The NEPAD Continental Business Network (CBN) Report



on De-Risking Infrastructure and PIDA Projects in Africa

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PIDA

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GLOSSARY OF TERMS

ADB	Asian Development Bank
AfDB	African Development Bank
ATI	African Trade Insurance Agency
AUC	African Union Commission
CBN	Continental Business Network
CDC	Commonwealth Development Corporation
DBSA	Development Bank of Southern Africa
DFI	Development Finance Institution
EAPP	East African Power Pool
EIB	European Investment Bank
IDA	International Development Association
IFC	International Finance Corporation
MIGA	Multilateral Investment Guarantee Agency
NEPAD	New Partnership for Africa's Development
IPP	Independent Power Producer
OECD	Organization for Economic Co-operation and Development
PIDA	Programme for Infrastructure Development in Africa
PPP	Public Private Partnership
REC	Regional Economic Community
SAPP	Southern African Power Pool

FOREWORD

On June 6, 2015, NEPAD launched the first meeting of the Continental Business Network (CBN) as part of the World Economic Forum on Africa in Cape Town, South Africa.

The CBN, mandated by African Heads of State, acts as an exclusive private sector infrastructure investment advisory platform for African Heads of State and high-level African policy makers, providing private sector thought leadership and engagement on a range of related strategic issues.

There were six priority themes emanating from this first meeting, namely: mobilizing public sector support and private sector engagement for early stage PIDA project development; a focus on project structuring, finance and operation; managing regional project investment risks; fast-tracking and incentivizing private sector procurement; developing practical and effective working relationships with African Heads of State and governments, and enabling governments and public entities responsible for implementing projects to access high-quality independent technical advisory services.

The second meeting of the CBN was held in Lusaka, Zambia, in May this year as part of the African Development Bank Annual Meetings, to advance the priority theme of managing regional and domestic infrastructure project investment risks. The meeting focused on one of the six priority themes I have mentioned; de-risking African regional, domestic and PIDA projects. This second annual meeting was heavily oversubscribed with participation doubling from that of the previous meeting; attesting to the convening power and importance of the CBN, as well as its mission.

Companies in attendance included GE Africa; Standard & Poor's; PTA Bank; Moody's; the African Trade Insurance Agency; Group Five; Rand Merchant Bank; Barclays Africa and the Africa Finance Corporation, to name a few, together with senior representatives of development agencies and multilateral institutions. Also in attendance was the Minister of International Cooperation for Egypt, Dr Sahar Nasr, who expressed her government's commitment to working with the private sector and highlighted the opportunity for the public and private sectors to achieve a working relationship that improves transparency and positively impacts Africa's most vulnerable people.

Undoubtedly, the CBN is growing to become a relevant platform for the private sector to engage policy makers at the highest levels of government in the PIDA implementation process, particularly on the critical role that the private and public sectors should play in de-risking the PIDA projects.

And so, with this successful second CBN meeting, I present to you this report with the clear intent that Africa succeed in financing the critical infrastructure required for inclusive and sustainable development.

This final report will be presented to African Heads of State at the 27th Ordinary Session of the Assembly of the African Union Heads of State in Kigali, Rwanda in July 2016.

It is essential for the continent that a unified effort be made by all parties to continually investigate and implement innovations to de-risk African domestic and regional projects. As we work with Heads of State on the implementation of the CBN's recommendations, I hope you will find this report valuable and the recommendations implementable in the most efficient way by your organization for the further essential development of our continent.

Dr Ibrahim Assane Mayaki
CEO
NEPAD Agency

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EXECUTIVE SUMMARY

The public sector worldwide is expecting private capital, especially institutional investment, to provide significant funding for infrastructure projects. The match is – in theory – aligned as institutional investors are faced with a low interest rate environment and infrastructure projects provide them with a predictable, inflation-adjusted cash flow that has a low correlation with existing investment returns. Moreover, securing institutional finance is of critical growing importance, given the reduced amount of long-term bank debt available for infrastructure projects with the adoption of Basel III regulations for improving the resiliency of banks and banking systems.

However, mobilizing private capital requires a paradigm shift aligned with institutional investment mandates and investment criteria. Working together, the private and public sectors need to proactively create an effective and efficient project development ecosystem that results in the significant scaling up of pipelines of bankable and investable infrastructure projects.

If Africa is to be successful in increasing the number of regional and domestic infrastructure projects and their impact in advancing sustainable inclusive development, wholesale changes are needed in mindset, process, policies, programmes and metrics. Governments need to restructure and streamline project development processes, optimize the roles of all participants and innovate with risk-mitigating solutions and regional harmonization mechanisms that deliver development impact and secure long-term affordable finance from pension funds, insurance companies and sovereign wealth funds.

Therefore, the challenge of tapping into large-scale institutional investment for developing country infrastructure projects is straight-forward: The need to create high-quality investment vehicles with low risk and adequate returns over the long term. To access private finance for African domestic and regional infrastructure projects, we need to mitigate the high risks associated with projects providing services to people often unable to pay for the full cost of service delivery, located in non-investment grade countries with high degrees of risk related to the political, economic and regulatory environment, and those with the risk of social disruption and terrorism.

This report outlines the challenges of attaining significant institutional investment for infrastructure projects in developing countries, with special emphasis on Africa's regional infrastructure projects.[1] The second section of the report provides historical examples of how other infrastructure projects have been structured and financed, followed by two examples of current African projects that could use new approaches to reduce specific risks. The last section sets forth specific suggested recommendations to advance the structuring, risk mitigation, and finance of Programme for Infrastructure Development in Africa (PIDA) projects and other regional and domestic infrastructure projects. This section includes ideas on specific ways to rethink project development and investment frameworks and processes; from project identification to project development, to structures, ownership, risk mitigation and finance. Finally, the additional sections address the need for an African Pension and Sovereign Wealth Fund Infrastructure Co-Investment Platform and provides roadmaps for the regional harmonization actions (including the creation of regional procurement bodies/authorities) that are needed to advance regional infrastructure projects.

The recommendations in the report are based on input from members of the Continental Business Network (CBN), stakeholders and private sector leaders involved in the development and finance of African infrastructure projects (e.g., project developers, project finance lawyers, engineers, providers of equipment, banks, institutional investors, sovereign wealth funds, rating agency analysts, etc.) and providers of project development support and risk mitigation (e.g., development partners, private insurance companies, etc.). The CBN is a platform advising governments on the actions they can take to make regional and national infrastructure projects more attractive to the private sector. It is important to note that this final report reflects input from a range of private sector investors, project developers, ratings agency analysts and other private sector experts, as well as delegates participating in the second CBN Meeting in Lusaka, Zambia.

Given the critical importance of developing investable infrastructure projects that can access private finance, critical recommendations are suggested for immediate refinement and implementation by governments and development partners. This report provides guidance to African government agencies responsible for national and regional infrastructure development on ways to engage development partners on required inputs at a project level to achieve "bankability" (e.g., needed support in project development to cover costs of financial advisory, technical studies, staff, etc.; risk mitigation through project legal structure, ownership structure, and contracts with vendors; risk mitigation solutions for construction, performance, credit, political, off-take, currency; specific vehicles to enable required regional cross-border harmonization; etc.).

Ultimately, this report serves as NEPAD Agency's position on possible ways that PIDA projects could be developed and structured to mitigate risks and access private capital. By commissioning the CBN Secretariat to produce this report, NEPAD is providing leadership through the prioritization of this issue and setting forth specific action items for further refinement and implementation. The suggested recommendations in this report are intended to serve as recommendations for Heads of State and African leaders to advance in their further dialogue with development partners and the private sector on needed interventions and support.

This final report will be presented to African Heads of State at the 27th Ordinary Session of the Assembly of the African Union Heads of State in Kigali, Rwanda. It is proposed that a dedicated platform be established, comprising an expert working group, with a working title of "De-Risk Africa,"[2] to advance the report's recommendations.

1.0 Background

To secure institutional investment into African regional and national infrastructure projects, the public sector will need to significantly increase its investment in the technical areas that result in investable infrastructure that meet institutional investor criteria. This requires a more strategic leveraging of the capacities of host governments, regional institutions and development finance institutions (using their investment grade ratings) to create investment-grade infrastructure assets while addressing the macro-environmental impediments.

Examples of investment deal-breakers include uncreditworthy utilities, regulations that prohibit local institutional investors from investing in quality infrastructure assets, and the lack of investment analytic capacity and information across domestic capital markets. The table below illustrates the range of risk categories over the project life cycle from development to construction, operation and termination.

Key points underlying the more detailed suggested actions in this report include the following:

1) Creating Individual Investable Projects: The key problem impeding infrastructure private finance is not the lack of available institutional investment. The most overriding bottleneck is the lack of investable infrastructure projects.

- For infrastructure projects to be investable, the public sector needs to invest more, and more effectively, in the actual project development lifecycle, engaging the private sector in meaningful ways that serve to drive practical and technical solutions enabling investment.

- The public sector needs to invest in the development of publicly-disclosed "Preliminary Infrastructure Project Assessments" (Project Assessments) that cover both development dividends and investability.

- Each national and regional infrastructure project requires a strong project sponsor (or project developer) with a skilled "Deal Team" composed of highly-motivated and experienced technical experts from the public and private sectors, with very strong national and local political support, leveraging the convening skills, capital and risk mitigation instruments of development partners.

- The project development process needs to crowd in the needed expertise and finance from the private sector, engaging the whole ecosystem of required skills encompassing project developers, financial advisors, project finance lawyers and investors, etc., providing incentives and compensation models that activate interest and enable the development of viable projects using new models for project development and procurement. The public sector needs to create a framework that incentivizes project developers to drive the project development process. Two sets of actions are required: (i) Employ business models with adequate payment models for private sector project developers so they can increase the number of investable projects they develop; and (ii) Directly fund more project developers.

