

# THE CASE FOR INFRASTRUCTURE AS AN ASSET CLASS

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## EXECUTIVE SUMMARY

Africa is in dire need of investment in infrastructure, both to tackle its substantial infrastructure deficit and to stimulate stronger and more sustainable economic growth. Infrastructure investment has a number of advantages over more traditional asset classes. For example, it can serve as a good inflation hedge over the long term and, if the underlying projects are well conceived and executed, it can generate stable and predictable cash flows. Institutional investors, particularly pension funds and sovereign wealth funds, represent important sources of funds for this type of investment because of their relatively long-term investment horizons and their need to diversify and spread their risk. However, infrastructure investment in Africa by institutional investors has traditionally been very low. Not only is it often seen as highly risky, but there are currently few financial instruments and funds to encourage this activity. Furthermore, relatively few African infrastructure projects are deemed 'bankable' or viable, while countries' pension fund regulatory frameworks are often restrictive or bureaucratic, which are further deterrents.

To unlock the significant potential of infrastructure investment in Africa, pension funds and sovereign

funds, regulators, public and private investors, project developers and other stakeholders need to engage more closely and achieve a common vision of what could be achieved through more robust infrastructure development on the continent.

## INTRODUCTION

According to the [2018 African Economic Outlook](#),<sup>1</sup> investment in infrastructure projects is among the most impactful investments a society can make, particularly in developing economies. When effectively established and operated, infrastructure can contribute significantly to economic growth by enabling industrial activity as well as regional and international trade. Infrastructure investment also yields potentially higher returns than traditional asset classes. However, despite its clear socio-economic benefits, infrastructure investment in Africa by institutional investors is perceived to be well below expected levels.

African institutional investors (insurance companies, pension funds, hedge funds, endowments, sovereign wealth funds and mutual funds) represent a potentially sizeable source of infrastructure investment given their relatively long-term investment horizons and their general need to diversify and spread risk. This source of funding has been recognised by the AU-NEPAD

Continental Business Agenda, which in 2017 set the ambitious goal of increasing African institutional investment from sovereign wealth funds (SWFs) and pension funds in infrastructure projects on the continent from the current level of 1.5% to 5%.<sup>2</sup>

In 2016, overall financing for infrastructure in Africa amounted to \$62.5 billion.<sup>3</sup> Given the estimated \$130–\$170 billion that is required annually for Africa to meet its infrastructure deficit,<sup>4</sup> the current focus on institutional investment in infrastructure is critically important.

## RATIONALE FOR INFRASTRUCTURE AS AN ASSET

Infrastructure can broadly be categorised into economic infrastructure (eg, transport, renewable energy and telecommunications) and social infrastructure (eg, schools, prisons and hospitals). Economic infrastructure is more likely to generate commercial returns on investment and attract private finance. Social infrastructure, on the other hand, is required to meet social needs, which means that returns often do not cover costs. As a result, such investments typically are financed by the public sector.

Institutional investors will assess a potential infrastructure investment as they would any other investment; hence, there must be a clear rationale for

them to divert their resources from traditional asset classes to infrastructure.

### KEY CONSIDERATIONS INCLUDE:

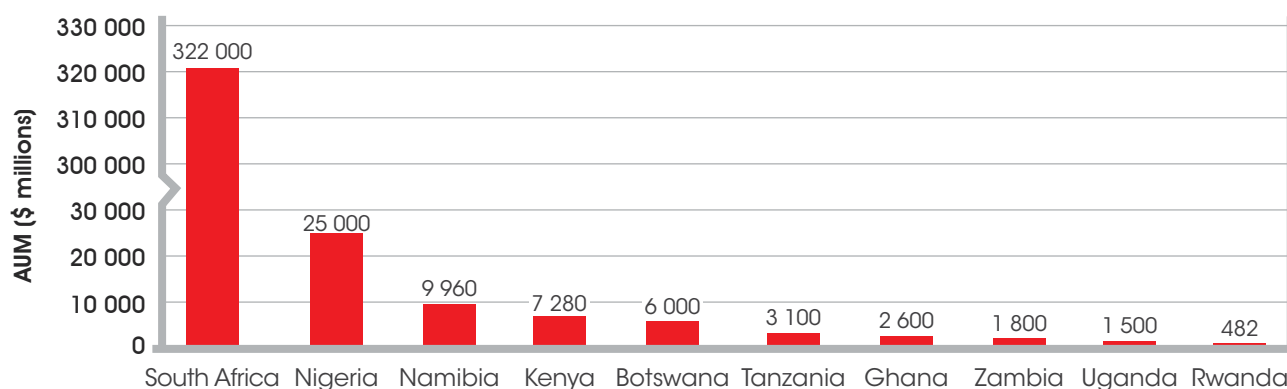
- Infrastructure investments have a long-term horizon, which aligns with the investment horizons of pension funds and SWFs.
- There is typically a low correlation between infrastructure investments and the fluctuations and return profiles of other asset classes.
- Well-structured infrastructure projects can be expected to provide stable and predictable cashflows.
- Infrastructure investments can serve as a good inflation hedge over the long term.

