incorporated into regulatory frameworks as a mandatory requirement; this would provide significant progression in impact measurement as a core area in the Namibian unlisted investment industry (Emerson, 2003; Jackson and Harji, 2012).

5.6 Recommendation for Future Research

Analysis of the complete population of registered unlisted investment SPVs in Namibia indicates that there are 20 registered SPVs, of which 14 have committed capital from investors on which they earn investment management fees. Of the 14 unlisted SPVs with committed capital, 12 have made investments into portfolio companies while the rest are still looking for

viable deals to invest into. From the perspective of committed capital, the unlisted investment industry has N\$3.320 billion in committed capital from investors as at 30 June 2021, of which N\$2.298 billion (69%) has been invested into portfolio companies. Future research could be conducted on the incentive mechanisms in the unlisted investment market in light of the fact that investment management fees are earned by investment managers on committed capital, and therefore creates no incentive for capital to be invested and make an impact in the economy.

The agriculture and renewable energy sectors are becoming increasingly important in Namibia, with more and more unlisted investment capital being directed into farming and renewable energy initiatives. This, coupled with the global rise in awareness of UNSDG 13 Climate Action, creates the need for further research on the environmental impact of unlisted investments. This research can, however, only be completed successfully after the policy recommendation on impact measurement techniques is implemented, as environmental impact data would first have to be made available.

The unlisted investment requirement has not been around very long, with the legislation being promulgated in 2013, while unlisted investment data collected by NAMFISA is available from 2016. This reduces the number of time series data points used in the analysis of this study. Future research could be conducted using the same principles over a longer period, as more data points could mean more accurate results, and possibly different results.

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APPENDIX A: Literature Review Summary

Author reference	Title or theme	Finding
Clarkin & Cangioni (2016)	Impact investing literature review	Provides an overview of impact investing and highlights that impact investments have an active social or environmental objective in addition to a financial objective.
Hawley & Williams, 2006, as cited in Bertrand & Kasuto, 2019, p. 53; Sherwood & Pollard (2018)	Universal owner theory	The investments of large institutional investors such as pension funds are highly diversified as they are invested into virtually all sectors of the economy and across virtually all investment classes. This asset diversification ties them to the economic viability of a wide array of social and environmental factors, because these factors invariably affect investment performance.
Gilligan & Wright (2020b); Gilligan & Wright (2020c); World Bank Group (2020); Sherbourne (2018); Ministry of Finance (2013)	Private equity vis-a-vis unlisted investments	Unlisted investments and private equity are essentially the same thing and are structured the same. Unlisted investments are private equity that is specifically required and specifically regulated in terms of Namibian Government regulations. Private equity investments are often highly geared at fund level compared to unlisted investments. At portfolio company level, however, the private equity fund ultimately holds shares in the portfolio company while for unlisted investments the SPV holds shares in the portfolio company or gives a loan.
Babarinde (2012); Jover & Mlambo (2014); Sylvester & Egesi (2000)	The benefits of private equity for Africa	Identifies private equity as important for Africa for growing SMEs and creating jobs, reducing the loss of African talent, leadership and good business ideas to developed markets, empowerment of previously marginalised

		people, replacing foreign aid as a development model on the continent.
McCallum (2018); Ormiston & Seymour (2011)	Impact measurement	Advocate for customised over standardised impact measurement metrics. Impact measurement has to be mission-aligned in order to develop useful and meaningful measures that reflect the objectives pursued.
Starting Up Good (2018)	Impact measurement	The Impact Reporting and Investment Standards (IRIS) and the Global Impact Investing Reporting Standards (GIIRS) advocate for standardised impact measurement over customised impact measurement.
National Planning Commission (2017); Phillips & Johnson (2021)	Namibia's social transformation metrics and how they link to international literature	Highlights the key social transformation areas for Namibia's developmental agenda and links them to international literature. Identifies job creation as a universal way to achieve social transformation.
Jensen (2007); Achleitner & Klößner (2005); British Private Equity and Venture Capital Association (2006); Kearney (2007); Shapiro and Pham (2008)	Impact of private equity on employment	Private equity has a positive impact on employment.
Folkman et al., (2007); Davis et al. (2014); Goergen et al. (2014)	Impact of private equity on employment	Private equity has a negative impact on employment.