- Project Preparation Facilities provided by the public sector need to be restructured and scaled up, making them easily available to the private sector in recognition that the current project development finance gap is enormous and impeding the develop-

Figure 1: Classification of Risks Linked to the Infrastructure Project Cycle

<table>
<tr><th>Risk Categories</th><th>Development Phase</th><th>Construction Phase</th><th>Operation Phase</th><th>Termination Phase</th></tr>
<tr><td rowspan="6">Political and regulatory</td><td>Environmental review</td><td>Cancellation of permits</td><td rowspan="2">Change in tariff regulation</td><td>Contract duration</td></tr>
<tr><td rowspan="2">Rise in pre-construction costs (longer permitting process)</td><td rowspan="2">Contract renegotiation</td><td>Decommission</td></tr>
<tr><td>Asset transfer</td></tr>
<tr><td colspan="3">Currency convertability</td></tr>
<tr><td colspan="4">Change in taxation</td></tr>
<tr><td colspan="4">Social acceptance</td></tr>
<tr><td colspan="4">Change in regulatory or legal environment</td></tr>
<tr><td colspan="4">Enforceability of contracts, collateral and security</td></tr>
<tr><td rowspan="6">Macroeconomic and business</td><td>Prefunding</td><td colspan="3">Default of counterparty</td></tr>
<tr><td colspan="2" rowspan="3">Financing availability</td><td>Refinancing risk</td></tr>
<tr><td>Liquidity</td></tr>
<tr><td>Volatility of demand/market risk</td></tr>
<tr><td colspan="4">Inflation</td></tr>
<tr><td colspan="4">Real interest rates</td></tr>
<tr><td colspan="4">Exchange rate fluctuation</td></tr>
<tr><td rowspan="6">Technical</td><td colspan="3">Governance and management of the project</td><td rowspan="4">Termination value different from expected</td></tr>
<tr><td colspan="3">Environmental</td></tr>
<tr><td>Project Feasibility</td><td rowspan="2">Construction delays and cost overuns</td><td rowspan="2">Qualitative deficit of the physical structure/service</td></tr>
<tr><td>Archaeological</td></tr>
<tr><td colspan="4">Technology and obsolescence</td></tr>
<tr><td colspan="4">Force Majeure</td></tr>
</table>

Source: "Risk And Return Characteristics of Infrastructure Investment in Low Income Countries," OECD, 2015, page 16, http://www.oecd.org/daf/fin/private-pensions/Report-on-Risk-and-Return-Characteristics-of-Infrastructure-Investment-in-Low-Income-Countries.pdf.

ment of viable projects (e.g., the gap is over US$3 billion a year for regional projects alone).

• Around each regional project, it is critical that a new project partnership for effective development cooperation is created with a tracking and coordination system, leveraging support from development partners and foundations at all levels (global, regional, national, local), reinforcing host country support at the individual project level through facilitation, risk mitigation, technical support and funding support. Coordination needs to be facilitated with a continuous online project tracking system that enables effective coordination and results, with transparent metrics on performance.

• Proven finance techniques acceptable to institutional investors need to be used, such as project finance acknowledged by rating agencies as having low default rates, potentially at the low investment grade-level.

• Individual projects need to be linked to investable intermediation instruments that can serve as credible investment products for institutional investment for both early stage greenfield and operational brownfield investments (e.g., listed and unlisted equity and debt funds that meet institutional investment criteria).

2) Scaling up Intermediation Investment Vehicles: To secure the investment required by African national and regional projects, as well as the PIDA projects, the public sector needs to aggressively support the scaling up of debt and equity investment vehicles that can credibly serve as intermediaries channelling capital to develop viable infrastructure projects. This is especially important for early stage greenfield project investment. Partnerships with the private sector are critical in designing and operating such intermediation investment vehicles. Examples of priority actions include:

• The public sector needs to proactively support private sector initiatives building on proven financial vehicles.[3]

• Development Finance Institutions (DFIs) need to better leverage their AAA ratings, experience, credibility and relationships with governments in spearheading innovative new investment vehicles: DFIs can be better leveraged in the development of investable infrastructure projects and investment vehicles given their top investment-grade ratings, low default rates in project finance, strong relationships with governments and potential to mitigate risks. DFIs need to partner more closely with the private sector, as well as each other, in leveraging their AAA ratings, facilitation roles and risk mitigation instruments. Africa50 should also be activated to lead the process of Africa investment, using its capacities to develop and finance projects working with private investors. For example, the IFC has created a co-financing company with institutional investors (AMC), and has just launched a syndication product (MCPP).

3) Mitigating Credit Off-take Risk: Projects cannot be investable if the buyers of the infrastructure services are not perceived as creditworthy. The greatest impediment to delivering on Africa's infrastructure is uncreditworthy utilities. Furthermore, with declining commodity prices and lower growth, the creditworthiness of both utilities and their host governments is declining. Host governments and their development partners need to urgently solve this issue as these fundamental credit risks are deal-breakers that impede investment across many African countries.

Most importantly, African governments with the support of their development partners need to reform the off-taker entities, such as utilities, responsible for paying the fees for infrastructure services. This involves ensuring good technical management, insulated from political influences, accountable for performance, and transparent effective systems for revenue collection backed up with solid political consensus.

Three new initiatives have been reported that could help address off-take risk and could be scaled up in partnership with other providers of risk mitigation:

• **Mitigation of Payment Delays:** A European DFI intends to guarantee independent power producers (IPPs) six months of liquidity in case their off-taker cannot pay in time for the power it purchases. It is comparable, to some extent, to the Partial Risk Guarantees that are offered by the African Development Bank (AfDB), the World Bank and others, but it would be easier to implement and cover a longer period. Initially, the facility, managed by the African Trade Insurance Agency (ATI), would cover projects in a limited number of African countries, increasing scope over time.

• **Investment-Grade Timely Payments:** ATI is insuring a subsidiary of GuarantCo in Zambia that discounts certificates issued by the National Roads Authority to local contractors. That way, the contractors are assured that they will not encounter any working capital problems if they are not paid on time. The whole project is financed in the local capital market and the ATI cover helps institutional investors to invest because the assets will be investment grade. This model is exportable and has great potential.

• **Mitigation of Regional Payment Risks:** A PPP venture, Africa GreenCo, is being explored to address off-taker creditworthiness to unlock private investment in power projects and to help establish a renewable energy power market. The principle objective of Africa GreenCo is to establish a public-private partnership entity in the form of a creditworthy, regional, renewable energy off-taker/trader and aggregator of power streamlining development, mitigating off-take and credit risk and catalyzing private sector finance for renewable energy development.

4) Building Collective Risk Mitigation Capacity:

African infrastructure projects, especially regional and PIDA projects, represent a daunting challenge in covering the multitude of risks to meet institutional investment criteria. The scaling up of capacity in risk mitigation needs to be accelerated urgently. Examples include the following:

- **Extend Tenor:** A key challenge reported by ATI is to find enough insurance and reinsurance capacity if the risk coverage exceeds ten years. There are very few private insurers who can insure beyond ten years, and a typical infrastructure project needs 15 years or more to recover the initial investment. ATI has recently received approval to go up to 15 years in selected projects.

- **Investment Grade Regional Guarantees:** Projects with regional scope present specific difficulties. A consolidated regional guarantee capacity is needed. ATI reports that it is working with the European Investment Bank, other international and multilateral insurers and other financial institutions with investment grade ratings that will pool their resources and capacity together to insure projects across Africa. This regional facility is expected to reinforce host government commitments, helping the projects become more bankable and eventually cheaper to finance.[4]

5) Improving Local Institutional Investor Ability to Invest: Local institutional investors need to fund regional, PIDA and domestic infrastructure projects and instruments that generate local currency revenues (eliminating cross-border currency risks), so host government regulations need to enable investment by local institutional investors. In addition, there are capacity issues: Even in countries such as South Africa with an enabling regulatory environment, pension funds report under-investment in infrastructure (national and regional) due to the lack of capacity in the pension funds, their fund managers and their consultants to properly assess risks. A continent-wide effort is needed to strengthen the ecosystem of African institutional investment led by African countries and their development partners working hand-in-hand with the private sector. Given their pivotal role in capital market development, it is very important to also facilitate the scaling up of rating agency assessments.

6) Creating Efficient, Transparent Platforms for Accelerated Project Development and Risk Mitigation: African infrastructure projects, national and especially regional, and PIDA projects, are extraordinarily challenging, requiring coordination, communication and partnerships between a vast array of public and private entities, including private sector experts, providers of services and equipment, investors, providers of project development support, providers of risk mitigation and investors (debt and equity). We need to create an online communication platform (INFRADEV Marketplace), that activates the entire ecosystem from project inception through development to finance and operation, connecting the nucleus of highly-skilled public and private sector professionals who need to work together effectively to develop investable deals. This platform should also have enabling information and performance metrics, and host regular finance innovation exchanges to advance effective public-private risk sharing.[5]

More examples of recommendations are provided in the following sections of this report, covering the project development cycle from project development to the use of risk mitigation instruments. The next sections provide historical examples of infrastructure projects that have successfully secured the required finance, followed by illustrative examples of existing projects in development that currently lack finance.

2.0 Historical Examples of Successfully Financed Large Infrastructure Projects

Large infrastructure projects have been successfully structured, risk mitigated and financed over decades in Africa and other regions of the world. This section briefly summarizes three large infrastructure projects, two in Africa and one in Asia, illustrating the complexity of the legal structures, contracts, risk mitigants and sources of finance. These projects successfully reached financial close and thereby provide insights critical for the Africa's PIDA and other infrastructure projects. The case studies provide evidence of the range of different approaches and the extensive support needed from host governments, development financial institutions and the private sector.