Economic infrastructure, which usually meets these criteria, can be viewed by investors as an asset class, while social infrastructure is less likely to be viewed as such.

## OVERVIEW OF PENSION FUNDS AND SWFs IN AFRICA

Pension funds play a critical role in supporting investments through their ability to pool stable,

**FIGURE 1 AFRICAN PENSION FUNDS' ASSETS UNDER MANAGEMENT (AUM), 2014**



Source: Ashiagbor D *et al.* (eds), *Pension Funds and Private Equity: Unlocking Africa's Potential*, MFW4A (Making Finance Work for Africa), The Commonwealth Secretariat and EMPEA (Emerging Markets Private Equity Association), 2014, [https://www.avca-africa.org/media/1329/pension\\_funds\\_and\\_private\\_equity\\_2014.pdf](https://www.avca-africa.org/media/1329/pension_funds_and_private_equity_2014.pdf), accessed 7 June 2018

**TABLE 1 ASSETS UNDER MANAGEMENT OF SWFs IN AFRICA, 2016**

COUNTRY	FUND DESCRIPTION	AUM (BILLION \$)	INCEPTION YEAR	AS A PERCENTAGE OF TOTAL AUM OF SWFs IN AFRICA
Algeria	Revenue Regulation Fund	77.20	2000	49.06%
Libya	Libyan Investment Authority	65.00	2006	41.31%
Botswana	Pula Fund	6.90	1994	4.39%
Angola	Fundo Soberano de Angola	5.00	2012	3.18%
Nigeria	Nigerian Sovereign Investment Authority	1.40	2011	0.89%
Senegal	Senegal Fonsis	1.00	2012	0.64%
Gabon	Gabon Sovereign Wealth Fund	0.40	1998	0.25%
Mauritania	National Fund for Hydrocarbon Reserves	0.30	2006	0.19%
Equatorial Guinea	Fund for Future generations	0.08	2001	0.05%
Ghana	Ghana Petroleum Fund	0.07	2011	0.04%

Sources: Maurer K, 'Mobilization of Long-term Savings for Infrastructure Financing in Africa', GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit), 15 April 2017, [https://www.bmz.de/en/zentrales\\_downloadarchiv/wege\\_und\\_akteure/170419\\_Study\\_Infrastructure\\_Finance\\_Africa\\_fin.pdf](https://www.bmz.de/en/zentrales_downloadarchiv/wege_und_akteure/170419_Study_Infrastructure_Finance_Africa_fin.pdf), accessed 7 June 2018; Hove S, 'Sovereign Wealth Funds and Infrastructure Development in Africa', QGRL (Quantum Global Research Lab) Working Paper, 2016/02, April 2016, [https://quantumglobalgroup.com/wp-content/uploads/2016/11/WP-no-2-Seedwell-Hove\\_April\\_2016.pdf](https://quantumglobalgroup.com/wp-content/uploads/2016/11/WP-no-2-Seedwell-Hove_April_2016.pdf), accessed 7 June 2018

long-term savings. By directing these into appropriate investments to generate a return, pension funds can play a key role in developing infrastructure in Africa because of their significant assets under management (AUM).

