GIF 2017

ADVISORY COUNCIL MEETING

AGENDA

October 11, 2017

GIF Advisory Council Meeting
IFC Auditorium

TIME	ACTIVITY	DESCRIPTION	SPEAKERS
8:00 - 8:30	**BREAKFAST**		
8:30 - 8:45	**WELCOME & INTRODUCTORY REMARKS**	Co-chairs will make introductory remarks and explain the agenda	**Co-chairs:** • **Joaquim Levy**, MD/CFO, World Bank Group • **Macky Tall**, EVP, Infrastructure & President/CEO, CDPQ Infra, Caisse de dépôt et placement du Québec
8:45 - 9:00	**GIF: THE STORY SO FAR**	Presenter will detail the GIF's journey to date and discuss its strategic directions	**Jordan Schwartz**, Director, Infrastructure, PPPs and Guarantees, World Bank
9:00 - 10:05	**INNOVATIONS IN CREDIT ENHANCEMENT**	Panelists will discuss the trends in credit enhancement and highlight innovations through case studies. Panelists will also discuss how remaining gaps may be addressed through new products, including the GIF Downstream Financing Window	**Moderator: Macky Tall**, CDPQ **Panelists:** • **Andrew Davison**, Senior Vice President, Moody's Investor Service • **Gian Franco Carassale**, Lead Investment Officer**,** Inter-American Investment Corporation • **Olivier Eweck**, Manager, Client Solutions Division, African Development Bank • **Hoda Moustafa**, Head, Africa Regional Office, Multilateral Investment Guarantee Agency • **Pankaj Gupta**, Practice Manager, Guarantees, World Bank • **Jason Zhengrong Lu**, Head, GIF
10:05 - 11:10	**BIG MOVERS: Large Infrastructure Investment Programs**	Senior government representatives from Brazil and Nigeria will discuss their infrastructure programs, including current challenges and opportunities	**Moderator: Nena Stoiljkovic**, Vice President, Blended Finance & Partnerships, International Finance Corporation **Presenters:** • **BRAZIL: Henrique Pinto**, Secretary, Public Policy Coordination, Investment Partnerships Program, Brazil • **NIGERIA: Chidi Izuwah**, Acting Director General, Infrastructure Concession Regulatory Commission, Nigeria
11:10 - 11:25	**COFFEE BREAK**		
11:25 - 12:30	**MANAGING ESG RISK: Collaborating with MDBs to manage Environmental, Social and Corporate Governance Risk**	Panelists will discuss the challenges relating to incorporating ESG policies in investment decisions and the value that MDBs can add in addressing them	**Moderator:** **Hart Schafer**, Vice President, World Bank **Panelists:** • **Katharina Schneider-Roos**, Chief Executive Officer, Global Infrastructure Basel • **Harald Francke Lund**, Senior Advisor, Center for International Climate Research (CICERO) • **Jérôme Jean Haegeli**, Head Investment Strategy, Managing Director Group Asset Management, Swiss Re • **Morgan Landy**, Director, ES&G Sustainability Advice & Solutions, International Finance Corporation
12:30 - 12:45	**WRAP UP AND CLOSING REMARKS**	Co-chairs will make concluding remarks and discuss follow-up actions	**Joaquim Levy** and **Macky Tall**

GIF Advisory Council Lunch
MC Building East Dining Room

13:00 - 14:30	**WELCOME REMARKS: Co-Chair, GIF Governing Council**	**John Larkin**, Assistant Secretary, Banks and Infrastructure Finance Branch, Multilateral Development and Finance Division, Department of Foreign Affairs and Trade, Australia

GIF Mini-Sessions
MC Building

TIME	VENUE	ACTIVITY	DESCRIPTION	SPEAKERS
14:30 - 16:00	Room MC 4 - 100	**FROM CONCEPT TO CONSTRUCTION: Tools for Improving Project Prioritization and Preparation**	Presenters will discuss a range of project preparation solutions offered by the World Bank Group	**Moderator:** • **Matthew Jordan-Tank**, Head of Infrastructure Policy and Project Preparation, European Bank for Reconstruction and Development **Presenters:** • **Aijaz Ahmad**, Senior Public Private Partnerships Specialist, PPPs and Guarantees, World Bank • **Matt Bull**, Senior Infrastructure Finance Specialist, GIF **Discussants:** • **Syed Afsor H. Uddin**, CEO PPP Authority, Bangladesh • **Yukiko Omura,** Non-Executive Director, Private Infrastructure Development Group (PIDG) • **Clemente del Valle**, President, Financiera de Desarrollo Nacional (FDN) • **Stephen C Beatty**, Head of Global Infrastructure (Americas and India), KPMG
14:30 - 16:00	Room MC 8 - 100	**FX SOLUTIONS FOR INFRASTRUCTURE: Innovative Approaches to Mitigating Currency Risk in Emerging Markets**	Presenter will discuss suggested innovative approaches to mitigating foreign exchange risk in emerging markets	**Moderator:** **George Richardson**, Director/Global Head of Capital Markets, World Bank Treasury **Presenters:** • **Valentina Antill**, Managing Director-Americas Structured Solutions Co-Head, Citi **Discussants:** • **Fuat Savas**, Executive Director Infrastructure Finance and Advisory, JP Morgan Chase • **Anderson Caputo Silva**, Lead Financial Sector Specialist, Finance & Markets, World Bank • **Harald Hirschhofer**, Senior Advisor, TCX Investment Management Company • **Bob Shepard**, Consultant, GIF

Global Infrastructure Facility

GIF 2017
ADVISORY COUNCIL MEETING

INNOVATIONS IN CREDIT ENHANCEMENT PANEL

October 11, 2017

WORLD BANK GROUP

MOODY'S
INVESTORS SERVICE

SECTOR IN-DEPTH
9 October 2017

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Analyst Contacts

Andrew Davison 44-20-7772-5552
Senior Vice President
andrew.davison@moodys.com

Jennifer Chang 212-553-3842
AVP-Analyst
jennifer.chang@moodys.com

Kathrin Muehlbronner 44-20-7772-1383
Senior Vice President
kathrin.muehlbronner@moodys.com

Walter J. Winrow 212-553-7943
MD-Gbl Proj and Infra Fin
walter.winrow@moodys.com

CLIENT SERVICES

Americas 1-212-553-1653
Asia Pacific 852-3551-3077
Japan 81-3-5408-4100
EMEA 44-20-7772-5454

Infrastructure - Global

Credit enhancements from multilaterals will help to address the infrastructure gap

The multilateral development banks (MDBs) have a pivotal role to help deliver sustainable infrastructure development as envisaged in the 2030 Agenda for Sustainable Development, They are focusing their efforts and bringing forward new initiatives to help address the infrastructure gap across the developing world. The MDBs seek to crowd-in private finance to make best-use of their limited resources and tap into the $trillions of assets managed by institutional investors. On the basis of recent undertakings, which include measures to expand MDB-provided credit enhancements, the principal MDBs[1] have committed to increasing the mobilisation of private sector capital by 25%-35% over the next 3 years.

» **MDBs have a key role to play in delivering sustainable development across the globe.** The United Nations (UN) estimates that the amount of investment required to meet sustainable development needs in the developing world is between $1 to $1.5 trillion each year to 2030. These sums cannot be met solely from public sources of finance. MDBs are in a unique position to provide policy guidance, technical advice and financing support, and hence crowd-in private sources of capital.

» **Investor appetite for infrastructure projects in emerging markets is constrained by risks that can be mitigated through MDB-provided credit enhancements.** Credit enhancement provided by MDBs can be an efficient, targeted form of intervention that de-risks investment opportunities, so that they become investable for risk-averse private sector investors.

» **Recent commitments made jointly by the principal MDBs are intended to increase private sector mobilisation by 25-35% over the next 3 years, representing an additional $17-24 billion for infrastructure.** These measures include the review and expansion of credit enhancement products.

» **The growing number and range of precedent transactions benefiting from MDB-provided credit enhancements will facilitate follow-on transactions.** Over the next 12-18 months we expect to see a range of innovative, precedent-setting credit enhanced transactions reach financial close. New forms of credit enhancement that mobilise private sector capital for infrastructure investment in countries with challenging sovereign environments would help address sustainable development needs. The application of loan portfolio securitisation techniques that allow MDBs to optimise and recycle their risk capital also seems to be a promising way forward.

MDBs have a key role to play in delivering sustainable development across the globe

The 2030 Agenda for Sustainable Development, which was adopted by the UN at the Sustainable Development Summit in New York in September 2015, established 17 goals and associated targets that seek to address a range of economic, social and environmental challenges to sustainable development.

The achievement of these Sustainable Development Goals require transformative change in the areas of finance, infrastructure investment and capacity development for developing countries. Investment in sustainable and resilient infrastructure, such as transportation, energy, clean water and sanitation facilities, are crucial elements in achieving many of these goals.

The UN estimates that the amount of infrastructure investment required to meet sustainable development needs in the developing world is between $1 to $1.5 trillion each year to 2030[2]. However, the sums required to finance investment on this scale cannot be met solely from public sources of finance. As a consequence, there is a clear imperative to unlock, leverage, and catalyse private sector capital for infrastructure investment by attracting an increased share of the circa $120 trillion of assets managed by institutional investors[3].

Private sector investment is driven by risk-reward considerations, shaped by the policy environment and pipeline of investable opportunities in investee countries. MDBs are in a unique position to provide policy guidance, technical assistance and financing support that will change the balance of risk and reward sufficiently to attract private sector capital to infrastructure investment opportunities in developing countries. The principal MDBs are also well-placed to mitigate political risk because of their preferred creditor status.

Preferred Creditor Status

Some multilateral development banks and international financial institutions (MDBs/IFIs) such as the International Bank for Reconstruction and Development (the World Bank, Aaa, stable), the International Finance Corporation (IFC, Aaa, stable), the European Bank for Reconstruction and Development (EBRD, Aaa, stable), the Inter-American Development Bank (IDB, Aaa, stable) and the Asian Development Bank (ADB, Aaa, stable), enjoy a preferred creditor status. Although this status is rarely legally granted, many of these multilateral organisations' member governments or shareholders have an understanding whereby their obligations to the MDBs/IFIs are prioritised over other external debt. These obligations are granted preferential access to foreign currency in the event of a foreign exchange crisis for example[4], and are not subject to payment moratoriums[5], thereby mitigating transfer and convertibility restrictions. MDBs/IFIs typically do not participate in sovereign debt rescheduling as a policy, although some have participated in coordinated debt forgiveness programs and there have been occasions where debt was repaid in arrears[6], or remained in arrears for a prolonged period of time.

Member governments are encouraged to stay current on their obligations to MDBs/IFIs. This is because typically during a financial distress situation, these institutions will be the only providers of the necessary financing and depending on the circumstances, no additional disbursements may be made to a member country with payments in arrears. Further, being in arrears with a MDB could jeopardise new lending from other financial institutions or possibly stall a country's commercial debt restructuring efforts.

In our Issuer In-depth report on the ADB dated 23 August 2017, for example, we highlight that the ADB has been able to sustain its track record of asset performance in part due to its demonstrated preferred creditor status. Since the ADB's inception, debt servicing on its loans to sovereigns has not been interrupted by concurrent incidences of default in the Philippines, Indonesia, and Pakistan (twice).

MDBs have been given pivotal responsibilities to foster sustainable development over the period to 2030, in particular by:

» Making optimal use of their resources and balance sheets to increase available financial funds

» Expanding policy guidance to governments to strengthen their investment environments, and providing technical assistance to help implement development programs e.g. new infrastructure delivered through Public-Private Partnerships (PPPs)

» Promoting and catalysing private sources of capital, including institutional investors

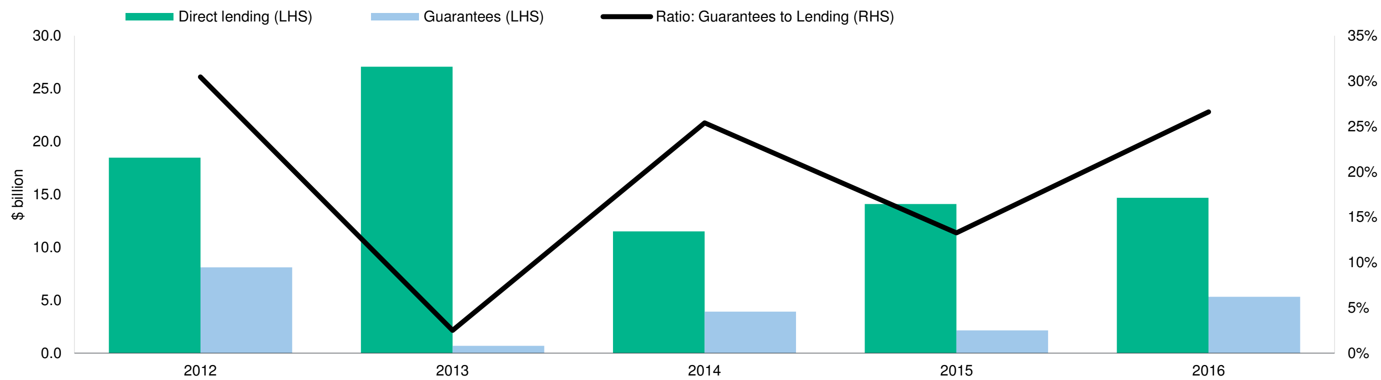
» Supporting the design and implementation of social and environmental initiatives

» Improving coordination between development banks, other public sector entities and private sector entities

Exhibit 1

For project finance transactions, direct lending by multilaterals far exceeds support in the form of guarantees ... we expect that the proportion of support in the form of guarantees will rise.

Multilateral support for project finance transactions in developing countries



Source: Thomson Reuters Project Finance International

Investor appetite for infrastructure projects in emerging markets is constrained by risks that can be mitigated through MDB-provided credit enhancements.

Substantial debt capacity is available for infrastructure corporates and well-structured infrastructure projects located in stable, creditworthy countries. However, investor appetite is constrained for infrastructure investments in more challenging and low investment grade sovereign environments in emerging markets.

Exceptionally low interest rates in a number of advanced economies has boosted liquidity across global financial markets.

Many institutional investors see relative value in creditworthy infrastructure debt arising from a combination of attractive risk-adjusted yields, characteristically long tenors that offer a suitable match for long-dated liabilities, and portfolio diversification.

For similar reasons, many banks continue to view lending to the infrastructure sector and the provision of associated hedging products, advisory and agency services, as an attractive use of capital despite the increased regulatory cost of long-term lending under Basel III.

As a consequence, substantial long-term private sector debt capacity is available to finance infrastructure corporates and well-structured infrastructure projects located in countries that have strong credit profiles, stable and predictable legal and regulatory frameworks, and where political risk is low.

However, competitive pressures together with a lack of new investment opportunities have compressed credit spreads and loan margins for core infrastructure debt in stable, creditworthy countries[7]. Infrastructure investors are responding in different ways, including some through diversification strategies that include consideration of infrastructure investment opportunities exposed to more challenging country-specific risks.

International investors considering investments in emerging markets are particularly sensitive to country-specific risks, including (1) political risk, (2) the credit strength of key counterparties, which may include the host government and sub-sovereign entities, (3) untested and evolving legal and regulatory frameworks, (4) potential forex risk arising from a mismatch between local currency revenues and dollar or euro-denominated debt, and (5) any concerns regarding transparency and global consistency. Local institutional investors often have a better understanding of, and greater tolerance for, country-specific risks.

Key risks that concern infrastructure investors in advanced economies, such as (1) policy risk arising from unforeseen adverse changes in the legal and regulatory environment, (2) revenue risk arising from uncertainty over future demand and user tariffs for demand-risk assets such as toll roads, and (3) exposure to construction or technology risk, are also relevant in emerging market and developing economies.

Credit enhancement provided by MDBs can be an efficient, targeted form of intervention that de-risks investment opportunities in more challenging sovereign environments so that they become investable for risk-averse investors, crowding-in private sector capital to finance infrastructure development in developing countries.

Recent commitments made jointly by the principal MDBs are intended to increase the mobilisation of private sector capital by 25-35% over the next 3 years

Published in July 2017, the Joint MDB Statement of Ambitions for Crowding in Private Finance (the Statement of Ambitions) sets out explicit undertakings by the principal MDBs to increase the mobilisation of private sector capital for sustainable infrastructure investment. These undertakings, which include measures to expand MDB-provided credit enhancements, comprise joint commitments to:

» Work with client countries to help them strengthen their governance of sustainable infrastructure, including around planning, prioritising, budgeting and disclosure. Efforts to support countries by means of project preparation facilities and capacity building will be further enhanced

» Review the range of credit enhancement products and expand where feasible

» Review and strengthen internal incentives for mobilisation of private sector financing. MDBs will also work to align incentives so as not to crowd-out private sector financing where it would be appropriate

» Identify additional opportunities to work together and provide complementary advisory and financing products where appropriate

» Pursue opportunities for standardisation, harmonisation, and standard-setting, where appropriate

In addition, the Statement of Ambitions commits the MDBs to work with partner countries to identify and structure sound projects, remove barriers to investments, create an appropriate business environment for constructors and operators, and develop appropriate risk mitigation instruments.

These undertakings are intended to increase the amount of private sector capital mobilised by the MDBs over the next 3 years by 25-35%. This is equivalent to an additional $17-24 trillion, based on the $68.7 billion of private sector capital that they mobilised for infrastructure in 2016. Going forward, the MDBs will report annually on their progress.

