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Infrastructure Investment: An Overview

Naledi Pension Fund Unit

Research Paper Series

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Executive summary

The retirement industry faces a dual challenge: firstly to provide adequate funds for its members to retire and secondly to use its significant resources to advance the development of society. Recent changes in the Pension Funds act provide unions with the opportunity to get more involved in the decisions made by the trustees of their pension funds.

The main building blocks of pension funds are equity, bond, property and cash investments. Statistics on the return and risk characteristics of each asset class is provided for the last 20 years to serve as guideline for the decision to venture into alternatives like infrastructure investments. Equity clearly provides the prospect of higher returns but also the highest risk (as measured by variability in return).

The case for infrastructure investment is presented in principle with a definition of the concept in its various guises and its appeal as an investment. Specific attention is given to the risk involved in this kind of investment. Infrastructure development is clearly a specialised industry and involves risks that are not present in the traditional four asset classes. Performance figures from Australia suggest infrastructure investment provided attractive returns with a risk profile similar to bonds.

An overview is provided on current infrastructure investment initiatives in South Africa. The players are divided into three categories: fund managers, banks and other institutions. The most promising initiatives for pension fund trustees are offered by the fund managers. Investment vehicles include special infrastructure funds, segregated funds (specialising in equity, bond or both types of instrument) and unit trust funds. The most promising opportunities for investment at the moment are the African Infrastructure Investment Fund (in the process of raising R1.5 billion) and the IDEAS fund of Old Mutual. Other institutions like the Development Bank are included as potential partners and resources if trustees felt like establishing new initiatives.

International experience suggests that there is a growing trend towards private sector involvement in infrastructure, in both developed and developing economies. International best practice highlights the importance of competition, transparent tendering and effective regulation and suggests that the roles of government and the private sector should be distinct. Government should specialize in planning, structuring, and regulation, while the private sector should specialize in management, investment, construction and financing. But international experience also highlights the risks posed by private investment in infrastructure, where the focus tends to be only on financial return, without broader economic, environmental and social considerations necessarily being taken into account.

It is clear that infrastructure investment is an acceptable option for pension fund trustees. The returns can be attractive and thus fulfil the need of members who need optimal returns on their savings. The success of delivering social advantages is also proven by the examples like the Futuregrowth funds. It is a relatively new form of investment and needs to be approached with care. Trustees will be wise to first invest with experienced fund managers in the field before they venture into new initiatives.

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1. Section One: Overview of Retirement Funds

The objective of this section is to highlight the challenges facing retirement funds in South Africa, and outline the investment context in which funds operate. To do this, it is necessary to look at regulatory limits, as well as reviewing the asset classes in which retirement funds have invested in the past, and how they have performed.

1.1. Retirement Funds in SA: A Dual Challenge

The challenge for the retirement fund industry in South Africa is twofold. On the one hand, given the power that retirement fund investors in South Africa have, with assets of R836 billion in 2001, there is the need and the leverage to impact on issues such as reconstruction and development, as well as transformation through Black Economic Empowerment. On the other hand however, the retirement fund industry needs to provide for the retirement benefits of retirement fund members. This issue is critical given that it is estimated that as few as 6% of South Africans retire financially independent.

The importance of this aspect is reflected in the fact that, according to the 2003 annual report of the Financial Services Board, benefits paid by retirement funds increased by over 71% from R64 930 million in 2000, to R111 206 million in 2001. These amounts include pensions, lump sums on retirement or death, and resignations. The rate of increase in benefit payments is in stark contrast to the fact that total contributions received by funds increased by only 17.2% from R52 130 million in 2000, to R61 097 million in 2001, while total industry assets grew by just over 20% from R694 billion in 2000 to R836 billion in 2001.

The key challenge in this paper is similar to the dual challenge facing the retirement fund industry: to identify the extent to which infrastructural investment can play a role in reconstruction, development and transformation; whilst at the same time delivering sound returns to ensure that the retirement benefits of pensioners are provided for. The issue of providing retirement benefits is even more critical given the move from defined benefit to defined contribution schemes. No longer are companies willing to play the provider of last resort, hence the burden has been shifted onto members to take on investment risk and bear the full consequences of investment performance. The need for retirement fund investments to generate sound returns for members is no longer a nice to have, but fundamental to the structure of investments in retirement funds.

In this respect Draft Regulation 28 of the Pension Funds Act is a welcome change which will see retirement funds needing to set investment objectives appropriate to the needs of their members, and developing investment strategies to meet those objectives. No longer will it be enough for trustees to simply regard the asset allocation decision as their key decision. The growing emphasis on the fact that retirement funds have as their primary objective, the retirement benefits of their members, means that what a fund is trying to achieve from a return perspective will be critical.

1.2. Brief overview of investable asset classes

Regulation 28 of the Pensions Fund Act outlines the investment limits in different asset classes. This is provided in detail in Appendix 1. Depending on the nature of the investment vehicle, infrastructure investments could fall into equity, property or fixed interest asset classes. It is thus not possible to determine a limit on the extent to which retirement funds could invest in infrastructure investments. For example, a fund could have a 100% of its investments in a government issued bond that invests in infrastructure. Nevertheless the potential does exist for infrastructure investments to be "prescribed". This is not new in the South African retirement fund industry.

In fact Section 19 of the Pensions Fund Act provided for “prescribed assets” in which a percentage of the fund had to be invested. Initially 40% of a fund had to be invested in prescribed assets, but this changed over time until it reached 53%, which meant that 53% of a fund had to be invested in interest-bearing investments such as government stocks, municipal and utility stocks, bank and building society deposits and cash. The key problem of course with prescribed assets, is that it limited the extent to which trustees had the discretion to invest in the manner most likely to be in the best interests of the fund. The list of prescribed assets was removed from the Act as from 1 October 1989.

Fund managers tend to be critical of any form of prescribed assets. They point to the market distortions caused by the prescribed assets in the 1980s. Capital markets were inhibited in their function to determine the appropriate price for money. Interest rates were distorted and South Africa experienced a period of negative real interest rates. This was partially responsible for the high rates of inflation. Pension fund members suffered not only due to the negative returns from the sizable portion of fixed interest investments but also due to the erosion of the buying power of their wages. Such distortions also lead to the mis-allocation of capital which can be to the detriment of growth and development in the country.

A repeat of the prescriptive route to asset management is probably not advisable. Encouragement and incentives to fund managers to invest in a socially responsible way via positive engagement by unions and other trustees, would probably be more productive. The process unfolding in the form of the Financial Charter may serve as a good example of what can be achieved with negotiation. The Financial Charter may also offer opportunities for a Socially Responsible Investing agenda. One advantage for prescribing assets such as infrastructure investments is that the nature of infrastructure investing is long-term, and as a result it would prevent trustees from making inappropriate short-term decisions when dealing with infrastructure investments.

1.3. Brief overview of investment returns

In order to be able to consider whether infrastructure investments are able to provide viable returns, it is important to frame the context of all asset class returns.

The four main traditional asset classes utilised by retirement fund managers are equity, bond, property and cash investments. Table 1 below shows the nominal returns achieved by both domestic and international asset classes since 1983 in rand terms. As can be seen, the international asset classes provided the highest returns, with the highest risk. South African shares provided highest return amongst the domestic asset classes, but again at a higher risk

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Table 1: Asset class returns (in rands) and volatilities, 1983 to 2003¹

Year	SA shares	SA gilts	SA cash	SA property	Int. Shares	Int. gilts	CPI
1983	14.3%	-8.5%	12.5%	27.6%	36.2%	22.4%	11.0%
1984	9.4%	-3.7%	16.0%	13.1%	63.4%	73.1%	13.3%
1985	41.1%	7.5%	18.0%	22.4%	99.4%	53.8%	18.4%
1986	55.5%	34.7%	14.5%	7.6%	15.2%	-13.6%	18.1%
1987	-3.9%	15.9%	10.0%	14.8%	2.7%	-5.6%	14.7%
1988	14.3%	8.6%	10.5%	-7.5%	52.1%	32.8%	12.5%
1989	54.9%	22.6%	15.0%	53.7%	25.0%	16.3%	15.3%
1990	-4.9%	13.8%	17.0%	2.7%	-16.8%	21.3%	14.6%
1991	30.6%	13.5%	16.5%	18.7%	26.7%	32.4%	16.2%
1992	-1.9%	24.7%	15.5%	6.5%	5.5%	25.8%	9.6%
1993	53.7%	39.8%	12.0%	9.2%	36.4%	31.2%	9.5%
1994	22.5%	-17.7%	11.0%	11.2%	9.6%	13.8%	9.9%
1995	8.6%	36.3%	13.0%	10.6%	24.2%	29.7%	6.9%
1996	9.6%	2.0%	14.0%	-9.7%	45.6%	41.0%	9.4%
1997	-4.3%	34.7%	14.8%	19.8%	20.4%	11.9%	6.1%
1998	-9.6%	0.9%	13.5%	2.4%	49.7%	43.6%	9.0%
1999	60.5%	32.9%	15.5%	51.7%	30.8%	4.1%	2.2%
2000	-0.1%	19.4%	11.0%	27.6%	5.6%	24.9%	6.7%
2001	29.1%	17.8%	10.6%	7.9%	30.4%	58.7%	4.6%
2002	-6.8%	16.0%	11.5%	30.9%	-42.5%	-15.7%	12.4%
2003	16.1%	18.1%	12.3%	37.5%	-3.0%	-12.3%	0.3%
Annualised	16.5%	14.6%	13.5%	16.0%	21.0%	21.1%	10.4%
Std deviation	23.0%	15.5%	2.4%	16.7%	29.8%	23.8%	4.9%

Source: ipac South Africa

¹ Gilts refer to the bonds included in the All Bond Index (that is the "quality" bonds including mostly government and parastatals). CPI is year to December.

