



UK DEPARTMENT FOR INTERNATIONAL DEVELOPMENT
REVIEW OF THE NICHE AND MARKET IMPACT OF THE PRIVATE INFRASTRUCTURE
DEVELOPMENT GROUP INVESTMENTS

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Submitted by:

Cambridge Economic Policy Associates Ltd



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1. ACRONYMS AND ABBREVIATIONS

Acronym/ Abbreviation	Description
AADL	Aldwych Africa Development Ltd
ADA	Austrian Development Agency
ADB	Asian Development Bank
AfDB	African Development Bank
ASI	Adam Smith International
CDC	UK's Development Finance Institution
CGIF	Credit Guarantee and Investment Facility
CMO	Central Management Office
COMESA	Common Market for Eastern and Southern Africa
CP3	Climate Public Private Partnership Programme
DAC	Development Assistance Committee
DEG	German Investment and Development Corporation
DevCap	Development capital
DFAT	Australian Department of Foreign Affairs and Trade
DFI	Development Finance Institution
DFID	Department for International Development
DGIS	Netherland Ministry of Foreign Affairs
DI	Development indicators
DSRA	Debt service reserve account
EAIF	Emerging Africa Infrastructure Fund
ESG	Environmental social governance
FAIR	Frontier Africa Investment Resource
FCAS	Fragile and Conflict Affected States
FMFM	Frontier Markets Fund Managers
FMO	Netherlands Development Finance Company
FX	Foreign currency
GAP	Green Africa Power
IAfD	InfraCo Africa Development
IAI	InfraCo Asia Investments
IAM	Investec Asset Management
IAsD	InfraCo Asia Development
IATA	International Aid Transparency Initiative
IBRD	International Bank of Reconstruction and Development
IDA	International Development Assistance
IEMF	Infrastructure Equity & Mezzanine Facility

Acronym/ Abbreviation	Description
IFC	International Finance Corporation
IMT	Internal Management Team
IPP	Independent Power Producer
JICA	Japanese International Cooperation Agency
KFW	German government-owned development bank
LCF	Local Currency Facility
LSE	London Stock Exchange
MDB	Multilateral Development Bank
MGF	MIGA Guarantee Facility
MIGA	Multilateral Investment Guarantee Agency
NIAF	Nigerian Infrastructure Advisory Facility
NSIA	Nigeria Sovereign Investment Authority
ODA	Overseas Development Assistance
PAC	UK Public Accounts Committee
PCG	Partial Credit Guarantee
PIDG	Private Infrastructure Development Group
PMCL	Pakistan Mobile Communications Limited
PPA	Power Purchase Agreement
PPDU	Project Preparation and Development Unit
PPI	Private participation in infrastructure
PRG	Partial Risk Guarantee
PSW	Private Sector Window
RMF	Risk Mitigation Facility for Infrastructure
SADC	Southern Africa Development Community
SECO	Switzerland State Secretariat for Economic Affairs
SIDA	Swedish International Development Cooperation Agency
SME	Small and Medium Enterprise
SSA	Sub-Saharan Africa
TAF	Technical Assistance Facility
TIC	Total investment commitments
ToR	Terms of reference
UK	United Kingdom
USD	US dollar
USP	Unique selling point
VfM	Value for money
WBG	World Bank Group

2. EXECUTIVE SUMMARY

The objective of the assignment is to evaluate the Private Infrastructure Development Group's (PIDG) unique selling point (USP), its value for money (VfM), and transformational impact, in the context of the preparation of the Department for International Development's (DFID) next funding cycle for PIDG. DFID's current business case for PIDG ends in March 2018 and DFID is currently determining where and whether to deploy its funding including development capital (DevCap) to PIDG. The purpose of the study is to help inform DFID's decision making and we were asked to look at both PIDG as a whole (including the new One PIDG structure) and the facilities on an individual basis.

2.1. USP

What differentiates PIDG from others operating in the market is the **concentration of its activities at the frontier**. As set out in the PIDG strategy review done by McKinsey, being at the frontier can be seen as **being at the forefront of what is currently possible in a given context**. Conceptually, utilising the concept of a frontier, it is also possible to see what it can mean to be either behind or indeed in front of the frontier.

Being behind the frontier involves undertaking activities that the private sector can probably do itself – increasing the risk of crowding out. Interventions can also be ahead of the frontier, in which they are trying to do too much, being overly ambitious. Symptoms of this can include projects that take a very long time to proceed, typically with very high transaction costs. By being in front of the frontier there can be a lot of waste because things are simply too difficult, typically because there are so many cross-dependencies that need to be addressed for the project to reach financial close.

Appropriate interventions are therefore those which, even if only incrementally, move the frontier forward - in this sense, the frontier also defines **additionality**. Success of a transformational project or programme may also shift the frontier and therefore make a market (as has happened in mobile telephony; renewable power; and trade/transport corridors). It is important to have a good view of where the frontier is in a given context and therefore what is possible, which may require some trial and error.

There are different ways in which working at the frontier can manifest itself, along three key dimensions:

- **What:** in terms of the activities being supported, including:
 - **stages of the infrastructure project cycle:** this has a declining risk profile over its life from early stage to late stage project development, construction and then operations – the financing of operational projects being much easier than greenfield; and
 - **types of project:** those with significant **technology** and **market risk**, will be more challenging than those based on off-take or availability based payment structures.¹
- **Where:** in terms of the types of countries in which projects are being undertaken (noting that it is possible to have enclave projects that have particular stand-alone features that can reduce risk, such as FX revenues arising from exports).
- **How:** including:
 - how customer responsive the approach is;
 - the extent to which local sponsors, financial institutions and advisors are involved in the financing as opposed to something that is largely international;

¹ In an availability structure the asset provider is paid based on the performance of the infrastructure not based on the demand for it.

- the role of local currency financing in total financing as opposed to exclusively FX based; and
- the extent to which the financing approach adopted provides for maximising local participation, including the creation of refinancing opportunities.

Operating at the frontier (or ahead of it) involves taking more risk than being behind it. It can also involve incurring large costs for little progress.

A greater proportion of PIDG activities are taking place at, or near, the frontier than most comparator Development Finance Institutions (DFI), across different, “where”, “what” and “how” dimensions. The precise nature of the positioning at an individual facility level does, however, differ across these. Overall, PIDG is different to DFIs and other comparators operating in infrastructure owing to its major focus on **greenfield** private infrastructure provision in **DAC/II countries** and **FCAS**. Stakeholders appreciate the flexible approaches of the individual facilities, noting they are **nimble, quick and less bureaucratic than the traditional DFIs** who are **typically larger, more conservative** and who **need to make a return on their capital**, and according to stakeholders can show a **lack of responsiveness** to clients’ needs compared with PIDG.

Table 2.1: Summary of PIDG and the individual facilities’ USP

PIDG overall
<ul style="list-style-type: none"> ● Leading multilateral institution with a unique focus on private sector infrastructure development and financing. ● Major focus on greenfield infrastructure provision in DAC I/II countries and FCAS compared to other DFIs working in this space. ● Nimble, quick and less bureaucratic than traditional DFIs and willing to be flexible in addressing the needs of clients.
InfraCo Africa Development (IAfD)
<ul style="list-style-type: none"> ● Early stage project development assistance operating at the frontier in terms of geography, greenfield focus, and entry point - very early in the project life cycle. ● Exclusive focus on infrastructure in SSA.
InfraCo Asia Development (IAfD)
<ul style="list-style-type: none"> ● Early stage project development assistance operating at the frontier in terms of geography, greenfield focus, and entry point - very early in the project life cycle. ● Exclusive focus on infrastructure in South Asia and South East Asia. ● According to stakeholders, more proactive and responsive than others operating in the same space.
Emerging Africa Infrastructure Fund (EAIF)
<ul style="list-style-type: none"> ● Only hard-currency debt provider solely focused on private infrastructure financing in SSA. ● Works at the frontier in terms of geography (DAC I/II, FCAS) and greenfield focus. ● Will enter the project life cycle earlier than other DFIs to make sure the transaction process runs smoothly. ● According to stakeholders, EAIF is more nimble, professional, and less burdensome than other lenders in this space.
GuarantCo
<ul style="list-style-type: none"> ● Provision of local currency debt guarantees with exclusive focus on infrastructure. ● Much more active than other institutions capable of providing local currency guarantees.

- Focus on developing local capital markets outside of individual projects (e.g. InfraCredit).
- According to stakeholders, very pro-active, professional and efficient.

Green Africa Power (GAP)

- Provision of intermediate capital to viable renewable power projects in SSA which would otherwise struggle to progress.

DevCo

- Pushes IFC Advisory Services to do more work at the frontier (i.e. in DAC I/II countries and FCAS).
- Provides a turnkey solution to governments for developing transparently tendered and bankable projects
- Focus on mid-to-late stage Public Private Partnership (PPP) technical assistance (TA) and to a lesser extent provides some upstream support to undertake project and pipeline identification, and pre-feasibility and feasibility studies.
- More responsive to government requirements than other PPP TA funds (i.e. which are not delivered through IFC Advisory Services).

The Technical Assistance Facility (TAF)

- Provides TA grants for project counterparts, including the private sector, and works further upstream than many other project preparation facilities (PPFs).
- Dedicated to the PIDG facilities, so more flexible, timely and reactive to their needs than comparators.
- Offers highly unique capex grant support in the form of Viability Gap Funding (VGF).

Source: CEPA analysis.

Given that the target risk in an investment portfolio needs to be underpinned by capital that can tolerate this, the PIDG facilities can take the positions they do due to the nature of the **first loss capital that supports such activities. This absorbs risk without fully pricing for it** and its existence means that senior ranking participants do not have to price as highly as they would if investing/ lending directly in projects. Such capital has enabled DFIs to increase their risk exposure by lending to the PIDG facilities, with PIDG capital providing protection against impairment of their own capital.