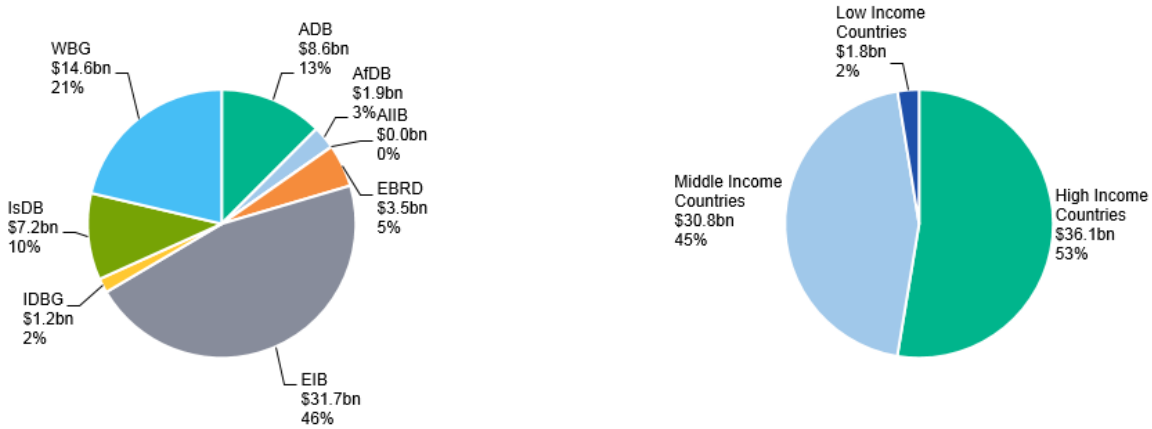
Exhibit 2 below summarises the mobilisation of private sector capital for infrastructure in 2016, by MDB and by country income classification[8].

We comment on the geographic focus of MDBs and the significance of the European Investment Bank's (EIB, Aaa, stable) activities in Europe in our report "Global Funding From Multilateral Development Banks Will Continue To Increase", September 2015

Exhibit 2

Going forward, the principal MDBs will report annually on their progress in mobilising private sector capital

The $68.7 billion of private finance for infrastructure mobilised by the principal MDBs in 2016 is shown below by MDB and by country income classification



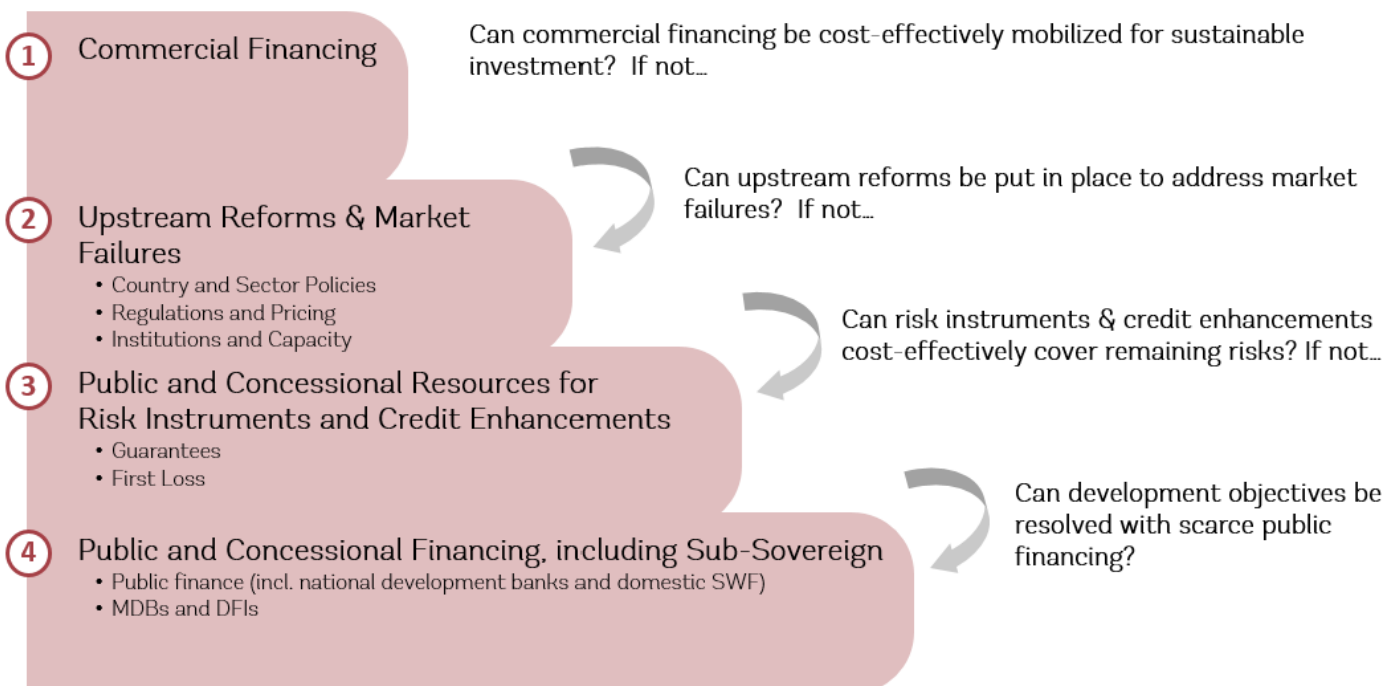
See Glossary for abbreviations. For a full list of countries by income classification see [World Bank Country and Lending Groups]

Source: Mobilisation of Private Finance by Multilateral Development Banks - 2016 Joint Report, Annex, July 2017

As an illustration of further measures that individual MDBs are taking to crowd-in private finance, we highlight a new approach that the World Bank Group (including IFC, the Multilateral Investment Guarantee Agency (MIGA) and the World Bank) has recently adopted that prioritises the provision of risk instruments and other forms of credit enhancement over public and concessional finance. This approach is shown in Exhibit 3 below.

Exhibit 3

The World Bank Group prioritises credit enhancement over public and concessional financing



Source: Joint MDB Statement of Ambitions for Crowding in Private Finance, July 2017

The growing number and range of precedent transactions benefiting from MDB-provided credit enhancements will facilitate follow-on transactions.

Moody's has rated several precedent transactions that illustrate the use of MDB-provided credit enhancements in the infrastructure sector, including:

- The Elazig Hospital PPP transaction (Baa2, stable) in Turkey (Ba1, negative) that combines political risk insurance cover from MIGA with enhanced liquidity facilities from EBRD
- The Campo Palomas wind farm project (Baa3, stable) in Uruguay (Baa2, stable) that benefits from A/B loan facilities provided by the Inter-American Investment Corporation (IIC, Aa1, stable) where private sector participation in the B-loan was funded from the proceeds of a bond issue
- The Reventazon hydroelectric power project (Ba2, negative) in Costa Rica (Ba2, negative) that benefits from A/B loan facilities provided by the IDB where private sector participation in the B loan was funded from the proceeds of a bond issue, and
- Several project bonds benefiting from credit enhancement under the EIB's Project Bond Initiative[9], including the Concessioni Autostradali Venete SpA road project (A3, negative) in Italy (Baa2, negative) that we rate above the sovereign

We have also rated a credit enhanced bond issued by the Republic of Ghana (B3, stable) in October 2015 benefiting from a 40% partial guarantee provided by the IDA (International Development Association, Aaa, stable). We rate this credit enhanced bond B1, stable.

We are also aware of other noteworthy precedent transactions, albeit unrated by Moody's that benefit from MDB-provided credit enhancements. These include the IFC's Managed Co-lending Portfolio Platform (MCPP) Infrastructure product which allows institutional investors to invest in a portfolio of IFC-financed projects that benefit from portfolio credit enhancement provided by an IFC first-loss tranche.

We summarise the salient features of credit enhancement for each of these precedent transactions in the Appendix.

Over the next 12-18 months we expect to see further innovative precedent-setting transactions reach financial close, supported by credit enhancements provided by MDBs and/or other development finance institutions. A flow of similarly structured transactions and the emergence of new precedents will attract investor interest and facilitate further follow-on transactions.

The advent of forms of credit enhancement that crowd-in risk averse private sector capital to support infrastructure investment in countries with weak, challenging sovereign environments would help address sustainable development needs in the developing world. The application of loan portfolio securitisation techniques that allow MDBs to optimise and recycle their risk capital by selling tranched, portfolio-backed credit exposures to private sector investors would also seem to be a promising way forward.

Appendix: Examples of credit enhanced transactions backed by MDBs

1: The Elazig Hospital PPP project, Turkey

As a result of credit enhancements provided by MIGA and EBRD, in the context of the underlying project documentation, the bonds issued to finance this project achieved a rating two notches above Turkey's sovereign rating (Ba1, negative).

In December 2016, ELZ Finance SA issued €288.5m of senior secured bonds and on-lent the proceeds to project company, ELZ Sağlık Yatırım A.Ş., to finance the construction of a 1,038-bed hospital in Turkey's Elaziğ province under a 28-year PPP concession agreement that the project company had entered into with the Turkish Ministry of Health.

The €288.5m of senior secured bonds issued by ELZ Finance comprise €83.1 million "A1A" bonds due 2034 (Baa2, stable), €125.3 million "A1B" bonds due 2036 (Baa2, stable) and €80.0 million senior secured "A2" Bonds due 2036 (unrated).

The A1A and A1B bonds benefit from two forms of credit enhancement: (1) political risk insurance provided by MIGA, designed to cover currency inconvertibility and non-transferability, expropriation, and breach of contract (including arbitral award default and denial of recourse); and (2) subordinated liquidity facilities provided by the EBRD in the construction and operating phases to (i) during construction, increase resilience to delay and cost over-run; and (ii) during operations, keep debt payments current in the event of Ministry of Health missed payments or protracted arbitral proceedings, and enhance lenders' recovery prospects.

Please refer to our latest credit opinion for discussion of our rating rationale for ELZ Finance SA

2: The Campo Palomas wind farm project, Uruguay

The Campo Palomas project is a 70MW wind farm which started operations in May 2017, in Campo Palomas, Uruguay (Baa2, stable).

In July 2017, Campo Palomas Finance Ltd (Baa3, stable) issued $136.8 million 19.5-year fully amortising senior secured notes in order to fund its participation in the IIC's B-loan tranche granted to Nicefield S.A., the project's direct owner and borrower. Under the structure, the IIC is the lender of record in the transaction.

Nicefield as the borrower, entered into an A/B loan structure through a participation agreement with IIC. The IIC B-loan of approximately $136.8 million (90% of the senior debt), was provided by the IIC to the borrower for the account of the issuer. The financing was structured as a non-recourse, ring-fenced, and bankruptcy remote project finance transaction.

The involvement of the IIC in this transaction is credit positive for investors in the senior notes, who benefit from the IIC's preferred creditor status as the lender of record for the B-loan.

Through the participation agreement with IIC, the notes can indirectly benefit from some IIC privileges, such as immunity from taxation in IIC member countries and mitigation from transfer and convertibility restrictions.

In case of acceleration of the IIC B-loan due to an event of default, noteholders can elect to step out of the IIC B-loan structure and become direct lenders to the project with an identical economic interest in the debt structure of the project, but in doing so will lose the benefit of IIC's privileges and immunities. This added flexibility in noteholders' ability to step out of the B-loan structure could be viewed as a benefit to investors who may wish to restructure without being restricted by the IIC's policies.

Please refer to our Issuer In-depth report for discussion of our rating rationale for Campo Palomas Finance Ltd.

3: Reventazon hydroelectric power project, Costa Rica

Instituto Costarricense de Electricidad (Ba2, negative), a 100% government owned Costa Rican vertically integrated utility, set up a trust (Fideicomiso P.H. Reventazon/ICE/Scotiabank/2013) as borrower in connection with the construction, operation and maintenance of a 305.5 megawatt (MW) hydroelectric plant located on the Reventazón River in Costa Rica (Ba2, negative). The borrower raised approximately $904 million 20-year maturity debt to finance the project, including a $135 million amortising B-loan provided by the IDB.

In December 2013, Reventazon Finance Trust (Ba2, negative) issued $135 million 20-year amortising senior secured notes to acquire a corresponding participation in the IDB's B-loan provided to the borrower.

The involvement of the IDB in this transaction is credit positive for investors in the senior notes, who benefit from the IDB's preferred creditor status as the lender of record for the B-loan.

Please refer to our latest credit opinion for discussion of our rating rationale for Reventazon Finance Trust.

4: Concessioni Autostradali Venete road network concession company, Italy

As a result of credit enhancement provided by EIB, we rate the project bonds issued by this concession company two notches above Italy's sovereign rating (Baa2, negative).

Concessioni Autostradali Venete - CAV S.p.A. (CAV, rated A3, negative) holds a concession, expiring in 2032, to manage, operate and maintain a road network comprising four sections of motorway with an aggregate length of approximately 74 km, located near Venice in the North East of Italy.

In April 2016, CAV issued €830 million senior secured amortising bonds, due December 2030, to refinance its existing financial indebtedness, fund reserves and cover the costs associated with the refinancing.

The bonds benefit from credit enhancement provided by the EIB in the form of a letter of credit (the Project Bond Credit Enhancement or PBCE facility), which has the capacity to (1) reduce CAV's probability of default by providing additional liquidity in stress scenarios and/or (2) improve the recovery value at default by being available to reduce amounts outstanding under the bonds.

Any outstanding principal amounts under the PBCE facility will be subordinated to senior debt (with repayment subject to a cash sweep from excess cash flows available after senior debt service and required funding of reserve accounts), but rank ahead of subordinated debt or equity. The revolving nature of the letter of credit will allow replenished amounts to be redrawn at a later stage. The PBCE letter of credit will act as a first loss buffer in case of default. The PBCE facility is sized at 20% of the bonds and will reduce as the bonds amortise.

Please refer to our latest credit opinion for discussion of our rating rationale for CAV.

5: Credit enhanced bonds issued by the Republic of Ghana

As a result of a partial guarantee provided by IDA, we rate the relevant credit enhanced bond issued by the Republic of Ghana two notches above Ghana's sovereign rating (B3, stable).

In October 2015, Ghana issued a bond benefiting from a partial guarantee provided by the IDA. The amount of the partial guarantee is the lesser of $400 million and forty percent of the face value of the bond.

The partial guarantee is unconditional and irrevocable and covers outstanding interest payments on a rolling basis up to the guarantee limit before providing coverage of principal payment, which will be repaid in three equal instalments.

The partial guarantee provides for recovery on up to forty percent of the bond's value in the event of default, while the other sixty percent of the bond's value remains exposed to credit risk of the Government of Ghana. Ghana has an obligation to reimburse IDA for any called guarantee under the Indemnity Agreement. As a result of preferred creditor status, Ghana may prioritise IDA and other preferred creditor liabilities ahead of all commercial lenders during a time of debt distress. An effective forty percent reduction in the expected losses on this bond is consistent with two notches of uplift to B1 from B3.

Please refer to our press release dated 22 September 2015 for discussion of our rating rationale for this bond.

6: IFC Managed Co-lending Portfolio Program (MCPP) Infrastructure product

We are also aware of other noteworthy precedent transactions, albeit unrated by Moody's, that benefit from MDB-provided credit enhancements, such as the IFC's MCPP Infrastructure product, launched in July 2016.

MCPP Infrastructure allows institutional investors to invest in a diversified portfolio of IFC-financed projects that benefit from portfolio credit enhancement provided by an IFC first-loss tranche to create a robust, creditworthy risk-return profile.

MCPP Infrastructure leverages IFC’s ability to originate and manage a portfolio of bankable infrastructure projects. For each project where IFC provides debt financing, institutional investors will purchase a portion of the loans originated by IFC on a syndicated basis through the MCPP platform. The syndication process creates an emerging-market loan portfolio for institutional investors that mirror IFC's own investments.

According to a recent trade press report [10], a number of institutional investors have made significant commitments to MCPP Infrastructure, including Allianz Global Investors, Eastspring Investments, Axa, the People's Bank of China and the Hong Kong Monetary Authority.

Glossary

Abbreviation	Institution
AfDB	African Development Bank
ADB	Asian Development Bank
AIIB	Asian Infrastructure Investment Bank
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
IBRD	International Bank for Reconstruction and Development, the World Bank
IDA	International Development Association, part of the World Bank Group
IDB	Inter-American Development Bank
IFC	International Finance Corporation, part of the World Bank Group
IIC	Inter-American Investment Corporation, the private sector arm of IDB
IsDB	Islamic Development Bank
MDB	Multilateral Development Bank
MIGA	Multilateral Investment Guarantee Agency, part of the World Bank Group
NDB	New Development Bank
WBG	World Bank Group

Moody's Related Research

Issuer-related research

» Credit Opinion: Concessioni Autostradali Venete - CAV S.p.A., August 2017

» Issuer In-depth: Campo Palomas Finance Limited, July 2017

» Credit Opinion: ELZ Finance S.A., May 2017

» Credit Opinion: Reventazon Finance Trust, May 2017

» Issuer In-depth: Asian Development Bank - Aaa Stable: Annual Credit Analysis, July 2016

» Press Release: Moody's assigns a (P)B1 rating to Ghana's forthcoming bond enhanced by a partial guarantee provided by the International Development Association, September 2015

Sector-related research

» Infrastructure Renewal and Investment: Europe project bond market set for growth after pilot initiative endorsed, April 2016

» Supranationals - Global: Global Funding From Multilateral Development Banks Will Continue To Increase, September 2015

» Infrastructure Renewal and Investment: A wave of capital for infrastructure, but mismatched with investment opportunities, May 2015

To access any of these reports, click on the entry above. Note that these references are current as of the date of publication of this report and that more recent reports may be available. All research may not be available to all clients.