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Table 2 shows the real returns (above inflation) and risks of each of the asset classes. As can be seen, the international asset classes have provided an annualised real return of 9% since 1983, whilst the best performing local asset class, shares, has provided a real return of 5%.

Table 2: Asset class real returns in rands, 1983 to 2003

Year	SA shares	SA gilts	SA cash	SA property	Int. Shares	Int. gilts
1983	3.0%	-17.6%	1.4%	15.0%	22.7%	10.3%
1984	-1.5%	-13.2%	4.5%	1.9%	47.2%	55.9%
1985	27.1%	-3.2%	6.3%	10.3%	79.6%	38.5%
1986	40.1%	21.4%	3.2%	-3.1%	3.8%	-22.1%
1987	-13.4%	4.4%	-0.9%	3.4%	-7.4%	-14.9%
1988	3.0%	-2.2%	-0.5%	-16.7%	37.0%	19.7%
1989	39.6%	10.5%	3.6%	38.4%	12.6%	4.8%
1990	-14.3%	2.5%	5.4%	-7.5%	-25.1%	9.3%
1991	17.7%	2.3%	5.0%	6.9%	14.1%	19.3%
1992	-11.6%	12.3%	4.1%	-4.0%	-5.0%	13.3%
1993	38.5%	25.9%	0.9%	-1.6%	22.9%	18.2%
1994	10.4%	-25.9%	0.0%	0.2%	-1.2%	2.5%
1995	-2.2%	22.8%	1.8%	-0.3%	11.9%	16.8%
1996	-1.3%	-8.1%	2.7%	-18.6%	31.2%	27.0%
1997	-13.8%	21.4%	3.4%	7.9%	8.5%	0.8%
1998	-18.5%	-9.1%	2.3%	-7.8%	34.9%	29.3%
1999	44.6%	19.7%	4.1%	36.7%	17.9%	-6.2%
2000	-10.0%	7.5%	0.0%	14.9%	-4.9%	12.5%
2001	16.3%	6.2%	-0.4%	-2.8%	17.4%	42.9%
2002	-16.0%	4.5%	0.5%	17.9%	-48.2%	-24.0%
2003	4.6%	6.4%	1.1%	23.9%	-12.6%	-21.0%
Annualised	5.0%	3.3%	2.3%	4.5%	9.0%	9.1%
Std deviation	20.7%	13.9%	2.1%	15.1%	26.9%	21.4%

Source: ipac South Africa

Tables 1 and 2 are useful in highlighting the variability of returns over a 21 year period, but they do differ from a long-term analysis. A useful indication of long-term returns can be found in a recent book that sets out 101 years of global investment returns spanning 16 countries, including South Africa (Dimson, 2003). For the period 1900 to 2000 South African equities produced a real return of 6.8% and bonds 1.4%. This magnitude of returns is also reflected in work done by Firer and Staunton (2002) which indicates that SA equities over a 102 years delivered a nominal return of 14.4%, and a real return of 7%, while SA bonds delivered an average nominal annual return of 5.9% and average real return of 1.5%. The one truth of investing is that the future is unpredictable and estimations of investment returns thus hazardous. If anything long-term figures provide a better guideline to the potential return of the major asset classes than short-term predictions.

Table 3: SA nominal returns in the 1900s

	SA equity	SA bonds	SA cash	inflation
max	107.7	35.9	21.8	47.5
ave	14.4	6.8	5.9	5.1
min	-29.6	-10.7	0	-17.2

Source: Firer & Staunton, 2002

2. Section Two: The Case for Infrastructure Investment

The objective of this section is to provide a theoretical overview of infrastructure investment. This will include looking at the nature of infrastructure projects, the expected risks and returns from different types of projects, and where infrastructure investments fit into the overall asset allocation picture. The section will also consider suitable investment vehicles for infrastructure investment such as bonds, private equity, unit trusts etc. as well as compare the different types of social and economic impacts of different projects.

2.1. Defining Infrastructure

Infrastructure can be simply defined as long-term capital facilities serving the community. Infrastructure assets generally have long investment lives, which can range anything between 20 and 100 years and even longer. These assets typically have a low obsolescence risk, except in the case of telecommunications. They usually have a high capital cost but operating costs tend to be low, resulting in high operating margins. A key attraction of infrastructure is the broad user group which includes government, the business sector and the general public. (Van Eyck & Macquarie, 2004) As infrastructure assets provide an essential service to the community, they experience relatively inelastic demand and often face little or no competition.

Infrastructure assets can be divided into four broad categories: (AIIM, 2003)

- **Patronage-related (throughput) assets:** these assets depend on a form of patronage as the key driver of revenue and have monopoly qualities. Infrastructure that falls into this category includes: toll roads; airports; railways; ports and water treatment facilities. Patronage-related assets are usually highly dependent on demographic factors.
- **Regulated assets:** these are natural monopolies and are regulated in the level of revenue earned or charges imposed. Such assets would include telecommunication companies, electricity and gas transmission assets. The returns on regulated assets are usually lower than patronage-related assets, but more stable.
- **Social assets:** these provide a basic social service to the community and include schools, government buildings and hospitals. Although they possess some of the characteristics of patronage-related assets, public policy and government involvement are critically important. A concession is typically negotiated with the relevant authority to design, build and operate the facility. Returns are generated with clever design and efficiency and on the rental income for maintenance and operating the facility. This category generally offers less lucrative investment opportunities.
- **Competitive assets:** these are assets that compete in an unregulated market. Where they do not have a long-term off-take agreement in place, electricity generation and gas distribution assets fall into this category. "Commoditisation" can occur where price becomes the main competitive differentiator.

Another way of categorizing infrastructure assets could also be to say that they fall into the following categories (Van Eyck & Macquarie, 2004):

- Transport: this would include toll roads, airports, seaports and rail
- Utilities: gas, electricity, water, and this covers the production, transmission, and distribution of the resource
- Social: this would include health, education and justice
- Communications: this could involve telecommunications and broadcast

The environment in which infrastructure assets operate ranges from that which is heavily regulated and returns are determined by regulation; to an environment where price control is a key determinant of return; to an openly competitive market trading environment.

As part of the Reconstruction and Development Programme, the South African government identified certain key sectors for infrastructure investment, namely: energy, water and sanitation, transport, communications, housing, health, education and security. It is interesting to note that according to Merrifield (Undated) “public sector economic infrastructure investment (defined as “roads, bridges, dams, electricity and water supply), has consistently dominated social infrastructure spending (defined as “schools, hospitals, etc. and administrative services.”

2.2. The appeal of infrastructure investments

Infrastructure assets have a number of attractive investment characteristics which encompass the fact that they are long-term in nature, and that they have low volatility. This section draws heavily on the work of AIIM, 2003. Infrastructure assets are generally long-term because there are high barriers to entry, and these would include the following:

- Exclusive concession periods provided by regulation and/or contract;
- Natural barriers, planning restrictions or availability of land;
- High costs of new development;
- Long dated off-take contracts for a significant proportion of demand;
- Efficiencies provided by economies of scale or naturally occurring factors;
- Low dependence on technological development.

2.3. Reduced volatility

Infrastructure assets tend to provide important services to the community and as a result tend to be immune to economic cycles. This leads to low volatility of the asset class, and is enhanced by a strategic position with high barriers to entry. For example, a toll road concession can be for as long as 30 years, during which period the private sector can own and operate the road. The strategic position is often one where the road is the only one servicing a particular community. The high barriers to entry would include things like the high cost of development and construction of an alternative road, as well as other factors such as environmental or regulatory requirements.

With high barriers to entry, and being long-term in nature, infrastructure investments have a greater predictability of cash flows than other asset classes. This reduces the risk of investment and the volatility of returns on investment.