2.1 Overview Southern Africa Regional Gas Project:[6] The Southern Africa Regional Gas Project is a Mozambique-South Africa natural gas development and pipeline project awarded the Deal of the Year 2004 for Project Finance. The project comprises two individual but fully integrated sub-projects. Firstly, the development of the Pande and Temane gas fields in Mozambique and the construction of a central processing facility, together the "upstream project", and secondly, the construction of the 865km pipeline to transport the gas to Sasol's Secunda plant in Mpumalanga, South Africa, the "pipeline project". The second component of the upstream project is the central processing facility. Here, gas from the fields is cleaned and compressed before delivery to the inlet flange of the pipeline. The central processing facility is situated approximately 600km north of Maputo. The gas is then transported along an 865km route through a 660mm high-pressure steel transmission pipeline to Sasol's petrochemical complex at Secunda. A length of 531km of the gas pipeline is located in Mozambique and 334km is located in South Africa. The Mozambican gas is imported to South Africa by Sasol, the project's private sponsor to: (i) replace the hydrogen-rich gas produced from coal by natural gas; (ii) convert Sasol's Sasolburg chemical complex from coal to gas as feedstock for chemical production; and (iii) the modification of Sasol's synthetic fuel plant in Secunda to augment coal-based growth in the production of petroleum and petrochemicals.

Contractual Framework: The project is implemented under a series of contractual agreements between

the Government of Mozambique (GoM), Government of South Africa, ENH (Empresa Nacional de Hidrocarbonetos de Moçambique), Sasol Limited and its subsidiaries. These agreements include the Petroleum Production Agreement (PPA), the Pipeline Agreement (PA), the Joint Operation Agreement (JOA), the Gas Sales Agreement (GSA) and the Gas Transportation Agreement (GTA).

Under the project's contractual arrangements, Sasol Limited is the primary sponsor of the project from gas field development to the end user sales in South Africa. Sasol Limited (through its subsidiary SPT) is one of the sellers (jointly with CMH, a subsidiary of ENH), the operator of the upstream (fields and CPF) for both the parties, the transporter (through its subsidiary ROMPCO), the operator of the pipeline (through Sasol Gas) and the buyer (through Sasol Gas). Given Sasol Limited's extensive involvement in the project, the company provides corporate support for the financing with a carve-out for Mozambique political risks, which are largely assumed by other project participants.

Project Cost and Financing: The financing involves three tranches led by Standard Bank of South Africa, the Development Bank of Southern Africa (DBSA) and the European Investment Bank (EIB). The financing structure is a hybrid of a corporate loan and project financing. In terms of the structure, Sasol provides full debt service support to the two project companies. This support takes the form of a debt service support agreement in terms of which Sasol stands behind the repayment obligations of the project companies. In essence, the lending is a full recourse corporate loan with Sasol assuming all project related risks. Mozambican political risk is carved out of the Sasol debt service support to the lenders. The risk is assumed by the lenders and, in the case of the commercial lender, political risk coverage providers.

The first tranche of the debt was led and underwritten by Standard Bank of South Africa representing ZAR1.46 billion of commercial debt. The political risk coverage was provided by the World Bank through the enclave partial risk guarantee, MIGA (partially reinsured by Sace of Italy and EFIC of Australia) and Export Credit Insurance Corporation of South Africa (ECIC). The Mozambican political risks have been carved out from Sasol corporate support and are covered by political risk coverage providers.

2.2 Overview Azito Power Project:[7] The Azito Power project is the second IPP in Côte d'Ivoire following CIPREL, which was developed in 1994. Azito was awarded to ABB in June 1997 following competitive bidding among six pre-qualified sponsors. The winning bid of ABB Energy Ventures and Electricité de France International incorporated a special purpose company, CINERGY, S.A. (CINERGY), in Côte d'Ivoire in 1998 to own and operate the project. Equity investors in the company are ABB Energy Ventures, B.V. ABB-EV is a subsidiary of Asea Brown Boveri Limited (ABB); Electricité de France International EDFI is a wholly-owned subsidiary of Electricité de France (EdF), the French national electrical utility; and Industrial Promotion Services-Côte d'Ivoire, S.A. (IPS-CI), a unit of the Aga Khan Fund for Economic Development. ABB EV and EDFI will hold 74% of the Company, through CINERGY Holding B.V. (CHC), a company incorporated under the laws of Netherlands, and IPS International will hold the remaining 26%.

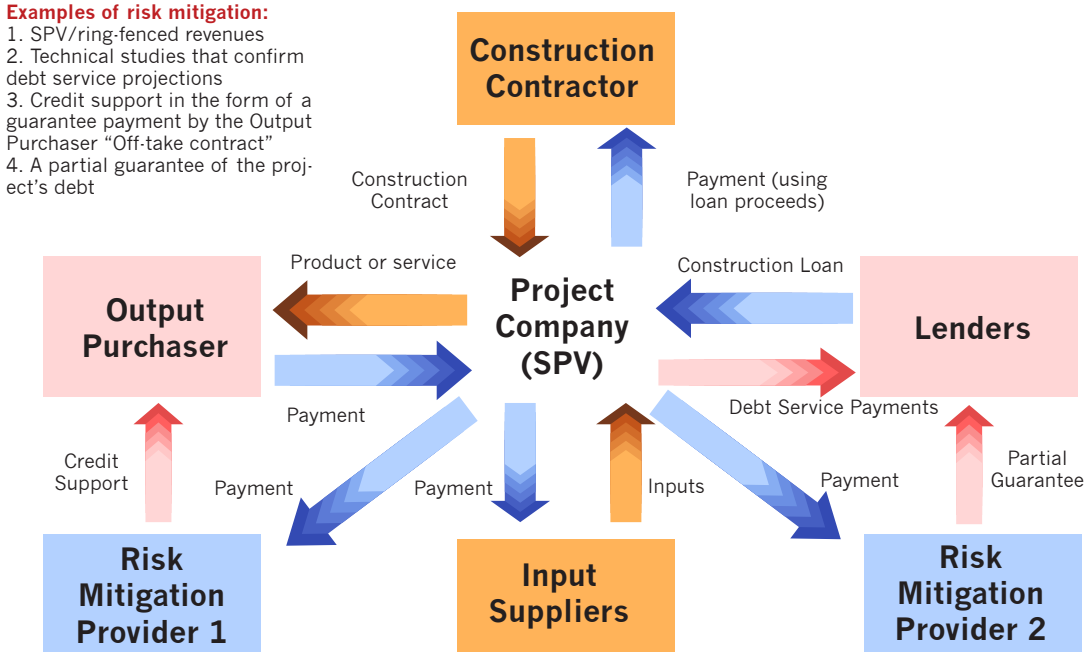
Financing Structure: The total financing cost was around US$223 million for the power plant and the transmission components combined. The project was financed through a combination of equity, subordinated debt and senior debt in the ratio of 20:10:70. The equity component consists of approximately US$45 million of shareholders' contribution. The shareholders have also committed to make available up to US$17 million as contingency finance for the project. The subordinated debt of US$20 million consisted of US$10 million of convertible debt and US$10 million of fixed debt funded jointly by the International Finance Corporation (IFC) and the Commonwealth Development Corporation (CDC).

The US$140 million senior debt consists of: US$32 million IFC A loan with 14 years' maturity, US$30 million IFC B loan with ten years' maturity, a US$30 million commercial loan tranche with 12 years' maturity supported by an IDA guarantee and a US$48 million CDC Club loan with 12 years' maturity. The CDC Club loan was funded by several bilateral and multilateral institutions led by CDC including the African Development Bank, Nederlandse Financierings-Maataschappij Voor Ontwikkelinggslanden N.V. (FMO) and Deutsche Investitions und Entwicklungs Gesellschaft GMBH (DEG). The lead arranger and underwriter of both the IFC B loan and the IDA facility was Société Générale of France. The IFC B loan and the IDA guarantee tranches were successfully syndicated on a pro rata basis to a group of international banks.

The IDA guarantee was considered critical to the completion of the financing for the project and instrumental to obtaining the longest tenor to date for a commercial financing for Côte d'Ivoire. IDA was brought in to the project when the Government of Côte d'Ivoire extended the scope to include the transmission system and requested the sponsors to finance the incremental cost. The sponsors explored all alternative sources of finance, including the possibility of increasing the IFC B loan. The additional financing, therefore, required IDA's credit enhancement as a 'lender of last resort'.

Contractual Framework: The security structure for the project consists of a set of contractual agreements, which defines the rights and obligations of the major participants in the project. The project-related risks, such as construction, operation and natural force majeure risks were borne by the sponsors and the lenders. Sovereign or political risks were assumed by GOCI and its agencies and backstopped by the IDA guarantee. These risks are identified and allocated through the project's contractual framework.

Figure 2: Key Risk Mitigation Structure: Use of Proven Project Finance Techniques



Source: Simplified illustrative diagram provided by the Global Clearinghouse for Development Finance

2.3 Overview of Nam Theun 2 Hydropower Project (NT2):[8] The project consisted of two key components supported by the World Bank Group: (i) a hydropower facility with an installed capacity of 1,070 megawatts (MW), providing 995 MW of power for export to Thailand and an additional 75 MW for domestic use; and (ii) management of the project's environmental and social impacts on the Nakai Plateau, in the NT2 watershed and in the downstream areas of the Nam Theun (NT) and Xe Bang Fai (XBF) rivers.

The NT2 hydropower facility comprises a dam 39 metres high and a 450km reservoir on the Nam Theun River and the Nakai plateau. Water from the reservoir would be transferred to an above-ground power station located at the foot of the Nakai escarpment (a drop of about 350 metres) through an underground shaft, from where it would be discharged into a regulating pond and a 27km downstream channel, and then into the XBF river. The project includes a 130km double circuit 500 kV transmission line to the Thai border and about 70km of a 115 kV transmission line and 220 kV connections to the regional Lao PDR grid.

Contractual Structure: The NT2 hydropower project is being implemented by Nam Theun 2 Power Company Limited (NTPC), which was established on August 27, 2002, as a limited liability company incorporated under Lao PDR law. Some of the key contractual agreements are: The Concession Agreement; The Shareholders Agreement; and the Head Construction Contract, a turnkey, price-capped engineering, procurement and construction contract.