Endnotes

1 For the purpose of this report we construe the principal MDBs to be the entities listed in the Glossary.

2 See the Addis Ababa Action Agenda of the UN's Third International Conference on Financing for Development, held in Addis Ababa in July 2015

3 See "Bridging Global Infrastructure Gaps", McKinsey Global Institute, June 2016

4 On December 24, 2001, a moratorium on government foreign debt payments was imposed by the Argentine government. Throughout the crisis, the Central Bank exempted payments to IFC and other international organisations from foreign exchange restrictions, and allowed IFC loans to be serviced without prior Central Bank approval, thus recognising IFC's de facto preferred creditor status. http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/IFC+Syndications/Overview_Benefits_Structure/Syndications/Preferred+Creditor+Status/

5 On August 17, 1998, the Russian Federation announced that it would force a restructuring of domestic government debt and impose a 90-day moratorium on external debt repayments by commercial and financial entities. On August 28, 1998, the Russian Federation issued a statement confirming debt due to multilateral development agencies, including IFC, was not included in the moratorium. Accordingly, payments for debt servicing of the A and B Loans, where the borrowers had local currency available, continued to be made to IFC. http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/IFC+Syndications/Overview_Benefits_Structure/Syndications/Preferred+Creditor+Status/

6 As a result of severe balance of payments problems, Pakistan stopped repaying foreign debt in mid-July 1998, and by August/September 1998 started accumulating arrears to the World Bank Group, including IFC. Pakistan confirmed IFC's preferred creditor status but indicated that it had no reserves available to allow even preferred creditors to be serviced. In November 1998, the government agreed with the IMF and the World Bank on a strengthened program of macroeconomic stabilisation and medium-term structural reforms. By January 15, 1999, the government cleared foreign exchange arrears to IFC as it had promised. http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/IFC+Syndications/Overview_Benefits_Structure/Syndications/Preferred+Creditor+Status/

7 See "A wave of capital for infrastructure, but mismatched with investment opportunities", May 2015

8 For a full list of countries by income classification see World Bank Country and Lending Groups

9 For background information on the EIB's Project Bond Initiative see "Europe project bond market set for growth after pilot initiative endorsed", April 2016

10 See PEI Infrastructure Investor article, "HKMA commits $1bn to IFC's debt platform", 20 September 2017

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CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

MOODY'S INVESTORS SERVICE

Campo Palomas Bridge-to-Bond Project

Gian Franco Carassale, Lead Investment Officer, Inter-American Investment Corporation

PROJECT OVERVIEW

In December 2013, the Inter-American Development Bank Group (IDBG) Group closed on an innovative transaction that allowed the Instituto Costarricense de Electricidad (ICE), the state-owned utility company of Costa Rica, to access to 20-year financing for its 305MW Reventazon Hydropower Project. The IDB Group financing, which was complemented by financing from the IFC and local banks, allowed ICE to secure a US$335 million A/B-Bond.

In August 2017, the IDBG replicated the structure and provided again a 19.5 year / US$135 million financing for the Campo Palomas Wind Power Project, located in Uruguay. Invenergy, the US-based renewable energy leader, developed the Project.

In a traditional IDBG A/B loan, the IDBG funds the A loan from its own resources and sell participation in the A/B loan (the B-Loan) to commercial banks, while the IDBG remains the lender of record for the full amount of the A/B loan. The benefits to participants of this structure include de jure immunity from taxation and de facto preferred creditor status among the governments of the countries where the IDBG lends. As a result, financial institutions participating as B Lenders benefit from the same status as the IDB Group and borrowers from this reduced risk in the form of greater availability of funds and improved terms.

In the cases of the Reventazon and the Campo Palomas transaction, the IDBG A/B loan program was adapted to allow the B loan to be funded through a private placement (4(a)(2)/Reg-S notes) rather than by commercial banks. Under this structure, the institutional investors benefit from the preferred creditor status of the IDBG the same way that commercial banks do under a traditional IDB A/B loan. This allowed both client to tap into senior secured debt from institutional investors with a tenor significantly longer than would have been possible with commercial bank participants.

Further, in the case of Reventazon, the benefits of the preferred creditor status resulted in a rating for the transaction that was one notch above that of the Costa Rica Sovereign ceiling (BB+ Fitch rating) to become investment grade (BBB- Fitch rating). In the case of Campo Palomas, Moodys rated the B-Bond with a credit rating in line with the Government of Uruguay (BBB-).

In recent years, the infrastructure finance market has suffered first because of the banking crisis of 2008 and then by the implementation of Basel III regulations among others. This novel A/B structure, which required significant adjustments to the A/B loan program, is serving as a model for future transactions involving the IDBG, spurring use of the institutional investor market for the financing of energy and infrastructure projects that have high development impacts. The successful syndication among these non-traditional B lenders is allowing the IDB Group to tap into a financing window with strong potential to bridge the gap of infrastructure financing in Latin American and the Caribbean.

The B-Bond Structure

Cameroon USD 750m Credit Enhanced Cross Currency Swap
Maximising Africa's Access to Capital

Olivier Eweck, Manager, Client Solutions Division, African Development Bank

THE AFRICAN DEVELOPMENT BANK GROUP OVERVIEW

The AfDB Group (the "Bank Group") is made of three legally and financially separated entities:

- The African Development Bank, established in 1964, 80 member countries, authorized capital USD 90 billion.
- The African development Fund, the concessional window established in 1972, total subscription received USD 43 billion and financed by 27 State participants including 4 regional donors.
- The Nigeria Trust Fund, established in 1976 by Nigeria, maturity 2018, provides non-concessional and concessional loans.

The Bank Group's mission & objective is to spur sustainable economic development and social progress in its regional member countries (RMCs), thus contributing to poverty reduction. The AfDB Group offers a diverse menu of products to its clients including long term loans, guarantees, equity and quasi-equity participations, trade financing, risk management products (interest rate, cross currency, commodity/index swaps, caps and collars), and various forms of technical assistance.

The AfDB Group offers two types of guarantee products: Partial Credit Guarantees (PCGs) to cover both commercial and political risks (i.e., coverage of all risks, irrespective of the underlying cause) and Partial Risk Guarantees (PRGs) to cover political related risks.

CAMEROON USD 750 MILLION CREDIT-ENHANCED CROSS-CURRENCY SWAP

BACKGROUND

In 2010, the Government of Cameroon formulated a Development Vision to 2035, providing the framework to: (i) substantially reduce poverty, (ii) reach middle-income status, (iii) become a newly industrialized country, and (iv) strengthen the democratic process and national unity. A three-year National Emergency Plan ("NEP") 2015-2017 was developed, which aimed at accelerating growth and increasing the supply of jobs for young people.

Cameroon faced two major constraints to achieve the required growth of 6%: (i) the mobilization of competitive long-term capital on regional and international financial markets; and (ii) improving the supply of viable projects. To finance the NEP, Cameroon decided in October 2015 to raise a 10 year Eurobond in USD, for the equivalent of USD 750m. The remainder of the financing required for the plan was to be funded through national resources, domestic capital markets, PPPs and development partners.

RATIONALE FOR THE TRANSACTION

Prudent public debt management recommends to not speculate on FX rate volatility. Hence, a hedge was required at the same time as the bond issue. Cameroon wanted to reduce the overall FX rate risk exposure on its public debt portfolio comprising over 69% of FX-related debt. Taking the view that the peg between the EUR and the FCFA will remain stable, Cameroon proposed to hedge itself through a USD-EUR Swap.

Cameroon's decision to launch a USD-denominated bond

A natural hedge for Cameroon, whose currency is pegged to the EUR would have been to issue a EUR-denominated bond. However, market sounding at that time indicated that the EUR market was still principally favorable to an Investment Grade (Cameroun is a B-rated) type issue. Although a smaller sized EUR-bond could have been placed for a shorter maturity, this would not have met the country's expectations for a 10y maturity nor the required volume. Additionally, the USD bond market is deeper, more diversified and more sophisticated, offering better refinancing opportunities for the country. Hence, the decision to issue a USD-denominated bond and swap the proceeds into EUR.

PCG MECHANICS

Even if commercial banks have been executing regularly derivative transactions with investment-grade-rated countries, they are less likely to do the same with sub-investment-grade-rated countries, especially for significant amounts and long tenor. The cost of capital and the risk associated are just too high. It was evident that on a standalone basis, the B-rated Cameroon, was not able to hedge its bond issue. Accordingly, the provision of a guarantee (PCG) by the AfDB was required for commercial banks to execute a cross currency swap of such size and tenor with Cameroon.

The AAA guarantee from the AfDB was instrumental to increase the swap notional available as well as reduce the cost of the hedging transaction. The AfDB guarantee covers the payment obligations of Cameroon in the cross-currency swaps with commercial banks that converts the proceeds of the bond issue from USD to EUR. Cameroon's EUR payment obligations (interests and principals) are covered up to a maximum amount while the USD payments to service the bond issue are actually provided by commercial banks. Specifically, under the cross-currency swap(s), Cameroun pays fixed EUR instalments to the commercial banks and receives USD flows, mirroring all payments due to the bond holders over the lifetime of the bond.

While this was not the first time a derivative transaction was covered by a multilateral guarantee, this transaction created an innovative structure which did not only manage the FX exposure and reduce the overall financing costs, but also protected the country in case of temporary balance of payment issues. In case of default by the country, the swap introduced a buffer - "standstill period" - of two years during which commercial banks were not able to accelerate the guarantee unless the mark-to-market value of the swap exceeded a certain agreed percentage of the outstanding guarantee amount. The idea was to provide enough time to Cameroon and its partners to engineer a long-term solution to prevent such default in the future. At the end of the standstill period, banks still had the right to accelerate the transaction, but the understanding was that if a solution has been found, other commercial banks will be able to step in/novate the swap and continue to provide the hedge to the country.

This transaction won the deal of the year award by the Banker Magazine in 2016.

For more information on this transaction and the AfDB Group financial products, please contact:

Olivier EWECK
Syndication Department
African Development Bank Group
BP 1387, 6 Avenue Joseph Anoma, Abidjan
Email: Fist2@afdb.org

Website: http://www.AfDB.org

IDA Private Sector Window
Implementation of MGF by MIGA

Hoda Atia Moustafa, Africa Regional Head, Multilateral Investment Guarantee Agency

THE PROBLEM THAT IS BEING ADDRESSED

- Fundamental constraints to private sector activity in high-risk countries
- Need to de-risk projects with Political Risk Insurance (PRI) where not available in sufficient amounts or at pricing levels support the viability of underlying projects to deliver goods and services at costs that are affordable to the project beneficiaries.

THE CREDIT ENHANCEMENT SOLUTION TO THE PROBLEM

As part of the IDA 18 replenishment, a U$2.5 billion Private Sector Window (PSW) went into effect July 1st 2017 to increase support to private sector in IDA-only countries and FCS. The PSW aims to mitigate risks and provide direct support to stimulate private sector investment in critical sectors such as infrastructure, including energy and natural resources, small and medium-sized enterprises, agribusiness, health & education, and technology.

The PSW will include four facilities: The MIGA Guarantee Facility (MGF) will enhance MIGA's ability to extend further its assistance in attracting foreign investments and growing the private sector's economic participation in high-risk IDA and IDA-eligible FCS countries; and three facilities for IFC:

(i) a Risk Management Facility (RMF) to provide various types of guarantees covering non-commercial risk to support IFC infrastructure projects in high risk environments,
(ii) a Local Currency Facility (LCF) which will provide local currency solutions in countries where none are currently available, and
(iii) a Blended Finance Facility (BFF), which will provide blended funds to support pioneering projects across sectors.

INNOVATIVE FEATURES OF THE SOLUTION (MGF)

- The MGF shifts a portion of the risk in transactions from the private sector to IDA. The loss-sharing structure of first loss and excess loss layers lends comfort to participating third party reinsurers by lowering the incidence and extent of loss. This de-risking process advances pioneering investments, helps create markets for projects in various sectors ultimately, stimulates economic development.
- MGF will benefit from an allocation of US$500 million from the PSW that will provide a first loss layer and/or reinsurance capacity for projects supported by the Facility. MIGA will also provide co-insurance alongside the first loss layer. This structure does not require any modification to MIGA's existing administrative infrastructure and hence can be implemented immediately. The MGF aims to complete utilization of its $500 million capacity by the end of its third year of operations, the end date of the facility (30 June 2020).
- The PSW Oversight Committee (the Committee) will be responsible for providing strategic oversight and guidance on a regular basis, conduct periodic review of the PSW's performance at the portfolio level, and will provide management advice and recommendations on those transactions escalated to its attention.
- MGF-eligible projects will be originated and developed by MIGA staff and will be subject to MIGA's standard underwriting and approval processes.
- The project eligibility for the use of MGF is guided by three main criteria:
    1. **Country eligibility and facility-specific risk limits:** IDA-only and IDA-eligible FCS[1] countries that are members of MIGA are eligible host countries. The list of eligible host

[1] Consistent with the Bank's policy and practice, the IDA-eligible FCS will include all IDA countries with a World Bank CPIA rating below 3.2 or presence of a UN peacekeeping or peacebuilding mission.

countries for MGF will be confirmed at the beginning of IDA18 for the duration of the 3-year IDA18 period, and adjusted for countries that fall back to IDA-only or IDA-eligible FCS status.

2. **Alignment with IDA's strategic focus:** All MGF-supported activities will need to be closely aligned with IDA's objectives and its poverty focus, and demonstrate clear linkages to one or more IDA18 special themes[2] . All MGF-supported activities need to be closely aligned with WBG country strategies i.e. Country Partnership Frameworks (CPF) or other forms of country strategies. The use of MGF is also part of the evolving WBG collective approach to create markets and mobilize private investment. MGF-supported transactions will need to support MIGA's mid-term strategy and the WBG's combined efforts to create markets in the least developed economies. Considering the use of the MGF is also part of the ongoing discussion on the cascade approach to optimize the use of both public and private resources.

3. **Principles for using concessional finance in supporting private sector operations:**

    a. **Additionality.** The use of the MGF will need to demonstrate clear additionality to MIGA's current activities supported by existing solutions. A simple framework is proposed to demonstrate the PSW additionality through scale and scope. Scale additionality refers to the scale of enhanced MIGA engagements in IDA and FCS markets and their mobilization impact to further leverage additional private investment. Scope additionality refers to the expansion of the scope of MIGA activities with potential market creation impact. It could include entry and expansion into new sectors and markets, create opportunities for new ways of doing business and improving business practices, and encouraging and supporting economic transformation of these frontier markets;

    b. **Minimum Concessionality and Market Distortion.** Acknowledging that the use of MGF may involve subsidy elements in supporting private sector investments, the use of MGF will follow a "minimum concessionality" approach to ensure that projects supported by the MGF only receive the minimum level of subsidy required for the projects to be viable; and

    c. **Leading to Sustainability.** MGF-enabled activities should over-time lead to sustainability by aiming to reduce dependency on subsidies, as in-country conditions for foreign investment warrant.

[2] The IDA18 special themes are: jobs and economic transformation; fragility, conflict and violence; gender and development; climate change; and governance and institutions.

Pakistan: Dasu Hydropower Project

Pankaj Gupta, Practice Manager, Guarantees, World Bank

Innovative “Sequential-Financing” approach blends concessional financing with World Bank leveraged commercial capital paves way for the of development of one of the world’s largest hydropower stations in Pakistan

The World Bank’s International Development Association (IDA) partnered with Pakistan’s national hydropower utility - Water and Power Development Authority (WAPDA) to develop the first phase (ca. 2,000MW) of one of the world’s currently largest hydropower stations (4,320MW) under construction. The World Bank, together with WAPDA, developed an innovative financing strategy for this US$4.3 billion project; showcasing a sequenced funding approach which blends concessional IDA credits with commercial Islamic financing (Sukuk structure) from local banks. In addition, World Bank guarantees supported WAPDA in originating its first ever international long term financing.

PROJECT CONTEXT

In 2014 Pakistan’s energy sector was facing a power generation crisis; electricity shortages as well as other inefficiencies in the energy sector value chain. This crisis was assessed with having reduced GDP growth by up to 2 percent per annum over several years. The World Bank Group partnered with the Government on a comprehensive and bold sector reform agenda. The so called “Transformational Power Initiative” for Pakistan’s energy sector was aimed at supporting significant new investments and reforms over several years in the country. The World Bank Group plan - in partnership with the Government of Pakistan - proposed mobilizing over $10 billion for new generation capacity measures in a mix of public and private projects that address current supply gaps and future needs. The DASU Hydropower Project became an important element within this plan supporting government’s strategy to restore Pakistan’s energy sector to a role that more effectively supports long term economic growth.