2.4. Risk considerations

Proponents of infrastructure investment argue that it is relatively low risk due to certain key characteristics. These include:

- Single purpose business model which enables a business plan to be focused and provides for effective project management and analysis
- Long-term contracts mitigate cost risks
- Limited competition due to high barriers to entry
- Infrastructure enables essential service delivery, hence it experiences greater immunity to economic downturns
- Highly predictable revenues
- Usually low operating costs

While there is undoubtedly much appeal to infrastructure investing, it is also important to note that there are various risks inherent to investment in infrastructure funds. A few categories of risk are highlighted below:

- **Availability of investments risk.** The success of an infrastructure fund depends on the fund manager's ability to identify and select appropriate investment opportunities. They need to be acquired, secured and managed.
- **Regulatory risk.** Infrastructure projects are closely regulated. Changes in the regulatory environment could impact adversely on such investment.
- **Contract risk.** Assets in this environment are often governed by concession agreements with national, provincial or local authorities. These authorities may not be able to honour their obligations under the agreement, especially over the long term.
- **Construction risk.** The challenge to complete big new projects within budget and the agreed time-frame or specification.
- **Demand and usage risk.** Assumptions need to be made regarding usage which will affect the return on investments. Over-optimistic assumptions are naturally a major risk.
- **Operational risk.** Long term profitability of infrastructure assets depends on efficient operations and maintenance.
- **Inflation risk.** Inflation assumptions are implicit in revenue and cost forecasts upon which investment decisions are made. Variances between anticipated and actual inflation could negatively affect the returns to investors.
- **Valuation risk.** Funds rely on independent valuations for the determination of the value of its investments. Given the nature of infrastructure projects, such valuations may be complex and include subjective assessments due to a scarcity of comparable assets in the market.
- **Liquidity risk.** Projects and investments are predominantly not listed on an exchange. There can be no assurance that the fund will be able to realise cash from the investment in a timely manner. Moreover, the realisable value of an illiquid investment may be less than its intrinsic value.
- **Documentation and other legal risk.** Infrastructure projects are usually governed by a complex series of legal documents and contracts. As a result, the risk of a dispute over the interpretation or enforceability of legal documents or contracts may be higher than for other equity investments. Other legal risks relate to environmental issues, industrial action and actions by special interest groups.

Given these risks, a careful selection of fund manager with specialist skills and experience in the field of infrastructure investment is imperative. As Peter Johnston, Investment Manager for Industry Fund services, put it, “contrary to popular perception, infrastructure investment is not low risk.” (The Institution of Engineers, Australia, 2002)

2.5. Return characteristics

The nature of returns on infrastructure investments is attractive for two reasons. First, the capital value remains stable, and second, due to consistent cash flows, there is a consistent and high yield which the investment delivers. Hence the returns are both of a capital and income nature. This is due to the characteristics of infrastructure projects which can be summarized as follows:

- Predictable revenues that offer stable growth;
- Low operating costs relative to revenues. Revenue is often linked to macro-economic variables such as CPI and GDP growth, while operating and capital expenditure usually only increase with CPI. This creates the potential for a high EBITDA margin that compounds over time;
- The risk profile declines over time, allowing equity risk re-rating opportunities early in the investment life;
- Financial restructuring opportunities occur on a regular basis;
- Stable and escalating cash yields mean that a predictable annuity income can be generated.

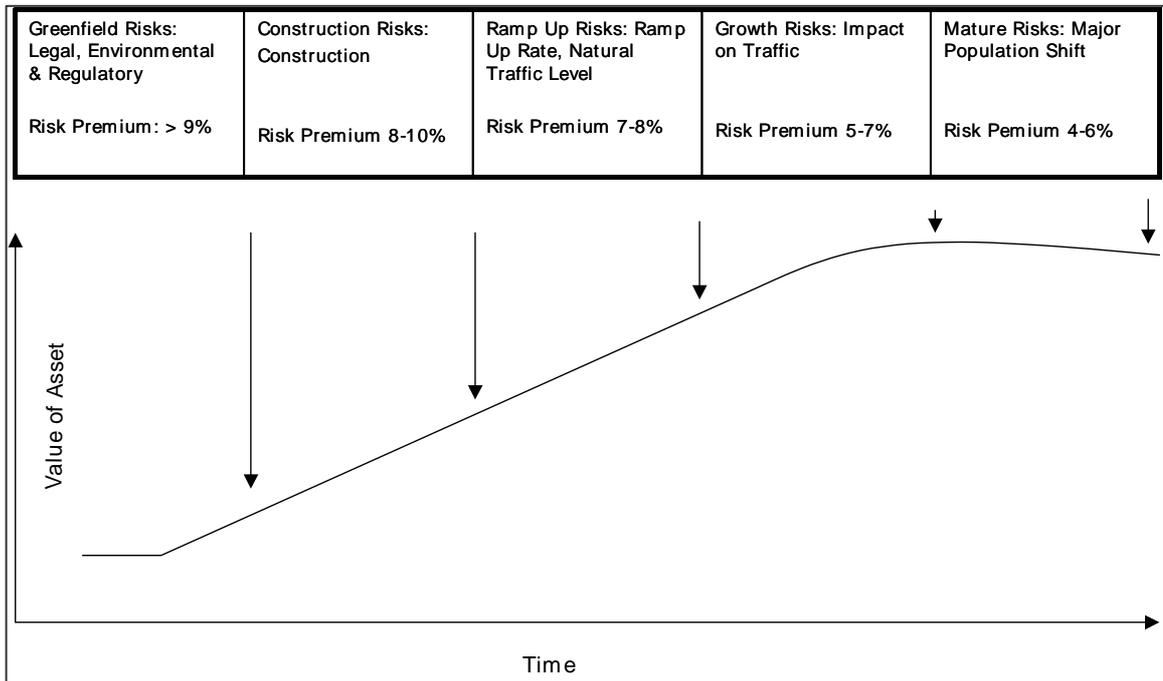
2.6. The infrastructure asset Life Cycle

Infrastructure assets normally have a reasonably predictable life cycle, with potential rewards coming from the efficient management of development risk, construction risk and (for patronage-related assets) patronage ramp-up risk. If these risks are reduced through time, then the value of the asset is likely to appreciate over time resulting in capital gains. The skill of an investment manager is important in this respect, because their ability to anticipate, analyse and manage these risks enables investors to plan and structure their return through the capital gain and cash yield phases of the investment. There are also often opportunities to invest in infrastructure assets at later stages of development. Often these opportunities come in the form of refinancing and restructuring opportunities.

Managing the risk of an asset through its life cycle is not the only strategy available to an investment manager. Other strategies can help to improve returns. These include:

- Improved operating efficiencies and reduced costs;
- Financial engineering and structuring;
- Developing sources of revenue not covered by regulation;
- Capital expenditure which provides additional returns.

The typical life cycle of a Greenfield infrastructure asset is outlined below:

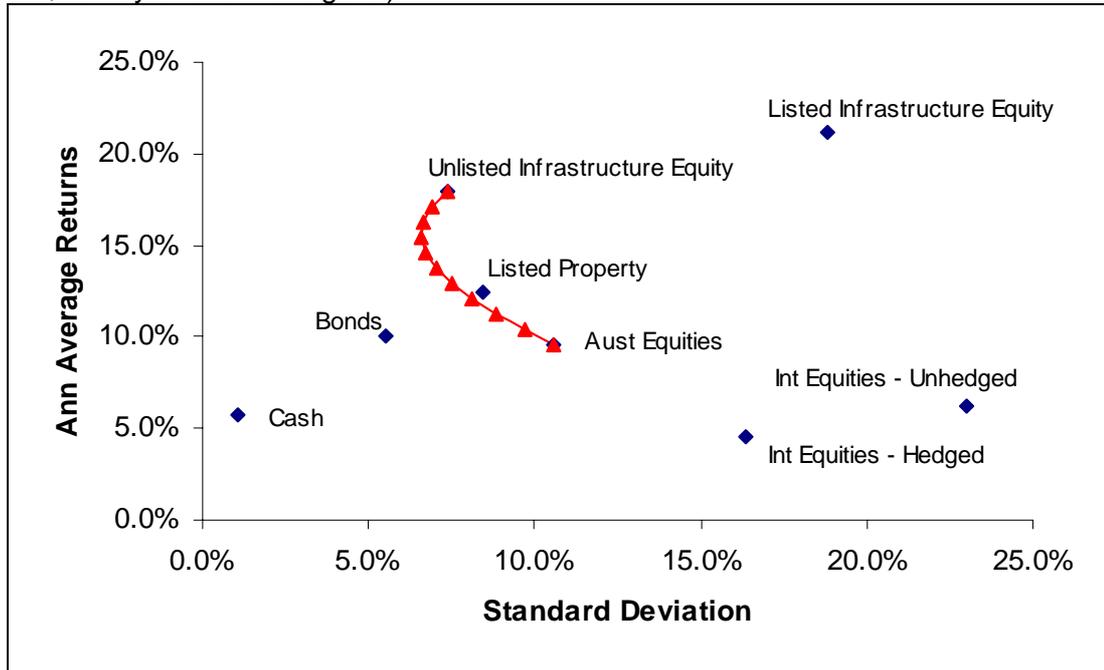


Note: The risk premium is over the risk free rate e.g. R143
Source: African Infrastructure Investment Fund, 2003

2.7. Infrastructure assets and asset allocation

The risk and return qualities of infrastructure assets differ from traditional private equity investments, primarily due to strong cash yields that are often delivered early in the life of a project. Hence infrastructure assets are often seen to have the characteristics bonds or property, but with the added benefit of more stable capital values. As can be seen from the historical performance in graph 1 below, unlisted infrastructure in Australia has fallen very much into this category, with risk parameters being between bonds and property, but returns significantly higher. Listed infrastructure equity on the other hand has a higher risk and return profile. Given the high yielding income stream and the low volatility of capital value, infrastructure as an asset class appears well suited for liability/cash flow matching.

Graph 1: Historical Performance, Risk vs. Return: Australian Infrastructure Equity Comparison 1995 – 2003. (The data reflects 50 discrete investments representing >A\$4bn by 5 fund managers.)