Bacon et al. (2019)	Impact of private equity on employment	Private equity has no impact on employment.
Schiff et al. (2016); Nicholls (2009); Ebrahim & Rangan (2014)	Benefits of impact measurement	Identified the following benefits of impact measurement: better informed investment decisions; ensure mission alignment between all parties involved and therefore mitigating risk; gain better insights into how to optimise their operations and enhance their performance; fulfil external accountability expectations of funders, governments and taxpayers.
Ebrahim & Rangan (2014); Phillips & Johnson (2021); Brest & Born (2013); Molecke & Pinkse (2017)	Limitations of impact measurement	Identified the following as the limitations of measuring impact: can be complicated, expensive and impractical; requires prohibitive amounts of time and resources; absence of impact data; causal chain running from inputs, to outcomes, to impacts is usually opaque therefore impact measurement is not a precise science.

APPENDIX B: Registered Unlisted Investment Managers as at 31 December 2020

No.	Unlisted Investment Manager Name
1	Africanrock Capital (Pty) Ltd
2	Ariya Bridge Capital (Pty) Ltd
3	Baobab Capital (Pty) Ltd
4	BFS NamPro Fund Manager (Pty) Ltd
5	Capital Growth Asset Management (Pty) Ltd
6	Capricorn Asset Management (Pty) Ltd
7	CREO Assets (Pty) Ltd
8	EOS Capital (Pty) Ltd
9	First Capital Asset Management (Pty) Ltd
10	Hangala Private Equity (Pty) Ltd
11	IJG Capital (Pty) Ltd
12	Ino Hairth Capital (Pty) Ltd
13	InterCapital Asset Management (Pty) Ltd
14	Koningstein Capital (Pty) Ltd
15	Makalani Fund Manager Namibia (Pty) Ltd
16	Mergence Investment Managers (Namibia) (Pty) Ltd
17	Musa Capital Namibia (Pty) Ltd
18	NedCapital Namibia (Pty) Ltd
19	Old Mutual Alternative Investments (Namibia) (Pty) Ltd
20	Sigma Capital (Pty) Ltd
21	Stimulus Private Equity (Pty) Limited
22	TEMO Capital (Pty) Ltd
23	Tulive Private Equity (Pty) Ltd
24	Zillion Asset Management (Pty) Ltd

APPENDIX C: Registered Special Purpose Vehicles as at 31 December 2020

No.	Special Purpose Vehicle Name
1	The Desert Stone Fund
2	IJG Frontier Investment Fund Ltd
3	Stimulus Investment Limited
4	VPB Namibia Growth Fund Trust
5	Allegrow Fund (Pty) Ltd
6	CREO Investment Fund
7	Mergence Namibia Infrastructure Fund
8	Zillion Investment Fund
9	Hangala Capital Fund (Pty) Ltd
10	Caliber Capital
11	VPB Namibia Growth Fund Two Ltd
12	Baobab Growth Fund (Pty) Ltd
13	The Namibia Mid-Cap Fund
14	Spitz Capital (Pty) Ltd
15	Namibia Infrastructure Fund
16	The Namibia Procurement Fund II
17	Ariya Bridge Trust Fund
18	Namibia Infrastructure Fund Two Trust
19	Namibia Infrastructure Development and Investment Fund (Pty) Ltd
20	Sigma Capital Fund Trust

APPENDIX D: Pension fund unlisted investment portfolio companies per sector as at 31 December 2020

Sector	Number of portfolio companies
Technology	2
Engineering	5
Manufacturing	8
Renewable Energy	8
Retail	8
Media	3
Stevedoring	1
Healthcare	4
Education	2
Construction	4
Funeral Services	1
Financial Services	1
Farming and Agriculture	7
Transport	1
Distribution	1
Real estate	8
Total	64