Risk Allocation in the Transaction: The project has been structured as a limited recourse financing and the allocation of risks follows the traditional private project financing approach where the completion risk ultimately rests with the private project company and/or its contractors. The project structure allocates commercial and political risks to various parties responsible for specific project activities — the plant construction risk rests with the Head Contractor, who has in turn has passed on substantial portions of that risk to the five subcontractors under lump sum, fixed price subcontracts. The geological risk is shared amongst the Head Contractor and the subcontractors through a target pricing mechanism. The Head Contractor retains a substantial risk for timely and within budget completion of the hydro facility with large amounts of associated liabilities.

The Thai political risk associated with the off-take arrangements is taken on by the private parties, including the Thai Baht commercial lenders. Responsibility for the timely completion of the transmission line (in Thailand) that will evacuate the power rests with EGAT. For a portion of the debt, the Thai political risk is also backed by MIGA and ADB guarantees, and ECA cover to private international dollar lenders. The risk of delays on account of GOL rests with GOL, which is being backed by IDA, MIGA, ADB and ECA for the benefit of the private international dollar lenders. Thai commercial banks are uncovered for both Lao and Thai political risks.

2.4 Complex, Technical, and Costly Project Development Process: The overview of the three above

infrastructure projects illustrates the highly technical nature of the project development process required to mobilize finance. Each project required extensive contributions from a wide range of highly-skilled specialized professionals and extensive long-term continuous collaboration between host governments, development partners and the private sector. Deal teams for each project included a vast array of government officials, development finance experts and other professionals, including financial advisors, lawyers, providers of project support and risk mitigation and finance.

As illustrated by these three projects, the most successful structure for infrastructure worldwide in both developing and developed countries is the use of project finance, single asset risk transactions structured in special purpose vehicles with ring-fenced revenues to pay debt service. The structure of the transaction is customized to offset risks that can affect the project's operation, cash flows and sustainability.

Project finance techniques have been proven to enable access to private capital. In fact, Moody's Investors Service conducted a default study that showed that default rates for project finance transactions are less than for corporate transactions.[9] Key findings from Moody's research on unrated project finance bank loans include key points underscoring the usefulness of a project finance structure in meeting investor requirements:

- Project finance transactions in emerging markets demonstrate resilient credit strength
- PPPs are a discrete sub-sector lying at the low-risk end of the project finance spectrum
- Average ultimate recovery rates for OECD/non-OECD projects are similar

Most importantly, ten-year cumulative default rates for project finance transactions are consistent with low investment-grade ratings. Other studies based on extensive data analysis find that project finance deals (and cash flows) are more resilient to macro-variables or the business cycle than corporate loans.[10] Such project finance approaches can be used to enable PIDA and other African regional and national infrastructure projects to reach financial close.

3.0 Examples of Current African Projects and Application of Risk Mitigation

Current African infrastructure projects in development require similarly complex project finance structures that employ a range of risk mitigation techniques and instruments. It is important to study historical examples to build the full menu of possible structures, risk mitigation approaches and finance options. Such knowledge is critical in customizing the optimal approach to each infrastructure project, improving the potential for successful financial close.

Two significant risks that need to be addressed are accessing local currency finance and mitigating currency risk in those cases where adequate cost-effective finance is not available. The two examples of projects below are intended to serve as indicative simplified illustrations of how new instruments might be used address these specific risks, complemented by the full array of project finance risk mitigation techniques and other risk mitigation instruments.

3.1 Addressing the Lack of Long-Term Local Currency Finance – An Illustrative Example: Infrastructure projects usually need long-term financing in local currency, but most domestic African banks can only provide short-term financing in local currency. Many African pension funds are experiencing rapid growth in contributions and assets, but have few long-term fixed-rate debt investments. Pension funds do, however, have a high level of liquidity provided by: (1) a large amount of short-term liquid assets, and (2) the cash flows provided by new contributions.

The Contingent Refinancing Facility is a commitment provided by one or more domestic pension funds to purchase the debt of an infrastructure project that was initially financed by domestic commercial banks. The bank financing would typically provide construction funding and financing for the initial years of the project's operation. The bank financing would have a long-term amortization schedule which would leave a substantial outstanding balance at maturity. At a pre-established date, such as five years after closing of the initial financing for a project, the provider of the Contingent Refinancing Facility would purchase the remaining project debt, in the event that (1) the bank(s) that provided the initial funding do not wish to roll over their initial financing and keep the project's debt on their books and (2) the project is not in default and has a minimum debt service coverage ratio (i.e., the amount by which annual revenues available for debt service exceed the annual debt service amount).

The Contingent Refinancing Facility would enable banks to do what they do best – provide construction financing – while remaining within the constraints of the tenor of financing that they are able to provide. Providing the Contingent Refinancing Facility would not stress the liquidity of a pension fund because the fund would typically have a relatively high level of short-term liquid assets (often in the form of bank market investments), as well as new sources of funding provided by pension contributions.

Providing the Contingent Refinancing Facility would be a reasonable credit risk for pension funds because they would only have to purchase the debt of a project that has operated successfully, as demonstrated by the fact that it is not in default and has a satisfactory debt service coverage ratio.

The Contingent Refinancing Facility would provide infrastructure projects with the equivalent of long-term financing by enabling banks to provide short-term financing with a long-term amortization schedule. The fact that a project would only have to cover annual

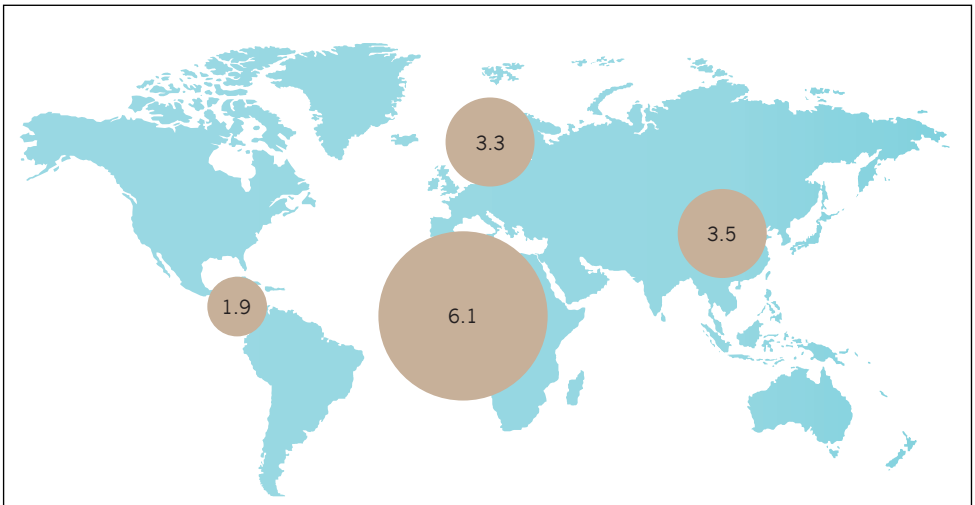


Figure 3: Total Amount of Guarantees (US$ billion) by Region from 2009-2011

Source: Mirabile, M., J. Benn and C. Sangaré, "Guarantees for Development", OECD Development Co-operation Working Papers, No. 11, OECD Publishing, 2013, page 7, http://dx.doi.org/10.1787/5k407lx5b8f8-en.

principal payments based on a long-term amortization schedule would enable it to offer its services to the public at an affordable cost.

3.2 Addressing Foreign Currency Risk – An Illustrative Example: Mismatched currencies have historically been a source of systematic crisis, when the currency of the project revenues is not matched with the currency of debt payments. Most infrastructure projects have local currency revenues so if the debt is denominated in a foreign currency, devaluation in the local currency increases debt service. Therefore, unless there are affordable hedging vehicles, foreign currency financing exposes project sponsors of local currency revenue projects to high levels of foreign exchange risk. If the tariffs are indexed to the same foreign currency as the debt, the exchange rate risk is passed on to the customer.

During the last two decades, in both cases of indexed and non-indexed tariffs, many projects in developing countries financed with US dollar-denominated debt experienced a major devaluation that caused projects to default or to be restructured. The cause was the mismatch in currencies: The reduced value of their local currency revenues did not produce enough US dollars to service the project's debt.

The ZTK Interconnector Project entails the construction of a transmission line that will connect the Zambian grid to Kenya via Tanzania, covering a distance of 1,600km. The project will provide power interconnection across the continent to facilitate the creation of a pan-African power market. For the first time, the East African Power Pool (EAPP) will be connected to the Southern African Power Pool (SAPP), providing additional opportunities for power trade.

As the project covers multiple countries with different currencies, there is cross-border currency risk that needs to be mitigated. Also, given the size of the project, there may be the need for international investors that will be concerned about currency risk. The Foreign Exchange Liquidity Facility could unlock access to international investment from banks and institutional investors which are not allowed to invest given cross-border currency risk. If concessional financing is being provided, this facility could also provide protection to the host countries and the development partners.

By providing the project with long-term, low-cost financing, the savings can be passed to their customers, enabling more affordable public rates.

3.3. Refining and Expanding Risk Mitigation Techniques and Instruments: The above two indicative simplified examples of infrastructure projects now in development illustrate how new risk mitigation instruments can be developed and applied to potentially help mitigate specific risks and increase access to long-term finance.

The recommendations listed in the next section are intended to provide a roadmap of next steps to scale up the speed of project development and the amount of finance for Africa's regional and national infrastructure projects. However, it is important to note that the development and piloting of these innovative applications requires resolute public support and funding to demonstrate proofs of concept and enable replication.