2.2. VFM

In response to the recommendations made by the NAO, and a recent Evaluability Report, and additional investment by donors in the central monitoring and evaluation (M&E) function, PIDG is undertaking a series of activities set to improve how it measures its impact. Once these measures are implemented, developing a more accurate picture of PIDG's VFM will be possible. To date there has been a natural focus on the individual facilities and projects but less on the intervention portfolio across PIDG and the impact on the development of infrastructure finance markets. It is also clear from the literature review and stakeholder consultations, that the quality and relevance of the evidence base to inform a comprehensive VFM, particularly one that aims to rank facilities or PIDG overall against other comparable infrastructure platforms, is insufficient.

As things stand, the main challenges in undertaking a VFM analysis given the data currently monitored are comparability in what the facilities do; and the development indicators (DIs) and total investment commitments (TICs) associated with transactions. The DI indicators remain predicted or estimated - depending on how far along the project is - rather than actual and are still only partially subject to independent verification through an evaluation programme or third party sources. Attribution is also an issue with the default "claim" to all the TICs in a transaction (a problem common to all DFIs not just PIDG) and possible distortion by some high impact "outlier" projects. All

benefits are not the same and need context, particularly for difficult projects in difficult places or markets. In response to these challenges, the previous VfM reviews have tended to focus on governance, financial management and transparency issues as they are more straightforward to assess.

For this study, the high level strategic question of whether PIDG represents good VfM was assessed using the **3Es model of Economy, Efficiency and Effectiveness**.

PIDG’s use of competitive procurement and recruitment processes, including recent tenders for the CMO, the fund management contracts for GuarantCo and EAIF, and for developers’ contracts for IAsD and IAfD demonstrate that PIDG’s key costs are subject to competitive pressure and should **represent VfM from an Economy perspective**. Previous VfM analyses have shown the PIDG facilities to have performed well or improved over time on Economy.²

From an **efficiency perspective PIDG performs well against its logframe targets**. For 2012 to 2015, for all years except 2013 when it gained a weighted B score it has been given an A; the overall level of risk has remained medium. At the facility level, what is evident is the unpredictability of working in frontier markets and how the performance scores vary from year-to-year over the four year period.

PIDG is effective in achieving its outcomes. As Table 2.2 shows the amount of private sector and DFI/IFI investment mobilised per dollar of commitment, both at the facility level and PIDG overall is significant. As shown, both DevCo and IAfD projects have relative high amounts of private sector and DFI/IFI investment on a per dollar basis compared to other facilities. This is driven by a handful of large transactions, plus the low levels of support these facilities provide to individual projects, particularly relative to the credit facilities. Taking the commitments of all the facilities in the table, **for each dollar of investment eleven dollars of private sector finance and three dollars of DFI/IFI finance are expected to be mobilised as part of the projects supported**, which is mostly in line with EAIF’s per dollar leverage figures given that it represents almost two thirds of the PIDG commitments.

Table 2.2: Private sector and DFI/IFI investment mobilised by facility (predicted)³

Facility	Private sector		DFI/IFI	
	Total investment	Investment per US\$ of PIDG commitment	Total investment	Investment per US\$ of PIDG commitment
DevCo	US\$6.1bn	US\$363	US\$0.2bn	US\$13
EAIF	US\$10.2bn	sUS\$9	US\$5.9bn	US\$4
GuarantCo	US\$4.3bn	US\$6	US\$0.8bn	US\$0.8
IAfD	US\$1.4bn	US\$43	US\$0.6bn	US\$19
IAsD	US\$0.2bn	US\$7	US\$0.1bn	US\$5
Total for facilities	US\$22.2bn	US\$11	US\$7.7bn	US\$3

Source: Data provided by the PIDG CMO to CEPA on 28 February 2017 titled “Q_Intervention_All for CEPA.”

2.3. Transformational impact

Transformational impact is the extent to which an intervention is fundamentally market-making or transformative rather than simply a project transaction that has development benefits as well as being bankable. A literature search and internal document review has shown a wide use of terms or concepts – ranging from “high development

² We reviewed the DFID annual reviews, and the previous evaluations referenced in Annex J.

³ Note that TAF and InfraCo Asia Investments (IASI) commitments have been excluded to avoid double-counting. GAP has been excluded given that only one transaction has been completed to date. ICF-DP figures have also been excluded because the facility is winding down and DFID does not provide support to ICF-DP. For all the included facilities, PIDG commitments from the DFI/IFI figures have been removed to avoid double-counting.

intensity” to “demonstration” or “frontier” or, as above, “transformational.” There needs to be a standardisation of use of terms in line with international M&E best practice. It also needs to be systematically reported on given PIDG objectives of progressively reducing market failures.

Historically the PIDG facilities were set up and operated based on independent, contracted out delivery of investment policies that were targeted at a specific market failure; in a sense they were deliberately siloed and the PIDG central management and administrative capacities minimised. This less coordinated approach did not encourage cooperation or clustering by geography, sector, or project. Under the One PIDG business model the aim is be more coordinated– with target countries, embedded advisers for pipeline development, greater cooperation in project development and origination with DevCo, TAF, and the InfraCos, and overall a more centralised joined up PIDG branded strategy. **A transformational impact is clearly more likely under the One PIDG model than the current business model.**

There is, however, still strong evidence that the existence of the PIDG facilities has led to others undertaking new interventions. For example, the IFC created InfraVentures which is modelled on the InfraCos. IAsD’s Coc San Hydro Power project provided the rationale for the World Bank Group’s (WBG) Renewable Energy Development Programme in Vietnam subcomponent which offers a re-financing facility to participating commercial banks for loans to eligible renewable-based projects developed by private sponsors. GuarantCo’s work - particularly in Pakistan, India and Nigeria - is seen as innovative and helping shift the frontier around local currency guarantees/ financing and capital markets development; its activities are seen by peers and stakeholders as potentially transformative in bringing in additional financing sources and helping de-risk countries and projects.

Stakeholders noted that PIDG has pushed DFIs out of their natural comfort zone and through its various facilities assisted them to work in places and on transactions they would have previously bypassed. On an individual facility/transaction basis there are a number of examples of transformational impact.

While it is important to consider the counterfactual – in the absence of PIDG, what would have happened – in proving transformation, it is difficult to say whether something would have simply happened later without PIDG or not at all. Stakeholders however, noted that a number of PIDG initiatives and projects have been pioneering and have influenced their own behaviour at both the transaction level where they engaged with PIDG and in future transactions.

3. INTRODUCTION

3.1. Objective

The objective of this review is to provide the UK Department for International Development (DFID) with an evidence base on whether the Private Infrastructure Development Group's (PIDG) work continues to target the right markets, represents good value for money (VfM), and has had a transformational impact. It is also to review the development finance architecture to advise whether PIDG's niche at the frontier of private sector investment in the poorest geographies (DAC I/II) and Fragile and Conflict Affected States (FCAS) is still unique or whether other institutions have moved into this space and might provide better VfM for United Kingdom (UK) funding.

3.2. Context

3.2.1. What end point are interventions seeking to reach?

Logically, this would appear to be for infrastructure private finance markets to develop to a point where they are more akin to Organisation for Economic Co-operation and Development (OECD) member countries' infrastructure markets in which **long term local currency finance** is available for infrastructure projects in both credit and capital markets and in which **governments have the ability to originate and transact** projects.

From a policy perspective, the key objective of private financing is to free infrastructure provision from constraints arising from the relatively limited financing capacity of government balance sheets and in doing so, transferring commercial (including performance) and financing risks away from government.⁴ It is not necessarily about increasing the role of the private sector in service delivery per se, although this may be a necessary condition for raising private finance.⁵

A developed private finance market for infrastructure has the following characteristics:

- **Project origination:** strong government (national, sub-national and regional) capacity to identify, structure and transact projects – leading to better VfM for users of and / or payers for infrastructure services.
- **Sponsors:** solid local private sector project sponsorship either bidding alone or with international expertise for project opportunities.
- **Legal and other advisory support:** strong local, cost effective, participation in transactions.
- **Financial structures:** a mix of corporate⁶ and project financing⁷ reflecting what is most efficient given the project type and size.

⁴ Financing risks include risks associated with exchange rate and interest rate fluctuations.

⁵ CEPA, 2015. Mobilising finance for infrastructure: A study for the UK Department for International Development.

⁶ "Corporate financing involves getting finance for a project based on the balance sheet of the private operator rather than the project itself. This is typically the mechanism used in lower value projects where the cost of the financing is not significant enough to warrant a project financing mechanism or where the operator is so large that it chooses to fund the project from its own balance sheet. The benefit of corporate finance is that the cost of funding will be the cost of funding of the private operator itself and so it is typically lower than the cost of funding of project finance. It is also less complicated than project finance. However, there is an opportunity cost attached to corporate financing because the company will only be able to raise a limited level of finance against its equity (debt to equity ratio) and the more it invests in one project the less will be available to fund or invest in other projects." (Definition from the WBG PPP in Infrastructure Resource Center)

⁷ "Project finance is the financing of long-term infrastructure, industrial projects and public services based upon a non-recourse or limited recourse financial structure, in which project debt and equity used to finance the project are paid back from the cash flow generated by the project." (Definition from Investopedia)

- Financing:
 - **Equity** – mix of local and international equity (the latter bringing international expertise and know-how with it).
 - **Debt** – much greater role for
 - **local banks** lending in **local currency** taking construction risk, but recycling capital thereafter; and
 - **deep long-term local capital markets providing local currency**, with a range of liquidities (with lower liquidity attracting a higher premium for investors).
- **Financing life cycle**: optimising the match between project and company financing requirements with the most appropriate forms and sources of finance; for example -
 - the provision of **flexible credit market draw-down loan facilities** at financial close which can be drawn on during the construction phase of projects, bringing specialist understanding of construction and other risks;
 - availability of investment opportunities for less specialist **institutional investors** reflecting their typically more conservative appetites for operational and liquid assets in local currency (which matches assets with their pension and other liabilities); and
 - reducing the need for banks to lend long-term which creates issues under Basel III, enabling them to **recycle their capital**, targeting the early stages of financing where their credit analysis skills are most in demand.