Given the large capital requirements needed for this ambitious program, the Government recognized that a mix of public and private investments would be needed. Consequently, the financing had to come from both public and private (commercial) markets. While Pakistan had been successful in the past in attracting commercial financing for gas-based power generation assets, the Government recognized that it first had to address perceptions of political and other risks and rebuild market confidence before it embarked on seeking commercial financing for public projects. A combination of (i) a revitalized, financially sustainable; and reformed power sector (ii) as well as technically and financially sound investment opportunities were needed.

PROJECT DESCRIPTION

The Dasu Hydropower Project (DHP) is a run-of-river project located on the Indus River about 240 km upstream from the Tarbela dam. It is about 8 km from Dasu town (capital of upper Kohistan District of Khyber Pakhtunkhwa Province (KPK)) and 350 km from Islamabad. The total size of the project is 4,320 MW. The hydropower station is developed in two stages due to the large capital requirements. The first stage of the project development is currently under construction and will lead to the operationalization of the dam structure with an initial 2,160MW of generation capacity

This first stage development encompasses: (i) important preparatory works around the dam and power house site including Implementation of Social and Environmental Management Plans; (ii) construction of the dam structure; (iii) drilling of up to four headrace tunnels; and (iv) construction of the power house and ancillary water and power evacuation facilities. The capital expenditures for this project’s first development stage require total investments of over US$ 4 billion.

Other than the important capital requirements, the project stands out through several technical parameters. The total annual generation output from the power plant in Stage 1 development will be over 12,000 GWh, resulting in a very high plant factor of around 65 percent, which is remarkable for a hydro project. In addition, the project has a uniquely limited footprint when compared to similar large hydropower projects in the world. The power density, measured in watts/m2 of the reservoir area is 91 MW/km2 within the first development stage, more than four times the power density of the next best examples including the Three Gorges and Grand Culee projects.

While offering many important economic benefits and technical efficiencies, two main challenges required early on an "Out-Of-The-Box" thinking to the further development of the project. The high capital requirements and long construction time (over 6 years) required an innovative approach to project implementation and financing for which WAPDA sought the World Bank's support.

"SEQUENTIAL FINANCING," A TAILOR MADE SEQUENCED AND BLENDED FINANCING PACKAGE

With this mandate to support the project preparation and financial structuring of this challenging project, World Bank worked closely with WAPDA and its financial advisor supported through Bank financing to develop an innovative financing strategy to the project.

A long construction period along with several years of preparatory works suggested that WAPDA should take a sequenced procurement approach by bidding out the key contract works over several years. The sequenced procurement approach was then used to drive the development of the financing strategy by the Bank.

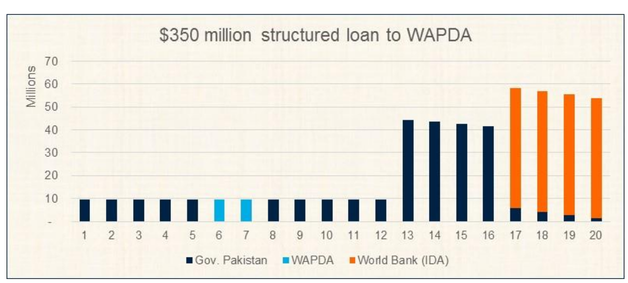
Originating the financial resources in a "slice-and-package" approach became necessary because the project would not have been able to raise the full US$4.2 billion plus interests during construction (IDC) at the onset of project implementation, given the non-availability of such large amounts of capital by WAPDA and/or Government of Pakistan.

While several power projects in Pakistan were implemented entirely by the private sector, including with World Bank, MIGA and IFC support, the very large size of the project, long gestation period and WAPDA's ability to take the completion risk of the project were all attributes that made implementation and financing of the project by the private sector less likely. The private sector would also have struggled in limiting the overall financing costs as private investors would have required that all financing be in place at the onset of the project, when assuming the implementation and completion risk.

Sequencing of the financing packages through a mix of public and commercial financing to WAPDA became the preferred solution. The World Bank and WAPDA discussed the possibility to blend the overall financing for the DASU project through a mix of WAPDA equity, concessional funding and commercial financing. The leveraging of the World Bank's balance sheet beyond its available IDA credit program became critical given the limitations and already high commitment level of the IDA's Pakistan envelope in 2014. Consequently, the World Bank decided to make its first ever loan guarantee for a public project in Pakistan with the overarching goal to maximize its financial support for the development of this landmark project.

FINANCING PACKAGE

In June 2014, the World Bank Board of Executive Directors approved a US$588 million IDA credit alongside IDA loan guarantee in an amount of up to US$460million. The IDA credit was used to finance high risk upfront costs in form of preparatory works ensuring timely implementation of necessary environment and social impact mitigation expenditures before the start of construction and deployment of commercial capital.



Highlights of the World Bank DASU financing strategy

- Sequenced financing approach; originating financial support in a slice-and-package approach matching the procurement strategy of this large and complex infrastructure project
- Using a combination of WAPDA equity, IDA concessional loans and leveraging important commercial financing resources to provide an efficient blend of local and international financing
- World Bank guarantees provided first time ever access to the international capital markets WAPDA. World Bank supported financing achieved important tenor extensions and long grace periods matching the cash flow profile of the DASU Project
- Supporting the project through all its implementation phases financing preparatory works and catering for potential additional financing options provided an important comfort and signaling to capital markets and equipment suppliers that the DASU project will be completed

In addition, and taking comfort from the World Bank's backing of the project, uncovered and local commercial financing in an amount of up to US$ 1.5 billion (equivalent in local currency) was secured by WAPDA for the project in the form of a Sukuk structure through a local Pakistan banking consortium.

To complete the financing gap for the first two major civil works contracts, the first IDA supported commercial financing was contracted on June 30, 2017. The $350 million Loan Facility secured by WAPDA was raised with the support of a US$210million IDA loan guarantee.

The Bank team closely worked with WAPDA in all aspects of the market approach and throughout the process. A competitive process was followed for the selection of the commercial lender. The Bank team also pro-actively clarified issues and structures with potential lenders to ensure a timely closing of this milestone financing.

The Loan Facility is a direct, unconditional and unsecured obligation of WAPDA, with 6-year amortization grace period and 10 year tenor. The World Bank guarantee ensures timely payment of the scheduled principal payments in the last 2 years of the Loan Facility for an amount of up to 60% of the Loan Facility notional.

Except for the interest payments due in year 3, the rest of the loan principal and interest payments are covered by a guarantee from the Government of Pakistan. The Loan Facility has broken new ground by significantly extending the tenors available to Pakistani borrowers from 3 years to 10 years, and by including a very long amortization grace period of 6 years to match the estimated construction period of the DHP. WAPDA also achieved significant cost savings as a result of this structure. The Loan is subject to standard events of default and can be accelerated by the lenders following an event of default under the Loan, however the Guarantee cannot be accelerated under any circumstances.

BENEFITS OF WORLD BANK SUPPORT

When the financial support by the World Bank was approved in 2014, the Bank's appraisal of the project outlined several fallback strategies to mitigate any financial shortfall under the project's financing strategy. The Bank's significant support to the preparatory works in the form of concessional funding ensured that preparation efforts started gearing up immediately following board approval.

The strong commitment by the World Bank to the project and its readiness to support the project in a phased approach with the Bank being present at each step, was an important signal to the local and international capital markets that the World Bank stood strongly behind the DASU project thereby providing comfort against the completion risk of this massive investment.

In addition, the World Bank's strict due diligence, procurement and implementation standards applied to the project, also provided comfort to commercial financiers and equipment providers alike.

Furthermore, the DASU Project guaranteed commercial financing sets a successful example for WAPDA to borrow, first time ever, in the international markets and helps it to build its capacity in negotiating cross-border loans, paving the way for WAPDA to eventually raise debt in the international debt markets entirely on its own credit.

The recently supported guaranteed financing is only the first of a series of IDA guaranteed financings for the DASU Project. In total, it is expected that $800-1,000 million will be mobilized by IDA guarantees for the DASU Project before operation start.

The total of close to $2bln in commercial financing directly and indirectly mobilized for Pakistan by the World Bank under this project are live examples on how the World Bank Group can efficiently leverage its balance sheet with an overall objective to mobilize financial resources for development outcomes.

Contact information

Robert Schlotterer, Lead Infrastructure Finance Specialist, Financial Solutions | rschlotterer@worldbank.org

Sebnem Erol Madan, Senior Infrastructure Finance Specialist, Financial Solutions | serol@worldbank.org

Pankaj Gupta, Practice Manager, Financial Solutions | pgupta2@worldbank.org

For more information, visit: www.worldbank.org/guarantees or contact guarantees@worldbank.org

GIF Downstream Financing Window

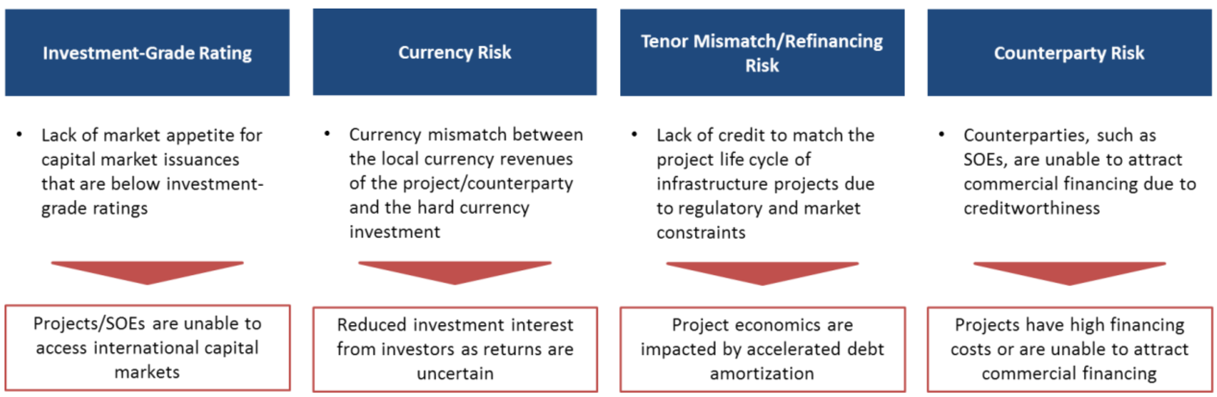
Jason Zhengrong Lu, Head, GIF

BACKGROUND

The GIF Downstream Financing Window ("DFW") has concluded its gap analysis and has developed a conceptual design for the facility. The DFW is designed to address gaps for risk mitigation and credit enhancement instruments that have been identified by the market and the GIF's Technical Partners. The GIF will be presenting the DFW to the World Bank and the GIF Governing Council to seek approval to establish the DFW in June 2018.

GAP ANALYSIS

The GIF conducted interviews with more than 30 bankers, institutional investors, rating agencies and project sponsors to identify the key risks that currently do not have adequate coverage in the market or through MDBs. The key risks identified are:



To address these gaps, the DFW has developed target credit enhancement instruments to benefit projects in EMDEs. The GIF plans to pilot these projects once the DFW becomes operational, but it is important to note that these instruments are at the concept stage and the GIF MU will refine these instruments and develop new instruments to meet the needs of the market. Any proposed instruments would complement existing MDB and DFI instruments to provide more flexible and comprehensive solutions to address major 'bottleneck' risks such as construction, currency mismatch or refinancing, expand the space for private or commercial infrastructure financing, and increase the pipeline for private sector investors by making more projects bankable.

(1) Foreign Exchange Liquidity Facility

This standby liquidity facility would cover shortfalls in project revenues caused by exchange rate movements up to a certain amount. The facility would be drawn upon to prevent a project from defaulting on its US dollar-denominated debt if the local inflation indexed revenues of the project were reduced because of a devaluation of the host country's currency. Once the facility is drawn, the outstanding amount would be treated as subordinated or senior debt and repaid before equity in the cash flow waterfall.

Need

This facility would address one of the major gaps identified by the interviewees, which is the lack of any readily available form of mitigating foreign exchange risk in EMDEs. Typical instruments to hedge exchange rate risks, such as long-dated currency swaps, are unavailable or too expensive.

(2) Capital Markets Catalytic Facility

This standby facility would provide a combination of a payment guarantee and partial credit guarantee for capital market issues (e.g., bonds) to finance infrastructure projects. The GIF DFW would cover debt service payments (interest and principal) for a period of up to 24 months in the case of partial or non-payment by the project. The payment guarantee would provide liquidity to the project to avoid default and sufficient time to remedy project issues. If the project addresses the issues, then the drawn amount of the guarantee would be treated as subordinated debt in the project. If the non-payment continues for 24 months (or such shorter period as covered by the GIF DFW), the partial credit guarantee could be called to repay principal to the lenders and the GIF would recover its credit as a senior lender to the project. The total amount to be provided by the GIF DFW would be up to 40% of the initial principal amount of the capital markets issue so the project bond can reach investment grade to satisfy the requirements of most institutional investors.

Need

This facility is designed to improve the credit rating of capital market issuances to allow for institutional investors to invest in infrastructure projects. The existing products available from the MDBs and other sources of finance have not been sufficient to meet the needs of institutional investors for credit enhancement in EMDEs.

(3) Counterparty Risk Cover Facility

This instrument is targeted to address counterparty risks, especially with state-owned enterprises (SOEs). Many infrastructure projects in EMDEs involve SOEs as a contractual counterparty to provide payments to the project, such as power plants, water treatment facilities and transport and transit providers. The facility has a similar structure to the Capital Markets Catalytic Facility as it provides liquidity to cover ongoing payments by the SOE counterparty and a termination payment in the event of project failure. The facility could also be used during a contractual dispute or arbitration event to support debt service.

Need

The GIF analysis and interviews indicate that the creditworthiness of counterparties in EMDEs, such as SOEs, is a major factor in limiting investment in infrastructure. This facility is aimed at providing liquidity to avoid default and provide additional time for remedies in the contract. The DFW's cover for termination payment would address project failure risk to complement existing covers provided by the MDBs.

(4) Contingent Refinancing Facility

In offering this product, the DFW would provide an option or guarantee to commercial lenders (e.g., banks) to refinance the loan after a specified period. This facility would target commercial banks that are limited to construction or mini-perm loans and unable to provide long-dated tenors that are required for infrastructure. The GIF DFW would commit to refinancing the remaining principal, on the same terms, if it meets certain covenants: (1) the loan from the commercial bank is not in default and (2) the project's debt service coverage ratio (both current and prospective), loan life coverage ratio, and other appropriate ratios meet pre-specified standards. The covenants of the facility would aim to isolate the DFW coverage to refinancing risk and not expose the facility to other project risks. Also, to ensure there remains sufficient incentive for a borrower to refinance the resulting loan from the facility (and thus reduce the 'expected maturity' of the facility loan), the covenants may also restrict ('lock-up') shareholder dividends and require that a portion of cashflows remaining after senior debt is serviced is used to further pay principal of the loan (i.e. a cash-sweep).

Need

Interviews with project sponsors indicate a lack of available long-dated debt financing due to regulatory constraints of financial institutions in certain markets. The facility will improve bankability of the project by reducing the risks of refinancing in the future. The facility structure will also incentivize the commercial banks and the project sponsor to seek refinancing from commercial sources by imposing a cost on using the DFW facility.

Global Infrastructure Facility

GIF 2017

ADVISORY COUNCIL MEETING

BIG MOVERS PANEL

October 11, 2017

WORLD BANK GROUP

BRAZIL

Private Investment in Infrastructure

Regulatory Context

1990	• Opening to Privatization • Law 8.031 (1990): National Program for reducing the role of the state opened the market for private investment through privatizations and PPPs • 18 of a target 68 companies successfully privatized
1993 - 1995	• Concessions Period • Law 8.666 (1993): procurement law for public contracts • Laws 8.987 and 8.074 (1995): laws that established the rules for private participation through concessions
2004-2006	• Consolidation of PPPs • Law 11.079 (2004): PPP Law; establishes requirement for SPVs within the concessions/PPP structure • Decree 5.385 (2005): Created the PPP Steering Committee (GCP), with members from different ministries
2012	• PPP Law improvements • Law 12.766 (2012): changes features of the PPP Law and allows subsidies prior to the beginning of the project. • Major Concessions approved and projects in progress such as Sao Paulo Guarulhos Airport, and Rio de Janeiro Airport (USD $14bn total concession values)

Institutions

Ministry of Planning, Budget and Management (MPOG)	Coordinator of the Steering Committee. In charge of assessing, modeling, and monitoring of potential PPP projects
PPP Steering Committee (CGP)	Responsible for approving and monitoring of Projects and PPP contracts, establishing the pipeline and prioritization and authorizing the use of the PPP Guarantee Fund.
Ministry of Finance	Provides project appraisal and responsible for monitoring the use of the maximum budget allocated for PPP projects.
Program for Investment Partnerships (PPI)	In charge of coordinating private investment in infrastructure projects, developing and prioritizing the pipeline and overseeing contracts and projects.
Government Auditor General (TCU)	Monitors bidding and awarding of contracts and quality of project supervision.
National Bank for Development (BNDES)	Is responsible for funding and structuring of financial operations and concessional financing - responsible for majority of infrastructure lending to date.
EPL – Corporate planning and Logistics	Provides structuring and planning for integrated logistics projects and conducts feasibility and viability studies.