Source: Moore (Macquarie & van Eyck Research)

The table below outlines the historical performance of unlisted Infrastructure Equity in Australia. The compound annual return of 17.7% indicates an annual real return in excess of 10% per annum and highlights the potentially attractive returns that can be achieved from infrastructure investing.

Table 1: Historical performance: Australian unlisted infrastructure equity, 1995-2003

Compound annual return	17.7%
Annual average return	17.9%
Standard deviation	7.3%
Return/Standard deviation	2.4
Sharpe Ratio	1.7

Source: Moore, (Macquarie & van Eyck Research)

The sound performance of infrastructure investments in the Australian market shows the potential for infrastructure investing in South Africa. Nevertheless it is important to note that early stage infrastructure investing, as is the case in Australia can be explained by certain unique features of infrastructure investing. Firstly, because infrastructure is a relatively new asset class, early movers invariably secure a premium. Secondly, investment markets have tended to focus on the analysis of competitive businesses, which means that there is limited understanding and analytical tools to deal with long life monopoly-like business. Thirdly, as infrastructure becomes better understood and better researched, return expectations will fall. (Van Eyck & Macquarie, 2004)

2.8. Investors and investment vehicles

Table 4: Investors and investment approaches

Investor Type	Investment Approach	Buy Motivation	Sell Motivation	Investment Period
Sponsors/ Contractors	Project Development	Contract Lender requirements	Cost of capital Recycle capital	Construction period
Financial Institutions	Long-term passive investor	Stable escalating liabilities Diversity	Management demands Liquidity	Long term
Specialised Asset Managers	Long-term active investor	Value creation	Limited upside	Long term
Retail investors	Medium to long term passive investors	Attractive return profile Diversity	Liquidity	Medium to long term

Source: Macquarie Bank

As can be seen from Table 4, different investors naturally have differing investment objectives which give rise to their infrastructure investment entry and exit over time, as well as the fact that they will make use of different investment vehicles.

Specialised asset managers for example are incentivised by their investor clients to outperform benchmark returns, and they might establish an investment vehicle that provides for other client needs such as liquidity or tax considerations. Whilst optimal investment periods vary between investors, most infrastructure investors are long-term investors with the exception of contractors.

The critical decision to be made by prospective investors in the categories of Financial Institutions, Specialised Asset Managers or Retail investors, is whether they prefer to invest in debt or equity instruments. Most opportunities at the moment in South Africa are in bond funds. Banks dominate this sphere with their experience in structured finance deals. Equity investments are more risky but offer higher returns. The apex of the equity instruments is the listed infrastructure fund which is traded on stock exchanges and offer the investor the important advantage of liquidity.

3. Section Three: Infrastructure Investments in South Africa

An overview of infrastructure investing in South Africa is provided in this section. Some examples are used to provide an understanding of the sort of social and economic impacts infrastructure investments have had and what returns to investors have been achieved. For the purpose of this report the players in the infrastructure investment field are divided into the following categories: fund managers, banks and other institutions.

3.1. Fund Managers

3.1.1. Infrastructure Finance Corporation (INCA)

INCA is South Africa's largest private infrastructure debt fund. It was conceived and promoted by the First National Bank Group in response to the South African government's call for increased private sector involvement in infrastructure financing. INCA's objective is to help alleviate the existing backlog in South Africa's infrastructure development and lay foundations for future growth.

The main funding sources are both local and international, and funds have been raised through a series of INCA bond issues and long-term loans extended to the corporation by development finance institutions. Shareholders' capital is another source of funding. In the future INCA will issue Junior Bonds to augment its junior debt, and it already has commitment to this funding.

INCA has already lent funds to a number of infrastructure providers, including municipalities, water boards, tertiary educational institutions and other statutory institutions whose main business is the establishment of social and economic infrastructure in South Africa. The funding has mainly been in the form of long-term fixed interest rate loans.

The main risk that INCA faces is non-payment by one of its local authority client base. If a single large exposure, or a number of smaller ones, were to default on coupon or capital debt repayment dates, this could liquidity pressure (municipalities may not be liquidated without the approval of creditors).

INCA has a AA- investment grade rating.

3.1.2. Old Mutual

Old Mutual is involved in infrastructure asset management in three ways:

- the life company's balance sheet for the benefit of policyholders
- the Ideas Fund managed by Old Mutual Asset Managers (OMAM)
- the South African Infrastructure Funds (jointly managed by OMAM & Macquarie Bank)

For the purposes of this research, the Ideas Managed Fund and the South African Infrastructure Funds are looked at in some detail.

Ideas Managed Fund

The "Infrastructural, Developmental & Environmental Assets" (IDEAS) Funds were established in 1998 and is the brainchild of Setsing Financial Services – a joint venture company in which the trade union consortium Unity Incorporation and OMAM are the shareholders. The fund is aimed at institutional investors and in particular at retirement funds.

The primary socio-economic objective of the IDEAS Funds is to make a tangible, visible contribution to the development of South Africa's infrastructural capacity. OMAM is the appointed portfolio manager to the IDEAS Funds.

The IDEAS Funds consist of a range of funds which invest specifically in development assets aimed at financing projects to promote South Africa's long-term economic development. Development assets include all assets that contribute to the development of the country's economic capacity. Each IDEAS Fund is structured as a unitised pooled portfolio allowing investors to invest in or disinvest from the portfolios by purchasing or selling units.

The IDEAS Managed Fund is operated by means of a "fund of funds" approach. That is, the fund holds investments in the three specialist IDEAS Funds:

IDEAS Equity Fund

The IDEAS Equity Fund comprises largely unlisted shares of companies domiciled in South Africa and other SADC member countries. These companies should specifically promote development in South Africa. Blue chip listed shares that promote development, are also being held to reduce risk and increase the liquidity of the portfolio. In general, the maximum investment in any one company or project should not exceed 20% of the fund's asset value.

IDEAS Bond fund

The IDEAS Bond Fund comprises South African and other SADC member countries' unlisted bonds. Such bonds must be developmental in nature. Money market instruments, cash, gilts and semi-gilts may also be held to increase the liquidity of the IDEAS Managed Fund. In general, the maximum investment in any one stock should not exceed 20% of the fund's asset value.

IDEAS Property Fund

The IDEAS Property Fund comprises investments in development-related immovable properties such as properties in underdeveloped urban and rural areas in South Africa that are specifically infrastructural in nature. In general, the maximum investment in a single property or property development project should not exceed 20% of the fund's asset value

The main focus of the funds is on investment opportunities in South Africa, but there is also an interest in investing in the broader SADD region, given the spin-off benefits that this has for the South African economy. Investments in the region include:

- Trans Africa Concessions' N4 Maputo Corridor;
- the New Limpopo Bridge;
- the Beitbridge to Bulawayo railway mark.

An example of the economic impact that infrastructure investment can achieve is evidenced from the N4 Maputo Corridor Toll Road where the following impacts have been seen:

- 4500 people employed in projects associated with the construction of the road;
- skills training benefiting some 8 360 people
- contracts to the value of R166m extended to small, medium and micro contractors – benefiting approximately 13000 people
- increased tourism between South Africa and Mozambique
- Allied business developments e.g. 30 applications for service stations on the route

Although marketing "blurb" usually does not have a place in a paper of this nature, it is nevertheless useful to consider the sort of "promise" that an infrastructural fund manager makes to potential investors. The benefits of investing in the IDEAS Funds are described in the text box below:

Benefits of investing in the IDEAS Funds

- Investors will make a tangible and visible contribution to the development of the infrastructural capacity of South Africa. The IDEAS Funds' offering is one of the very few available to investors that focuses primarily on infrastructural investment.
- An investment in the IDEAS Funds provide clients with access to a full range of developmental assets (including both listed and unlisted equities, bonds and properties).
- Investments should earn a commercially attractive rate of return on investment without subjecting clients to undue risk.
- The offering is in support of calls made by major union groupings for greater investment in socially responsible type investments by the retirement fund industry.
- An investment in the IDEAS Funds will further diversify clients' assets by investing in an asset class whose returns are unlikely to be correlated with those of more traditional assets.
- All investments made by the IDEAS Funds are in line with the Investment Criteria developed by the Investment Committee.
- UNITY has significant experience in reviewing investments in terms of the potential socio-economic impact those investments might have on South Africa.
- OMAM has significant experience in assessing the commercial attractiveness of infrastructure projects throughout Southern Africa.
- An investment in the IDEAS Funds will support the creation of social and economic upliftment within the Southern African region.
- An investment in the IDEAS Funds will advance the Government's initiatives specifically targeted at infrastructural development (e.g. electricity and water provision, job creation, and transport).

Source: www.oldmutual.co.za/corporatecitizen/EconTransform/InfraInvest

South African Infrastructure Funds

Two South African Infrastructure Funds have been established by African Infrastructure Investment Managers (Pty) Ltd (AIIM). AIIM is a joint venture between Old Mutual Asset Managers and Macquarie Bank, from Australia. The first Fund closed fully committed with R800m under management in mid 2003. The Fund has been managed by AIIM since mid-2000 and has invested in infrastructure projects in the rail, airports and telecommunications sectors.