3.2.2. What are the typical barriers to infrastructure development in PIDG markets?

The realities of the current market for infrastructure in developing countries presents challenges in terms of both **creating opportunities** and **financing them** in the most effective manner.

These problems arise both from **an inherent lack of development in markets**, but are also potentially **a result of unintended consequences of interventions** that become greater as markets begin to develop (for example, Development Finance Institutions (DFIs) holding investments to term therefore crowding out opportunities for local institutional investors to enter once assets are operational).

In terms of creating opportunities, there are many upstream barriers that need to be addressed. Political commitment, capable of surviving political cycles, to open up infrastructure markets to the private sector is a necessary pre-requisite. For instance, it is not uncommon for governments to retain control of infrastructure assets for a range of reasons. It is only with such commitment that legal and institutional superstructures can be put in place to support private infrastructure markets. Other upstream constraints include a country's level of political stability; the level of corruption; the quality of governance; the quality of the regulatory regime; economic stability (stable exchange rates, low and stable inflation); and importantly the ability of consumers to pay for infrastructure services (affordability).

Limited affordability will always restrain the amount of infrastructure that can ultimately be paid for (funded) whether out of government budgets where it is the payee or through user charges. For instance, utility off-takers in many countries struggle to pay for power purchases as their own customers have limited ability to pay. Whilst private financing can accelerate the provision of infrastructure assets it still ultimately needs to be funded from these sources. Whilst affordability will be primarily driven by economic growth, **introducing infrastructure on a cost-efficient basis, including minimising transaction costs, can improve affordability**.

In terms of financing, whilst creating currency mismatch risks typically borne by customers, long term foreign currency (FX) debt financing is often required, as local credit and capital markets cannot provide cost effective local currency financing for a number of reasons:

- local interest rates remain high;
- short term government borrowing can lead to volatility in, and inversion of, the yield curve, dis-incentivising longer term debt finance as well as crowding out private borrowers; and
- a lack of development of interest rate swap markets prevents the fixing of interest rates.

Whilst some FX will be likely required to pay for, say, foreign equipment, **a better balance of FX and local currency financing is a desirable target.**

But this will often not happen until it is forced. Not just because of the inherent difficulties in the provision of such finance by local credit and capital markets but often because of the role of DFIs in providing solely FX financing. Whilst this can appear to be more cost effective, where it is made available through project financing approaches it can come at the cost of:

- **Crowding out local currency financing where it is available** – with there being much more potential for corporately financed local listings (even though this may be more expensive) and especially for relatively small-scale financings, which would mostly be corporately financed elsewhere.
- Where project financings do take place, **holding debt to term** at the same interest rate as during construction **discourages refinancing** and therefore precludes a natural entry point for capital market finance.

A lack of **government-side institutional capacity and funding to develop projects leads to a reliance on unsolicited bids**, a common feature of the sub-Saharan African (SSA) context. There are several reasons why these can be problematic. First, rather than government establishing a market price for project rights they are acquired in a range of different ways, some of them opaque. Second, if there is no competitive dynamic involved in establishing project costs and returns, this can represent inferior VfM than would have been the case in a bid context.

Not all contexts are the same as regards possible detriments, however. Where the establishment of rights involves significant investment or the creation of hitherto non-existent intellectual property rights, rewarding each can be appropriate.⁸ Where the output of the investment is being sold into a competitive market this can create the appropriate competitive tension to achieve VfM. Establishing, say a feed-in-tariff (FiT) for power projects, though not as beneficial, can at least apply a ceiling to costs. In any event, governments often have to fall back on such approaches, the classic being in the case of an emergency shortage, of say, power. In the short term therefore, although not an ideal situation, it is a context within which practical solutions need to be found.

At a minimum of five per cent, **transaction costs** for infrastructure - a significant proportion of which are capitalised at financial close - **also contribute to the cost of infrastructure**. As there are significant economies of scale in such costs they are even more significant in the case of smaller projects. When this is combined with international advisory inputs – which DFIs typically rely on – the problem is compounded.

3.2.3. What barriers were the facilities set up to address?

PIDG was set up to address a series of market and government failures in attracting private sector investment to infrastructure in developing countries, specifically:

- a lack of bankable projects for investment;
- high upfront costs of project development;
- a shortage of long-term FX debt;
- a lack of local currency debt; and

⁸ Although ideally this would be unbundled from overall project returns.

- inadequate capacity and expertise in public and private sectors in some of the world's poorest countries.

EAIF has helped to address the shortage of long term FX debt, whereas GuarantCo has sought to encourage local currency financing. DevCo has helped support government origination of projects, whereas the InfraCos have sought to support the many unsolicited projects which countries have been reliant on. TAF – especially through VGF – has helped address affordability as well as funding aspects of the project development process. These market and government failures as well as limited affordability persist to different extents in the different countries and infrastructure sub-sectors in which PIDG operates.

PIDG is not the only entity occupying this space, with a range of institutions including traditional entities such as the DFIs, as well as bespoke interventions seeking to address these issues. To varying degrees they may occupy similar ground to PIDG. What differentiates PIDG, however, is the **concentration of its activities at the frontier**.

So what is the frontier and who is operating there? And why is exposure to it relatively limited?

3.2.4. What is the frontier from a private infrastructure financing perspective?

As set out in the PIDG strategy review done by McKinsey, being at the frontier can be seen as **being at the forefront of what is currently possible in a given context**. Conceptually, utilising the concept of a frontier, it is also possible to see what it can mean to be either behind or indeed in front of the frontier.

Being behind the frontier involves undertaking activities that the private sector can probably do itself – increasing the risk of crowding out. Interventions can also be ahead of the frontier, in which they are trying to do too much, being overly ambitious. Symptoms of this can include projects that take a very long time to proceed, typically with very high transaction costs. By being in front of the frontier there can be a lot of waste because things are simply too difficult, typically because there are so many cross-dependencies that need to be addressed for the project to reach financial close.

Appropriate interventions are therefore those which, even if only incrementally, move the frontier forward - in this sense, the frontier also defines **additionality**. Success of a transformational project or programme may also shift the frontier and therefore make a market (as has happened in mobile telephony; renewable power; and trade/transport corridors). It is important to have a good view of where the frontier is in a given context and therefore what is possible, which may require some trial and error.

3.2.5. What are the key dimensions of the frontier?

There are different ways in which working at the frontier can manifest itself, along three key dimensions:

- **What:** in terms of the activities being supported, including:
 - **stages of the infrastructure project cycle:** this has a declining risk profile over its life from early stage to late stage project development, construction and then operations – the financing of operational projects being much easier than greenfield; and
 - **types of project:** those with significant **technology** and **market risk**, will be more challenging than those based on off-take or availability based payment structures.⁹
- **Where:** in terms of the types of countries in which projects are being undertaken (noting that it is possible to have enclave projects that have particular stand-alone features that can reduce risk, such as FX revenues arising from exports).
- **How:** including:
 - how customer responsive the approach is;

⁹ In an availability structure the asset provider is paid based on the performance of the infrastructure not based on the demand for it.

- the extent to which local sponsors, financial institutions and advisors are involved in the financing as opposed to something that is largely international;
- the role of local currency financing in total financing as opposed to exclusively FX based; and
- the extent to which the financing approach adopted provides for maximising local participation, including the creation of refinancing opportunities.

Operating at the frontier (or ahead of it) involves taking more risk than being behind it. It can also involve incurring large costs for little progress.

It is possible to think of risk on both an individual project transaction and portfolio basis. Taking greater risk at an individual project level might involve, being the sole financier or undertaking it in a particularly challenging context. At the portfolio level, this might mean a concentration of challenging countries, types of project, or support to the riskier parts of the project cycle across the projects supported. The extent to which this is priced determines the concessionality involved. **The more unpriced risk in a portfolio the more developmental it can be seen to be. Portfolios that do not fully price for risk are inherently less sustainable.** Features can include:

- in the case of a project developer, not fully pricing for the risk in the overall portfolio and therefore being unable to recover the costs of the projects that fail;
- not pricing to reflect payment risks arising from limited affordability (which is sub-sector dependent and highest in water and sanitation);
- not pricing debt to reflect construction risk in a greenfield project; and
- a concentration of higher risk countries in a portfolio.

There are trade-offs between how sustainable and developmental an overall portfolio is. The greater the former the more self-financing it will be. The more the latter, the more likely it will need to ask its sponsors for additional support, given a likely higher default / capital impairment rate.

In turn this impacts upon the nature of the capital that is required to support it – **the greater the risk, and where this risk is not fully priced, the softer the capital supporting it needs to be.** The more developmental the less fully priced the risk or services provided are. This is essentially a subsidy.

Although DFIs can differ, they have tended to limit the extent of their exposure to higher risk countries and types of activity supported. And where they have exposures, they will likely be fully priced to reflect such risks (unless these risks can somehow be offset by credit enhancements, such as investing / lending through first loss capital).¹⁰

However, within their overall portfolios, all DFIs can claim that they have done individually difficult projects at the frontier. To obtain a real sense of where entities are positioning, it is important to look at their portfolios as a whole and where they sit relative to the frontier. The closer to the frontier the greater the risk.

DFIs that need to generate a higher return and/or maintain a standalone (i.e. without government support) credit rating will have a lower risk tolerance than those that do not. A common feature of DFIs is that they have the highest level of credit rating – typically higher than most banks.