PPP Performance

52

PPP Preparation

85

PPP Procurement

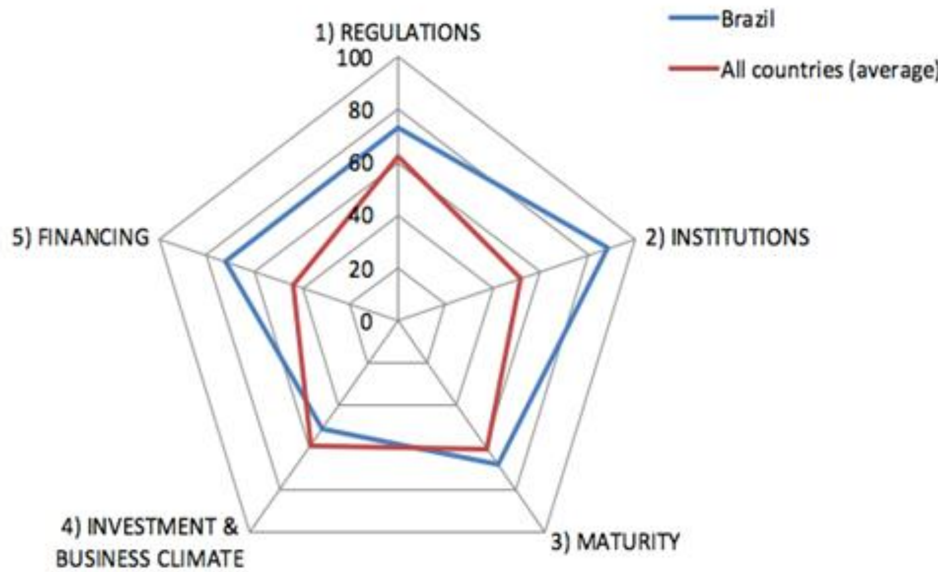
75

Unsolicited Proposals

88

PPP Contract Management

Source:
Benchmarking PPP Procurement, PPIAF, World Bank Group



Source:
Infrascope, 2017

PPP Projects

The "Program for Investment Partnerships" (PPI) has introduced 48 new major infrastructure projects to its short to medium term pipeline

Source: Projeto Crescer (Programa de Parcerias de Investimentos- PPI)

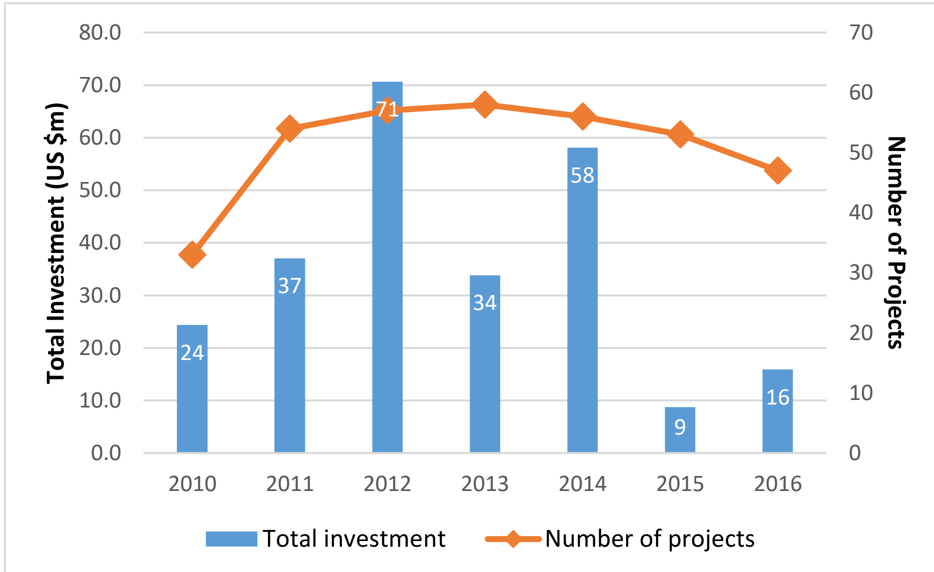
Sector	Number of Planned Projects		Estimated Total Investment (US$ bn)
Energy	Hydropower	1	TBD
	Transmission Lines	11	
Oil and Gas	4		TBD
Roads	2		TBD
Ports	16		$0.6
Airports	14		$5.1
Total			$14bn

Values converted from BRL to USD with October 2017 price – 0,32 BRL = 1 USD

Private Investment

- Total Investment: USD $248.6 bn: Brownfield $101.6bn; Greenfield $104.6bn; Divesture $41.3bn
- Sectors (investment): Airports (USD $28.3bn); Electricity ($90.9bn); ICT ($59.4bn); Natural Gas ($7.5bn); Ports ($4.8bn); Railways ($23.1bn); Roads ($23.1bn); Water & Sewerage ($11.5bn)
- Projects reaching financial closure: Total 358; Airports (15); Electricity (246); ICT (3); Natural Gas (1); Ports (16); Railways (5); Roads (18); Water & Sewerage (55)

Private Investment 2010-2016 (US Dollars)



Source: PPI Database, World Bank Group

Regional PPP Programs – State Level

State-level framework

-seven states have their own PPP Unit and PPP Law (Bahia, Espirito Santo, Minas Gerais, Pernambuco, Piaui, Rio Grande do Sul and Sao Paulo).

-Sao Paulo, Minas Gerais and Bahia account for over 60% of the PPP contracts signed so far at state-level

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Transactions to date at state level projects

- 2006-2010: 17 contracts signed at the state level (USD $4.6bn in total investment value)
- 2011-2014: 30 contracts signed at the state level

Values converted from BRL to USD with October 2017 price – 0,32 BRL = 1 USD

NIGERIA

Private Investment in Infrastructure

Regulatory Context

1999-2003	• Launch of privatization program • End of military rule with the adoption of a new constitution in and the celebration of democratic elections in 1999. • The National Council on Privatization (NCP) was reconstituted and identified port reform as a priority. • The Bureau of Public Enterprises (Privatization and Commercialization) Act is issued governing the privatization program of Nigeria. The BPE is the entity responsible for implementing the NCP's (national) privatization program.(1999) • Privatization program launched. 8 projects totaling $3,587m reached financial closure in the ICT sector and 4 projects in the energy sector ($291M).
2004-2006	• Port sector reform and concession program • Adoption of Nigerian Ports Authority Act (2004), and National Inland Waterways Authority Act (2004) as part of implementing port sector reform. • The NCP authorizes the Bureau of Private Enterprises (BPE) to proceed with port concessioning. By end 2006, 22 projects in the ports sector totaling $2,512M in investment had reached financial closure. • 2005 – the Infrastructure Concession Regulatory Commission Act. This act provided the legal framework for Nigeria's PPP Program. This is the closest legal instrument to a comprehensive infrastructure law. It provides for any government agency to enter into a PPP arrangement with a private sector party to develop, finance, construct, maintain and/or operate infrastructure services or facilities; and establishes the Infrastructure Concession Regulatory Commission (ICRC). • Emblematic project: Apapa Container Terminal Concession, reached financial closure in 2005 totaling $1,300M in investment. 25-year concession, Brownfield (Rehabilitate, Operate and Transfer). Sponsor: AP Moller – Maersk Group (100%)
2007 – 2013	• PPP institutional reform and beginning of economic slowdown • 2007 – Public Procurement (Goods and Works) Act and Public Procurement Regulations (Goods and Works and Consultancy Services), standardizing traditional public procurement activities. The Public Procurement Act is part of the legal framework applicable to PPPs in Nigeria. • 2007 – The Fiscal Responsibility Act: provides for the preparation of the Medium Term Economic Framework and the requirement of the Annual Budget. The act secures fiscal responsibility by imposing spending and borrowing limits, thus having direct impact on contingent liabilities linked to PPP projects. • 2007 – National Planning Commission Act establishing the National Planning Commission (NPC) responsible for formulating and coordinating national plans for infrastructure development. • 2008 – Commissioning of the ICRC and appointment of its first Director General. The role of the ICRC is to monitor PPP transactions and bring together the Ministries, Departments and Agencies (MDAs) in support of the PPP Program. • 2008 – World Financial Crisis (2008-2009) impacted Nigeria's economy resulting in falling commodity prices, reduced net capital inflows of FDI and remittances and reduced government revenue. • 2009 – National Policy on Public Private Partnerships (2008-2012) approved by the Federal Executive Council. • 4 projects reached financial closure totaling $12,551M (two in the ICT sector -totaling $11,849M, one each in energy and transport sectors)
2014 – 2017	• Refocus on restoring macroeconomic resilience • Sharp drop in oil prices in 2014 and declining GDP growth (-1.54% in 2016). • Real GDP growth for 2017 is estimated to positively increase to 1.2% (WB Global Economic Prospects 2017)

Institutions

Bureau of Public Enterprises	In charge of implementing the privatization and commercialization policies for public enterprises and prepare public enterprises approved by the National Council on Privatization for privatization and commercialization
Bureau of Public Procurement	Responsible for the monitoring and oversight of public procurement, harmonizing the existing government policies and practices by regulating, setting standards and developing the legal framework and professional capacity for public procurement in Nigeria.
Debt Management Office (DMO)	Prepares and implements a plan for the efficient management of Nigeria's external and domestic debt obligations. The DMO provides approval of any contingent liabilities that could be incurred by a PPP project as well as to the provision of guarantees by multilateral institutions to be backed by the Federal Government.
Federal Executive Council	Provides second approval, in addition to the Ministry of Finance, for the procurement of PPPs before the procurement process is launched. Projects are submitted to the FEC on the recommendation of the relevant sector, ministry or agency (i.e. procuring entities).

Federal Ministry of Finance	Formulates policies on fiscal and monetary matters, mobilizes domestic and external financial resources through both internal and external financial institutions for development purposes. The FMoF provides a first approval for the procurement of PPPs before the procurement process is launched
Infrastructure Concession Regulatory Commission (ICRC)	In charge of regulating Public Private Partnership (PPP) endeavors of the Federal government aimed at addressing Nigeria's physical infrastructure deficit. It formulates PPP policies, processes and procedures (including those for concessions) and is a gatekeeping/approving authority for PPP procurements.
National Council on Privatization (NCP)	Chaired by the Vice President of the Federal Republic of Nigeria, it determines the political, economic and social objectives of privatization and commercialization of public enterprises and approves policies, guidelines and criteria on privatization and commercialization of public enterprises among other related functions.
National Planning Commission	Formulates and coordinates national plans for infrastructure development. Nigerian Sovereign Investment Authority, the investment institution of the Federation set up to manage funds in excess of budgeted hydrocarbon revenues. One of its objectives is to enhance the development of Nigerian infrastructure.

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Source:
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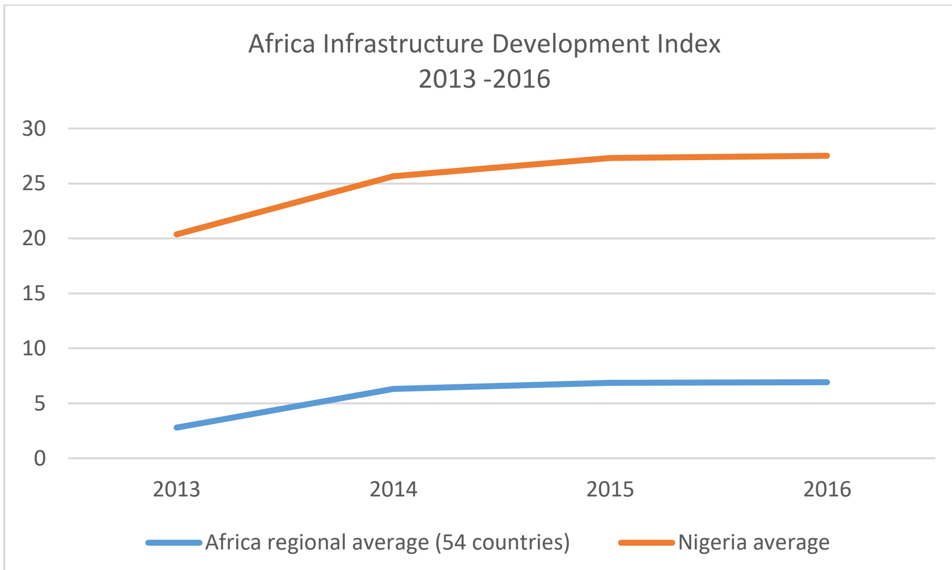


Source:
African Development Bank Group. The Africa Infrastructure Development Index 2016.

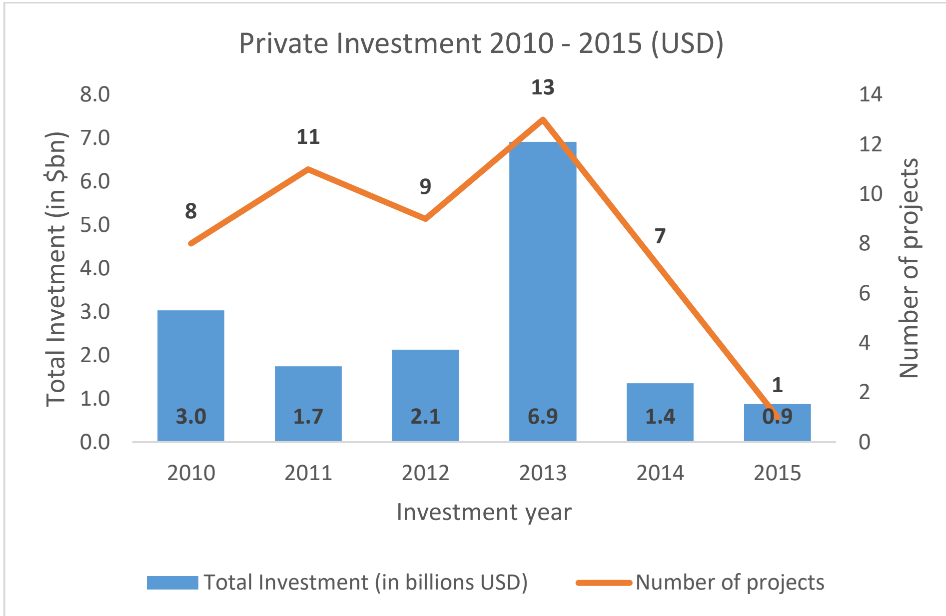
PPP Projects 2017

SECTORS & DEVELOPMENT STAGE	NUMBER OF PROJECTS	INVESTMENT AMOUNT (USD MILLIONS)
ENERGY		
Development	1	3.8
Procurement	6	55.2
Implementation	3	500.2
Total	**10**	**559.2**
TELECOM		
Implementation	2	80
Total	**2**	**80**
TRANSPORT		
Development	2	3,989.2
Procurement	1	4,200
Implementation	36	17,986.7
Total	**39**	**26,175.8**
GRAND TOTAL	**51**	**28,098.8**

Out of 59 total projects listed online, only 51 economic infrastructure projects have been included in this table. Source: Infrastructure Concession Regulatory Commission. PPP Pre & Post Contract Disclosure Web Portal. Online: http://ppp.icrc.gov.ng. Accessed on September 27, 2017.

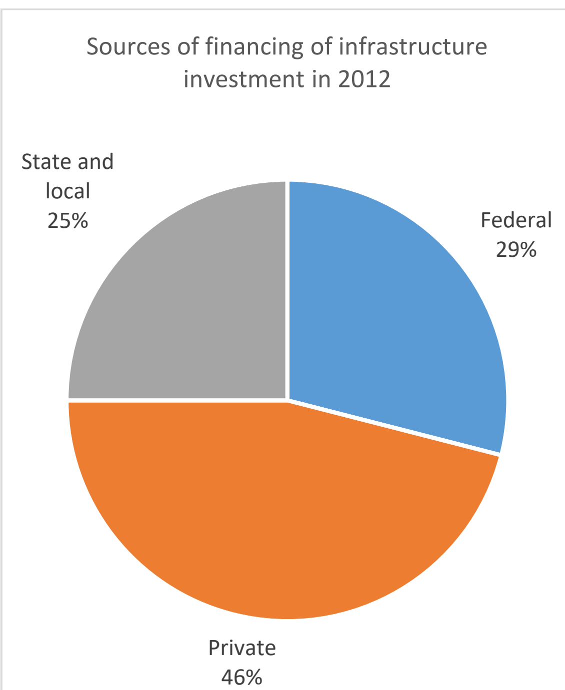
Private Investment

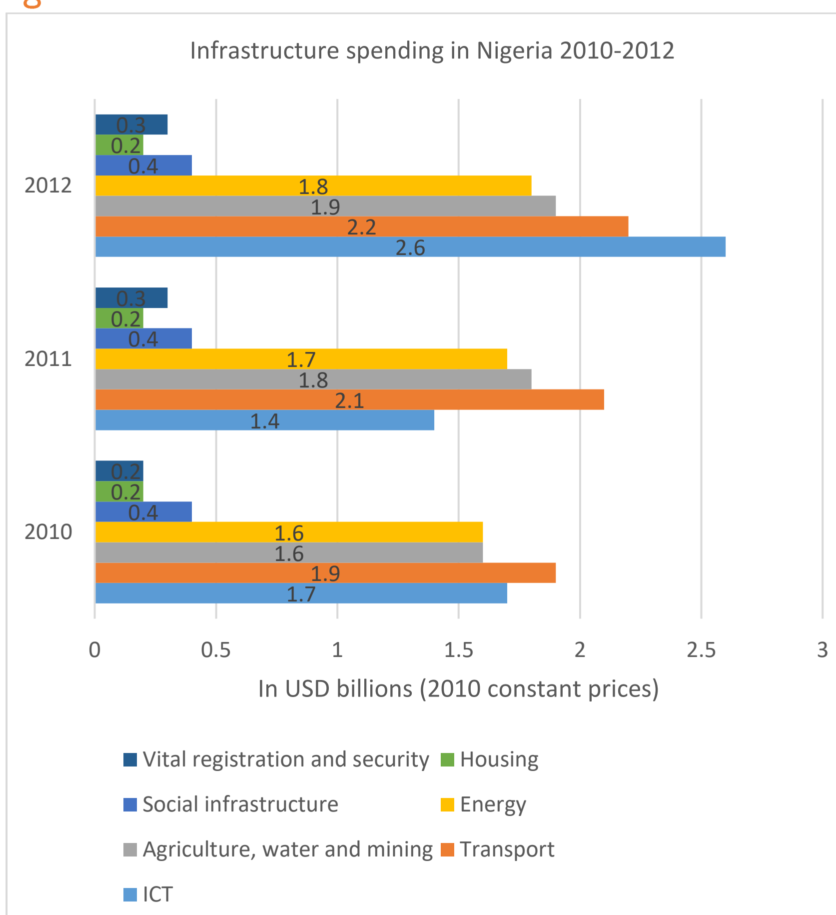
- Total Investment between 2010 – 2015: USD 16.1 billion: Greenfield $15.4bn, Brownfield $0.3bn, Divestiture $0.4bn
- Sectors (Investment): ICT (USD 10.1 billion), Ports ($4.7bn), Electricity ($1.3bn)
- Sectors (number of projects closed): ICT (40), Ports (6), Electricity (3)



Source: PPI Database, World Bank Group

Infrastructure Investment & Financing





Source: Nigeria's National Planning Commission. Nigeria's National Integrated Infrastructure Master Plan. October 2014. Page 45.