Various pension funds throughout Africa have seen continuous growth year on year. Data indicates that, as of 2013, pension funds in 10 African countries have approximately \$380 billion of assets under management (in absolute terms).<sup>5</sup> The pension fund industries in South Africa, Nigeria and Namibia are among the largest in Africa when ranked according to AUM.

A number of African countries have established SWFs, especially those with oil and gas endowments. In 2016, the total assets in African SWFs were approximately \$157 billion<sup>6</sup> (Table 1), representing approximately 2% of global SWFs.<sup>7</sup> Algeria and Libya account for about 90% of the total assets in SWFs in Africa.

## PENSION FUND AND SWF LANDSCAPE IN SELECTED AFRICAN COUNTRIES

Table 2 provides a snapshot of public (state) pension funds and SWFs in South Africa, Nigeria, Kenya, Botswana and Ghana.

The South African pension fund industry is very well established and is currently the eighth largest in the world (in dollar terms). The Government Employees Pension Fund (GEPF) constitutes the bulk of the assets in the public pension fund sector. The GEPF has targeted infrastructure investment through its allocation to the Isibaya Fund and the Pan African Infrastructure Development Fund (PAIDF) which is managed by Harith.

The total assets in Nigeria's pension fund portfolios grew consistently over the period 2012–2016. There is a robust legal and regulatory framework for Nigerian pension funds investing in infrastructure, providing pension funds with guidance on what is allowable. Nigeria has created infrastructure funds geared to attracting institutional investors, including the ARM-Harith Infrastructure Fund, the Chapel Hill Denham Nigeria Infrastructure Debt Fund and the Viathan Funding Plc special purpose vehicle (SPV). Nigeria also has an SWF, referred to as the Nigeria Sovereign Investment Authority (NSIA), which has a 40% asset allocation to an infrastructure sub-fund.

Kenya's public pension system is the National Social Security Fund (NSSF), which in 2013 had just 2%

**TABLE 2 SNAPSHOT OF PENSION FUNDS AND SWFs IN SELECTED AFRICAN COUNTRIES**

	South Africa	Nigeria	Kenya	Botswana	Ghana
<b>Size of PF</b>	\$318 billion (2017)	\$17 billion (2016)	\$1.3 billion (2013)	\$4.82 billion (2016)	\$2 billion (2017)
<b>Size of SWF (2016)</b>	N/A	\$1.4 billion	Being established	\$6.9 billion	\$70 million
<b>Relevant legislation</b>	Pension Funds Act No 24 of 1956 as amended	Pension Ordinance; Pension Reform Act of 2014	National Social Security Fund Act No 45 of 2013	Retirement Funds Act of 2014; Non-Bank Financial Institutions Regulatory Authority Act of 2008	2008 National Pensions Act as amended by Act 883 in 2014

Sources: FSB (Financial Services Board), '2016 Registrar of Pension Funds Annual Report', <https://www.fsb.co.za/NewsLibrary/Registrar%20of%20Pension%20Funds%20Annual%20Report%202016.pdf>, accessed 15 June 2018; PenCom (Nigeria National Pension Commission), '2016 Annual Report', <https://www.pencom.gov.ng/wp-content/uploads/2018/03/Annual-Report-2016.pdf>, accessed on 16 May 2018; BPOPF (Botswana Public Officers Pension Fund), '2015/2016 Annual Report', <http://www.bpopf.co.bw/sites/default/files/publications/BPOPF%20Abridged%20Report%202016.pdf>, accessed 19 July 2018; Minney T, 'How big are African pension funds?', *African Capital Markets News*, 30 November 2017, <http://www.africancapitalmarketsnews.com/3544/how-big-are-african-pension-funds/>, accessed 19 July 2018; Maurer K, 'Mobilization of Long-term Savings for Infrastructure Financing in Africa', GIZ, 15 April 2017, [https://www.bmz.de/en/zentrales\\_downloadarchiv/wege\\_und\\_akteure/170419\\_Study\\_Infrastructure\\_Finance\\_Africa\\_fin.pdf](https://www.bmz.de/en/zentrales_downloadarchiv/wege_und_akteure/170419_Study_Infrastructure_Finance_Africa_fin.pdf), accessed 7 June 2018; Hove S, 'Sovereign Wealth Funds and Infrastructure Development in Africa', QGRL Working Paper, 2016/02, April 2016, [https://quantumglobalgroup.com/wp-content/uploads/2016/11/WP-no-2-Seedwell-Hove\\_April\\_2016.pdf](https://quantumglobalgroup.com/wp-content/uploads/2016/11/WP-no-2-Seedwell-Hove_April_2016.pdf), accessed 7 June 2018

of its investments in corporate and infrastructure bonds. More recently, there appears to have been a growing imperative to direct the NSSF's funds towards infrastructure projects. However, no specific vehicles have been created.