3.2.6. What is PIDG's niche?

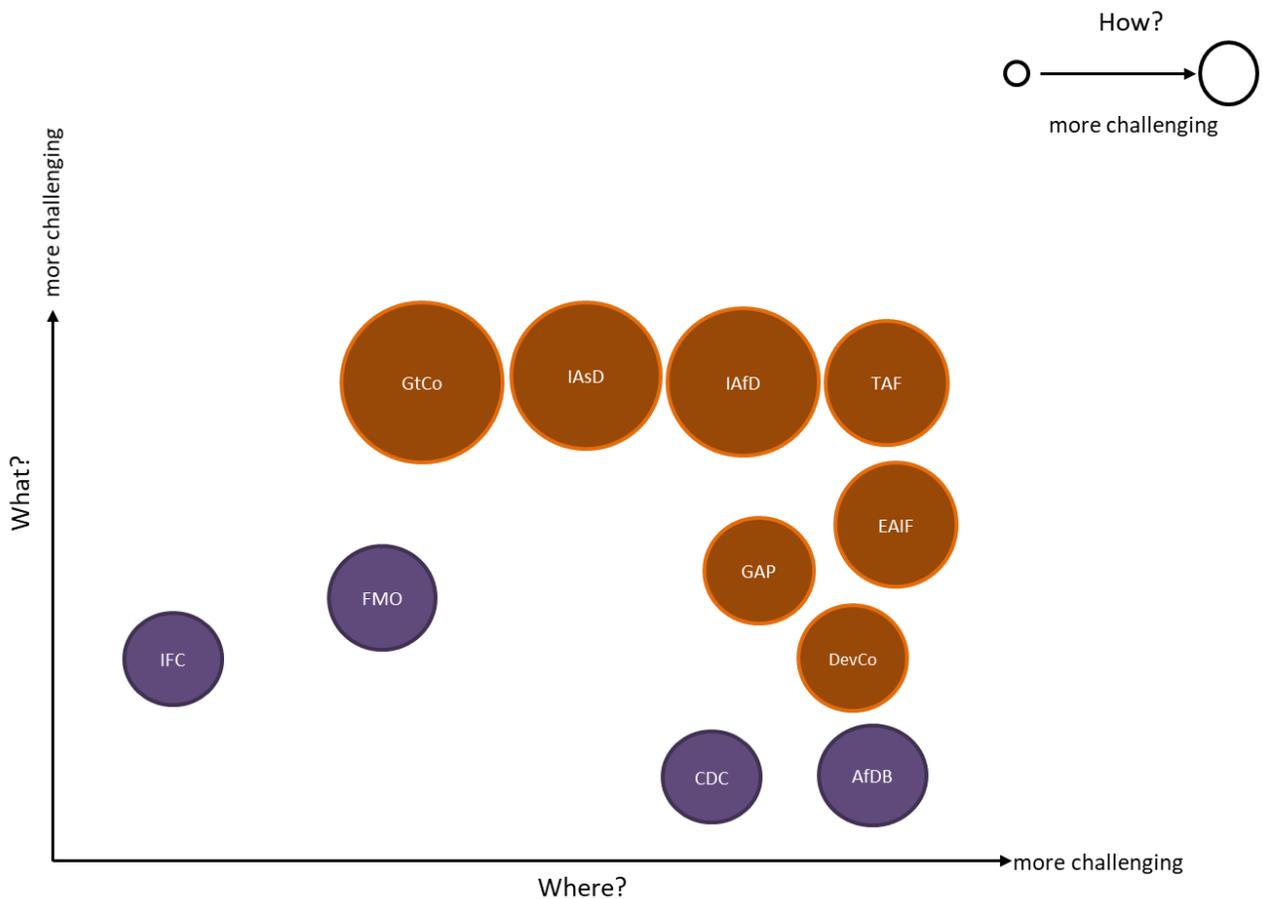
It is possible to compare PIDG with DFIs and between the PIDG facilities across these three dimensions, in terms of their overall portfolios. Of course, all institutions can move either closer to, or further away from, the frontier by changing their investment and operational policies. Thus, CDC (the UK's DFI) can be seen as moving closer to the frontier on the "where" dimension through its increased focus on Africa and South Asia.

¹⁰ The equity capital in many of the PIDG facilities is essentially first loss capital in that in the event of an impairment, this capital takes the hit before any other capital.

As regards the different PIDG facilities, all are clearly close to the frontier on the “where” dimension. GuarantCo is probably the furthest away given the major challenges in doing what it does in DACI/II countries and FCAS. As regards the “what”, the InfraCos are at the frontier in terms of taking early stage project development risk. On the “how” GuarantCo’s focus on local currency financing, which seeks to localise financing is much closer to the frontier than the DFIs.

On the whole, what marks out PIDG is the **concentration of activities undertaken at the frontier**. Figure 3.1 illustrates where we see the different PIDG facilities sitting across the *what*, *where* and *how* dimensions of the frontier relative to some of the major DFIs. Please note that the graph provides a very simplified illustration of the different dimensions. In reality, the nature of the different facilities operations and that of other DFIs is considerably different, which are difficult to fully capture in this simplified form, so it should be interpreted with caution.

Figure 3.1: Where do the PIDG facilities sit on the different dimensions of the frontier?



Source: CEPA analysis (at DFID’s request).

3.2.7. What are the options for the PIDG facilities and implications for their financing?

As set out, the facilities can be made more or less developmental depending upon where they sit on different aspects of the three dimensions. Whilst to a large degree this is donor choice it needs to be made cognisant of where the frontier sits. And the more developmental the portfolio, the softer the capital needs to be to support the activities in question.

For instance:

- EAIF is more developmental on the “where” spectrum compared with the DFIs, but there are ways as regards “how” it does things that could be more developmental. For instance, refinancing itself out of transactions – and creating more opportunities for private institutional investment - would set it apart from the typical DFI approach¹¹, which involves holding debt to term. This would, though, have risk in terms of removing successful transactions and revenue streams from its portfolio. It would also require a major change to its business model and fund manager agreement.
- GuarantCo is less risky from a “where” perspective, but it cannot get ahead of the frontier and to push it further would be counter-productive.
- From the perspective of all three dimensions, the InfraCos have a high degree of risk in their portfolios: the question is whether this is too much. A way of balancing this may be to allow them to invest more in the opportunities that they are creating, remain invested until the assets are at least operational, or to increase the size of project that they develop. Another way in which the InfraCos can be made more sustainable, would be to allow them to make follow-on investments for scale up after investing in the proof of concept stage (this however, would come at the expense of their additionality requirement, arguably making them less developmental).
- From a “what” and “how” perspective, DevCo could do more work upstream (“what”) and where possible try to use more local resources (“how”). Like GuarantCo, it would be counter-productive to push DevCo into countries that are not yet ready for the types of projects they support, nonetheless it may still be able to move a bit further along the “where” spectrum.
- TAF by definition exists in order to help the other facilities push the frontier. Its “where” “what” and “how” are determined by the projects pursued by the individual facilities.

3.2.8. Recent developments

An increased focus on development capital (DevCap)

DevCap investments are public investments (equity/debt/guarantees) made in the private sector to support development objectives. They create an asset on DFID’s balance sheet and the investment is therefore considered redeemable, in full or in part, with and without profits. Under HM Treasury rules they are a non-fiscal expenditure and do not impact public sector debt but do count as ODA (due to the targeted sub-market return).

Future business case or funding for PIDG may have to use a mix of DevCap investments rather than just grants as they have done historically.

CDC being the DevCap platform of choice for the UK government

CDC is the UK’s wholly publicly-owned DFI: it is a public limited company with DFID as the sole shareholder. It has a mission “to support the building of businesses throughout Africa and South Asia, to create jobs and make a lasting

Box 3.1 – Defining key terms

Grant - This is a permanent transfer of funding for a specific purpose and used in accordance with a set of terms and conditions. There is no expectation of the funds being returned to DFID.¹² Although the grants are recycled by the facilities.

DevCap – DFID is creating an asset on its own balance sheet. The investment objective is for at least the invested value to be returned, after intermediation costs have been taken into account. Creating this asset will mean that DFID has a legal right to reclaim any returns on its investment (principal, interest and dividends) and/or direct how those returns are to be used.

¹¹ There are examples of EAIF re-financing itself out of a transaction rather than holding to term. Examples include the Helios Towers loans where EAIF refinanced to take a lower participation in the bond issue and more recently voluntary pre-payment of Eaton Towers.

¹² While there is no expectation that the funds be returned to DFID they can be according to the Funders Agreement.

difference to people's lives in some of the world's poorest places".¹³ CDC works to provide "scarce and patient capital to businesses and entrepreneurs in Africa and South Asia" through funds of funds as well as direct investment. For direct investment, CDC is able to provide debt, equity, mezzanine finance and guarantees. Its total portfolio of investments was valued at £3bn at the end of 2015 and its portfolio of companies is valued at £3.9bn.

In February 2017, the Commonwealth Development Corporation Act 2017 was passed, which extended the Government's assistance to CDC from £1.5bn to £6.0bn, with the option to extend this to £12.0bn at the discretion of the Secretary of State.¹⁴

CDC is in the process of replacing its CEO and developing a new investment strategy. The last available Investment Policy is for 2012 through 2016. Over this period, CDC reshaped its business model, scale and portfolio; its staff grew from 65 to over 160 and annual projects more than doubled in number. It has changed sector¹⁵/geographic focus, governance, salary and incentive structures, and developed a jobs based investment matrix. Consistent with the 2012-2016 Investment Plan, CDC's short term aim is to increase direct equity and debt investments and reduce its use of managed funds: CDC's current portfolio is approximately 24% equity, 7% debt and 69% funds, but it aims to achieve a portfolio structure of 54% equity, 24% debt and 22% funds (i.e. roughly 2 equity: 1 debt: and 1 fund) by 2021.

One of CDC's most relevant equity investments for this study is its 70% shareholding in power developer Globeleq.¹⁶ Globeleq enters African power projects both upstream and downstream in the project preparation process – but often later in the project life cycle than IAfD. Historically Globeleq has acquired its assets through acquisition or tender processes, with much coming from the South African "Renewable Energy Independent Power Producer Procurement Programme" process, rather than greenfield development.

CDC also manages two impact facilities for DFID: one £75m facility called the "Impact Fund" investing as a fund of funds, and one £45m facility called the "Impact Accelerator" investing directly and with three investments to date (two in agriculture, one in energy).¹⁷ It is our understanding that both impact facilities may be significantly ramped up in the near term. The aim of the funds is to gain social and financial impact via intermediaries (the Fund) or directly (the Accelerator) via patient capital, that in both cases, is returnable. Bids for the funds are invited via calls for proposals and there is a clear bottom of the pyramid poverty focus in Africa and South Asia.