4.0 How to Scale up the Successful Development and Finance of Africa's Regional and National Infrastructure Projects

The historical and current examples of infrastructure projects presented in the prior sections are evidence of the ability to structure infrastructure projects so they secure the required levels of finance, as well as the

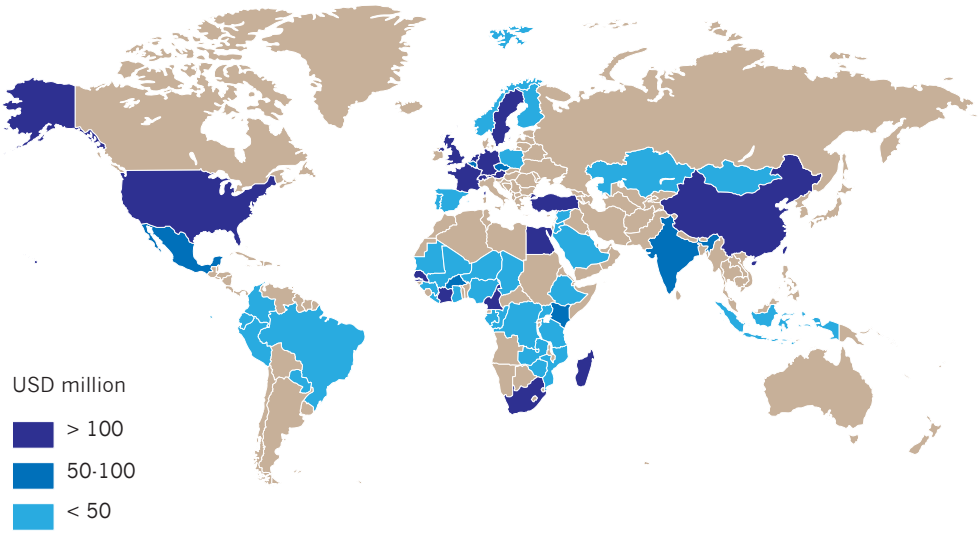


Figure 4: Sources of Private Capital Mobilized by Guarantees 2009-2011

Source: Mirabile, M., J. Benn and C. Sangaré, "Guarantees for Development", OECD Development Co-operation Working Papers, No. 11, OECD Publishing, 2013, page 6, http://dx.doi.org/10.1787/5k407lx5b8f8-en.

urgent need to advance new risk mitigation solutions.

The policy issue facing the public and private sectors is: How to innovate and scale? While the three historical projects summarized above were successful in mobilizing the required finance, there are a significant number of critical regional and national infrastructure projects that lack finance.

In fact, as noted in Figure 3 on the preceding page, the track record of development partners in mobilizing private finance through risk mitigation has been quite limited. For example, the OECD reported that guarantees for development – extended by DAC donor governments (aid agencies and DFIs) and international financial institutions – only mobilized US$15.3 billion from the private sector over the three years from 2009 to 2011. The scale of resources mobilized for development through guarantee schemes is in fact small in the overall picture of development finance.

For example, in 2011, guarantees totalled US$6.4 billion, approximately 12% of country-programmable aid (US$54.8 billion) and less than 1% of international private flows. It is also important to note that more than 50% of the resources mobilized by guarantees benefited upper-middle income countries.

Figure 4 above shows the origin of the private flows mobilized by guarantees and their amounts. Countries with private investors providing more than US$100 million from 2009-2011 included European countries, the United States, China and South Africa, among others. It is important to note that guarantees have also mobilized significant domestic resources from within developing countries: for example, 15% of the resources mobilized by guarantees (US$2.3 billion) in 2009-11 were domestic.

PRIVATE SECTOR RECOMMENDATIONS:
The suggested recommendations below are aimed at prompting the changes in risk mitigation and overall development interventions needed to accelerate the development and finance of Africa's national and regional infrastructure projects, especially PIDA projects.

RECOMMENDATION ONE: Champion a platform and process to better understand the private sector project development ecosystem and investment criteria, and invest in the required increased effectiveness and efficiency of the project development cycle.

This will require significant changes in mindset, processes and collaboration frameworks, working in partnership with the private sector. This new framework entails sharing information openly, using online platforms to reduce costs and improve effectiveness, and developing and employing performance metrics that credibly document envisioned project development impact and the estimated amount of mobilized private investment.

RECOMMENDATION TWO: Invest in the development of publicly-disclosed "Preliminary Infrastructure Investment Assessments (Project Assessments)" that optimize the alignment between development dividends and investability criteria.

The transparent process of generating Project Assessments would serve as a collaborative integrating platform, crowding in the technical public and private sector experts and local stakeholders required to optimize sustainable development impact and access to

private capital.

The private sector can take a leadership role in this process, bringing innovative ideas, approaches, technologies and financing structures to the design of the project. Development finance institutions can provide a critical facilitation and brokering role from project inception, especially for cross-border projects, in bringing together the required private sector experts and investors.

Such expert documentation of Project Assessments can be used to attract both greenfield and brownfield investments needed for infrastructure projects. Some investment management firms have separated core brownfield economic infrastructure from riskier greenfield infrastructure development on the risk/return spectrum, as indicated in Figure 5 below.

RECOMMENDATION THREE: Champion the establishment of an infrastructure co-investment platform forum for African pension and sovereign wealth funds, as a means to mobilize domestic and international pension and sovereign wealth fund investment into de-risked African regional and domestic infrastructure investment projects.

Mobilizing African pension and sovereign wealth fund capital for infrastructure projects will be key if Africa is to meet the financing gap that is currently hindering its economic and social development. In accordance with a recurring theme emanating from the African Union, which has called for the mobilization of domestic institutional capital, Africa's pension and sovereign wealth fund investment community has expressed an interest in partnering to explore solutions and conditions to provide the necessary funding for de-risked African regional and domestic infrastructure projects.

Creating an environment for African sovereign wealth and pension funds to assess infrastructure co-investment opportunities is a top agenda priority, not only for the business and finance community, but also for African governments and development finance partners. African policy makers therefore have an opportunity to engage and provide leadership in fostering an enabling environment for African and global institutional investors to increase their investments in African infrastructure through the existence of such a unique and relevant forum.

RECOMMENDATION FOUR: Exponentially increase the amount of project development funding and create a development partner-led, new, expedient and transparent procurement framework that incentivizes project developers to invest in the project development phase, and institutional investors to provide debt and equity capital.

First, the public sector needs to address the need to exponentially increase the amount of funding for project preparation and development, allocating the bulk of project preparation funds to the early stages of investment, and create simplified one-stop access through open information and aggregation platforms including online portals and specialized online applications (apps).

These platforms and applications should also include aggregated directories of the entire ecosystem needed to develop high-quality infrastructure projects: skilled professionals (e.g., project developers, financial advisors, project finance lawyers, environmental engineers, etc.); risk mitigation techniques, instruments and best practices; and standardized approaches (e.g., toolkits, project legal documentation, off-take agreements, etc.).

It is important to recognize that specific early-stage

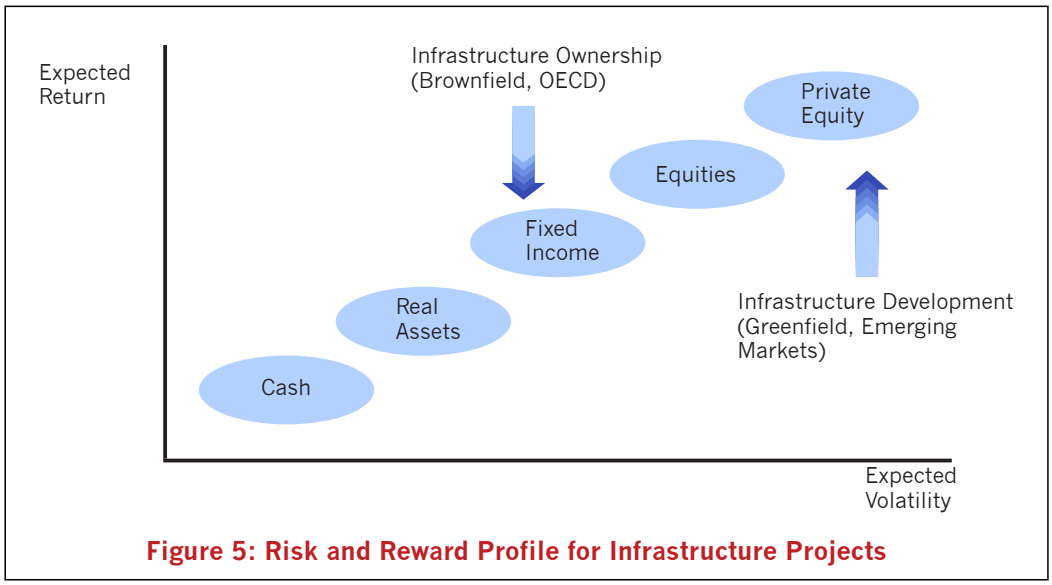


Figure 5: Risk and Reward Profile for Infrastructure Projects

Source: Adapted from Lazard 2007 in "Pooling of Institutional Investors Capital – Selected Case Studies in Unlisted Equity Infrastructure," OECD, 2014.

Figure 6: Taxonomy of Instruments and Vehicles for Infrastructure Financing

Modes		Infrastructure Finance Instruments		Market Vehicles
Asset Category	Instrument	Infrastructure Project	Corporate Balance Sheet/Other Entities	Capital Pool
Fixed Income	Bonds	Project Bonds	Corporate Bonds, Green Bonds	Bond Indices, Bond Funds, ETFs
		Municipal Sub-Sovereign Bonds		
		Green Bonds, Sukuk	Subordinated Bonds	
	Loans	Direct/Co-Investment lending to Infrastructure project, Syndicated Project Loans	Direct/Co-investment lending to infrastructure corporate	Debt Funds (GPs)
			Syndicated Loans, Securitized Loans (ABS), CLOs	Loan Indices, Loan Funds
Mixed	Hybrid	Subordinated Loans/Bonds, Mezzanine Finance	Subordinated Bonds, Convertible Bonds, Preferred Stock	Mezzanine Debt Funds (GPs), Hybrid Debt Funds
Equity	Listed	YieldCos	Listed infrastructure & utilities stocks, Closed-end Funds, REITs, IITs, MLPs	Listed Infrastructure Equity Funds, Indices, trusts, ETFs
	Unlisted	Direct/Co-Investment in infrastructure project equity, PPP	Direct/Co-Investment in infrastructure corporate equity	Unlisted Infrastructure Funds

Source: "Infrastructure Financing Instruments and Incentives," OECD, 2015, page 15.

project development actions need to include early "quick and dirty" demand studies that establish at the outset whether there is likely to be sufficient demand to justify investments, documenting the full range of assessed risks and possible solutions (especially "off-take risk"), as well as estimated project development costs. PPFs facilities, application processes and response time need to be offered to private sector developers, and be restructured, integrated, and exponentially increased to meaningfully address project development bottlenecks.