APPENDIX E: SPV Impact-related Objectives Categorised Into Impact Themes

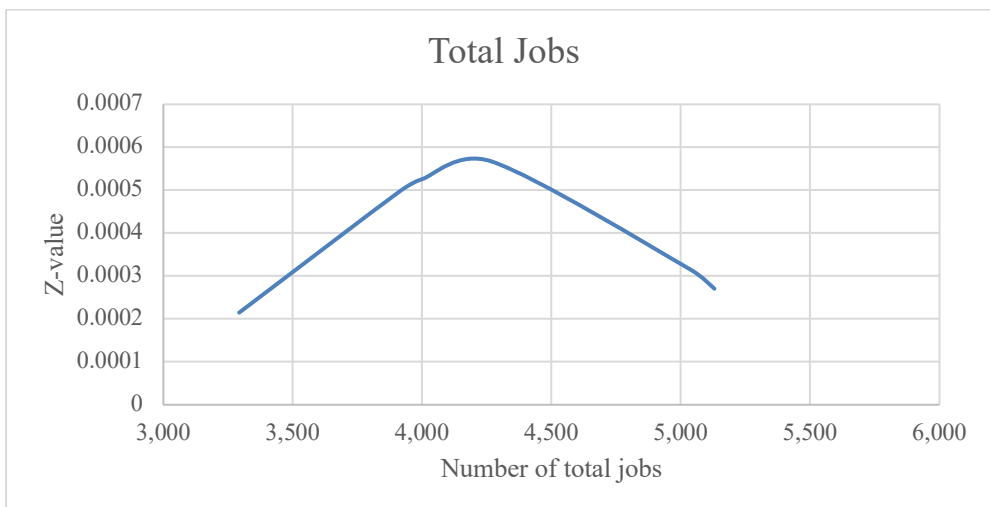
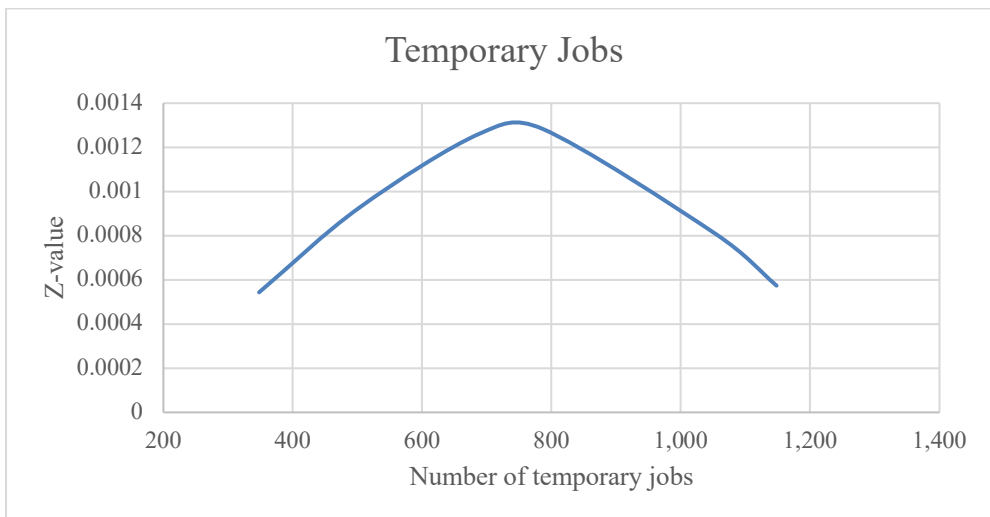
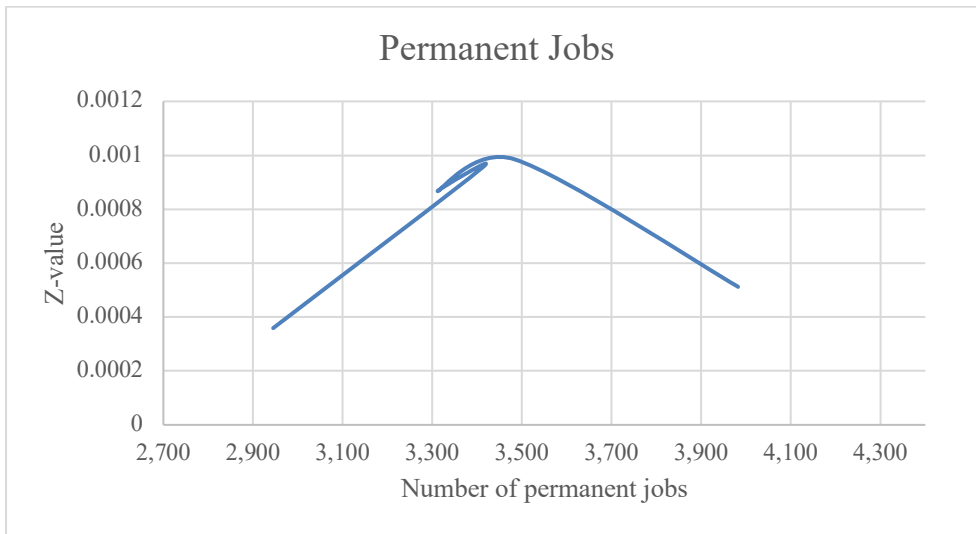
Impact objective	SPVs investment plan with impact objective	Impact theme category
Social upliftment of disadvantaged communities	Desert Stone Fund, IJG Frontier Investment Fund, Spitz Capital, Namibia Infrastructure Fund, Namibia Procurement Fund II	Economic empowerment
Economic empowerment of disadvantaged communities	Desert Stone Fund, Spitz Capital, Namibia Infrastructure Fund	Economic empowerment
Boost empowerment credentials of investee companies	Stimulus Investment Limited, Spitz Capital	Transformation
Facilitate inclusion of previously disadvantaged communities into mainstream economy	VPB Namibia Growth Fund	Economic empowerment
Industrialization and the growth of SMEs	Allegrow Fund, Caliber Capital	SME development and job creation
Developmental impact, where mid-market companies have catalytic effect on SMEs and job creation	Namibia Procurement Fund II, The Namibia Mid-Cap Fund	SME development and job creation
Turning portfolio companies into local and regional champions	IJG Frontier Investment Fund	SME development and job creation
Improve inclusion through access to finance	Mergence Namibia Infrastructure Fund	Economic empowerment