Global Infrastructure Facility

GIF 2017
ADVISORY COUNCIL MEETING

MANAGING ESG RISK PANEL

October 11, 2017

WORLD BANK GROUP

Key Challenges and Solutions to ESG Risk in Infrastructure

Katharina Schneider-Roos, Chief Executive Officer, Global Infrastructure Basel

Summary to the Panel Managing ESG Risk: Collaborating with MDBs to manage Environmental, Social and Corporate Governance Risk

Infrastructure is the backbone of a well-functioning economy and is essential to achieving sustainable development globally. Adequate infrastructure systems are the largest pre-requisite to achieving the Sustainable Development Goals (SDGs). Overlooking Environmental, Social and Governance aspects of infrastructure projects places substantial risks throughout the life cycle of an infrastructure project. Therefore, identifying and addressing both ESG risks and benefits is a key task on the road to sustainability. However, several key challenges emerge:

- **Lack of transparent business case for sustainability in infrastructure:** if the currently existing global infrastructure investment gap is to be closed, both public and private sector investment capital has to be mobilized. With specific regard to the private sector, this is only possible if infrastructure investment pays off. Moreover, sustainability becomes only reality if infrastructure, which accounts for ESG risks, provides better returns than conventional infrastructure. On the other hand, one may argue that the reduction of ESG risks and creation of ESG benefits are themselves the source of better financial returns. Yet, in any case, the main challenge is that the business case of sustainable infrastructure is not visible for many investors. Efforts must be devoted to making it transparent.
- **Long-term nature of infrastructure:** while some ESG benefits may pay off immediately (as for instance savings in energy cost thanks to energy efficiency), others are only relevant in the long run (for example preparedness for natural disasters). Short-term investment horizons may therefore be unable to recognize the full potential of ESG benefits and risk reduction.
- **Uncertainty of ESG risks and benefits:** similarly, to the above argument, many sustainability risks and benefits are not identified by investors due to their uncertain and not easy-to- quantify nature. For example, an important risk of high carbon emissions could be a change in a national law, which sets lower emission targets or taxes emissions. Thus, risks and benefits may materialize or not. This uncertainty makes investors reluctant to stepping to action.
- **Missing bankability:** many infrastructure projects are not bankable because they do not take risks appropriately into account. Feasibility and financial viability are insufficiently analyzed. The bankability condition is thus a major obstacle to the funding and realization of infrastructure projects. Sustainability requires bankability. However, enhancing ESG benefits and reducing ESG risks can themselves assist to make infrastructure projects bankable. Proper ESG assessments involve an investigation of numerous risks, which may heavily impact financial performance of a project. Once ESG risks and benefits are made transparent, an important step towards bankability is made.
- **Lack of data:** to date, there are still too many unknowns in the relationship between an infra-structure project's sustainability and financial situation. A comprehensive dataset is needed to shed light on the manifold impacts that ESG risks and benefits have on the financial side of a project as well as the other way around. More detailed insights may help attract capital and trigger investment in sustainable infrastructure projects.

Against the background of these challenges, a set of concepts, approaches and solutions should be highlighted:

- **Holistic ESG assessment tools:** sustainability measurement methodologies are needed to make ESG risks and benefits transparent, to ensure a comprehensive approach to sustainability and to develop a common language among project developers, investors and policy makers. The SuRe® Standard (Standard for Sustainable and Resilient Infrastructure), developed by the Global Infrastructure Basel Foundation (GIB) and Natixis Bank is an example of such a standard.[1] It assesses the sustainability and resilience performance of an infrastructure project and highlights best scores as well as room for improvement in respective ESG themes.

- **Cooperation of standards:** existing ESG standards and tools are much needed starting points. However, promoting the benefits of sustainability requires a stronger position of these instruments in the infrastructure sector. This is why they should get closer and cooperate. A planned project in this regard is the collaboration between the Institute for Sustainable Infrastructure (ISI) and GIB. Their standards for sustainable infrastructure – Envision2 and SuRe® – are working on a set of common core sustainability criteria by which projects can be easily scanned. This allows coverage of a larger share of the global market by adding both standards' geo- graphic focuses. The common criteria imply a very easy entry point to the field of sustainability standards and hence help mainstreaming ESG in the infrastructure branch. In addition, this co- operation will enable the accumulation of infrastructure project data. Such data registry allows analysis of the relationship between infrastructure's ESG and financial performance.
- **Project preparation:** Sophisticated preparation is essential for successful projects, e.g. through SOURCE, an initiative for a standardized approach to project preparation.3 However, it goes beyond the initial phase of a project and entails its whole lifecycle, including as well procurement, development and operation phases. Besides the MDBs, SOURCE can also be applied by governments. By taking account of ESG factors, SOURCE helps identify the corresponding risks and benefits and address them in a standardized way in project preparation.

Global Infrastructure Basel
Elisabethenstrasse 22
CH-4051 Basel Switzerland
T +41 61 205 10 80/F +41 61 271 10 10
info@gib-foundation.org
www.gib-foundation.org

1 See http://www.gib-foundation.org/sure-standard/

2 See http://sustainableinfrastructure.org/envision/

3 See https://public.sif-source.org

Managing ESG Risk: Collaborating with MDBs to manage Environmental, Social and Corporate Governance Risk

Harald Francke Lund, CICERO

Summary to the Panel Managing ESG Risk: Collaborating with MDBs to manage Environmental, Social and Corporate Governance Risk

- Shifting investments toward a low-carbon and climate-resilient future is a fundamental step towards a climate change solution. Understanding the drivers for climate finance and connecting the financial community with climate change research, are priorities for CICERO.
- In the transition to a low-carbon and climate change-resilient society, we depend on investors moving their money from yesterday's technologies that lock in carbon emissions, to new climate-friendly technologies. Yet keeping track of carbon emissions is not sufficient. Increasingly, investors are exposed to the physical consequences of climate change, combined with transition risk linked to a change policies and technologies and a liability risk for not acting on global warming.
- Many physical impacts that scientists had originally anticipated over a much longer time horizon are being observed today across the globe, and will continue or worsen given growing greenhouse gas concentration levels. This is the case for sea level rise, which is also complicated by interactions with extreme weather events like windstorms, sea-surges, floods, droughts and heat waves. An increasing number of events are leading to exorbitant costs as a result of extreme weather events in many regions. Regardless of the future scenario, climate scientists expect that the frequency and/or severity of certain natural hazards will change. Dry regions will likely face increasing drought, whereas traditionally wet regions are expected to get even wetter (with some exceptions) – with resulting impacts on food production can have cross-regional market impacts.
- To assess physical impacts in the next 10-20 years, the choice of scenario does not make much difference. Physical impacts around mid-century or later are more dependent on policy changes, where stress-testing against various scenarios, including extreme scenarios, could be helpful. The upper tail of the probability distribution based on current implemented policies is also useful to consider as a worst-case scenario for physical impacts (4-5°C), especially as the potential for, and impacts of, catastrophic change are not well understood.
- Physical climate impacts increasingly confront investors with unplanned and abrupt changes or disruptions to businesses or assets. Not only physical facilities, but also production processes, markets and supply chains are at risk. In addition, investors face transition risk, as a result of changes in climate and energy policies, a shift to low-carbon technologies and liability issues. While transition risks tend to have a built-in lead time for companies to plan and adjust, the abrupt shocks from physical climate change have not received much attention to date.
- Transitional impacts such as policy and technology risk are more dependent on scenario choice as they are subject to regulatory and market developments. This is an ideal opportunity to use scenarios to explore key future uncertainties, and to stress test investments for low probability but high impact outcomes. For example, what may be the impact on future climate policies and fossil fuel markets if key technologies, such as carbon capture and storage, do not work as planned?
- The Paris agreement has brought forward the horizon of ambition on climate action. It targets limiting global warming to "well below" 2°C, while pursuing efforts to limit warming to 1.5°C. The effectiveness of the agreement hinges on domestic policy implementation and potentially the wide-spread use of negative emissions technology, such as biomass energy with carbon capture and storage (BECCS). Yet, realistic scenarios assume that negative emissions technology will not be available at the scale that is necessary in time. Our assessment, based on the current climate policies and pledges, is that meeting a 2°C scenario is not the most probable scenario. The current pledges, if fully implemented, would lead to closer to 3°C warming by 2100, whereas business as usual with current policies would lead to even greater global warming.
- The challenge is moving from the traditional framing of how a company is impacting the climate through greenhouse gas emissions, to how the climate and related policies can impact a company with a more holistic view of climate risk.

Green bonds

- Green bonds are one way for investors to reduce their exposure to climate risk. Last year, the global green bond market doubled in size, seeing issuances worth more than 80 billion dollars – a record that is set to be broken this year.
- In the last decade, green bonds have spread around the world, with Nordic investors entering the market first, soon followed by Christian investment funds concerned with values-based investments in sustainability. After green bonds gained foothold in China, Islamic investors have now also entered the market. This summer, a solar energy company in Malaysia launched the first green sukuk – a bond in line with Sharia-rules, which exclude investing in e.g. gambling or alcohol.
- The EU tasked an expert group to set out a financial system that supports sustainable investments. In its preliminary report published before the summer, the High-Level Group on Sustainable Financing recommended a green investment classification system and an EU green bond standard. The new EU standards should however not replace the dialogue between issuers, verifiers and investors about what is green. For example, last spring, Repsol issued a green bond to fund energy efficiency improvements in its oil refineries.
- The bond caused a lively discussion in the green bond market on whether this would reduce emissions in the long run or just prolong the life of the refineries. This dialogue happens without interference from heavy political and bureaucratic processes. Yet it has been a key success factor to mobilize green capital through the green bond market.
- Bloomberg's Working Group on Climate Change (TCDF) also delivered its report this summer. It recommends that all companies should stress test their business models against different climate scenarios and report to investors how they handle climate risk.
- The lessons learned from the green bond market can ensure that the suggested reporting not only remains a formality, but that responsible investors actively use the provided information. Responsible investors and underwriters involved in the development of the green bond market, which are also ahead in working with climate risk, should help push this reform in a right direction. The goal is that all investors consider and understand climate risk when they make investment decisions.

ESG is a "must" for a long-term investor

Dr. Jérôme Jean Haegel, Managing Director and Head Investment Strategy, Swiss Re Asset Management

Our experience with ESG and what is needed to improve the financial market architecture with executing a now widely shared belief that the more sustainable investments, the better

Resilience matters for society and investors alike. With insurance companies providing about 1/3 of global long-term investment capital amounting to USD 75trn, it is crucial how this capital is deployed. Long-term oriented thinking needs to take the upper hand and that needs to be incentivized in the appropriate manner. Embracing an ESG (Environmental, Social, Governance) framework should take center stage here. Why? Simple answer: it makes economic sense. Incorporating ESG into investment decisions enhances a portfolio's overall risk-adjusted returns by reducing potential downside losses and volatility.

At Swiss Re, we have switched our investment mandates to ESG benchmarks and integrated ESG criteria consistently across the entire portfolio. Up to 90% of our portfolio now considers ESG criteria, with the ambition to reach 100%. Our ESG strategy has also two more components: inclusion focuses on specific investment themes proactively aiming to generate a positive impact, such as green bonds and renewable infrastructure. Second, with regards to exclusions, we screen out companies that we do not consider as acceptable business. To mitigate the risk of stranded assets, we stopped investing in companies that derive 30% or more of their revenues from thermal coal mining or use at least 30% thermal coal for power generation.

Positive advances have also been made in the public arena with agreements like COP21. That said, more needs to be done on the policy and regulatory front if one is to spur true change. Fact is, according to our calculations, less than 10% of total global financial assets are managed today under ESG investment strategies. In sum, we do not lack a vision, but we lack execution.

We are aware that transitioning to sustainable investing remains a journey and learning process not only for us but also for other institutional investors and policymakers. In order to overcome some of the largest hurdles we currently face as a long-term investor, we call on the support of policymakers to address the following 'wish list' to facilitate sustainable investments:

1) Define sustainable investing, which is needed to subsequently allow policymakers to align the regulatory frameworks and market standards
2) Establish consistent, standardized company-level ESG reporting which would enable investors to better distill and quantify ESG risks in companies. This would subsequently allow ESG to be an integral part of performance analysis
3) Adopt an appropriate regulatory framework that incentivizes, rather than limits, long-term sustainable investing. BoE Governor and FSB Chairman Carney was spot on in highlighting that systemic risk increases, should climate and stranded asset risks, amongst others, not be tackled. Consequently, a regulatory framework should take this into account by integrating ESG ratings

By addressing these hurdles, we believe the USD 75trn global institutional investor asset base will more easily shift towards sustainable investments and subsequently bring us one big step forward to making the world more resilient.

Collaborating with MDBs to Manage Environmental, Social and Corporate Governance (ESG) Risk

Morgan Landy, Director, ES&G Sustain Advice & Solutions, International Finance Corporation

The need for private sector investments in infrastructure

The global infrastructure landscape is changing, unprecedented opportunities for growth as low income markets are opening to private sector investment to close the infrastructure gap. Notable example is Africa: of the estimated $93 billion a year required to bring African infrastructure to acceptable levels, Governments are presently spending an estimated $45 Billion a year. Private sector investments in infrastructure can make a vital impact; providing essential services to large numbers of users, efficiently, affordably, and profitably. Institutional investors (e.g. e.g. pension funds, insurance companies, sovereign wealth funds) are increasingly interested in investing in infrastructure but face critical challenges to further increase their capital exposure.

Investments in infrastructure come with significant environmental, social and governance risks

The infrastructure sector faces significant environmental, social and governance (ESG) risks. These issues are increasingly at the forefront of investors decisions. It is essential for investors to understand the complexity and interconnectivity of financial, environmental, social, and governance issues – the drivers behind the rise of sustainable infrastructure investments. Many institutional investors have long realized that ESG issues can drive risks and returns. They are looking increasingly on ESG long term performance over several years due to their long term investing strategies. In fact, assessing ESG risks is critical for long-term competitive advantage and is becoming an integral part of investment decisions by many large institutional investors.

Managing ESG risks should be an integral part of investment decisions and risk management approach as directly impact financial performance

Managing ESG risks has become an important factor in business and investment decisions. Firms and investors are increasingly taking a long-term view toward managing environmental and social risks; recognizing that by addressing ESG issues they can achieve better growth and cost savings, improve their brand and reputation, strengthen stakeholder relations, and boost their bottom line. There have been several studies looking at the relation between companies' ESG practices and their financial performance. The vast majority of them find a direct link: companies that do good by the environment, their labor force, and communities, do well financially. IFC recently looked at the performance of 656 companies in our portfolio and found that companies with good E&S performance tend to outperform clients with worse environmental and social performance by 210 basis point (BPS) on return on equity (ROE) and by 110 bps on return on assets (ROA). Clients with high E&S scores outperformed by 130 bps the MSCI Emerging Market Index—an index created to measure equity market performance in global emerging markets. Whereas a deterioration in E&S performance resulted in worse financial performance.

MDBs have a critical role to play in addressing ESG risks in infrastructure projects

MDBs provide significant support to increase emerging market investments through the provision of capital and credit enhancement instruments, including innovative local currency products and issuances, guarantees, insurance and risk sharing structures. Further, MDBs play an important role de-risking infrastructure projects by focusing on upstream work, introducing more standardized approach to ESG risk management and enhancing coordination and cooperation for sustainable infrastructure. MDBs can further help in addressing ESG related to infrastructure projects by:

- Working together on policy/sector reforms, scale up advisory services and project preparation to create more bankable projects.
- Using more standardized approach on ESG risk management and common understanding of ESG risks in the infrastructure sector; prioritizing impact over volume incentives.
- Developing common industry standards for sustainable finance investments, including common definitions, common standards, and common product structures. Work towards common ESG standards across private investors, building on Equator Principles adopted by banks.