Botswana has one of the most well-established pension systems on the continent, with the third largest pension fund-to-GDP ratio in Africa at 47.3%.<sup>8</sup> Botswana's public pension fund, the Botswana Public Officers Pension Fund (BPOPF), has developed a Local Infrastructure Investment Policy. However, the regulatory authority has not created any vehicles for infrastructure investments and the BPOPF has not made any significant investments to date. Botswana also has an SWF, the Pula Fund, which has an asset allocation of 60% to external sovereign bonds and 40% to external equities. This is in contrast to most other SWFs on the continent which invest heavily in domestic development.

Ghana's pension fund industry is among the most rapidly growing on the continent, expanding 400% between 2008 and 2014.<sup>9</sup> The Social Security National Insurance Trust (SSNIT), which is Ghana's public pension fund manager, has made small investments in infrastructure

as part of its unlisted equity class. In addition, Ghana's SWF has created the Ghana Infrastructure Investment Fund (GIIF), which has been ring-fenced for infrastructure investments. Ghana's pension regulations allow for investments in national, local and corporate infrastructure bonds; however, instruments have not been created to take advantage of this.

#### CASE STUDIES

Two case studies are introduced here to illustrate how, despite the challenges of investing in infrastructure in Africa, Viathan Funding Plc in Nigeria and the Nairobi-Nakuru-Mau Summit Road project in Kenya have been able to overcome some of these challenges.

Viathan Engineering Limited, a specialist in developing and operating off-grid power solutions, issued Nigeria's first 10-year corporate infrastructure bond in January 2018. The bonds were raised through Viathan Funding Plc, a special purpose vehicle (SPV) established to raise debt capital. The bonds were subscribed by 16 institutional investors, 12 of which were pension funds. Viathan bonds are fully backed by InfraCredit, a triple A-rated credit enhancement facility established by Nigeria's SWF and GuarantCo, a private infrastructure development company. The proceeds of the

bonds will mainly be used to expand Nigeria's electricity supply capacity, specifically the Viathan Group's current generating capacity, by 7.5MW. An increase in energy-generating capacity is vital for Nigeria, as the country needs at least 160 000 MW of electricity to meet local demand, but only has capacity for 12 132MW.<sup>10</sup>

The Nairobi–Nakuru–Mau Summit Road project is an expansion of and improvement to an existing highway (part of the A8 highway and the Northern Corridor) in Kenya. The project has been initiated by the Kenya National Highway Authority (KeNHA) as a 30-year Design-Build-Finance-Operate-Maintain-Transfer arrangement to meet the ever-increasing traffic volumes. KeNHA commits to making regular performance-related service payments to the SPV, which will be stipulated in a project agreement between KeNHA and the SPV. The service payments will mainly be linked to road availability and compliance with contractual performance standards. In order to fund these service payments, the government of Kenya is busy implementing tolling systems throughout the country. A preliminary assessment suggests that the revenue that will be accumulated through the tolling system will be sufficient to cover all service payments, but in the case of any shortfall, this amount will be covered by the government of Kenya.<sup>11</sup>

An important feature of the Summit Road project is an International Development Association (IDA) guarantee product. The IDA guarantee mitigates the risk of payment default to the party selected to operate the project. Through interviews it has been established that there is substantial interest in the project, with five pension funds having already signed letters of intent to invest in the project. The commercial attractiveness of the project and the presence of the risk mitigation product have enhanced the allure of the project, particularly among institutional investors.