The second Fund was launched at the beginning of 2004 with an initial commitment of R675m. The cornerstone investments in the second Fund include Old Mutual Life Assurance Company and Standard Corporate and Merchant Bank. Other investors at the first closing of this Fund include Metropolitan Life Limited, Eskom Pension Fund and Stanlib Asset Management Limited. The Fund is a 15-year closed-end fund, and is seeking to raise further commitments from prospective and existing investors by mid 2004.

3.1.3. Futuregrowth

Futuregrowth is a specialist investment house based in Cape Town. The company is dedicated to the development and empowerment of South Africa, with many of its products geared towards supporting change. It is seen as a leader in the management of Targeted Investment (TI) funds (those that deliver sound economic returns and quantifiable positive social impact). Futuregrowth has developed a Social Impact Scorecard with criteria that screen, monitor and report on the empowerment and socio-economic impact of the investments in its TI funds. There

are currently two TI funds in the Futuregrowth stable, the Futuregrowth Infrastructure Bond Fund and the Futuregrowth Community Property Fund.

Futuregrowth Infrastructure Bond Fund

The Futuregrowth Infrastructure Bond Fund (FIBF) is the largest infrastructure debt fund (R3.2 billion) in South Africa. Besides traditional bond investments, the Fund also invests in project finance and structured deals. The Fund's social impact is measured using Government's estimates and requirements for energy, water and sanitation, transport, communications, housing, health, education and security, as reflected in the RDP guidelines.

The FIBF has performed well since inception. It has beaten its chosen benchmark (the All bond index) with a return of 19.41% vs. the 18.52% of the benchmark. The positive social impact of the fund is clear from the following statistics:

- Facilitated the development and construction of over 200,000 houses
- Developed and maintains 9 200km of road network
- Facilitated the creation of over 10 000 jobs in various development sectors
- Provides access to health services for 13 million South Africans
- Is currently invested in R225 million of water and sanitation infrastructure

Futuregrowth Community Property Fund

Since its inception in June 1996 the Community Property fund has focused on the provision of finance for the development of retail shopping centres catering to the needs of under-serviced communities throughout South Africa.

The fund has invested in the development of 14 shopping centres located in semi-rural and township areas countrywide. The centres cater for a niche market of low to middle income groups and range in size between 5 000m² and 11 000 m². In the process 3 250 people has gained direct employment. The fund is fulfilling its objectives and has managed a return of 13.01% since inception against the 10.6% of the benchmark (inflation plus 4%).

3.2. Banks

The four main retail banks and the investment banks like Investec and RMB are core participants in infrastructure investment through their financing operations. In general they are active in the debt market with very few examples of equity investments. As such they do not offer ready-made investment opportunities but are increasingly keen to get involved in infrastructure projects to fulfil their responsibilities regarding the recent financial charter.

Standard Corporate Merchant Bank (SCMB) was one of the pioneers in the industry when it established a closed end fund in 1996. After a rocky start they teamed up with the Australian Macquarie bank to form the successful R800m South Africa Infrastructure Investment Fund. The successor to SAAIF is the African Infrastructure Investment Fund (AIIF), managed by the joint venture between Macquarie and Old Mutual. See the discussion under Old Mutual. SCMB remains one of the cornerstone investors.

Nedcor is also keen to expand its activities in the field of infrastructure investment. Nedcor established an investment company for this purpose in 1998 and has made investments of about R4bn. A major focus currently is on a project to create a pan African rail network.

3.3. Other Institutions

The following institutions do not specialise in portfolio investment but are active in various capacities in infrastructure development.

3.3.1. Development Bank of South Africa (DBSA)

The Development Bank of Southern Africa (DBSA) is southern Africa's premier infrastructure development finance institution. Established in 1983 by the government of the Republic of South Africa, the DBSA is one of five existing development finance institutions in South Africa and has a mandate to accelerate sustainable socio-economic development in the region by funding physical, social and economic infrastructure. In doing so, the DBSA endorses and promotes human resource development and institutional capacity-building.

As a leading development finance institution playing the threefold role of lender, advisor and development partner, the DBSA provides a range of products and services centred on the mobilisation of expertise and the identification of development partners. One of the relevant initiatives of the bank is the Development Fund.

The Development Fund

Government, the private sector and civil society recognise that capacity constraints represent the biggest obstacle to service delivery by municipalities. The DBSA has responded to this challenge by establishing the Development Fund, a section 21 company under the Companies Act, No. 61 of 1973. It was incorporated in December 2001 to address sustainable capacity building at municipal level, and to support municipalities in enhancing service delivery and local economic development.

The core business of the Fund is to maximise the impact of development Finance by mobilising and providing grant funding to address human, institutional and financial constraints to rural and urban development, thereby promoting efficient and effective service delivery and local economic development.

The Fund's programmes support capacity building initiatives with specific focus on skills transfer (e.g. training), planning studies (e.g. integrated development plans, business plans, community led initiatives) and development facilitation (e.g. consultation, advice and support) to help municipalities and communities achieve their goals.

The Fund initiatives are also intended to serve as an investment in the future market of the DBSA and other development finance institutions by creating human and institutional capacity to absorb more technical assistance and loan funding for local economic development.

3.3.2. Industrial Development Corporation (IDC)

The IDC's focus is on contributing to economic growth, industrial development and economic empowerment through its financing activities. The IDC has evolved from being a leading industrial player at national and regional levels to being the first South African Development Finance Institution (DFI) to have its mandate extended to the rest of the African continent. These developments will provide an important catalyst for the New Economic Partnership for African Development (NEPAD).

Whilst historically the IDC has had a focus on the industrial sector, it has a strategy to focus on sectors and regions with potential for economic development. As a result, approvals for new business in these areas now account for 46% of all approvals in value terms. This has resulted in increased involvement in non-

metropolitan areas due to focused rural initiatives and activities in agriculture, forestry and tourism.

3.3.3. The International Finance Corporation (IFC)

The International Finance Corporation is the private sector arm of the World Bank Group. IFC's mission is to promote private sector investment in developing countries, which will reduce poverty and improve people's lives. IFC finances investments with its own resources and by mobilizing capital in the international financial markets. IFC also provides technical assistance and advice to governments and businesses.

IFC has invested in infrastructure since its first loan to Meralco, the electric utility for Manila (Philippines) in 1966. Since 1992 infrastructure has become a significant part of its work of assisting the development of private sector business opportunities in emerging economies. In July 1992, the Corporation set up a specialized Infrastructure Department to build up its expertise in financing infrastructure projects so as to assist private sector sponsors to finance infrastructure projects in member countries. Today, other than the power, oil & gas and telecommunications sectors, IFC's infrastructure practice is contained within the Infrastructure department which is further sub-divided into two practice areas: Transport and Utilities.

Since resuming activities in South in 1994, and as of June 30, 2002, IFC has committed financing to projects in South Africa amounting to US\$253 million. Investments include US\$238 million for IFC's own account and US\$15 million for the account of banks participating in loan syndications. IFC's strategic priorities in South Africa include a focus on:

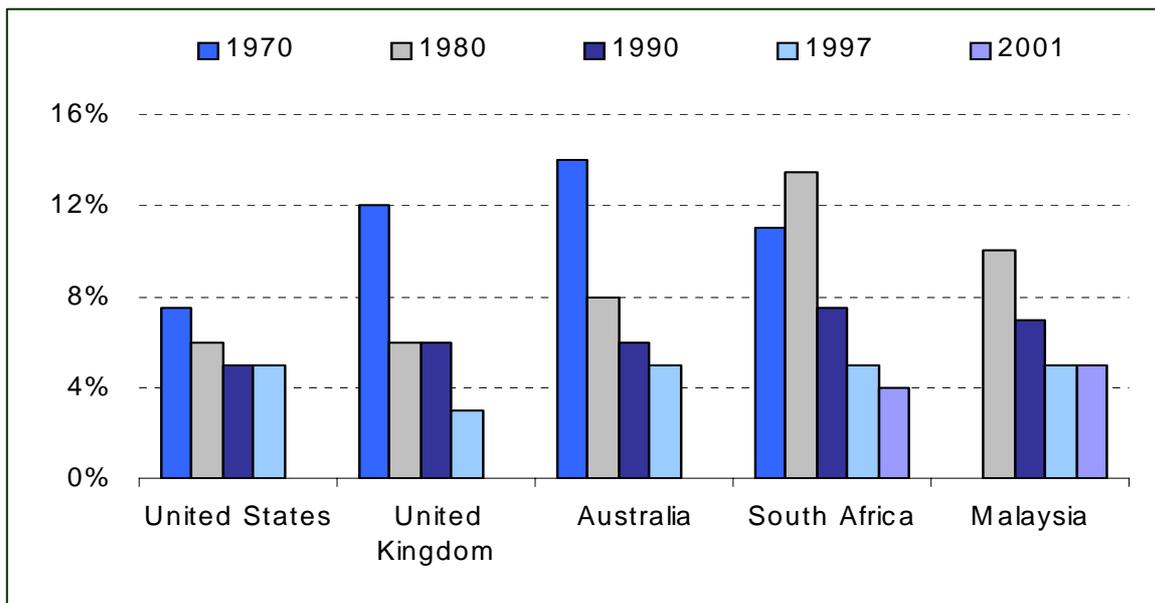
- Providing financing for projects with a strong export focus and job creating potential.
- Encouraging South African corporates to expand into other countries in Africa by providing finance and covering against risks.
- Helping further develop South Africa's advanced financial sector.
- Supporting small and medium enterprises in projects that are catalytic to development.
- Investing in software and information technology projects.