Second, governments and their development partners would benefit from crowding in private sector funding of the project development finance gap in PIDA, national and regional projects through streamlined transparent and well-governed processes redefining procurement processes. There should be public-private collaboration in defining innovative procurement processes (e.g., unsolicited bids, auctions, restricted bidding, open book tendering, single sourcing infrastructure tenders, etc.), that accelerate project development, increase investable project pipelines, reduce costs and time to service delivery, resulting in greater sustainable development impact.

Specific suggestions set forth for further refinement include the following:

*1) **Develop an early-stage auction with a streamlined, transparent process:** An auction process could be conducted by government(s) in a simple manner. Two suggestions have been provided (for further refinement):*

a. Interested project developers would bid based on the committed user fees for the project. (User fees could be included the Project Assessments outlined in the prior section.)

b. Interested project developers could simply provide a required rate of return for their investment and project development services.

***2) Promote and design a new and transparent unsolicited bids framework and other bidding processes:** Many governments and their development partners discourage unsolicited bids given the risk of corruption. However, many private investors argue that corruption is in fact prevalent in the current competitive tendering process and that streamlined refinements are needed to speed up the process and enable their funding of project development.*

Corruption and overpayment risks can be avoided through transparent negotiations in which governments have independent expert advisors, transparent documentation and open disclosure of all terms, with detailed price benchmarking to ensure value for money.

Third, the public sector could create a framework

that incentivizes project developers to drive the project development process. Two sets of actions are therefore required: (a) Employ business models with adequate payment models for private sector project developers, so they can increase the number of investable projects they develop; and (b) Directly fund more project developers.

Fourth, the public sector needs to invest in the development of well-structured projects that are acceptable assets for institutional investors interested in greenfield infrastructure projects.

Fifth, the public and private sectors should partner in further developing co-investment platforms with risk mitigation enhancements that facilitate investment from institutional investors into African regional and national infrastructure projects, learning from the many platforms developed globally, by sector, regionally, and investment theme (e.g., social impact, etc).

Sixth, it would be advisable for the public sector to partner with the private sector and invest in the development and scaling up a large menu of effective and new investment intermediation vehicles, such as infrastructure project bonds, government bonds earmarked for infrastructure investments, indices, special vehicle transaction structures and infrastructure funds, aligning with the investment criteria of institutional investors.

The wide range of financing channels for infrastructure investment is summarized in Figure 6 (on previous page), illustrating the role of market-based financing for infrastructure across the spectrum of investors and instruments.

RECOMMENDATION FIVE: Develop an open menu of project ownership and financing options; improve the enabling and information environment for regional and national infrastructure projects; and identify and mitigate regulatory risks, to ensure that applicable treaties, cross-border agreements, parliamentary approvals and tax codes etc., are clearer and more predictable for project developers, investors and ratings agencies.

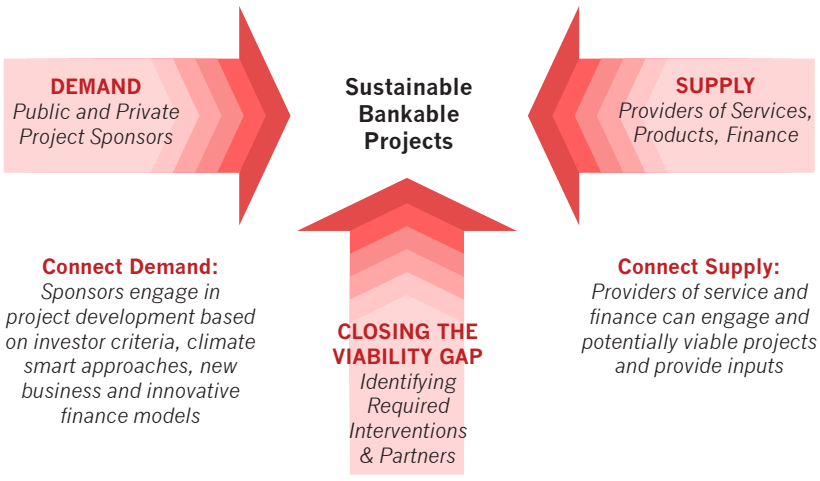
First, the public and private sectors need to openly consider the full menu of options with regard to project ownership and debt options, ensuring a rigorous process led by highly-skilled independent financial advisors. Such a process needs to be guided by the goal of optimizing access to finance (taking into account the full range of private capital options for debt and equity) while delivering on maximum development dividends.

Second, the public sector should improve the enabling environment for regional projects by providing independent financial advisors to all participant governments to ensure suitable treaties and cross-border agreements, and involving private sector entities (local, regional and international) as the dynamic engine creating momentum for achieving timely progress and results.

RECOMMENDATION SIX: Establish a new collaborative work process that can mitigate risks in PIDA, regional and national infrastructure projects, focused on identifying project viability gaps and required interventions to achieve investability, rather than focusing in vain on finance sources for poorly-structured projects that do not meet investment criteria.

Working closely together, the public and private sectors need to identify the project viability gap and focus on development support and risk mitigation to eliminate the obstacles impeding access to private

Figure 7: Key Solution Is Closing the Project Viability Gap: Match Demand & Supply in Project Development



Source: Global Clearinghouse for Development Finance

finance. It is imperative that the CBN, project developers and investors, governments, project preparation facilities and development partners create a new collaborative work process focused on identifying project viability gaps to achieve investability and see bankability as the de-risking tool rather than the final financing solution. Online platforms are needed to enable cost-effective technical coordination between the wide spectrum of project participants, providers of risk mitigation and potential investors in solving the project viability gap, with leverage metrics to measure performance and advance lessons learned.

RECOMMENDATION SEVEN: Encourage the use of project finance structures, working with the wide array of public and private sector leaders and development partners, to overcome project viability gaps and support the risk mitigation and financial close of PIDA and large infrastructure projects.

First, governments are advised to increase their investment by using project finance structures that can mitigate risks, identifying the project viability gap in PIDA, regional and large national infrastructure projects, working closely with the wide array of required public and private sector partners in identifying and implementing solutions. If risks are adequately mitigated, a local investment-grade rating can be secured post-construction on local currency tranches, enabling significant local institutional investment. In some cases, it may be possible to 'pierce the sovereign ceiling' and obtain a credit rating better than the sovereign.

Second, given the need to simplify the complexities of multiple parties for large regional projects, consortia can be developed to support regional projects. Development partners can develop consortia to support PIDA projects to enable effective donor coordination and the emergence of a specialized donor group dedicated to targeted inputs to develop solutions for project viability gaps. Banks can coordinate, given Basel III and their limited ability to provide upfront funding to cover construction risks until the assets are performing and institutional investment can be secured. Insurance companies can partner for reinsurance and complementary policies.

RECOMMENDATION EIGHT: Champion the improvement of the enabling environment and strengthening of domestic capital markets as a vehicle for infrastructure investment.

The public sector could benefit significantly by increasing its investment in the improvement of the enabling environment and domestic capital markets. First, institutional investors need to have the regulatory framework to invest in infrastructure. Second, there needs to be public sector support in improving the capacity of local institutional investors, their fund managers and consultants to assess African infrastructure projects and vehicles against investment criteria.

All information on infrastructure investments should be openly provided on a web-based platform, with linkages to the related leading information and assessment initiatives aimed at advancing the needed assessment of infrastructure investments, such as the EDHECinfra Institute. The public sector should also invest in the rating of projects and investment vehicles by credible rating agencies to facilitate the development of infrastructure investment as an asset class.[11]

RECOMMENDATION NINE: Champion the scaling-up and utilization of existing and innovative risk mitigation instruments to incentivize investment in infrastructure, working closely with finance experts and sponsoring "Risk Mitigation Innovation Labs" made up of public and private sector leaders.

The public sector is advised to increase its investment in the scaling up and utilization of existing and new effective risk mitigation instruments working closely with finance experts, project developers, investors and other professionals involved in project development. "Risk Mitigation Innovation Labs" need to be supported by the public sector, bringing together experts from across the public and private sectors. In addition, the "INFRADEV Marketplace" should be expanded and improved, with enabling information on project preparation facilities, risk mitigation instruments, leading-edge transaction structures, standard documentation and directories of professionals (www.infradev.org). A deal tracking system should also be provided, enabling cost-effective coordination and tracking with performance metrics.[12] All systems should provide information for use in the new architecture, Total Official Support for Sustainable Development (TOSSD), being developed for measuring private capital mobilization by the Development Assistance Committee (DAC).[13]

RECOMMENDATION TEN: Champion the implementation of regional harmonization interventions (such as regional procurement bodies/authorities) that can facilitate the development of bankable and sustainable regional infrastructure projects, both on a systematic regional level as well as within each individual regional project structure.

Significant investment needs to be made into cross-border harmonization interventions, both on a systematic regional level as well as within each individual regional project structure.

5.0 Next Steps

We recommend that the CBN and its members, partnering with host governments, development partners and private sector leaders, refine the above recommendations for immediate application to PIDA and other regional and national African infrastructure projects.