3.3. Report structure

Following this introduction the remainder of the report is structured as follows:

- **Section 4**, describes the review framework and methodology.
- **Section 5**, examines PIDG's unique selling point (USP) and is supported by **Annex A** which compares PIDG to some DFI comparators and **Annexes B through I** which includes a detailed write up on the USPs of the individual facilities.
- **Section 6**, outlines the VfM analysis of PIDG and is supported by **Annexes B through I** which looks at VfM on an individual facility basis.

¹³ CDC Group (2017). "Key facts". Accessed at: <http://www.cdcgroup.com/Who-we-are/Key-Facts/>.

¹⁴ HM Government. "Commonwealth Development Corporation Act 2017". Accessed at: <http://www.legislation.gov.uk/ukpga/2017/5/introduction/enacted>

¹⁵ As highlighted in its mission statement, CDC defines development impact in terms of job creation and accordingly, focuses on seven sectors with the highest potential for job creation: infrastructure, manufacturing, financial institutions, agribusiness, health, construction and education.

¹⁶ Norfund have the remaining 30% shareholding in Globeleq.

¹⁷ DFID Impact Programme website accessed at <http://www.theimpactprogramme.org.uk/>.

- **Section 7**, looks at the transformational impact of PIDG and is supported by **Annexes B through I** which summarises the transformational impact of the individual facilities.
- **Section 8**, outlines our conclusions.
- **Annex J**, lists the documents reviewed.
- **Annex K**, lists the stakeholders consulted.

4. REVIEW FRAMEWORK AND METHODS

This section presents the review framework and the methods used to assemble the evidence base.

4.1. Review framework

As shown in Figure 4.1, the review framework is structured along three inter-related dimensions of PIDG’s (i) USP, (ii) VfM and (iii) transformative impact, with a series of review questions under each dimension.

Figure 4.1: Review framework

	DIMENSION 1	DIMENSION 2	DIMENSION 3
Review questions	What is PIDG’s USP and place in the market? And does this still hold?	Does PIDG represent good value for money?	To what extent has PIDG delivered transformative impact?
Review sub-questions	<ul style="list-style-type: none"> To what extent do PIDG objectives still align with global and regional challenges in the sector? Are PIDG and its facilities still intervening in the right sectors and regions? Is PIDG offering infrastructure services that others are not able to provide in DAC I/II countries and FCAS? Are the PIDG facilities taking enough risk in the markets and sectors they operate in? What level of return at the PIDG facility level is appropriate? 	<ul style="list-style-type: none"> How cost-effective are the services the PIDG facilities buy from and provide to the market? How efficient and effective are the PIDG facilities at achieving their desired outcomes? To what extent have the impacts arising from the PIDG facilities’ activities been commensurate with the level of effort and resources expended? How effective is PIDG’s effort to deliver value for money relative to alternative institutions? 	<ul style="list-style-type: none"> How has the PIDG model influenced the types of infrastructure investment services provided by alternative organisations/institutions? How has PIDG influenced the behaviour of commercial investors and developers? Has this influence been sustained or transformative? To what extent have PIDG investments achieved their outcomes, been additional and delivered transformative impact?

Each of the dimensions have been explored in the context of DFID’s “3Es” framework and VfM model, in addition to wider best practice principles for M&E (e.g. OECD DAC criteria for the evaluation of development assistance).

The following sub-sections set out the methods used to address the questions raised in the review framework, as well as the limitations to the analysis.

4.1.1. Review methods

The review methods included a thorough desk-based document review, semi-structured interviews with various stakeholders, comparator analysis and quantitative analysis.

- **Desk-based document review** - We undertook a comprehensive review of PIDG-specific documents; comparator-specific documents; and the broader relevant literature. **Annex J provides a bibliography.**
- **Semi- structured interviews** - Stakeholder consultations were instrumental in collecting information and perspectives on the USP and VfM of PIDG. Consultees included DFID staff, sector and market experts, PIDG

Central Management Office (CMO) staff, PIDG facilities' staff, and representatives from other institutions working in the private infrastructure investment space. **Annex K provides a list of consultees.**

- **Comparator analysis** - In order to better understand the market for infrastructure development and financing and how it is expected to evolve going forward, we conducted comparator analysis of CDC's, International Finance Corporation's (IFC), Netherlands Development Finance Company's (FMO) and others' ongoing and planned operations. For instance, we reviewed IAfD and IAsD relative to IFC's InfraVentures. Equally, we have conducted comparator analysis of GuarantCo relative to the planned International Development Assistance 18th Replenishment's (IDA18) - Private Sector Window (PSW).
- **Quantitative analysis** - We conducted quantitative analysis, where possible, to: analyse facilities' performance against their logframe targets; carry out benchmarking of PIDG operational and management costs relative to comparable organisations; and analyse PIDG facilities' ability to leverage private sector investment for infrastructure relative to comparable organisations.

We also analysed project data from IJ Global from the past two years to see how projects are being financed and to test statements the PIDG facilities have made regarding market conditions. Further, we have analysed the PIDG portfolio in order to compare it to CDC's portfolio.

4.1.2. Review limitations

Our conclusions are based on a collation of the available evidence (drawing on the review methods described above), as well as an assessment of the quality (i.e. data quality, type of stakeholder group consulted for a particular review question) and uniformity (i.e. triangulation) of the evidence. This has been supplemented by our informed judgment on the interpretation of the evidence, drawing on our knowledge and experience with reviews and infrastructure development and financing. Still there are three specific limitations to our review methods that should be stressed:

- **Stakeholder availability:** Given the short timeframe for delivering the review some individuals/organisations have not been available to speak with us during the consultation period. Additionally some stakeholders chose not to respond to requests for interviews. Overall, however, we achieved good coverage across the stakeholder groups we targeted.
- **Stakeholder bias:** Given that stakeholder consultations are a key evidence source for this review, there is scope for bias and subjectivity in feedback. We have attempted to minimise the impact of this by triangulating views across stakeholders and other sources of evidence, to the extent possible.
- **Access to information and depth of analysis:** Given the short-timelines for the assignment and the large number of stakeholders targeted for consultation we had to be strategic in the documentation we reviewed in depth (e.g. facilities' business plans and M&E documentation was prioritised). There are also important areas where more information would be useful – for example CDC's Investment Policy is currently under negotiation with DFID, but without a view into its outcome it is difficult to compare PIDG's plans against what CDC may or may not do in the future. Lastly, there was also significant challenges in obtaining like-for-like data on operational costs for comparable organisations.

5. REVIEW DIMENSION I: PIDG'S UNIQUE SELLING POINT (USP)

The first dimension of the review explores the USP of PIDG and addresses the question:

What is PIDG's USP and place in the market? Does this still hold?

Within this, we looked at the following sub-questions:

- Q1 - What is PIDG's USP and place in the market? What are the USPs and place in the market for each of the PIDG facilities? Is what the PIDG facilities are doing both additional and in-demand, or just unique?
- Q2 - Are facilities still working in the right markets and right sectors in those markets? Are PIDG facilities working in markets/sectors where others are either absent or need their involvement to sufficiently de-risk the investment so that they too can co-invest in deals? Is the work that the PIDG facilities are targeting in their business plans consistent with the PIDG's USP and place in the market?
- Q3 - Reviewing what other DFIs are doing to fund infrastructure does PIDG still have a unique USP or have other institutions/ organisations moved into its space? How do PIDG facilities compare with what similar facilities including for example CDC, IFC, and the African Development Bank (AfDB) and the Asian Development Bank's (ADB) private sector operations are doing on a more commercial basis? Is PIDG offering infrastructure services that others either aren't able to provide in DAC I/II countries and FCAS or are able to provide but on more expensive terms?
- Q4 - In which sectors and regions is the private sector infrastructure investment market still underdeveloped to justify PIDG's role as a catalysing agent for change?
- Q5 - What is the role for grant and/or investment capital type investments in the market?
- Q6 - Are PIDG facilities taking enough risk in the markets and sectors they work in?
- Q7 - Are the PIDG facilities that could accept DevCap investment - EAIF, GuarantCo, GAP, and the Infrastructure Equity and Mezzanine Facility (IEMF) - still additional?
- Q8 - What level of return at a PIDG facility level is appropriate for the types of investments they make and the unique space they occupy (compared to for example CDC's return expectations)?
- Q9 - Does the move towards a 'One PIDG' model alter the USP, whether positively or negatively?

Each of the sub-questions are considered in turn below for PIDG overall and are supported by **detailed comparator analysis in Annex A and on an individual facility basis in Annexes B through I.**

5.1. What is PIDG?

PIDG is a multilateral organisation established in 2002 to mobilise private investment in infrastructure, in order to increase service provision for the poor, boost economic growth, and alleviate poverty in the world's poorest countries.¹⁸ It is governed by development agencies from eight countries and the WBG.¹⁹ The market failures that PIDG aims to address are²⁰:

- lack of suitable projects for investment (IAfD, IASD, DevCo, and TAF);
- high upfront costs of project development (IAfD, IASD, DevCo, and TAF);

¹⁸ PIDG website, <http://www.pidg.org/>.

¹⁹ PIDG website, <http://www.pidg.org/>.

²⁰ PIDG website, <http://www.pidg.org/>.

- shortage of long-term FX debt (EAIF);
- lack of local currency investment (GuarantCo); and
- inadequate capacity and expertise in public and private sectors in some of the world's poorest countries (IAfD, IAsD, DevCo, and TAF).