4. Section Four: Lessons from International Experience

The ambit of the paper does not allow for a comprehensive review of international experience to be conducted, but this section will seek to establish some key lessons from international experience. In so doing, it is important to emphasize that every investment in infrastructure is unique, especially given the uniqueness of each category of infrastructure.

An overview of infrastructure investing internationally indicates that South Africa is not out of line with the trend away from government facilitation of infrastructure investing. Graph 2 shows how since the 1970s there has been a steady decline in government infrastructure investments as a percentage of total outlays in both developed economies: e.g. United States, United Kingdom and Australia; as well as developing economies: e.g. South Africa and Malaysia. Pressure on governments to lower taxes and still provide services such as health and welfare has resulted in an adjustment of spending priorities for governments around the world. The move to greater involvement by the private sector in infrastructure investment is thus a global trend.

Graph 2; Government infrastructure investments as a % of total outlays



Source: African Infrastructure Investment Fund, 2004

4.1. Lessons from developed countries

Private sector involvement in infrastructure projects developed countries grew from the wave of privatisation following the Reagan / Thatcher era. The Australian experience provides a useful example of the evolution of the industry. According to Macquarie Bank, before the 1990s, the focus in Australia was on investments in toll roads, hospitals, water and power, with the bread and butter being toll roads, as is the case elsewhere in the world. In the next phase of evolution in the mid-1990s, investments included prisons, sea ports and stadiums. In the late 1990s, airport and rail investments were added, and in the first few years of the new millennium, there have been investments in defence, schools and courts.

In Australia the trend has been to growing allocations to infrastructure investments by institutional investors. Where the mandate allows alternative investments (i.e. other than the traditional asset classes), more than 50% of this allocation is often allocated to infrastructure investments. Superannuation funds in Australia with more than \$1bn in assets, comprise the bulk of invested funds, with typical allocations of between 4% and 9%. In 1995, there were virtually no investments from Australian institutions in infrastructure. Now, one Superannuation Fund, the MTA Super in fact has an allocation of 20% to infrastructure investments. (Macquarie, 2004)

It is important to note that whilst there is a trend to private involvement in infrastructure investing, this does not mean that this is the optimal solution to the reduced allocation of government spending to infrastructure. Private investment in infrastructure can result in effective provision of that infrastructure, as has been the case for example, with urban telecommunications in Australia. But private investment in urban toll roads, arguably have been at a higher economic cost than would have been the case with public provision. McAuley (2002) argues that in Australia, tolls on urban freeways have generally resulted in their being under-utilized, “with foregone opportunities for environmental improvement, improved safety and travel time savings” (McAuley, 2002, p 8) An example of this problem comes from Japan, where Tokyo’s Aqualine Expressway is one of the quieter roads in that country, mainly because the toll of 4000 yen is very expensive for a 15 minute ride. To the operator, the fee is reasonable and provides an acceptable rate of return. (Roads are expensive in Japan because of high

land prices, and high construction costs in earthquake zones.) But for most Japanese drivers, it is better to take the extra 80km trip on congested roads, with the associated costs of vehicle wear, frustration and use of precious fossil fuel. (McAuley, 2002).

The Aqualine Expressway provides an example of the risks involved with private investment in a non-rival good that is excludable. It can result in the waste that is associated with the under-utilization of expensive capital. So whilst the operator may achieve a reasonable financial return, there is effectively an economic loss. For example, if the government were the owner, it could set a price that ensures full asset utilization which could mean the financial returns do not cover the investment, but the “profit” of the investment accrues to the community in terms of non-market benefits, such as travel time savings on roads, or improved air and water quality. Projects with non-excludable benefits are often economically viable, while not being financially viable, but this is an issue which can be overlooked when the private sector is investing in infrastructure. In South Africa, a potential example of this is the proposed Wild Coast toll road, which undoubtedly would provide a financial return to its investors, but without the cost to the local environment and communities necessarily being factored in.

Another problem that has emerged from international experience is the fact that private investors often have to apply a premium in their returns to cover sovereign risk and network risk. Sovereign risk occurs where the return on a project may be damaged by future government policies. Companies that provide infrastructure often try to reduce sovereign risk by spelling out sovereign risk contingencies in contracts. For example, in Australia, toll road developers have secured guarantees from State governments not to build competing transport infrastructure. In addition to this, there is always risk that cannot be anticipated in a contract. Hence private investors will seek a premium in their discount rates to account for this residual risk. For example, there can be little protection against governments reneging on contracts entered into by previous administrations.

Governments, as owners of infrastructure don't have to apply a sovereign risk premium on their discount rates as by definition, they act in their best interests. Also, they are likely to consider investments in a more systematic sense than fragmented private owners, particularly when infrastructure has network characteristics. In the UK, for example, when the rail system was sold to private firms, some owners of small spur lines abandoned their investments because they were unprofitable. But these lines were feeders to the trunk lines, which suffered in turn when these feeder lines were closed down. The transaction and co-ordination costs of integrating services across a fragmented network are very high. As McAuley (2002) points out, “one could argue validly that the problem lies in fragmentation, rather than in private ownership, but to overcome such fragmentation, a government would have to sell all its transportation network (road and rail) or all its energy reticulation system (electricity and gas) to one operator, introducing problems of monopolisation.” (McAuley, 2002, p10)

The fact that governments in general have sufficiently large and diverse portfolios of assets means that they are able to reduce the risk faced by private investors. It also emphasizes why governments are able to take a longer-term view on investments, than the private sector, and consequently, have lower discount rates than private investors. It is thus important to note, that international experience suggests that leaving infrastructure investments to private markets can lead to under-investment in infrastructure. In so doing it emphasizes the importance of approaching infrastructure investing with a great deal of pragmatism and prudence.

4.2. Lessons from developing countries

The Asian experience of infrastructure investment is probably the most appropriate experience to reflect upon given that most Asian countries and South Africa can be

classified as “developing country” economies. In the 1990s Asia experienced an infrastructure backlog as a result of rapidly growing economies. South Africa’s reason for an infrastructure backlog is different, but means that South Africa faces a similar dynamic to Asia in the 1990s, with the need for greater infrastructure investment to support a growing economy.

In the early 1990s, as a result of the rapid growth in the Asian “tiger” economies investment requirements for infrastructure were significant, and far exceeded previous forecasts or experience. In most Asian economies, development was regarded as being hindered by bottlenecks in different forms of infrastructure; power (e.g. the Philippines), transport (e.g. Thailand), water (most of Asia) and telecommunications. It became apparent that government infrastructure spending, international aid, and official sector lending would not be sufficient to meet requirements, which resulted in the involvement of the private sector.

The Asian Development Bank has conducted a comprehensive review of the Asian experience in the 1990s and drawn lessons from each of the five major sectors: power, water, roads, ports, and airports. It is not within the ambit of this paper to detail the lessons from each sector, but rather to highlight the common lessons arising from each sector. The review of best practices in each of the five sectors highlighted the importance of competition, transparent tendering and effective regulation. Five key lessons were identified. These lessons are taken from the African Development Bank review and are outlined briefly below.

- ▶ *Government should specialize in planning, structuring, and regulation, while private sector should specialize in management, investment, construction and financing*

Infrastructure industries have tended to be so long in the public sector because they have the characteristics of natural monopolies, such as: costs are lower with only one provider; services are often essential (e.g. water, power, transport). These infrastructure monopolies also have the qualities such as high capital costs, long-lived assets with low variable unit costs and significant economies of scale. As a result, the common judgment was that state ownership, rather than state regulation of privately owned assets would deliver the best outcomes.

The Asian experience shows that public ownership and management is not necessary, nor the best way to ensure universal access. (Although, McAuley (2002) does suggest otherwise) The key advantage of providing public services via the private sector is that it allows the civil servants to concentrate on planning, policy and regulation; while the private sector can do what it does best: invest capital; manage businesses; manage and create appropriate incentives for staff and management; deal with customers; improve the efficiency and quality of service – this can be achieved by benchmark comparison as a form of competition.

- ▶ *The transfer of responsibility to the private sector should be accomplished through deregulation and open competition or well-established contractual arrangements including management contracts, capital leases, concessions, sale of assets and rights to operate*

In Asia, the effectiveness of private investment in infrastructure suffered from a lack of adequate regulatory structures to control both technical and economic performance. For example, regulation of tariffs is critical.

Without a well-developed legal and regulatory framework, the level of risk to investors increases. It can also encourage investors to rely on special situations and political relationships, rather than their merits as a means for securing and implementing contracts. The Asian experience emphasizes that the transfer of infrastructure services to the private sector should not lead to privileged deals or profits secured by government guarantees. They should be businesses with regulated income streams which derive their profits from increased efficiency and additional demand. These income streams should be capable of securing substantial private sector funding, both because their semi-regulated nature makes them much like a government bond, and because the essential and often monopoly nature of the service lowers demand risk. Such assets are also long-lived and thus tend to be attractive to pension and similar long-term funds.