Summary of Second Annual CBN Meeting on Risk Mitigation of Regional and National Infrastructure Investments



Opening panel: Hubert Danso, CEO/Vice Chairman, Africa investor; H.E. Dr. Sahar Nasr, Minister of International Cooperation, Arab Republic of Egypt; Symerre Grey-Johnson, Head, Regional Integration, Infrastructure and Trade Programme, NEPAD Agency; Zienzi Musamirapamwe, Head, Public Sector Affairs, Barclays Africa

The first CBN meeting, which was held in June last year, on the margins of World Economic Forum on Africa, placed great emphasis on addressing infrastructure investment risks. This includes how to identify the parties best suited to assume development risk and on what terms, and thinking through innovative ways that risk mitigation instruments and approaches may be employed to cover unacceptably high risks. This is the issue that continues to stymie the efficient implementation and development of critical PIDA and regional projects.

The CBN Secretariat took these initiatives forward with a successful, focused consultation and dialogue that culminated in the second high-level CBN meeting on de-risking regional infrastructure projects at the recent African Development Bank Annual Meetings in Lusaka on the 23rd of May 2016. The meeting was anchored in an agenda based on the outcomes of an extensive consultative process managed by the CBN Secretariat to solicit private sector views on areas that Heads of State can champion to de-risk infrastructure and regional projects in Africa. This final report emanates from these CBN and other consultations. The final report's recommendations will be presented to African Heads of State at the 27th Ordinary Session of the Assembly of the African Union Heads of State in Kigali, Rwanda.

The CBN meeting convened over 120 leading business and finance leaders and included a dynamic leaders' panel on infrastructure investment risk. The panel was facilitated by Hubert Danso, CEO and Vice Chairman of Africa investor, and focused on the classification of risks linked to regional and domestic infrastructure assets and the taxonomy of instruments and vehicles available to African Heads of States championing infrastructure projects seeking financing. Technical support was provided by Africa investor and the Global Clearinghouse for Development Finance.

Session panellists included Jay Ireland, President of GE Africa; Konrad Reuss, MD of Africa at Standard & Poor's; Admassu Tadesse, CEO of PTA Bank; Aurélien Mali, Senior Analytical Advisor – Africa, Sovereign Risk Group at Moody's; Mtchera Chirwa, Public-Private Infrastructure Specialist at the African Development Bank; Jef Vincent, Chief Underwriting Officer at the African Trade Insurance Agency, and Ini Uruna, Director at the Africa Finance Corporation. Opening panellists included H.E. Dr. Sahar Nasr, Minister of International Cooperation, Arab Republic of Egypt; Symerre Grey-Johnson, Head, Regional Integration, Infrastructure and Trade, NEPAD Agency, speaking on behalf of NEPAD Agency CEO, Dr Ibrahim Assane Mayaki, and Zienzi Musamirapamwe, Head, Public Sector Affairs, Barclays Africa.

The meeting called for an ongoing high-level CBN workstream platform, branded "De-Risk Africa," to work alongside African Heads of State champions, to formulate de-risking strategies, techniques and instruments available to project developers, Ministers of Finance and government officials to meet the requirements and mandates of institutional and sovereign wealth fund investors.

De-Risk Africa will seek to improve the risk profile and investability of regional, PIDA, and national infrastructure projects as a central workstream of the CBN.



Panellists: Hubert Danso, CEO and Vice Chairman, Africa investor; Konrad Reuss, MD of Africa at Standard & Poor's; Mtchera Chirwa, Public-Private Infrastructure Specialist at the African Development Bank; Jef Vincent, Chief Underwriting Officer at the African Trade Insurance Agency; Ini Uruna, Director at the Africa Finance Corporation; Jay Ireland, President and CEO, GE Africa; Aurélien Mali, Senior Analytical Advisor – Africa, Sovereign Risk Group at Moody's; Mtchera Chirwa, Public-Private Infrastructure Specialist at Moody's; and Admassu Tadesse, CEO, PTA Bank

CBN Recommendations for an African Pension and Sovereign Wealth Fund Infrastructure Co-Investment Platform

Mobilizing Africa's Institutional Infrastructure Investment Community

Mobilizing African pension and sovereign wealth fund capital for infrastructure projects will be key if Africa is to meet the financing gap that is currently hindering its economic and social development. In accordance with a recurring theme emanating from the African Union, which has called for the mobilization of domestic institutional capital, Africa's pension and sovereign wealth fund investment community has expressed an interest in partnering to explore solutions and conditions to provide the necessary funding for de-risked African regional and domestic infrastructure projects.

Creating an environment for African sovereign wealth and pension funds is a top agenda priority, not only for the business and finance community, but also for African governments and development finance partners. Ensuring that infrastructure is front of mind and at the heart of investment policies and training of African pension funds, which is currently more than a US$400 billion industry, is essential. African policy makers therefore have a continued opportunity to engage and provide leadership in fostering an enabling environment for African and global institutional investors to increase their investments in African infrastructure.

With intra-African investment flows at a mere 5%, co-investments have been identified as a strategy to significantly increase these flows, as well as investment into regional and domestic infrastructure projects. As such, it is recommended that priority be given to co-investment partnerships to focus primarily on de-risked regional and domestic infrastructure investment projects, which will support PIDA and Africa's capital market growth. Africa's six largest pensions funds' assets are expected to grow to US$622 billion by 2020 and exceed US$7 trillion by 2050, which, coupled with the several trillions available with US and global institutional investors today, could be a game changer for PIDA, regional integration and job creation in Africa.

After extensive consultations with African pension and sovereign wealth fund leaders at both the first and second annual meetings of the CBN, and as part of the de-risking report consultative process, it is clear that these institutions are able, with the right conditions and de-risking mechanisms, to not only mobilize their own domestic capital to fund regional infrastructure investments in Africa, but to act as champions and engage their international peer pension and sovereign wealth funds to achieve this with the appropriate risk mitigation and governance standards in place.

Pursuant to this, it was proposed that the CBN call on Heads of State to champion the establishment of the African Pension and Sovereign Wealth Fund Infrastructure Co-Investment Platform to engage and coordinate industry leaders in support of Africa's infrastructure investment agenda.

The Platform

The proposed African Pension and Sovereign Wealth Fund Infrastructure Co-Investment Platform would be a practical collaboration platform that leverages the long-term investment horizon of public financial investors, such as sovereign wealth funds and pension funds, to invest in de-risked African regional and domestic infrastructure assets that meet their mandates and investment criteria.

Through the infrastructure co-investment platform, African pension and sovereign wealth funds can assist governments in gaining insights into the industry's investment and risk policies and mandates and assist with the peer-to-peer promotion of regional infrastructure investment opportunities in an active and networked manner through co-investment.

The platform would be routinely assisted by the CBN Secretariat to coordinate agendas, share project status updates and ensure alignment between regional project policy developments and investment and project risk profiles.

Purpose

- To mobilize domestic and international pension and sovereign wealth fund investment into African regional and domestic infrastructure investment projects.
- To build the capacity of African pension and sovereign wealth funds investors to invest in regional and domestic infrastructure investments.
- To harmonize fiduciary and governance standards of pension and sovereign wealth funds to optimize co-investment opportunities into Africa regional and domestic infrastructure investment projects.
- To provide a knowledge tool through a repository of information on the institutional infrastructure investment climate in Africa.

Call to Action

With the appropriate engagement and de-risking through the platform described above, Africa's pension and sovereign wealth funds are well-placed to provide much of the necessary funding for Africa's infrastructure development deficit. The Continental Business Network (CBN) therefore calls on Heads of State to support this co-investment platform to ensure effective participation and collaboration with African pension and sovereign wealth funds in the financing of Africa's regional and domestic infrastructure investment agenda.

CBN Recommendations to Harmonize Cross-border Regulations, Procurements and other Conditions Required for Regional Project Development, Finance and Operation

Regional infrastructure projects providing transport and energy are essential to increasing Africa's cross-border trade, investment and overall economic development, but the sustainability and bankability of each regional project requires harmonizing required specific cross-border agreements. These cross-border country agreements encompass the entire project development cycle and operation, from project definition to the business model, ownership, management, governance, risk mitigation, procurement processes, finance and maintenance.

These daunting challenges of cross-border harmonization and coordination need to be urgently addressed through the systematic development of a menu of options to enable the effective development and finance of African regional projects. Several ideas of how to support regional projects have surfaced in the discussions for this paper, such as regional procurement agencies, regional implementing authorities and regional special purpose vehicles. Such concepts need to be refined and evaluated based on an astute understanding of the issues encountered to date and on the existing solutions that have been employed successfully worldwide. Moreover, given the need to mobilize private capital, it is critical that each option be tested as to its ability to meet investor requirements.

Experts have noted some of the core building blocks and principles that can be leveraged in the development of potential solutions. Two distinctive workstreams have emerged: Region-wide facilitation support and project-specific solutions, as summarized below.

Region-Wide Facilitation Support
As noted, different governments with different priorities, frameworks (institutional, legal, regulatory, governance) and resources need to coordinate in defining the exact nature of the project, the tariff structure used for user fees, the level of required subsidies (often required for public services worldwide), procurement processes and decisions, and the project structure (ownership, management, governance). Therefore there is the need for highly-skilled technical experts with the requisite experience to be available to support regional and large national infrastructure projects. This expert support is especially essential for the initial process of defining regional projects and the optimal ownership structure.

1) Sector-Specific Regional Structures: An example of a subregional facilitation structure focused on one sector is the Southern African Power Pool (SAPP). The SAPP mission is to provide low-cost, environmentally-friendly and affordable energy and to increase accessibility to rural communities. Technical functions are wide, ranging from procurement, technical support and market-making.

2) Regional Infrastructure Procurement Body: Another suggestion is to establish a Regional Infrastructure Procurement Body to enable faster, more efficient infrastructure delivery via the standardization of policies, rules, processes and forms. Uniformity in infrastructure procurement would decrease due diligence costs, provide more predictability and reduce transaction timeframes. The Regional Infrastructure Procurement Body should be composed of people with background and expertise in PPP structuring, project finance, legal (for jurisdiction-specific procurement laws and rules), financial modelling, engineering and deal/procurement management. There should be an overarching agreement between the governments on the mandate and responsibilities of such a body. It should also include a clear undertaking of support and delegated authority from the various governments. A Governing Board composed of senior Ministers from the various governments and technical experts could be established to set the direction and policies (upon recommendation of the Regional Infrastructure Procurement Body). The Regional Infrastructure Procurement Body would report to the Governing Body.