By working in some of the most challenging countries and transactions, PIDG aims to demonstrate that private investment in DAC I/II countries and FCAS is commercially viable and can provide benefits to those who lack access to basic infrastructure services.²¹

As of 2015, PIDG has received US\$1.17bn from members and delivered 133 projects across 57 countries.²² Together, the PIDG facilities claim to have leveraged almost US\$20bn in new private sector investment.²³

Table 5.1: Summary of the PIDG facilities (excluding ICF-DP)

Stage	Facility	Offer	Market / Government Failure
Development	IAfD	Offers funding and expertise to develop projects from their earliest stage up to financial close.	Weak pipeline of bankable private infrastructure projects in SSA.
Development	IAsD	Offers funding and expertise to develop projects from their earliest stage up to financial close.	Weak pipeline of bankable private infrastructure projects in South Asia and South East Asia.
Support	DevCo	Offers funding to enable IFC Advisory to provide governments with expert transaction advisory support for preparing public infrastructure projects for private investment.	Scarce private investment in public infrastructure due to low government capacity to structure and tender Public Private Partnership (PPP) projects in developing countries.
Support	TAF	TAF provides grants and subsidies for projects supported by other PIDG facilities, e.g.: (i) grants for TA / capacity-building of project counterparts; (ii) returnable grants to part-fund project development when high repayment risk deters commercial lenders; and (iii) VGF grants to close the gap between expected costs and revenues for projects serving people with low ability to pay.	Weak pipeline for private infrastructure projects due to: (i) low capacity of public or private counterparts working with the PIDG facilities; (ii) low appetite for developing high-risk, high-impact projects; and (iii) an inability of project beneficiaries to afford the full costs required for infrastructure projects to go ahead.
Financing	GAP	Offers mezzanine financing for renewable power generation projects in SSA.	Weak pipeline of renewable power generation projects in SSA due to high construction risks and under-funding of projects with climate-neutral, pro-development impacts.
Financing	IAsI	Offers equity and mezzanine financing for infrastructure projects in South Asia and	Weak pipeline of infrastructure projects in South and South East Asia due to high

²¹ NAO (2014). "Oversight of the Private Infrastructure Development Group."

²² PIDG (2015), "Annual Report 2015"; PIDG (2016), "PIDG Database of Projects". Downloaded at data.pidg.org [Accessed 02/02/2017]. Note that these figures do not include the latest projects.

²³ PIDG (2015), "Annual Report 2015."

Stage	Facility	Offer	Market / Government Failure
		South East Asia to bridge the gap if an absence of capital is likely to delay or prevent viable infrastructure projects.	construction risks and under-funding of projects with pro-development (positive externality) impacts.
Financing	EAIF	Offers long-term FX loans to infrastructure projects in SSA.	Lack of long-term debt finance available for infrastructure projects in SSA.
Financing	GuarantCo	Offers local currency guarantees for infrastructure financing in lower-income countries, and dollar guarantees in FCAS.	Lack of local currency financing (and local capital market development) for private sector infrastructure projects in developing countries.

Source: Adapted from the NAO Oversight Report 2014 and CEPA analysis.

Note: The ICF-DP, which is also part of PIDG, is not funded by DFID and is winding down, so we do not consider it in our analysis.

5.2. Responses to the ToR questions

Q1 - What is PIDG's USP and place in the market? What are the USPs and place in the market for each of the PIDG facilities? Is what the PIDG facilities are doing both additional and in-demand, or just unique?

PIDG's USP is the concentration of different types of risk within its portfolio arising from operating at the frontier of what is possible from a private infrastructure financing perspective. Whilst its activities inevitably overlap to some degree with the DFIs, no major entity is as dedicated to infrastructure in DAC I/II countries and FCAS as PIDG. Its greater reach is facilitated by the first-loss capital that underpins its portfolio which is not fully priced in terms of the returns it seeks for the risks taken. PIDG's strong development focus has been married with commercial skills which make its facilities highly responsive to market needs.

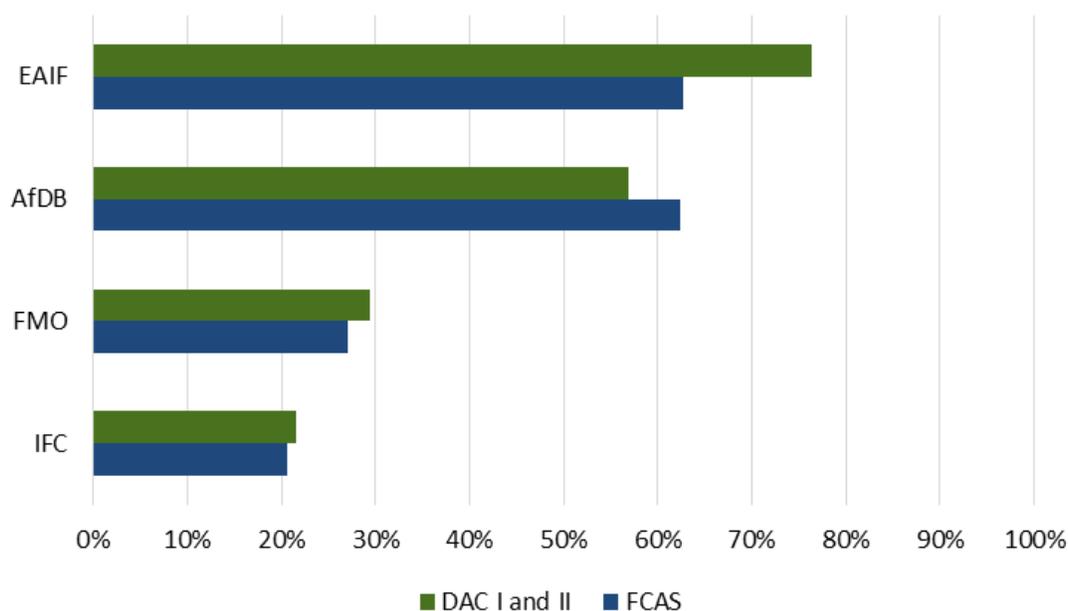
Whilst each PIDG facility is different, the common factor that they share is that they will typically be involved in the most difficult transactions, although the extent of the risk appetite does vary between the facilities, in terms of how they interpret their "frontier" mandates.

The degree of uniqueness, as well as extent of additionality, varies across the facilities. The more a facility is focused on developing long term markets, rather than just closing transactions the more unique it will be, even in a DFI dominated space. This makes GuarantCo the stand-out facility. In the case of GAP, though, the uniqueness of its offer means that it is not massively in demand. The InfraCos' uniqueness in terms of creating opportunities for other investors whilst only partially recovering the costs of doing so, means that they lack sustainability.

PIDG's USP stems from the concentration of different types of risk within its portfolio arising from operating at the frontier. The relatively higher risk compared with the DFIs could be in terms of: the countries in which they work (e.g. DAC I/II, FCAS); type of projects (e.g. greenfield); and/or type of finance product (e.g. local currency guarantee).

This USP has held since its inception and the PIDG portfolio is demonstrably riskier than those held by the DFIs, as illustrated in Annex A. For example, EAIF investments have a greater focus in DAC I/II countries and FCAS, compared with IFC and FMO which have a greater portion of their loan portfolios in middle income countries, as highlighted in Figure 5.1 below.

Figure 5.1: Proportion of DFI infrastructure lending since 2003 in DAC I/II countries and FCAS (%)²⁴²⁵



Source: WBG PPI Database; IJ Global; PIDG project database; and individual DFI project databases.

Where the DFIs invest alongside the PIDG facilities, they are often able to do so because PIDG’s involvement has made an opportunity bankable; for instance, in the case of the InfraCos structuring a project. While there will be examples of the DFIs operating at the frontier in ways similar to PIDG this is often on a one-off basis and is not part of their business as usual (BAU).

Recent developments, especially within CDC have raised the potential of overlap with some of PIDG’s mandate and USP. These developments include:

- CDC’s 2012-2016 investment policy and the introduction of a new investment policy starting in 2017 - still under negotiation;
- the DFID Impact Fund (£75m) and Acceleration Facility (£40m);
- IFC and WBG generally, IDA18, the Global Infrastructure Facility (GIF), and other coordination initiatives;
- AfDB’s Africa 50 (although slow off the ground);
- ADB led private participation in infrastructure (PPI) initiatives; and
- the rise of non-traditional actors like China, Brazil, and India.

Historically, for the most part donors have provided the PIDG facilities with first loss capital by providing the PIDG Trust with grants which have then been invested as equity in the facilities.²⁶ On the whole, the main form of financing from donors has been grant; that is, without expectation of any return and indeed a toleration of a high degree of potential impairment. The more that PIDG is dependent on DevCap from DFID rather than the softer funding it has had traditionally, the less risk the facilities affected will be able to take (certainly in the absence of pricing for that

²⁴ We have not included CDC in this comparison, given that it was not possible to obtain figures on its historic debt investments. In addition, CDC has provided limited debt to infrastructure relative to other entities since its change in strategy in 2012.

²⁵ Note that these figures are the total amount that individual DFIs have committed to projects, as opposed to the TICs of projects that the DFIs have invested in.

²⁶ There are exceptions, for instance, DFID’s provision of callable capital directly to GuarantCo.

risk). A way to address this would be for any *future* DevCap financing, whether provided directly by DFID or else via another platform, to rank senior to the existing first loss capital, for instance by sitting as preferred stock or subordinated debt, reducing the risk to the DevCap. As several of the facilities such as EAIF and GuarantCo have been capitalised with significant amounts of this softer, first loss capital, it would be possible to gear the facilities up using this approach (as long as other donors were willing for future capital provision to take this form).

The extent to which PIDG activities currently overlap with what CDC does is relatively limited. For instance, while CDC’s strategy has placed more emphasis on infrastructure (basically power and no other infrastructure sectors), it also has priorities in a number of other sectors, including financial institutions, agribusiness, health, education, construction and manufacturing. Both the Impact Fund and Accelerator Facility are not exclusively focused on infrastructure (in fact to date infrastructure has been a very small part of their portfolios).

Against this, PIDG remains solely focused on infrastructure investments and has over 15 years of institutional knowledge of supporting project preparation and financing in the sector. Further, CDC’s activities in infrastructure have largely taken place indirectly via separate entities (such as Globeleq) or through a range of funds that are externally managed, and have also been focused in the downstream project development space or in financing. As shown above in Table 5.1, PIDG’s activities span the whole project development cycle, including more upstream support for the public sector provided via DevCo and TAF, support for private sector development activities provided by IAfD and IAsD, equity investment at financial close provided by GAP and IAsI and debt and guarantee support at financial close provided by EAIF and GuarantCo. PIDG’s current scope spans beyond CDC’s activities at present, and where they do overlap, PIDG’s institutional knowledge and visibility is currently much greater than that of CDC. While CDC may be able to build up this knowledge, this would take several years and without such a specialist focus on infrastructure.