- ▶ *Economic regulation should be applied where there is insufficient competition but it should be transparent and predictable while still accommodating the concerns of the affected parties*

The Asian experience has shown that unbundled infrastructure sectors with individual components managed separately can perform better than centrally-controlled networks. The additional costs of unbundled networks due to increased communications and transactions among components has been mitigated by improvements in technology. At the same time, the unbundled management has been able to better focus on the capacity and productivity of the individual components and their interface with other components. The unbundling of infrastructure sectors is an important technique for reducing their natural monopoly and promoting competition. However as indicated in the previous section, the experience of the UK suggests that the fragmentation of networks can also be problematic.

Where competition cannot be created, it is possible to create contestable environments, e.g. a market for the business. This can be done in a number of ways. Firstly, by competitive bidding for the sale or lease of assets and licensing or franchising of services. Secondly to reduce the period of the contractual agreements or to provide for a periodic review of performance. Thirdly, to introduce performance targets related to the quality of the service, range of services, the prices charged for the services and the overall market share. The ability of the private sector to achieve these targets is then linked to penalties, or provisions that may lead to early termination of the agreement. Fourthly, to require comparable performance vis-à-vis other networks. This may be in the form of requirements for increasing market share relative to other providers of similar services, or requiring a quality of service and price that is comparable to other networks serving similar markets.

Most infrastructure sectors are composed of profitable and unprofitable components. This can be dealt with in a number of ways: one, to bundle profitable and unprofitable components together and transfer these to the private sector at an acceptable level of profitability; a second, to tender the profitable components through techniques ranging from operating agreements and franchising to sales of assets and to transfer the unprofitable components using management contracts; a third strategy is to transfer the profitable components to the private sector and to retain the unprofitable components in the public sector, but under the control of local government units rather than the national government.

- ▶ *Long-term domestic financing sources must be developed*

Private sector funding of infrastructure can bring the risk of foreign currency mismatches into the financing package; income being in the local currency, but the need to resort to foreign debt and equity markets means that the debt service requires

substantial foreign currency. The risk of foreign debt was highlighted in the Asian financial crisis in the late 1990s, when local currencies depreciated dramatically (by as much as 80% in Indonesia) and has also been highlighted recently in South Africa with the R7bn currency hedging loss by SAA.

Hence it is important for the domestic capital market to have depth. In principle, currency matching requires that the bulk of debt funding of infrastructure services such as transport, water supply, electricity and other urban service should be in local currency.

- ▶ *Commercial risks should be assigned to the private sector but other risks should be assigned according to which party is able to mitigate the risks*

In Asia, governments often accepted commercial risks that should have been assigned to the private sector. For example, foreign exchange risk or demand/traffic (volume) risk. Guarantees by government had a number of impacts: isolated private sponsors from the influences of the market; created contingent liabilities for governments; and encouraged price rigidity which led to distortions in markets and reduced the potential for the private sector to improve efficiencies and in investment and operations. It is critical that there is an appropriate division of risks between government and the private sector.

5. Section Five: Conclusion and The Way Forward

The paper has outlined the dual challenge facing retirement funds in South Africa: namely to contribute to social and economic development, whilst at the same time generating returns that can meet the retirement needs of fund members. By way of conclusion and determining the way forward, this section seeks to integrate the lessons from International and South African experience, with the theoretical investment case for infrastructure investments. In so doing a conclusion is drawn on three key factors:

- what infrastructure investments could have the greatest impact on socio-economic returns;
- the most appropriate structuring of such investments;
- the expected financial risks and returns of these investments.

5.1. Impact on socio-economic returns

There is no doubt that investments in infrastructure can meet both member benefit needs and provide socio-economic returns. The impact on socio-economic returns has been highlighted in examples discussed in Section Three. With respect to job creation the evidence suggest that investments in economic infrastructure such as roads, bridges, dams, electricity and water supply are likely to have a greater impact than investments in social infrastructure such as schools, hospitals, and administrative services.

5.2. Structuring infrastructure investments

In respect of how best to structure infrastructure investments, the evidence suggests that both equity-based and debt-based instruments have a place. The nature of the project will have a key influence on the most appropriate vehicle. Hence a recommendation of the most appropriate vehicle cannot be made in isolation of a specific project or fund-type. The key issue for the Naledi Pension Fund unit to consider in this respect is, what is the return objective? In so doing, two further questions need to be asked. Is it to provide primarily an income stream or capital growth? What is the required magnitude of return?

5.3. Expected financial risks and returns

An indication of actual achieved returns and risks have been provided in examples from both international and local experience. An overview of the nature of the risks that infrastructure investing faces has also been provided. It has been established that in comparison to other asset classes, on a risk and return basis infrastructure investing probably fits in between bonds and property. However during the research process it has been established that a broad range of reported returns exist, depending on the nature of the vehicle. The nature of the vehicle also changes the risk profile – for example traded listed instruments present very different risks from unlisted funds. Given the nature of the instruments and the limited history of infrastructure investing, it is not possible to present a generic expected risk and return profile for infrastructure investments. A thorough analysis of each specific investment opportunity will need to be done. Nevertheless it is clear that early movers in infrastructure investing are likely to generate higher returns, but naturally will have to take on higher risk.

It is clear that infrastructure investments have the potential to boost returns in the investment portfolio of any retirement fund in South Africa. The potential socio-economic benefits are also evident. But investing infrastructure is not without complexity, and it is an under-researched area of investment markets in South Africa. Hence at this stage in South Africa we do not believe that infrastructure can be treated as a generic asset class and that means very focused research needs to be done on every potential infrastructure investment opportunity.

Trustees of pension funds should exercise extreme care in venturing into a new and under-researched area like infrastructure investments. The experience of the pioneers in South Africa, like Standard Merchant bank who lost significant amounts with their first venture in 1996, should be heeded. Their subsequent venture with an experienced partner like Macquarie bank was much more successful. Trustees are strongly advised to invest in existing infrastructure funds like before they endeavour to establish their own funds.

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Tom Plaistowe, Portfolio Manager: Development Assets, Old Mutual Asset Managers
Lisa Christodoulou and Andrew Canter, Analyst and portfolio manager, Futuregrowth
Kobus Vorster, Portfolio manager, Sanlam Investment Management
Heather Jackson, Portfolio manager, African Harvest
Orville Cachia, Head of Infrastructure, Nedcor, Project finance division

NALEDI Pension Fund Unit Research Series
Infrastructure Investment: An Overview

Appendix 1

ANNEXURE TO REGULATION 28

[Annexure to Reg. 28 inserted by GN R1920 of 1 September 1989 and substituted by GN R2361 of 27 September 1991, by GN R1677 of 18 October 1996 and by GN R1154 of 11 September 1998 and corrected by GN R1218 of 25 September 1998]

Item	Column 1	Column 2
	Categories or kinds of assets	Maximum percentage of aggregate fair value of total assets of fund
1	(a) Inside the Republic- Deposits and balances in current and savings accounts with a bank or mutual bank, including negotiable deposits, and money market instruments in terms of which such a bank or mutual bank is liable. Paid-up shares of a mutual bank, or deposits and savings accounts with the Post Office savings bank, as well as margin deposits with Safex: (i) Per bank (ii) Per mutual bank (iii) Post Office Savings Bank (iv) SAFEX	100% 20% 20% 20% 5%
	(b) Territories outside the Republic- Deposits and balances in current and savings accounts with a bank including negotiable deposits and money market instruments in terms of which such a bank is liable	15%
2	Krugerrands	10%
3	Bills, bonds and securities issued or guaranteed by and loans to or guaranteed by-	100%
	(a) Inside the Republic-	
	(i) A local authority authorised by law to levy rates upon immovable property - per local authority	100% 20%
	(ii) Development Boards established under the Black Communities Development Act, 1984 (Act 4 of 1984)	20%
	(iii) Rand Water Board	20%
	(iv) Eskom	20%
	(v) Land and Agricultural Bank of South Africa	20%
	(vi) Local Authorities Loans Fund Board	20%
	(b) Territories outside the Republic- - the foreign Government concerned	15%
4	Bills, bonds and securities issued by and loans to an institution in the Republic, which bills, bonds, securities and loans the Registrar approved in terms of section 19 (1) (h) of the Act before the deletion of that section by section 8 (a) of Act 53 of 1989, and also bills, bonds and securities issued by and loans to an institution In the Republic, which institution the Registrar likewise approved before such deletion: - Per institution	100% 20%
5	Bills, bonds and securities issued by the government of or by a local authority in a territory other than the Republic, which territory the Registrar approved in terms of section 19 (1) (i) of the Act before the deletion of that section by section 8 (a) of Act 53 of 1989, and also bills, bonds and securities issued by an institution in such an approved territory, which institution the Registrar likewise approved before such deletion: - Per authority	100% 20%
6	Immovable property and claims secured by mortgage bonds thereon. Units in unit trust schemes in property shares and shares in, loans to and debentures, both convertible and non-convertible, of property companies: (a) Inside the Republic- - per single property, property company or property development project (b) Territories outside the Republic- - per single property, property company or property development project	25% 5% 10% 5%
7	Preference and ordinary shares in companies excluding shares in property companies. Convertible debentures, whether voluntarily or compulsorily convertible and units in equity unit trust schemes which objective is to invest their assets mainly in shares. These investments are subject to the following limitations: (a) Inside the Republic-	75% 75%