APPENDIX F: NDP5 Results Framework for Social Pillar

NDP5 Pillar	Indicator	Baseline	NDP5 Targets					Data source	Responsible institution
			Y1	Y2	Y3	Y4	Y5		
GOAL 2: BUILD CAPABLE AND HEALTHY HUMAN RESOURCES									
SOCIAL TRANSFORMATION	GOAL INDICATORS								
	Human Development Index	0.640 (2015)	0.650	0.660	0.670	0.680	0.695	UNDP Human Development Report	MOEAC
	FOCUS AREA: SOCIAL PROTECTION								
	DO 16: By 2022, the proportion of severely poor individuals has dropped from 11% in 2016 to 5%.								
	Headcount poverty (poor) (%)	18.0 (2016)	17.0	15.0	13.0	12.0	10.0	NSA	MPESW
	Headcount poverty (extreme poor) (%)	11.0 (2016)	10.0	8.0	7.0	6.0	5.0	NSA	MPESW
	Gini Coefficient (index)	0.572 (2016)	0.552	0.532	0.512	0.510	0.500	NSA	MPESW
	FOCUS AREA: EARLY CHILDHOOD DEVELOPMENT								
	DO 17: By 2022, Namibian children aged 0-8 have a secure educational foundation, through access to ECD services								
	% of children 0-4 with access to ECD	13% (2011)	16%	20%	26%	30%	35%	MOEAC	MOEAC
	% of children 5-8 with access to ECD	38% (2016)	45%	55%	66%	76%	80%	MOEAC	MOEAC
	% qualified pre-primary teachers	68.2% (2016)	70%	73%	77%	80%	85%	MOEAC	MOEAC
	# of qualified caregivers	2 862 (2016)	3 000	3 200	3 400	3 600	3 800	MOEAC	MOEAC
	FOCUS AREA: BASIC EDUCATION								
	By 2022, all learners have access to equitable inclusive quality Education that qualifies them to pursue higher education.								
	Primary education completion rate (%)	88.60% (2015)	90%	92%	94%	96%	100%	MOEAC	MOEAC
	Percentage of learners that qualify for university admission	36% (2015)	40%	45%	50%	55%	60%	MOEAC	MOEAC
	% of libraries having access to broadband	20% (2015)	30%	50%	70%	80%	100%	MOEAC	MOEAC
	NSSCO Mathematics pass rate	45% (2015)	47%	49%	55%	60%	65%	MOEAC	MOEAC
	NSSCO English pass rate	28% (2015)	30%	35%	40%	45%	50%	MOEAC	MOEAC
	FOCUS AREA: TECHNICAL, VOCATIONAL EDUCATION AND TRAINING (TVET)								
DO 19: By 2022, Namibia has put in place an education system that responds to industry needs.									
Enrollment (number)	25 137 (2015)	30 000	35 000	40 000	45 000	50 000	NTA	MHETI	
Completion rate (%)	60% (2015)	62%	65%	68%	70%	80%	NTA	MHETI	
Percentage of TVET graduates to total higher education graduates	44% (2014)	46%	48%	50%	42%	55%	NTA	MHETI	
FOCUS AREA: HIGHER EDUCATION									
University Education									
DO 20 By 2022, Namibia has put in place an education system that responds to industry needs.									
Completion rate (%)	50% (2015)	55%	58%	62%	66%	70%	MHETI	MHETI	

NDP5 Pillar	Indicator	Baseline	NDP5 Targets					Data source	Responsible institution
			Y1	Y2	Y3	Y4	Y5		
SOCIAL TRANSFORMATION	FOCUS AREA: HEALTH AND NUTRITION								
	DO 21: By 2022, Namibia's Health Adjusted Life Expectancy (HALE) has improved from 58 to 67.5 years								
	Health Adjusted Life Expectancy	58 (2015)	59	60.5	62.5	65.5	67.5	MOHSS	MOHSS
	Maternal Mortality	385 (2013)	348	311	274	237	200	MOHSS	MOHSS
	Infant Mortality rate	39 (2013)	35	32	30	25	20	MOHSS	MOHSS
	Under-Five Mortality	54 (2013)	51	48	45	42	39	MOHSS	MOHSS
	Malaria Mortality rate	3.4 (2014)	1.0	0.3	0.1	0.02	0	MOHSS	MOHSS
	TB mortality rate	73 (2014)	68	63	58	51	47	MOHSS	MOHSS
	Stunting	24% (2013)	22%	20%	18%	16%	14%	MOHSS	MOHSS
	Doctor/population	1:2485(2015)	1:2224	1:2012	1:1837	1:1625	1:1457	MOHSS	MOHSS
	Registered nurse/population	1:328(2015)	1:317	1:307	1:297	1:285	1:270	MOHSS	MOHSS
	Pharmacist/population	1:4095(2015)	1:3563	1:3286	1:2922	1:2567	1:2289	MOHSS	MOHSS
	Registered nurse/population	1:328(2015)	1:317	1:307	1:297	1:285	1:270	MOHSS	MOHSS
	Pharmacist/population	1:4095(2015)	1:3563	1:3286	1:2922	1:2567	1:2289	MOHSS	MOHSS