## LESSONS LEARNED

A number of cross-cutting lessons can be learned from the two case studies, which account for their success in attracting institutional funding:

- Both projects satisfy the high demand for infrastructure in the countries concerned.
- The projects are being run by developers with a proven track record in their respective fields. This assures the market that the projects are viable.
- Payment to the private party is guaranteed.
- The pooling of resources by institutional investors mitigates the risk to any one party.

It is important to note that institutional investors are naturally risk averse. Therefore, it is prudent for them to invest in assets that are well understood and provide a guaranteed return. Regulatory issues aside, both projects overcame a key hurdle by giving fund managers the assurance that they needed to make the investments in question.

## CHALLENGES LIMITING INVESTMENTS IN INFRASTRUCTURE AS AN ASSET CLASS

Despite some reported successes, pension funds and SWFs are often faced with significant challenges when considering investing in infrastructure.

### *Limited number of financial instruments and funds*

There is a lack of financial instruments available in Africa to invest in infrastructure. There is a need to create financial instruments that allow for more liquid investment opportunities, as noted in the Bank of Botswana's 2017 Annual Report.<sup>12</sup>

Examples of infrastructure funds that have successfully attracted institutional investments are the Pan African Infrastructure Development Fund (PAIDF), various funds managed by the African Infrastructure Investment Managers (AIIM) and the Meridiam Africa Infrastructure Fund. The PAIDF is managed by Harith in South Africa and comprises solely African investors. Both the South African GEPF and the Ghanaian SSNIT are invested in the PAIDF. The PAIDF closed at \$625 million in 2007, having invested in energy, transport, water and ICT projects.<sup>13</sup> AIIM has been managing funds with support from African institutional investors since 2000. To date, it has invested \$1.7 billion in 55 portfolio companies making infrastructure investments in South Africa and other parts of Africa, with 14 partial and full exits.<sup>14</sup> The Meridiam Africa Infrastructure Fund was launched more recently and closed in 2015 at EUR 205 million.<sup>15</sup> In 2016, the Fund partnered with the Senegalese Sovereign Wealth Fund, FONSI, to finance a 30MW photovoltaic power plant in Senegal.<sup>16</sup> These funds can act as a catalyst for investment in infrastructure by providing fund managers with initial diversification opportunities and an investment vehicle with a proven track record.

### *Preference and affinity for traditional asset classes*

One of the key factors limiting pension fund investments in infrastructure is pension fund administrators' preference for traditional asset classes. Although the pension funds in Nigeria,

South Africa, Kenya, Botswana and Ghana do not all invest in the same asset classes (although they are closely aligned), each of these countries' pension funds invests a large portion of its assets in specific asset classes (such as government bonds, equity and treasury bills). The preference for these instruments is understandable as they are well understood by investment managers. Linked to the general affinity for traditional asset classes is a lack of understanding or experience of infrastructure as an asset class, ie, infrastructure is often seen as a relatively new investment and therefore risky.

In order to motivate pension funds to acquire the skills needed to understand and analyse infrastructure projects, there should be an effective structure in place allowing for tax incentives and rebates of funds when investing in infrastructure. Furthermore, establishing more infrastructure funds could, as highlighted earlier, create more awareness of the opportunities presented by infrastructure investment. In addition, capacity-building initiatives conducted at a broad level could be valuable where in-house capacity-building is not feasible. For example, both the Emerging Markets Private Equity Association (EMPEA) and African Private Equity and Venture Capital Association (AVCA) currently offer private equity masterclasses for fund managers, with some classes specifically directed at pension funds. An industry association driving institutional investments in infrastructure, such as the Long Term Infrastructure Investors Association (LTIIA), could also consider this model and develop masterclasses for infrastructure, focused on emerging markets such as those in Africa.<sup>17</sup>

### ***Limited number of available investable infrastructure projects***

Even if infrastructure investment becomes better understood and investment vehicles improve, Africa still lacks a strong pipeline of bankable infrastructure projects. Bankable projects are those projects that are seen to be viable. This was highlighted in an analysis of the infrastructure projects that reached financial close between 2010 and 2016 and that would have been considered bankable. The total number of bankable projects in South Africa, Ghana, Kenya and Nigeria were 65, seven, six and five projects respectively, in stark contrast to 373 in Brazil.