IFC has strong reputation and convening power in developing and implementing ESG practices and relationship with a range of stakeholders

IFC helps clients understand and manage the ESG risks they face. We partner with industry and other stakeholders to find innovative solutions that open opportunities for economically, socially, and environmentally sustainable private investment—which, in turn, contribute to jobs and inclusive growth. IFC's ESG policies, guidelines, and tools are widely adopted as market standards and embedded in operational policies by corporations, investors, financial intermediaries, stock exchanges, regulators, and countries. This helps emerging markets raise their ESG standards and level the playing field.

In all our investment decisions, IFC gives the same weight and attention to environmental, social, and governance risks as we do to credit and financial risks. This enables us to take informed risks to achieve both development impact and financial sustainability. In more challenging markets, we work with clients whose potential high-reward business investments and sustainable inclusive growth face a growing array of complex environmental, social, and governance risks.

These challenges require best-in-class environmental, social, and governance risk-management and flexible solutions. Our work includes helping clients address risks that are beyond their ability or responsibility to solve alone, to leverage the capabilities of the World Bank Group to find durable solutions, and to work with other stakeholders to help unlock investment when it is constrained by significant sustainability risks. Our operational experience and longstanding practice of providing integrated solutions to environmental, social, and governance risks have helped position us as a trusted convener around ESG issues facing the private sector. IFC clients continue to indicate that our expertise is an important factor in their decision to work with us.

Global Infrastructure Facility

GIF 2017

ADVISORY COUNCIL MEETING

BIOS

October 11, 2017

WORLD BANK GROUP

CO-CHAIRS

Joaquim Levy

Managing Director and World Bank Group Chief Financial Officer

Joaquim Levy is responsible for the financial and risk management strategies of the World Bank Group and for the institutions that make up the Group. This includes development of new, innovative financial products and services, oversight of the financial reporting, risk management, and mobilization of financial resources in alignment with the Group's strategy. Levy contributes to the international dialogue on financial standards and best practices, primarily through his representation of the Group at the Financial Stability Board. Levy joined the World Bank Group in February 2016. Previously, he served as the Minister of Finance for the Federal Republic of Brazil, working with the president and government in reforming the world's fifth largest economy. Levy holds a doctorate in economics from the University of Chicago (1992); a master's in economics from Getúlio Vargas Foundation (1987); and graduated in Naval Architecture and Marine Engineering from the Federal University of Rio de Janeiro.

Macky Tall

Executive Vice-President, Infrastructure, President and Chief Executive Officer, CDPQ Infra

Macky Tall is responsible for CDPQ's infrastructure investment strategy. Tall oversees the teams that carry out infrastructure investment activities worldwide. He is also in charge of CDPQ Infra, a CDPQ subsidiary whose mandate is to take over the planning, execution and operation of public infrastructure projects. Tall serves on CDPQ's Executive Committee and Investment-Risk Committee. Tall joined CDPQ in 2004 as Director, Investment, Infrastructure, and accelerated the implementation of a business model focused on strategic partnerships with the largest infrastructure operators in the world. Before joining CDPQ, Tall held several senior management positions with companies in the energy and finance sectors, namely Hydro Québec, MEG International, Novergaz and Probyn & Company. Tall holds a Bachelor's degree in Business Administration (Finance) from HEC Montréal and an MBA (Finance) from the University of Ottawa. He also completed an undergraduate degree in Economics at Université de Montréal.

SPEAKERS

Jordan Schwartz

Director, Infrastructure, PPPs and Guarantees, World Bank

Jordan Schwartz has worked in the field of infrastructure development since 1991. He is currently the World Bank's Director for Infrastructure, PPPs and Guarantees (IPG Group). In his prior role, Schwartz was Director of the Infrastructure & Urban Development Hub in Singapore, a center of World Bank operational and analytical activity in East Asia covering the sectors of transport, ICT, water, energy, urban development, trade, and infrastructure finance. Previously, Schwartz served as the World Bank's Manager for Infrastructure Policy, and, before that, as Lead Economist in the Sustainable Development Department of the Latin America and Caribbean Region. Before joining the World Bank, Schwartz was Sr. Manager for Infrastructure & Utilities at Deloitte Emerging Markets. and, in the early-1990s, an Associate in Booz Aleen's Transport Strategy Group. He has written extensively on the relationship of risk to infrastructure investment, and is co-author of the book, "Uncovering the Drivers of Utility Performance: The Role of the Private Sector, Regulation and Governance."

Andrew Davison

Senior Vice President in Moody's Infrastructure Finance Group, Moody's

Andrew Davison is a Senior Vice President in Moody's Infrastructure Finance Group. Davison is responsible for Moody's strategic initiatives responding to market dynamics that are reshaping the development and financing of infrastructure assets across the globe. Davison has authored a number of high-profile publications on the global infrastructure sector, including serial research on the credit performance of project finance bank loans. Davison is a frequent speaker at international conferences and other events addressing infrastructure-related themes. Davison joined Moody's in 2006 and led Moody's EMEA Project Finance team from 2007-2012.He has a broad background in energy and infrastructure finance and has acted variously as lead debt arranger, financial advisor and principal on a range of profile transactions in the sector on behalf of previous employers: Hambros, SG, Enron and Scotia Capital. Davison is a Chartered Accountant and holds an engineering degree from Trinity College, Cambridge.

Gian Franco Carassale

Lead Investment Officer, Inter-American Investment Corporation

Gian Franco Carassale is a Lead Investment Officer at the Inter-American Investment Corporation, part of the IDB Group. He has ample of experience in the analysis, structuring and financing of energy and infrastructure projects in several jurisdictions in Latin America and the Caribbean. Within the IDB Group he has led or participated in the financing in of the first non-traditional renewable energy projects in Chile, Uruguay and El Salvador and structured more than 15 transactions across infrastructure and energy sector, working with a wide range of co-financiers, including multilateral and bilateral agencies, commercial banks and investors. Carassale led as well the development of the first B-Bond issued by the IDBG to mobilize institutional investors under the IDBG A/B Loan program. Carassale has substantial experience in advising governments in launching and perfecting renewable energy programs. Carassale holds a bachelor in Economics from the University of Buenos Aires and a Masters in Finance from Di Tella University, both located in Buenos Aires, Argentina.

Olivier Eweck

Manager, Client Solutions Division, African Development Bank

Olivier Eweck is the Manager of the Client Solutions Division of the African Development. His responsibilities include among others, African local currency bond issues and the design of financial products and services for the Bank. Eweck has a diversified experience in capital markets, combining portfolio management activities (short duration portfolios invested in corporate, government and asset backed securities); private sector investment skills (loans, guarantees, and private equity investments); and quantitative and derivative expertise. Prior to joining the AfDB, Eweck was a volatility trader and equity derivative structurer with Société Générale in New York and Paris. Eweck holds a Master in Applied Mathematics and General Engineering from Ecole Polytechnique, Palaiseau, France and a Master in Finance and Economics from Ecole Nationale Des Ponts et Chaussées, Marne La Vallée, France.

Hoda Moustafa

Head, Africa Regional Office, Multilateral Investment Guarantee Agency

Hoda Atia Moustafa is the Head of the Africa Regional Office of the Multilateral Investment Guarantee Agency (MIGA), the political risk insurance and credit enhancement arm of the World Bank Group. Previously, Moustafa was Senior Counsel in the Legal and Claims Group at MIGA, where she worked closely with underwriters and political risk analysts to structure political risk guarantees in the context of international investments in developing member countries. Her sector focus is energy, infrastructure and financial sector projects, with a regional focus on Sub-Saharan Africa. Before joining MIGA in 2007, Moustafa was Assistant General Counsel at the Overseas Private Investment Corporation (OPIC). Prior to joining OPIC, Moustafa was in private practice at two international law firms, Clifford Chance in Washington, DC and Mayer Brown in Chicago. Moustafa holds a Juris Doctor from Georgetown University Law Center and Master's Degree in Foreign Service from Georgetown University.

Pankaj Gupta

Practice Manager, Guarantees, World Bank

Pankaj Gupta is the global head for the project finance and guarantees business for the World Bank. Gupta's approach to infrastructure finance seeks to expand the options available to governments to finance and deliver infrastructure: making judicious use of scarce public and concessional resources to crowd in commercial capital and minimize the public debt burden on governments, while delivering sustainable and affordable infrastructure services. Under Gupta's leadership, the Project Finance and Guarantees program of the Bank is a now a growing portfolio of over 68 projects committed, with over US$5 Billion of current exposure that has leveraged over US$48 billion in financing. Since joining the World Bank in 1996, he has demonstrated leadership in developing, preparing and supporting several challenging high-risk high-reward projects, most recently with the OCTP "Sankofa" Gas Project in Ghana. Gupta holds a Mechanical Engineering degree from Delhi College of Engineering, Delhi University and an MBA from Georgetown University, Washington D.C.

Jason Zhengrong Lu

Head, GIF

Jason Zhengrong Lu is the Head of the Global Infrastructure Facility (GIF). He started working at the GIF as Lead Infrastructure Finance Specialist after ten years of working at the Multilateral Investment Guarantee Agency (MIGA) of The World Bank Group. While at MIGA, Lu worked on a broad range of complex energy and infrastructure projects worldwide. He has built expertise in managing and closing complex projects and advising clients on infrastructure financing, risk mitigation and credit enhancement to support their investment and financing needs in emerging markets and developing economies. Lu started his banking career with Bank of America in its Global Project Finance Group in 1996 where he was responsible for transaction structuring and execution. He also worked at ABB Energy Capital and State Street Bank and Trust Company. Lu holds graduate degrees from Yale University (MBA), Central European University (Prague), and China's Peking University.

Nena Stoiljkovic

Vice President, Blended Finance & Partnerships, International Finance Corporation

Nena Stoiljkovic is Vice President of Blended Finance and Partnerships and has a lead role in generating pioneering solutions that create opportunities for large-scale development and job creation in the world's most difficult places, and in bringing innovation to tackle climate change. She plays a key part in IFC's efforts to build a new architecture for development finance with other institutions, governments, and the private sector. A Serbian national, Stoiljkovic previously served as a co-Vice President of Global Client Services, responsible for all IFC's investment and advisory operations. During her tenure, she helped shape the World Bank Group's strategy, working with the International Development Association (IDA) on a pioneering private sector window to catalyze greater private investment in low-income and conflict-affected countries. Prior to joining IFC, Stoiljkovic worked as a consultant at the Economic Institute of Belgrade. She holds an MBA from the London Business School.

Henrique Pinto

Secretary, Public Policy Coordination, Investment Partnerships Program, Brazil

Henrique Amarante Costa Pinto is the Secretary of Public Policy Coordination at the Investment Partnerships Program, Presidency of the Republic of Brazil. Prior to that, Pinto served as the Deputy Managing Director of the Project Preparation Division at Brazil's National Development Bank (BNDES) where he worked on developing infrastructure projects using concessional financing and public-private partnerships (PPPs). He also worked on privatizations processes at BNDES. Pinto has an MSc in International Securities, Investment and Banking from the ICMA Centre, Reading University, UK, and an MSc in Administration from the Graduate School of Business at the Federal University of Rio de Janeiro (UFRJ) and a Bachelor's degree in engineering from UFRJ.

Chidi Izuwah

Acting Director General, Infrastructure Concession Regulatory Commission, Nigeria

Chidi Izuwah is currently the Ag. Director General/CEO of the Infrastructure Concession Regulatory Commission in the Presidency awaiting confirmation by the Senate of the Federal Republic of Nigeria. Izuwah was previously the Executive Director of the Support Services Department of the Commission. He was also the pioneer Executive Director of the PPP Resource Department of the Infrasructure Concession Regulatory Commission and built the department from scratch. Izuwah started his career as a lecturer in fluid mechanics, fluival hydraulics and hydropower engineering at the University of Port Harcourt, Nigeria in 1986. Thereafter, he held several senior oil & gas asset management positions in a career spanning over 21 years with SPDC (Shell Nigeria) and Shell International USA and Europe. Izuwah has a first degree in Civil Engineering from the University of Nigeria, Nsukka and a Master's degree in Hydraulic Engineering from the University of New Castle Upon Tyne in the United Kingdom.

Hartwig Schafer

Vice President, Global Themes, World Bank

Hartwig Schafer became Vice President, Global Themes on July 1, 2017. In this position, he oversees the World Bank's engagement in the corporate priority areas of Fragility, Conflict and Violence (FCV), Gender, Infrastructure/PPPs/Guarantees, Climate Change and Knowledge Management. This Vice-Presidency strengthens multi-Global Practice collaboration and overall responsiveness to clients. In his most recent role as Vice President, Operations Policy and Country Services, Schafer was responsible for the World Bank's business policies, practices and procedures for lending products and knowledge services for client countries. He led a number of key reforms, including roll-out of the Bank's new policies on procurement and environmental and social safeguards and innovation of the Bank's lending and knowledge instruments. Schafer, a German national, has worked for over 27 years in technical and managerial positions in the World Bank, as well as the European Commission. He brings strong operational experience across several regions and sectors. His academic background is in Economics (PhD) and Agricultural Economics.

Katharina Schneider-Roos

Chief Executive Officer, Global Infrastructure Basel

Katharina Schneider-Roos is CEO of the non-profit foundation Global Infrastructure Basel (GIB). Schneider-Roos's team has assessed over one hundred infrastructure projects across the world applying the GIB Grading for Sustainable Infrastructure. Schneider-Roos was responsible for organizing an annual investment forum during GIB Summits, and led the publication of the Sustainable Infrastructure Capacity Building Handbook and a Scoping Study for the Early Stage Project Preparation Stage. She co-chairs the Cities Climate Leadership Alliance's (CCFLA) Working Group on Project Preparation Facilities, is member of the CCFLA Steering Board and a member of the ICLEI Resilient Cities Conference Program Committee. In support of the Swiss Government and international experts, she is currently working with a project team to establish SuRe – The Standard for Sustainable and Resilient Infrastructure. Schneider-Roos is member of the Steering Board of the Resilience Measurement, Evidence and Learning Community of Practice funded by the Rockefeller Foundation.

Harald Francke Lund

Senior Advisor, Center for International Climate Research (CICERO)

Harald Francke Lund, Senior Advisor at CICERO - Center for International Climate Research - is a Senior Climate Finance Specialist. He is part of CICERO's climate finance team and is responsible for coordinating CICERO's work on second opinions on the environmental impacts of green bond investment frameworks. CICERO is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. Prior to working at CICERO Lund led the Norwegian contribution to the UNSG's high level AGF report on long term climate finance in 2010 and has held the positions of Deputy Chief Negotiator for Norway, Head of Emissions Trading Section at the Norwegian Environment Agency, and Advisor to the UNSG's Special Envoy on Climate Change Jens Stoltenberg. He was project leader of the Background Report on Long-term Climate Finance prepared for the German Presidency 2015. Lund has a law degree from the University of Oslo.

Jérôme Jean Haegeli

Managing Director, Head of Investment Strategy at Group Asset Management, Swiss Re

Jérôme Jean Haegeli formulates the overall investment outlook for Swiss Re Group Asset Management as well as the asset class views for the global portfolio. Furthermore, he is co-chairing the IIF's Council of Asset and Investment Management (CAIM) Working Group. At the IIF, he is also a member of the Principles Consultative Group, Market Monitoring and Sovereign Risk Committees. At the World Economic Forum, he is also a member of the Global Future Council on Long-Term Investing, Infrastructure and Development. Prior to joining Swiss Re in 2008, he was Head of Emerging Market Bond Research at Bank Julius Baer, Advisor for Switzerland at the Executive Board of the IMF in Washington DC and Senior Economist at the SNB and UBS Warburg. Haegeli is a Visiting Fellow from Harvard University, holds a MSc in Economics from the London School of Economics and a PhD in Economics from the University of Basel.

Morgan Landy

Director, ES&G Sustainability Advice & Solutions, International Finance Corporation

Morgan Landy is Director of IFC's Environment, Social and Corporate Governance Department. He helps leads the Corporation in fulfilling its strategic commitments to sustainable development. IFC, a member of the World Bank Group, is the largest global development institution focused exclusively on the private sector. He helps ensure that IFC grows its operations through prudent ESG risk management and fosters sustainable practices for improved performance in key sectors such as agribusiness, infrastructure, natural resources and financial markets. Landy also chairs IFC's Advisory Panel on Business and Sustainability. Prior to assuming his current position in December 2013, Landy held a series of other senior positions at IFC, most recently as the Global Head for Power and Renewable Energy. Before joining IFC, Landy worked in the investment banking team at Credit Suisse First Boston in New York. Landy holds a B.A. from Amherst College and an M.A. from the Johns Hopkins University School of Advanced International Studies. Landy is based at IFC headquarters in Washington, D.C.