Both the document review and the stakeholder consultations have confirmed PIDG’s USP. Recent developments, however, might lead to others getting more involved (over time) in the areas where PIDG operates or PIDG may be nudged into operating more like a traditional DFI as grants are replaced with DevCap as the primary source of finance.

The USPs for each of the PIDG facilities are presented in Table 5.2 below. Detailed discussion on the individual facilities’ USPs can be found in Annexes B through I.

Table 5.2: USP of the individual PIDG facilities

PIDG overall
<ul style="list-style-type: none"> ● Leading multilateral institution with a unique focus on private sector infrastructure development and financing. ● Major focus on greenfield infrastructure provision in DAC I/II countries and FCAS compared to other DFIs working in this space. ● Nimble, quick and less bureaucratic than traditional DFIs and willing to be flexible in addressing the needs of clients.
IAfD
<ul style="list-style-type: none"> ● Early stage project development assistance operating at the frontier in terms of geography, greenfield focus, and entry point - very early in the project life cycle. ● Exclusive focus on infrastructure in SSA.
IAsD
<ul style="list-style-type: none"> ● Early stage project development assistance operating at the frontier in terms of geography, greenfield focus, and entry point - very early in the project life cycle. ● Exclusive focus on infrastructure in South Asia and South East Asia. ● According to stakeholders, more proactive and responsive than others operating in the same space.

EAIF
<ul style="list-style-type: none"> • Only hard-currency debt provider solely focused on private infrastructure financing in SSA. • Works at the frontier in terms of geography (DAC I/II, FCAS) and greenfield focus. • Will enter the project life cycle earlier than other DFIs to make sure the transaction process runs smoothly. • According to stakeholders, EAIF is more nimble, professional, and less burdensome than other lenders in this space.
GuarantCo
<ul style="list-style-type: none"> • Provision of local currency debt guarantees with exclusive focus on infrastructure. • Much more active than other institutions capable of providing local currency guarantees. • Focus on developing local capital markets outside of individual projects (e.g. InfraCredit). • According to stakeholders, very pro-active, professional and efficient.
GAP
<ul style="list-style-type: none"> • Provision of intermediate capital to viable renewable power projects in SSA which would otherwise struggle to progress.
DevCo
<ul style="list-style-type: none"> • Pushes IFC Advisory Services to do more work at the frontier (i.e. in DAC I/II countries and FCAS). • Provides a turnkey solution to governments for developing transparently tendered and bankable projects • Focus on mid-to-late stage PPP technical assistance (TA) and to a lesser extent provides some upstream support to undertake project and pipeline identification, and pre-feasibility and feasibility studies. • More responsive to government requirements than other PPP TA funds (i.e. which are not delivered through IFC Advisory Services).
TAF
<ul style="list-style-type: none"> • Provides TA grants for project counterparts, including the private sector, and works further upstream than many other project preparation facilities (PPFs). • Dedicated to the PIDG facilities, so more flexible, timely and reactive to their needs than comparators. • Offers highly unique capex grant support in the form of Viability Gap Funding (VGF).

Source: CEPA analysis.

According to stakeholders, GuarantCo is highly additional, in-demand, and unique – with many indicating they would like to see GuarantCo be able to do larger ticket sizes (i.e. > US\$50m).

Similarly, stakeholders noted that EAIF is in demand (in part because the team are easier to deal with than the traditional DFIs) and additional (because on a BAU basis they operate where others do not). Its uniqueness lies in it being the only hard-currency debt provider solely focused on private infrastructure financing in SSA. However, similar to the DFIs it holds long term debt to term.

The InfraCo model as it currently stands is highly unique because it incurs all the development costs without then, as with most developers, benefiting from the investment opportunity they create, limiting itself to a development fee (either paid out or invested as a carried interest) which is generally insufficient to cover both its intermediation costs and losses from projects which have failed to progress. Without tweaking of the model it is unlikely to become

sustainable at current scale. However, its focus on very early stage project development in greenfield projects in DAC I/II countries and FCAS is additional.

In its infancy GAP had such a specific mandate that its uniqueness hindered its ability to invest in projects. Whilst it was approached frequently with opportunities, few materialised. There are questions as to its additionality and the potential demand for its product in its current form. However, it is our understanding that while its investment policy has not been modified, in practice, it is allowed to do more than it was previously (although on a case-by-case basis rendering strategic decision making and marketing a challenge). Further, a 2016 study by Fieldstone commissioned by GAP suggested that GAP’s scope be widened.

DevCo’s role of allowing IFC Advisory Services to do more work at the frontier (i.e. in DAC I/II countries and FCAS) where it would not otherwise operate is additional and in-demand.

TAF’s offer of dedicated support to the PIDG facilities is flexible, timely and reactive to their needs. In consultations, the other PIDG facilities noted the importance of TAF in helping them achieve their development objectives.

Q2 - Are facilities still working in the right markets and right sectors in those markets? Are the PIDG facilities working in markets/sectors where others are either absent or need their involvement to sufficiently de-risk the investment so that they too can co-invest in deals? Is the work that the PIDG facilities are targeting in their business plans consistent with the PIDG’s USP and place in the market?

The balance of a given PIDG facility’s portfolio is determined partly by the opportunities available to it, but then also by how developmentally focused the PIDG donors want it to be. In terms of the former, this is strongly influenced by what opportunities governments are prepared to open up to private finance. It is not therefore surprising that most of the PIDG facilities currently have a high proportion of power generation in their portfolios. Outside of telephony and electricity generation, opportunities are typically limited in SSA. There is little need for the facilities to become involved with the former, but the latter still requires the type of support provided by PIDG in most countries.

There is some overlap with the DFIs and development agencies such as USAID as the PIDG facilities often have to work alongside others. The DFIs will sometimes work through PIDG as its first loss capital provides protection to their own capital which without PIDG they would not invest at all or else would have to price in more risk, making their finance less affordable. This increases the reach of what the DFIs are able to do. This has been a particular feature of the credit facilities (that is, EAI and GuarantCo); the former previously had a DFI subordinated debt tranche within its structure whereas the latter provided first loss protection to KfW. DevCo funding has enabled IFC Advisory Services to work in DAC I/II countries, whereas previously it was limited to DAC III and IV.

For the most part, the business plans are consistent with the different mandates and missions of the facilities. However, some are more commercially orientated than others; which is especially the case with EAI. Often new product proposals arise from gaps that the different facilities come across in the market. There may also be more opportunities for IAfD to develop infrastructure based around strong commercial or industrial off-take, as long as the benefits of such are realised by local populations more widely.

Table 5.3 summarises the markets and sub-sectors where the individual facilities currently operate.

Table 5.3: PIDG market and sub-sector focus - by facility

Facility	Markets	Sub-Sectors
IAfD	<ul style="list-style-type: none"> Predominantly in DAC I/II and FCAS in SSA. Although not currently used in practice, no more than 25% of the private sector finance IAfD leverages through its portfolio may be for 	<ul style="list-style-type: none"> Broad sector focus set out by IAfD Operating Policies and Procedures, including: energy; water/wastewater; transport infrastructure; bulk storage / logistics; telecoms; gas & oil transportation, dist. & storage; mining;

Facility	Markets	Sub-Sectors
	<p>projects in “Lower Middle Income Countries” and “Upper Middle income Countries”.</p> <ul style="list-style-type: none"> At least 20% of the private sector finance IAfD leverages through its portfolio must benefit projects in FCAS. Of projects that have reached financial close, 89% were in DAC I/II countries, and 33% in FCAS. Of projects currently under development, all are in DAC I countries and half are in FCAS. 	<p>upstream oil & gas; urban infrastructure; agriculture-supporting infrastructure.</p> <ul style="list-style-type: none"> In practice, focus on power (11 of 15 projects closed or under development). Other projects in transport, water/wastewater and agri-infrastructure.
<p>IAsD</p> <p>IAsI</p>	<ul style="list-style-type: none"> Operates primarily in DAC I/II and FCAS, and in exceptional circumstances in DAC III countries (although typically in marginalised/ low income areas of DAC III geographies such as Lao Cai Province in Vietnam). No more than 33% of projects in IAsD’s portfolio can be in DAC III countries. Initial priority countries were Bangladesh, Cambodia, India, Indonesia, Laos, Nepal, the Philippines, Sri Lanka and Vietnam. Priority countries are now Bangladesh, Bhutan, Cambodia, India, Indonesia, Laos, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka and Vietnam. Of the 4 closed projects, all are in DAC I/II countries, and half are in FCAS. Of the projects currently under development, 67% are in DAC I/II countries, and half are in FCAS. Of the three investments supported by IAsI, 2 were in FCAS (both in Pakistan). 	<ul style="list-style-type: none"> Broad sector focus set out by IAsD Operating Policies and Procedures, as for IAfD. In practice, focus on power (6 of 10 projects closed or under development). Other projects in agri-infrastructure and waste management.
EAlF	<ul style="list-style-type: none"> African infrastructure with a particular focus on DAC I/II (74% of investments) and FCAS (60%). EAlF has the greatest proportionate focus in DAC I/II compared to the other major DFIs (based on an analysis of DFI investments – See Annex A and E). 	<ul style="list-style-type: none"> Focus on power (c. 50% by value). Former focus on telecoms de-prioritised (c.20% by value to-date). 2017-21 Business Plan proposal to expand sector coverage to social infrastructure (hospitals, schools, etc.), digital and cloud-based services, and oil beneficiation.²⁷
GuarantCo	<ul style="list-style-type: none"> All projects have been in DAC I/II/III countries (although some countries have graduated to 	<ul style="list-style-type: none"> Broad sector focus.

²⁷ Note that expanding EAlF’s sector coverage for IT and oil beneficiation has subsequently been rejected by donors.