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	(i) Unlisted shares, unlisted convertible debentures and shares and convertible debentures listed in the Development Capital Sector of the Johannesburg Stock Exchange	5%
	(ii) Shares and convertible debentures listed on the Johannesburg Stock Exchange other than the Development Capital Sector	75%
	(aa) per one company with a market capitalisation of R2 000 million or less	10%
	(bb) per one company with a market capitalisation of more than R2 000 million	15%
	(b) Territories outside the Republic-	
	Preference and ordinary shares In companies, convertible debentures, whether voluntarily or compulsorily convertible	15%
	(i) Unlisted shares and unlisted convertible debentures	2.5%
	(ii) Shares and convertible debentures listed on any recognised foreign exchange	15%
	(aa) per one company with a market capitalisation of R2 000 million or less	10%
	(bb) per one company with a market capitalisation of more than R2 000 million	15%
8	Listed and unlisted debentures. units in a unit trust scheme with the objective to invest income generating securities and any secured claim against individuals and companies:	25%
	(a) Inside the Republic-	25%
	(i) claims against any one individual	0.25%
	(ii) claims against any single company	5%
	(b) Territories outside the Republic-	15%
	(i) claims against any one individual	0.25%
	(ii) claims against any single company	5%
9 *	Investments in the business of a participating employer inside the Republic in terms of	
	(a) Section 19 (4) of the Act; or	5%
	(b) to the extent it has been allowed by an exemption in terms of section 19 (4A) of the Act.	10%
10	Any other assets not referred to in this Annexure, excluding-	2,5 %
	(a) money in hand in the Republic	
	(b) loans granted inside the Republic to members of the fund concerned in accordance with-	
	(i) the provisions of section 19 (5) of the Act; and	
	(ii) such exemptions as may have been granted to the fund in terms of section 19 (6)	
	(a) of the Act	
	(c) bills, bonds or securities issued or granted by, or loans to or guaranteed by the Government of the Republic or a provincial administration	
	(d) units in a unit trust or scheme as defined in the Unit Trust Control Act, 1981, the underlying assets which consists only of-	
	(i) assets referred to in paragraphs (i), (ii) and (iii) of item 1 (a) of this Annexure;	
	(ii) assets referred to in paragraph (c) of this item; or	
	(iii) assets referred to in items 3, 4 and 5 of this Annexure.	

Appendix 2

The Futuregrowth Social Impact Scorecard (The Scorecard)

INTRODUCTION

The global trend of Triple Bottom Line (TBL) accounting (social, economic and environmental) is driven by the goal of sustainable development.

The World Summit on Sustainable Development, held in Johannesburg in August/September 2002, was initially termed the Johannesburg 'earth' summit (focussing on 'green' issues), but interesting preparatory widened the Summit's agenda to include economic and social ('brown') issues that support and sustain human development².

Futuregrowth subscribes to the TBL in its developmental portfolios. In the investment process it screens and monitors the investments in these portfolios by means of the *Futuregrowth Social Impact Scorecard*. The Scorecard forms the framework from which current and future social impact reports are created.

*"Boards should become familiar with the criteria in regard to socially responsible investment used by investment managers responsible for investment of corporate and pension funds on its behalf."*³

The Futuregrowth Socially Responsible Investment Committee (SRIC) assesses and approves the criteria developed for the Scorecard. This independent committee ensures the credibility and social accountability of the Scorecard. The SRIC members are Kate Philip (Chair), Dr. Tshabalala, Fr. Peter-John Pearson, Rudolf Gouws, Matshilo Motsei and Wayne Van der Vent (Futuregrowth representative).

The Scorecard is based on the "Three Pillars of Empowerment" as defined by Futuregrowth. Each Pillar has several **criteria** as mentioned below. These criteria are further evaluated by underlying questions weighted according to their relevant importance (these are not discussed in this report).

² BusinessMap Foundation. 2002. *Browning the green issues: SA's agenda for the World Summit on Sustainable Development*. Johannesburg.

³ Institute of Directors (IOD). 2002. *King Report on Corporate Governance for South Africa 2002*. Parklands: p 118

I. EQUITY OWNERSHIP

Equity ownership forms the **First** pillar of empowerment. The following criteria are used under the first pillar to evaluate the **Empowerment Entity**:

- Sustainable Empowerment Ownership
- Operational Involvement
- Broad Based Ownership
- Human Resource Availability
- Skills Available
- Financial Risk/Career Risk

Sustainable Empowerment Ownership: Essentially, the model situation for an empowerment deal would be majority sustainable equity ownership by the Empowerment entity (group/consortium/individuals/company etc) whether this is external ownership or internal ownership (i.e. through an employee share ownership plan - ESOP).

Operational Involvement: It is important that the Empowerment entity be actively involved in the day-to-day operations of the investee company. Involvement is expected to stretch further than just at board level, including middle management, skilled and unskilled levels. Where there is significant involvement it is deemed an owner/manager model.

It is important for the Empowerment entity to have a balance sheet or an ability to generate their own cashflows. If at first, this is not the case, the Empowerment entity is expected to work itself into a position of being self-sustaining.

Broad-based Ownership: The government encourages broad-based empowerment. It is important for Empowerment to be economically expansive unless an owner/manager model is adopted. The definition of broad-based groups stretches from retail schemes, tribal authorities to co-operatives. This would be specifically applicable in the restructuring of state assets (privatisation).

Human Resources Availability: This refers to the number of individuals in the Empowerment entity dedicated to working on the portfolio investments as opposed to other investments the group or consortium may have.

Skills Available: The Empowerment entity is encouraged to enhance the skills of the employees in the investee company. Where skills are not readily available, a skills development programme should be implemented either at the Empowerment entity level or in the investee company.

Financial Risk and Career Risk: The Empowerment entity and/or individuals will be required to take some financial and/or career risk.

II. INTERNAL EMPOWERMENT

Futuregrowth defines the **Second** Pillar of empowerment as Internal Empowerment. The **investee company** is scored against the following criteria:

- Employment Equity
- Skills Development and Training
- Responsible Procurement
- Labour Relations
- Working Conditions
- Corporate Governance

Employment Equity: All companies are required to comply with government's Legislation for Employment Equity (including Gender Equality). The Scorecard measures beyond compliance to the above Act. International standards are monitored with regards to the above and the latest World Bank indicators for gender equality are considered.

Skills Development and Training: Government's existing legislation is the Skills Development Act of November 1998 and the Skills Development Levies Act of February 1999. It is not enough to merely comply with legislation and the questions are therefore modelled to ensure that the investee company meets the goals set in its Employment Equity Plan, through its Skills Development and Training Plan and programmes.

Responsible Procurement: The Scorecard has set requirements for the investee company regarding targeted procurement. Furthermore, a closer look is taken at the integrity of the investee company's supply chain and their own payment disciplines.

Labour Relations: Issues in respect of grievance procedures, staff forums, the protection of human rights, union issues, health policies (including HIV/AIDS policy) etc. are evaluated in qualitative terms through this criteria.

Working Conditions: Once again the Scorecard checks the conditions above legislated compliance and takes into consideration the needs of women in the workplace, overtime compensation, (time off for) training etc.

Corporate Governance: Things takes in to consideration the clauses from the King II pertaining to Corporate Governance. Furthermore, it also looks at the Corporate Social Investments made by the company and whether these projects lead to sustainable development and encourages development in and around its physical environment.

III. SOCIO-ECONOMIC IMPACT OF PRODUCT OR SERVICE

Futuregrowth defines the **Third** Pillar of empowerment as the Socio-economic Impact of the Product or Service. The Scorecard evaluates the **investee company** according to the following criteria:

- Environmental Impact
- Social Impact
- Economic Impact

Environmental Impact: International best practice, IFC and World Bank Regulations as well as local South African Environmental Regulations are followed when assessing the environmental impact of an investment. Companies are at risk of scoring negatively on this criterion if it is found that their product or service has a negative impact on the environment and no mitigation has taken place. Where relevant, the Fund Manager will request an Environmental Impact Assessment report and Environmental Management Report.

Social Impact: Criteria include health (in particular HIV/AIDS), education, housing and other social infrastructure. Where a product or service adds social benefits to the community it scores positively on the Scorecard.

Economic Impact: Job creation, tourism, small business development, direct foreign investment and economic infrastructure are some of the economic criteria used in the Scorecard and measured against relevant benchmarks and indicators.

Conclusion

Triple bottom line reporting is the marriage between economic, social and environmental accounting and increases the returns to investors.

*“In particular, pension funds, both in the private and public sectors, should indicate in a Statement of Investment Principles and Policies or an equivalent document whether or not they take into account socially responsible investment criteria when making investment decisions”.*⁴

The *Futuregrowth Social Impact Scorecard* takes into account all the aspects of socially responsible investing and measures these outputs in quantitative terms. Corporate Governance Legislation and guidelines internationally and in South Africa are increasingly moving towards disclosure of socially responsible investing, ethical issues, in essence the triple bottom line. The Scorecard encapsulates all of these dimensions and delivers the results through Social Impact Reports.

⁴ Institute of Directors (IOD). 2002. *King Report on Corporate Governance for South Africa 2002*. Parklands: p 118