John Larkin

Assistant Secretary, Banks and Infrastructure Finance Branch, Department of Foreign Affairs and Trade, Australia

John Larkin is currently head of the Banks and Infrastructure Finance Branch of the Department of Foreign Affairs and Trade (DFAT), Australia. In that role, he helps advance Australia's interests in the Asian Development Bank, Asian Infrastructure Investment Bank and World Bank Group as well as several multi-donor infrastructure facilities, including the Global Infrastructure Facility (which he currently co-chairs) and Asia Pacific Project Preparation Facility. Larkin joined DFAT in 1999. He has played a lead role in trade policy and negotiations, including on the ASEAN-Australia-New Zealand Free Trade Agreement (FTA) and Malaysia-Australia FTA; the Asia Pacific Economic Cooperation (APEC) forum, where he chaired the APEC Committee on Trade and Investment from 2013 to 2015; and as Minister-Counsellor at Australia's delegation to the World Trade Organization in Geneva. Prior to joining DFAT, he worked on prudential regulation of the Australian superannuation industry with the Australian Prudential Regulation Authority (and its predecessor organisation, the Insurance and Superannuation Commission).

Matthew Jordan-Tank

Head of Infrastructure Policy and Project Preparation, European Bank for Reconstruction and Development

Matthew Jordan-Tank is the Head of Infrastructure Policy and Project Preparation at EBRD, providing support for the Municipal Infrastructure and Transport sectors. The focus of his policy work covers PPPs, emerging market infrastructure support, regulation, tariff reform, commercialization of SOEs and municipal utilities, public service contracting, and performance-based contracting. Jordan-Tank leads the Bank's EUR 40m Infrastructure Project Preparation Facility (IPPF) dedicated to improving the quality and efficiency of project preparation for both PPPs and sustainable infrastructure projects in the public sector, building local capacity, and providing policy advice to the Bank's clients. Previously, he was Senior Urban Transport Specialist at EBRD from 2007-2013, where he focused on both private and public sector urban transport projects. Prior to joining EBRD in 2007, he worked as a Transport Specialist for Inter-American Development Bank in Washington, DC and San Jose, Costa Rica from 1999-2007. He holds a Masters in Planning from the University of Maryland, USA.

Aijaz Ahmad

Senior Public Private Partnerships Specialist, Infrastructure, PPPs and Guarantees, World Bank

Aijaz Ahmad, currently working as a Senior Specialist with the Public Private Partnerships (PPPs) Group at the World Bank, has over 20 years of experience in project finance, infrastructure development, PPPs and privatization. Prior to joining the Bank, Mr. Ahmad was the Chairman and CEO at Pangea Growth Ltd. providing project finance and PPP advisory services in the Middle East and South Asia markets. Before this he was the CEO of the Infrastructure Project Development Facility – a company owned by the Federal Finance Ministry of Pakistan to act as its central PPP unit. Ahmad was also the founding member and acting Head of the PPP Unit in the National Treasury of South Africa. Earlier he was a Program Advisor with the Privatization Commission of Pakistan, after launching the first private sector airline of Pakistan in the capacity of the airline's Vice President, Corporate Affairs.

Matt Bull

Senior Infrastructure Finance Specialist, GIF

Matt Bull began his career as a transport economist with the international consultancy firm Steer Davies Gleave, where he worked as a traffic advisor on various transport public-private partnership (PPP) projects for a range of global clients. He joined PwC's UK Corporate Finance team in 2007, to provide financial and deal structuring advice on both the "sell side" and "bid side" of a range of big-ticket PPP and private-finance initiative (PFI) transactions. He joined the World Bank's Public-Private Infrastructure Advisory Facility (PPIAF) in 2011, serving as its transport-sector specialist until he was appointed acting manager in 2014. He recently joined the Global Infrastructure Facility (GIF), a major global-funding platform for infrastructure projects housed at the World Bank, within which developed-country governments, MDBs and leading infrastructure investors collaborate to finance improved infrastructure in emerging and developing economies. Bull holds an MA in transport economics from the University of Leeds' Institute for Transport Studies.

Syed Afsor H. Uddin

CEO PPP Authority, Bangladesh

Syed Afsor H Uddin is the CEO of the PPP Authority under the Prime Minister's Office, Government of Bangladesh. He was appointed in January 2012 to lead the implementation of a renewed PPP program in Bangladesh. Uddin started his career as a fast track entrant to the British Civil Service. He was a Senior Policy Advisor in the PPP/PFI team at HM Treasury prior to joining PWC (UK) in 2007 as a management consultant providing public sector agencies advice on PPP projects. Uddin completed his LLB (Hons) at the London School of Economics and specialized in Banking and Finance Law during his LLM degree before being called to the Bar from Lincoln's Inn in 1996. As CEO of the PPP Office, Uddin has spearheaded changes to the institutional and procedural framework in government to enable the development of a pipeline of thoroughly developed PPP projects within a structured time frame.

Yukiko Omura

Non-Executive Director, Private Infrastructure Development Group (PIDG)

Yukiko Omura is a Non-Executive Director of the Boards of Assured Guaranty Ltd. and GuarantCo of the Private Infrastructure Development Group (PIDG), Nishimoto HD Co Ltd., and on the Supervisory Board of Amatheon Agri Holding N.V. She is also on the Advisory Boards of CG/LA Infrastructure. She sits on the Finance and Risk committees for Assured Guaranty, chairs the Asset and Liability Management Committee and sits on the Audit and Credit Committees for GuarantCo. She was formerly the Under-Secretary General/Vice President and COO at the International Fund for Agricultural Development (IFAD) based in Rome and prior to that the Executive Vice President and CEO of the Multilateral Investment Guarantee Agency (MIGA) of the World Bank Group based in Washington, D.C. She has a Bachelors degree in Economics from London University and a Masters degree in Development Economics and a second Masters degree in Political Economics from Boston University.

Clemente del Valle

President, Financiera de Desarrollo Nacional (FDN)

Clemente Del Valle, as President of Financiera de Desarrollo Nacional (FDN), a majority government-owned infrastructure-development bank, is responsible for transforming the institution into a catalyst for infrastructure financing in Colombia. He worked in the World Bank Group during two periods 1997-2002 and 2006-2012. Del Valle worked also as Chairman of the Colombian Securities Regulator in 2002. Between 1989 and 1997 he held prominent positions in Colombia such as: General Director of Public Credit of the Ministry of Finance; Managing Director of capital markets of Corporación Financiera del Valle, a local leading Investment Bank; and General Director of Foreign Trade and Deputy Vice minister at the Ministry of Industry and Trade. Del Valle earned a M.Sc. in Economics with emphasis in Monetary Economics from the London School of Economics and from Los Andes University in 1989 and 1984, respectively. He received his B.Sc. Degree in Economics from Los Andes University in 1982.

Stephen C Beatty

Head of Global Infrastructure (Americas and India), KPMG

Stephen Beatty is KPMG's Head of Global Infrastructure for the Americas and India, and is based in Canada. He is also Chairman of KPMG's Global Cities Center of Excellence. He has a Bachelor of Business Administration from Wilfrid Laurier University and an MBA with honours from York University. With over 31 years' experience working with KPMG, Beatty is a well-recognized expert in public infrastructure projects – advising both public and private sector clients. Beatty has led many major infrastructure transactions and has advised both public and private sector clients extensively in infrastructure strategy, transportation planning, PPP policy development and project financing. Beatty's recent speaking engagements have included 2016 and 2015 City Age: Build the Future conference, 2015 KPMG Island Infrastructure Summit, Hyderabad Air Show CEO Forum, National Workshop on Gas in Delhi, the WEF LATAM Summit 2017, and the WEF India Summit 2017.

George Richardson

Director/Global Head of Capital Markets, World Bank Treasury

George Richardson, Director of Capital Markets at the World Bank Treasury, manages the World Bank's funding program in global capital and derivatives markets. His department also carries out the financing and liability management programs, manages credit rating agencies and investor relationships, designs and implements trades to manage the risks on IBRD and IDA's balance sheets, and develops and implements innovative and creative products, which bring business value to IBRD country clients. Prior to his appointment as Director, he was Head of Capital Markets since joining the Capital Markets group of the World Bank Treasury in August 2006. Before joining the World Bank, he was Executive Director at Goldman Sachs. He also has previous experience as a commissioned officer in the United States Navy and flew reconnaissance aircraft. He holds an MBA from Boston University, and degrees in Finance from London Business School, and Aeronautical Engineering from the Ohio State University.

Valentina Antill

Managing Director-Americas Structured Solutions Co-Head, Citi

Valentina Antill is Managing Director in Citigroup's Global Markets division, where she heads strategic risk and derivative solutions for the Americas. Her expertise is designing and execution of structured funding and risk management solutions, predominantly in the emerging markets (LATAM) and custom-tailored for the multinational corporations and supranational organizations. Throughout her 23-year career at Citigroup, Antill has designed landmark derivative solutions — facilitating cross-border investment in emerging markets, as well as opening the emerging capital markets to foreign issuers. She executed first derivatives currencies and credits of Central America, the first "exotic" (e.g. cancellable and bond-contingent) swap structures on Latin American interest rates and loans with embedded derivatives. Antill earned "Latin Finance Magazine" Best Derivative Transaction of the Year Award. Antill graduated from the Yale School of Management (Yale University scholarship) and earned a BA from the University of Economics in Zagreb, Croatia.

Fuat Savas

Executive Director, Infrastructure Finance and Advisory, JP Morgan Chase

Fuat Savas is an Executive Director in J.P. Morgan's Infrastructure Finance and Advisory ("IFA") team, focusing on emerging markets. As a part of this role, Savas originates, structures and syndicates financings across a range of infrastructure asset classes including transportation, energy, oil & gas and social infrastructure. Savas also works with national and international public sector entities to design PPP frameworks and other initiatives aimed at mobilizing private capital for infrastructure development. Prior to joining the IFA team, Savas led J.P. Morgan's Development Finance Initiative, working with multilateral and bilateral development agencies to mobilize institutional investors for developmental projects in low and middle income countries. Before starting the Development Finance Initiative, Savas was a Vice President in the Government and Transportation Finance group, originating, structuring and marketing obligations guaranteed by the U.S. Government in support of public policy goals. Savas holds a BA in Economics and Literature from Yale University.

Anderson Caputo Silva

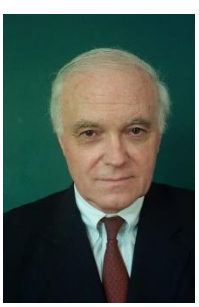
Lead Financial Sector Specialist, Finance & Markets, World Bank

Anderson Silva is Lead Financial Sector Specialist in the Finance & Markets Global Practice of the World Bank Group. He joined the World Bank in 2006 and has been actively engaged in the coordination and implementation of Capital Market Development projects in several Emerging Markets around the world, with special focus on advisory services and design of financial solutions for bond markets and infrastructure financing. Silva also leads the World Bank's Government Bond Market Development Product Line. Prior to joining the World Bank, Silva worked for the Brazilian Treasury from 1993 to 2005, where, among others, he served as Head of the Public Debt Strategic Planning Department of the Brazilian Treasury (2001-2005). Silva is co-editor of the book "Public Debt: The Brazilian Experience" and regularly publishes policy papers on topics related to capital markets. He holds a Ph.D. degree in Finance from the University of Illinois at Urbana-Champaign.

Harald Hirschhofer

Senior Advisor, TCX Investment Management Company

Harald Hirschhofer is a trained macro-economist. He joined TCX in 2008 to implement a macro-fundamental based pricing approach for frontier markets. Today, Hirschhofer works directly with the CEO to onboard investors and develop and implement strategic initiatives, such as the Comprehensive Risk Mitigation Mechanism for Solar PV investments. Earlier, Hirschhofer was part of the start-up effort for Mantis BV, a macro-risk-quant firm for frontier and emerging market investors. From 1994 to 2008, he worked at the IMF, and before that at the US House of Representatives and a London investment bank.



Bob Shepard

Consultant, GIF

Bob Sheppard is an attorney and former investment banker who was previously co-head of the Global Project Finance Group at Bank of America. His experience includes structuring project finance loans and bonds, as well as managing the syndication of project finance bank loans. As a consultant, he has worked extensively with development agencies, including the World Bank, the United Nations, the African Development Bank, and the Millennium Challenge Corporation, and he continues to works as a financial advisor to private sector clients. He teaches international project finance in the MBA program at the University of South Carolina and in 2010 – 2011 was a visiting scholar at Stanford University. He holds a JD, MBA, and an MA in European history from the University of North Carolina at Chapel Hill.

Global Infrastructure Facility

GIF 2017

ADVISORY COUNCIL MEETING

PARTICIPANT LIST

October 11, 2017

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World Pension Council	Nicolas J. Firzli	Director-General
	Dominik Kremer	Director, Research and Outreach Committee (ROC)

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China	YE Jiandi	Director, International Financial Institution Division I
	WANG Yong	Deputy Director, International Financial Institution Division
	Zhang Lei	Deputy Director of International Department
	ZHANG Ji	International Financial Institution Division I
	GAO Yuanhou	International Financial Institution Division I
Japan	Toshihisa AOYAGI	Section Chief, MDBs Division, International Bureau, Ministry of Finance

Singapore	Kathy Lai	Deputy CEO
	Jessica Bin	Manager
World Bank	Jordan Schwartz	Director, Infrastructure, PPPs and Guarantees

TECHNICAL PARTNERS

African Development Bank (AfDB)	Olivier Eweck	Manager, Client Solutions Division
	Amadou Oumarou	Director, Infrastructure & Urban Development
Asian Development Bank (ADB)	Almazbek Galiev	Principal PPP Specialist
Asia Infrastructure Investment Bank (AIIB)	Bin Wang	Senior Officer
European Bank for Reconstruction and Development (ERBD)	Matthew Jordan-Tank	Head of Infrastructure Policy & Project Preparation
European Investment Bank (EIB)	Carlota Cenalmor	Deputy Representative of the European Investment Bank to the United States
International Bank for Reconstruction and Development (IBRD)	Laurence Carter	Senior Director, Infrastructure, PPPs and Guarantees
	Olivier P. Fremond	Adviser
Inter-American Development Bank (IADB)	Gian Franco Carassale	Lead Investment Officer
	Jose Luis Irigoyen	Infrastructure Operations Advisor
International Finance Corporation (IFC)	Isabel Chatterton	Manager
	Adam Schwartzman	Global Upstream Manager, Infrastructure
Islamic Development Bank (IsDB)	Mohamed Hedi Mejai	Director, Enterprise Development Department

BENEFICIARY PARTNERS

India	Santosh Vaidya	Senior Advisor to Executive Director, WBG
Philippines	Maria Edita Z. Tan	Assistant Secretary, Department of Finance

GOVERNMENT OFFICIALS

Argentina	Candelaria Alvarez Moroni	Coordinator, Ministry of Economy and Public Finances
Bangladesh	Syed Afsor H. Uddin	CEO PPP Authority
Brazil	Henrique Pinto	Secretary, Public Policy Coordination, Investment Partnerships Program
Nigeria	Chidi Izuwah	Director General of the Infrastructure Concession Regulatory Commission
United States of America	Mathew Haarsager	Special Assistant to the President for Global Economics and Finance

OBSERVERS

Center for International Climate Research	Harald Francke Lund	Senior Advisor
The Geneva Association	Dr. Maryam Golnaraghi	Director of Extreme events and Climate Risks Program
KPMG	Stephen C Beatty	Head of Global Infrastructure (Americas and India)
Liberty Specialty Markets	Edith Quintrell	Underwriting Development Director – Global Financial Risks
Milken Institute	Staci Warden	Executive Director
	Aron Betru	Managing Director, Center for Financial Markets
Moody's Investor Service	Jim Hempstead	Managing Director, Global Project & Infrastructure Finance
	Andrew Davison	Senior Vice President, Infrastructure Finance Group
Standard & Poor's	Susan Gray	Global Head of Infrastructure
TCX Investment Management Company	Harald Hirschhofer	Senior Advisor

WORLD BANK GROUP

Abha Joshi-Ghani	Senior Adviser
Aijaz Ahmad	Senior Public Private Partnerships Specialist
Anderson Caputo Silva	Lead Financial Sector Specialist
Cindy Paladines	Economist and Young Professional
Diane Damskey	Adviser, Office of the MDCFO
George Richardson	Director, Capital Markets
Hart Schafer	Vice President
Joaquim Levy	Managing Director and WBG Chief Financial Officer
Jose Antonio Gragnani	Senior Financial Sector Specialist
Matheus Cavallari	Senior Advisor to Executive Director
Maximo Torero	Executive Director for Argentina, Bolivia, Chile, Paraguay, Perú and Uruguay
Morgan Landy	Director, ES&G Sustain. Advice & Solutions
Nena Stoiljkovic	Vice President
Pankaj Gupta	Practice Manager, Financial Solutions
Samuel Munzele Maimbo	Practice Manager, Finance & Markets

GIF

Jason Zhengrong Lu	Head
Bayo Oyewole	Lead Partnership Specialist
Matt Bull	Senior Infrastructure Finance Specialist
Towfiqua Hoque	Senior Infrastructure Finance Specialist
Edwin (Hin Lung) Yuen	Senior Infrastructure Finance Specialist
Rob Pilkington	Infrastructure Specialist
Michael Tran	Infrastructure Specialist

Shuai Ren	Analyst
Lauren Wilson	Infrastructure Analyst
Rui Ma	Operations Analyst
Bob Shepard	Consultant
Neeli Shah	Consultant
Aline Sanchez	Consultant
Yvonne Carew	Program Assistant
Luningning L. Pablo	Temporary Assistant