NDP5 Pillar	Indicator	Baseline	NDP5 Targets					Data source	Responsible institution
			Y1	Y2	Y3	Y4	Y5		
SOCIAL TRANSFORMATION	FOCUS AREA: GENDER EQUALITY								
	DO 21: By 2022, Namibian women have equal opportunities and are free from gender-based-violence								
	% of women in politics	47% (2015)	47%	47%	50%	50%	50%	MGECW	MGECW
	Women employment rate	68% (2014)	70%	72%	74%	76%	76%	NSA	MGECW
	GBV prevalence rate	33% (2013)	30%	28%	25%	23%	20%	MGECW	MGECW
	FOCUS AREA: HOUSING AND LAND								
	DO 22: By 2022, Namibian households living in improvised houses reduced from 19% in 2016 to 12%.								
	% households that live in improvised houses	18.9% (2016)	19%	18%	16%	14%	12%	NSA	MURD
	# of plots serviced with water & sewerage, electricity and roads	NK	6 500	6 500	6 500	6 500	6 500	MURD	MURD
	# of new houses constructed nationwide	NK	7 200	7 200	7 200	7 200	7 200	MURD	MURD
	FOCUS AREA: SANITATION								
	DO 23: By 2022, Namibian households have improved sanitation increasing from 28% in 2016 to 40% in rural areas and from 77% in 2016 to 87% in urban areas..								
	% rural households practicing open defecation	72% (2015/16)	72%	70%	68%	64%	60%	NSA	MURD
	% rural households with access to sanitation	28% (2015/16)	30%	32%	35%	38%	40%	NSA	MURD
	% urban households practicing open defecation	22% (2015/16)	20%	18%	16%	14%	12%	NSA	MURD
	% urban households with access to sanitation	76.9% (2015/16)	78%	80%	82%	84%	87%	NSA	MURD
	FOCUS AREA: YOUTH								
	DO 24: By 2022, youth are empowered and have adequate opportunities to actively participate in the economy and the youth development index has increased from 0.49 in 2013 to 0.58.								
	Youth Development Index	0.49 (2013)	0.49	0.5	0.53	0.55	0.58	NSA	MYSNS
	Youth unemployment rate (%)	39.2% (2014)	39%	37.7%	36.2%	34.7%	33%	NSA	MYSNS
	FOCUS AREA: EMPOWERING PEOPLE AND COMMUNITIES THROUGH SPORTS								
	DO 25: By 2022, Namibians have improved opportunities to participate in professional sports with employment contribution increasing from 0.2% to 2%.								
	% contribution of sports to employment	0.2% (2014)	0.3%	0.4%	0.6%	1%	2%	NSA	MYSNS
	FOCUS AREA: ARTS AND CULTURE								
	DO 26: By 2022, Namibians are empowered and have opportunities to participate in arts and culture with the share of employment increasing to 2%.								
	% contribution of arts and culture to employment	0.65% (2014)	0.85%	1.0%	1.25%	1.65%	2.0%	NSA	MOEAC
FOCUS AREA: INTEGRATE MARGINALIZED COMMUNITIES INTO MAINSTREAM ECONOMY									
DO 27: By 2022, marginalized communities are integrated into the mainstream economy.									
Unemployment rate	77% (2014)	75%	70%	60%	55%	50%	NSA	OPM	
Poverty	68% (2010)	50%	47%	42	38	35%	NSA	OPM	
Primary educational attainment	30% (2010)	35%	40%	45%	55%	60%	NSA	OPM/ MOEAC	
Secondary educational attainment	8.4% (2010)	10%	12%	16.5	18%	20%	NSA	OPM/ MOEAC	
Tertiary educational attainment	0.23% (2010)	2%	4%	6%	8%	10%	NSA	OPM/ MOEAC	
Never been to school	58% (2010)	50%	45%	35%	25%	20%	NSA	OPM/ MOEAC	

APPENDIX G: Normal Distribution of Employment Figures

APPENDIX H: Linearity and Heteroscedasticity of Total Contributed Capital and Employment Figures