These types of regional facilitation and capacity-building structures will require significant funding from governments and their development partners.

Project-Specific Solutions
The required harmonization for regional infrastructure projects can also be addressed through the structuring of the project itself. Below are key foundational elements of project-specific solutions as set forth by experts:

1) Advisory Support from Regional Economic Communities (RECs): As the existing institutional entities used to coordinate political policies, RECs can play a critical advisory role in project identification and facilitation for development and political support. However, they do not have the legal or technical capacity to actually manage projects or contract debt or equity.

2) Bankable Regional Project Structures - Special Purpose Vehicles: Both the public and private sectors have a multitude of existing sustainable regional projects that operate successfully across multiple country borders as a single legal entity with transparent governance and financial reporting that can legally contract debt and equity. The rating agency default studies have evidenced the superior financial performance of Special Pur-

pose Vehicles using the proven principles of project finance. Such Special Purpose Vehicles have optional ownership by government entities (national, local, etc) and/or the private sector.

3) Ownership of Regional Projects: Other countries have established joint government entities, as well as approved independent private sector regional companies. For example, The Port Authority of New York and New Jersey is the United States' first bi-state agency operating several transport services operating through an interstate compact. Other options include PPPs or private sector-owned entities such as the company Groupe EuroTunnel SE that manages and operates the Channel Tunnel Channel between Britain and France. Ownership is widely diversified among 270,000 shareholders with the largest share institutional investors (36%) in more than five countries (largest share 39% in the United States) (see http://www.eurotunnelgroup.com/uk/shareholders-and-investors/key-figures/shareholder-analysis/).

4) Board Governance of Regional Projects: Likewise, there are several options for management control across the public and private sectors: Participating governments can participate at the Board level, as in the Port Authority of NY and NJ, in which the Governor of each state appoints six members of the agency's Board of Commissioners, subject to state senate approval. In the case of EuroTunnel, the Board is entirely private sector (see http://www.eurotunnelgroup.com/uk/eurotunnel-group/corporate-governance/board-of-directors/).

5) Tariffs & Other Cross-Border Agreements: All regional projects, irrespective of ownership, require long-term commitments on cross-border agreements such as tariffs and border control processes. Participating governments need to therefore agree to specialized cross-border tariffs and any subsidies needed to ensure project bankability. All other specific cross-border arrangements will also need to be identified and determined as part of the project's legal documents. Back-up support from development partners is likely to be required to mitigate political and regulatory risks.

6) Joint Implementing Authority: Each project could have a joint government authority with the appropriate representation from all stakeholders – and most importantly with executive authority, decision- making ability, implementation responsibility and regulatory authority to engage as a one-stop shop with the private sector in respect of that project, and bind all the stakeholders behind it. This may take some time to set up initially, but it will save significant time and money down the line for all concerned. Pre-approved funders and sponsors are also a good idea – although one should do so in a way that ensures that the procuring authority gets the best technical/ financial solution and a competitive process.

7) Sustainable Business Models: The design of such Regional Projects needs to ensure they are self-sustaining. For example, The Port Authority of New York and New Jersey is a financially self-supporting public agency that relies almost entirely on revenues generated by facility users, tolls, fees and rents. Groupe Eurotunnel SE earns revenue on the tunnel and other trains through the tunnel, and is listed on both the Euronext London and Euronext Paris markets. In many projects worldwide, predictable and adequate government subsidies are required to provide transport, energy and other public services.

8) Procurement: Procurement processes can be conducted as part of the regional infrastructure project. See, for example, the Guide to Procurement for the Port Authority of New York and New Jersey: http://www.panynj.gov/business-opportunities/pdf/guide-to-procurement.pdf

Call to Action

A detailed technical analysis of existing cross-border structures is required as a basis for developing the menu of options to solve these harmonization and coordination issues. The resulting full array of regional harmonization solutions will need to be defined based on extensive analyses, and refined through systematic feedback from governments, development partners and targeted private sector providers of services and capital. This process will require both strong and resolute senior political will, coupled with leading highly-skilled experts working on actual cross-border infrastructure projects and regional solutions to systemic issues.

Though the implementation of such de-risking initiative, the ability to attract private capital and expertise will be immediately increased exponentially by providing frictionless, streamlined and harmonized facilitation for regional project development, finance and operation.

The CBN is therefore calling on Heads of State to champion and support technical experts in developing regional frameworks and interventions that can serve to harmonize cross-border regulations, procurements and other conditions required for regional project development, finance and operation. These new frameworks will be crucial to Heads of State in crowding in private sector and development finance and expertise to develop priority regional and domestic infrastructure projects in Africa, starting with PIDA projects.

FOOTNOTES

1 This paper focuses on institutional investment given the policy imperative of aligning the long-term capital available with the long-term finance requirement of infrastructure projects. Other sources of capital that can be mobilized for infrastructure projects are not included (e.g., commercial banks, equity and debt funds, social impact investors, foundations, etc.).

2 Given the lack of uniformity on the use of the term "de-risking," it is important to clarify its use in this report. The term "de-risking" is used from the perspective of targeted investors (debt and equity) that require all investments meet their due diligence investment requirements. Risks that can be assessed and managed in alignment with their fiduciary requirements can be assumed by private investors. However, risks that are unacceptably high and/or outside the control of the investor need to "de-risked," meaning that these types of risks need to be eliminated or transfered to another party that can control or assume the risk. It is also important to note that some risks can be reduced through the structuring of the project, most notably in the use of proven project finance techniques (e.g., use of Special Purpose Vehicles, ring-fenced revenues, turn-key contracts, etc). In contrast, the term "de-risk" is defined differently by the Financial Action Task Force (FATF) as the "phenomenon of financial institutions terminating or restricting business relationships with clients or categories of clients to avoid, rather than manage, risk in line with the FATF's risk-based approach." SOURCE: http://www.worldbank.org/en/news/press-release/2015/11/20/world-bank-surveys-confirm-concerns-over-reduced-access-to-banking-services.

3 For example, given the proven value of investment-grade monolines in providing large-scale access to institutional investment for infrastructure in many countries, they need to be scaled up. A monoline guarantee covers 100% (principal and interest) of debt service and is unconditional and irrevocable, transferring the credit risk of the project to the monoline, thereby enabling large-scale institutional investment in infrastructure. To date, monolines have guaranteed US$650 billion in total international debt; within that total, US$43 billion is guaranteed developing country debt – with only 0.07% of loss over 22 years. An important private sector initiative is the Ascending Markets Financial Guarantee Corporation (AMF), which is intended to serve as an investment grade developing country monoline to enable local pension funds, insurance companies, banks and other fixed income investors to fund infrastructure and public services. See http://www.amfguarantee.com.

4 See the Africa Energy Guarantee Facility (AEGF) - http://www.eib.org/projects/pipeline/2012/20120168.htm.

5 The INFRADEV Marketplace is an initiative led by the Global Clearinghouse for Development Finance now being expanded with partners. See Financing for Development pilot with Directories of Risk Mitigation Instruments, http://www.globalclearinghouse.org/InfraDev/rmlist.cfm) to be expanded, Infrastructure Experts Group to Advance Public-Private Risk-Sharing (launched at 2002 Monterrey International Conference on Financing for Development), and presentation at 2015 FfD Addis Side Event co-sponsored by Bill & Melinda Gates Foundation, Sweden, Mexico, Africa investor, and Global Clearinghouse on Development Finance. http://www.globalclearinghouse.org/img/Public/files/REVISED%20Addis%20Powerpoint_13%20FINAL%20(1).pdf).

6 SOURCE: "World Bank provides IBRD Enclave Guarantee to Cross-Border Southern Africa Regional Gas Project," World Bank, November, 2003.

7 SOURCE: "Sub-Saharan Africa Benefits from the first IDA Guarantee for Azito," World Bank, June, 1999.

8 SOURCE: "IDA Guarantee Paves Renewed Interest in Private Hydropower – the Nam Theun 2 Project - Largest Cross Border Project Financing in East Asia," World Bank, 2005.

9 The Moody's study data set represents 62% of all transactions originated globally over the period 1983-2014. See Moody's Investors Service report "Default and Recovery Rates for Project Finance Bank Loans, 1983-2014," March, 2016.

10 See "Cash Flow Dynamics of Private Infrastructure Project Debt," March 2016, EDHECinfra, EDHEC Business School, page 9.

11 See http://edhec.infrastructure.institute.

12 The INFRADEV Marketplace is an initiative led by the Global Clearinghouse for Development Finance now being expanded with partners. See Financing for Development pilot with Directories of Risk Mitigation Instruments, http://www.globalclearinghouse.org/InfraDev/rmlist.cfm) to be expanded, Infrastructure Experts Group to Advance Public-Private Risk-Sharing (launched at 2002 Monterrey International Conference on Financing for Development), and presentation at 2015 FfD Addis Ababa FfD Side Event co-sponsored by Bill & Melinda Gates Foundation, Sweden, Mexico, Africa investor, and Global Clearinghouse on Development Finance. http://www.globalclearinghouse.org/img/Public/files/REVISED%20Addis%20Powerpoint_13%20FINAL%20(1).pdf).

13 See "DAC High Level Meeting Communique," February 19, 2016.

WORD MAP


mainstream
unsolicited bids
EXPLOIT
stable policy
de-risking
local capital markets
priority
Establish regional
projects
ALIGN to
procurement bodies
institutional
improve investor
investor risk
developer incentives
mandates
increased transparency
Regional
of funding plans
project bonds
Enforce Heads of State regional agreements
DELIVER
Reduce risks
POLITICAL
RATE
WILL
regional projects
Partner
Address
pension
currency risk
and sovereign wealth funds
Provide more reliable data
MORE GUARANTEE
facilities
HARMONIZE
legal, regulatory, PPA
and procurement
laws and frame-
works



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