As bankability is determined early on in a project's life cycle, it can be improved through thorough project

preparation. Existing project preparation funding is fragmented across many (primarily donor-funded) facilities, with different requirements contributing to a bureaucratic process to access these funds. Initiatives such as the Project Preparation Facilities Network, launched in 2014, attempt to improve the effectiveness of project preparation in Africa, but policymakers and project developers have emphasised that more should be done.

### ***Mismatch between available projects and requirements***

A mismatch is evident between available projects and the requirements set by pension fund regulators. In Nigeria, the National Pension Commission has introduced a number of regulations with which projects have to comply in order to be eligible for pension fund investments. For example, a project has to follow a specific bidding process. Often it seems as though project developers are not aware of the regulations and so their projects fall short of the requirements. This prevents pension funds from investing in such projects or instruments.

A challenge in South Africa and Kenya is that regulations surrounding infrastructure investment are not as prescriptive as they are in Nigeria. This can lead to further uncertainty among fund managers who already have a difficult time evaluating different infrastructure investment opportunities. The situation in Ghana is that the regulations are not well implemented. For example, there is a legislative requirement that local infrastructure bonds be issued through 'Municipal Financing Authorities'. However, in many municipalities these have yet to be established.

All these examples highlight the need for greater awareness and capacity-building to ensure greater compliance with existing regulations which, in turn, should not deter investors; alternatively, regulations should be reviewed and overhauled where they constitute a potential stumbling block.

### ***Regulatory thresholds for infrastructure investments***

The regulatory thresholds for infrastructure investments are very low. For example, the regulatory framework for Nigerian pension funds allows a maximum of 5%

of the total pension fund's assets to be invested in infrastructure. In South Africa, the easiest route to invest in infrastructure is through the 'other assets' category as defined in the regulations; however, a maximum of 2.5% of a pension fund's assets may be invested in this class. This is low when compared to Australia which is working towards a 9% target allocation, while currently investing about 6.4%. Things are even more problematic in Botswana whose pension legislation does not encourage investment in infrastructure at all.

## CONCLUSION

An analysis of the features of infrastructure as an asset class reveals that there is an alignment with what institutional investors look for in an investment, namely: potentially attractive returns, long-term and predictable cashflows, and low default rates. While there is an understanding (albeit limited) of the rationale for public pension funds and SWFs to invest in infrastructure as an asset class in Africa, there are some key challenges limiting greater investment in this sphere. These are: a limited number of financial instruments and funds; a preference for traditional asset classes and a lack of expertise in analysing infrastructure projects; a limited number of available investable infrastructure projects; a mismatch between available projects and requirements; and regulatory thresholds for infrastructure investments. However, enabling measures such as pension and SWF regulatory reforms, capacity building for funds and asset managers, improved infrastructure asset class data collection, early engagement of institutional investors on potential projects, and increased options for pooled infrastructure investment funds can greatly assist in kick-starting this process.

## POLICY RECOMMENDATIONS

This policy brief proposes a number of initiatives to encourage stronger infrastructure investment activity in Africa:

- 1 Encourage greater engagement between regulatory and international institutions in order to reduce the regulatory hurdles that pension funds face when considering investing in infrastructure.

- 2 Enhance pension and sovereign wealth funds' ability (eg, through a tailored support fund or a capacity-building programme) to appraise and invest in infrastructure projects.
- 3 Encourage pension funds (both public and private) to jointly invest in viable projects, thereby allocating more funds to specific projects and reducing individual funds' exposure.
- 4 Encourage early engagement between pension and sovereign wealth funds, on the one hand, and infrastructure project developers and relevant government institutions, on the other, to ensure that institutional investors understand the technical and commercial requirements that must be met and the potential regulatory hurdles that should be overcome.
- 5 Monitor and publish the returns and socio-economic benefits of investment as an asset class, thereby helping to build a stronger and more sustainable base of institutional investors in infrastructure in Africa.

The policy brief is based on a discussion paper 'Infrastructure as an Asset Class in Africa', which contains more details on the infrastructure investment experiences of South Africa, Nigeria, Kenya, Botswana and Ghana.

## ENDNOTES

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