Facility	Markets	Sub-Sectors
	<p>DAC IV, such as South Africa), and c.53% have been in FCAS.</p> <ul style="list-style-type: none"> Unable to lend directly, GuarantCo has found it challenging to transact in DAC I/II countries, given the products can be difficult to provide in these markets, especially its local currency guarantees. 	<ul style="list-style-type: none"> Roughly equal split between energy generation/transmission and distribution (T&D), road transport, telecoms, industrial infrastructure, and other. InfraCredit initiative targets non-sector-specific capital market development.
GAP	<ul style="list-style-type: none"> One project to date in Senegal (DAC I) SSA; 94% investment commitments in DAC I/II countries (2017-21 LF target). 	<ul style="list-style-type: none"> Pure focus on renewable power generation.
DevCo	<ul style="list-style-type: none"> 80% of newly signed mandates in DAC I/II countries plus eight “poorer” Indian states and 80% in FCAS in 2016 Of the 21 active mandates under development, 9 (43%) are in FCAS and 18 (85%) are in DAC I/II. 	<ul style="list-style-type: none"> Mostly energy generation/T&D (38%), water/wastewater (22%) and transport (22%) PPP mandates. Other projects in telecoms, housing, mining, urban development, and agri-infrastructure.
TAF	<ul style="list-style-type: none"> 74% of investment arising from PIDG supported projects in DAC I/II countries plus 8 “poorer” Indian states; 56% in FCAS as of December 2014. 	<ul style="list-style-type: none"> Follows sector focus of the individual PIDG facilities. c.10% grants made for non-sector specific capital market development.

All the PIDG facilities have submitted updated business plans for 2017-21 which set out key planned changes, updated logframe targets, and the resources required to implement them. Some of these planned changes are scale-ups or new approaches to existing activities, which are fully in line with the facility’s existing USP. Other changes go beyond facilities’ existing niches. Table 5.4 presents a very high level assessment of the extent to which these proposed changes align with the USP of each facility and of PIDG in general and therefore needs to be interpreted with a degree of caution.

Table 5.4: Focus of planned changes in the facilities business plans (2017-21) and alignment with PIDG USP

Facility	Business plan focus	Alignment with USP
IAfD	<ul style="list-style-type: none"> Partner with co-developers over multiple projects that IAfD could support on a pipeline basis (similar to the Redavia project approach). <p><i>£141m new funding commitment requested for 2017-21.</i></p>	<ul style="list-style-type: none"> High: Change of approach – the “how” rather than focus. Helps build the capabilities of local developers.
IASD	<ul style="list-style-type: none"> Invest through convertible loan structures (especially in the co-development programme). Adapt business model to allow IASD to take minority stakes alongside credible developers which lack of specific capabilities. Allow service providers to submit proposals with remuneration on an 	<ul style="list-style-type: none"> High: Change of approach rather than focus. May improve business sustainability. Medium: Extension of support to already capable developers for whom IAfD may not be as transformative. High: Change of approach rather than focus. May improve longer-term development potential.

Facility	Business plan focus	Alignment with USP
	equity share basis instead of (or in addition to) typical fee based proposals.	
EAIF	<ul style="list-style-type: none"> Broaden the product mix to include refinancing and local currency. Increase the single counterparty limit from US\$50m to US\$150m so that they can be a mandated lead arranger (MLA) on deals.²⁸ Expand sector coverage to include social infrastructure, IT and oil.²⁹ Relaxation of SSA and DAC I/II investment criteria.³⁰ <p><i>US\$475m additional equity requested between 2017 and 2019.</i></p>	<ul style="list-style-type: none"> Medium: Potential for less focus on greenfield projects, although provision of local currency debt finance would be relatively unique for infrastructure transactions in Africa and needed. Medium: Potential to scale-up impact, but also benefits EAIF from a commercial perspective. Low/Medium: The request to move away from the economic infrastructure focus to those that have previously been able to attract private and DFI finance (particularly oil extraction and IT sectors) was rejected by donors, but would have aligned poorly with the EAIF USP. Social infrastructure while not an economic infrastructure focus, can be an important area from a developmental perspective. Medium: Allows EAIF to work in some FCAS countries in North Africa like Libya, but relaxation of DAC I/II criteria could increase investment in less challenging markets.
GuarantCo	<p><i>2017-21 Business Plan included a strategic objective to “become sustainable” and requested no additional funding. A funding proposal for two additional initiatives was presented to donors in March 2017:</i></p> <ul style="list-style-type: none"> Establish regional InfraCredit facilities (US\$50m + US\$7m TAF window) - separate region/country level entities to multiply guarantee capacity. London Stock Exchange (LSE) Partnership (US\$100m + US\$5m TAF window) - “help enable the creation of an offshore market for local currency bonds” through a trading platform proposed by LSE. 	<ul style="list-style-type: none"> High: Scales-up existing activities with market-building potential (though few in the least developed countries). High: Strong market-building potential, but not clearly additional unless it creates opportunities for issuers who are not currently able to list bonds.
GAP	<ul style="list-style-type: none"> Changes to cash availability and instruments to make GAP more flexible [we understand that this will be considered on a case by case basis]. Relaxation of DAC criteria and inclusion of North African countries [we understand this was rejected]. 	<ul style="list-style-type: none"> Medium: Additional flexibility would provide GAP with the potential to respond to market needs. Low: Moving outside of DAC I/II SSA would reduce GAP’s USP of working at the frontier. DAC III / (non FCAS) North Africa is likely already well served.
DevCo	<ul style="list-style-type: none"> Maintaining targets in line with the previous DevCo business plan. Does not include TAF-DevCo scale-up activities. 	<ul style="list-style-type: none"> High: Continuation of USP from current BAU activities.

²⁸ Rather than increasing EAIF’s single party exposure limit to US\$150m, donors have allowed EAIF to make investments equal to a maximum of 10% of its portfolio and can only provide more than US\$50m per investment in exceptional circumstances (subject to approval from donors).

²⁹ This was rejected by the donors.

³⁰ It is our understanding that PIDG members have agreed to allow EAIF to expand to FCAS in North Africa, specifically Libya and Egypt but not elsewhere at this stage.

Facility	Business plan focus	Alignment with USP
	<i>\$41.8m funding requested for 2017-21 activities.</i>	
The TAF	All TAF grants are evaluated on their own merit on a case-by-case basis and are in response to applications for support from the other PIDG facilities. Therefore we have not provided further comment on TAF’s business plan alignment with its USP as its activities are driven by demand from the other facilities. <i>US\$110m of additional funding requested for 2017-21. More ambitious logframe targets expected, following increased activity during 2016.</i>	<ul style="list-style-type: none"> N/A

Table 5.4 should also be interpreted with caution as a **‘low’ alignment with current USP does not necessarily imply that the proposed change is not worthwhile**. For instance, relaxing targets for the proportion of work carried out in frontier geographies would not align with PIDG’s USP, though it would probably improve facilities’ sustainability and so may be desirable from a sustainability perspective.

Q3 - Reviewing what other DFIs are doing to fund infrastructure does PIDG still have a unique USP or have other institutions/ organisations moved into its space? How do PIDG facilities compare with what similar facilities including for example CDC, IFC, and AfDB and ADB’s etc. private sector operations are doing on a more commercial basis? Is PIDG offering infrastructure services that others either aren’t able to provide in DAC I/II countries and FCAS or are able to provide but on more expensive terms?

Several institutions are doing what the PIDG facilities do, though they seldom do it to the same extent, given the constraints of their business models. Even in the case of EAIF which is the most mainstream of the facilities, other DFIs do not have its proportionate appetite for DAC I/II countries and FCAS. An increasingly crowded space is, however, renewables, where many new initiatives have focused. In addition there are new institutions which are seeking to do what PIDG has been doing and at scale – the Africa50 initiative being a key example – but they are often slow to get going (if at all) and often lack resourcing. It is therefore important when comparing other institutions with PIDG to note that whilst in theory they can do something, they seldom do, and also recognising the difference between intent and execution. The relatively limited overlap between the individual PIDG facilities and their closest DFI counterparts can be demonstrated, especially in the case of CDC.

DFIs’ objectives are often multiple, and may include: investing in sustainable private sector projects; maximising impacts on development; remaining financially viable in the long term; and mobilising private sector capital.³¹ However, **they all operate a business model around achieving a return on investment and are commercial entities.**³²

There is significant diversity across the DFIs in terms of their governance, instruments, regions and sectors of focus. In terms of instruments specifically, DFIs typically use tools including equity (or quasi-equity) instruments, loans, loan guarantees, and risk insurance – with most of the DFIs offering a mix of instruments.³³ As stated in a 2016 report on

³¹ Overseas Development Institute (ODI) (2011). “Comparing Development Finance Institutions Literature Review.”

³² They differ from Development Banks in that they take risk on commercial investments not governments.

³³ Centre for Strategic and International Studies (CSIS), and the ODI (2016). “Development Finance Institutions Come of Age: Policy Engagement, Impact, and New Directions”.

DFIs, “a DFI serves to shift or share the balance of risk and return in developing and emerging markets away from the private sector alone,”³⁴ however there is also a spectrum along which the different DFIs are willing to shift or share different levels of risk.

The DFIs are concerned with both development impact and financial sustainability, and operate a demand-driven business model whereby ‘clients’ approach them with a financing request or a particular investment opportunity. For those investments which the DFIs decide to pursue, they seek a return on investment in order to reinvest profits alongside new capital into their balance sheet (or in the case of, say IFC, they distribute profits to supplement IDA resources). As would be expected, more developed and stable economies are less risky for the DFIs and minimise certain repayment risks, whereas operating in frontier geographies or in riskier projects would raise various risks. In line with this, many of the DFIs only operate in these more challenging geographies or participate in riskier projects on a one-off basis, and frequently when there is subsidised first-loss capital present (i.e. capital typically provided by a grant which in the event of any losses, takes the first hit) in a transaction. Such capital can be provided through a fund structure or in the case of multilaterals such as the Multilateral Investment Guarantee Agency (MIGA) and the IFC, by way of a trust fund.

Investing at the frontier is challenging and PIDG’s focus on the frontier as its core mandate is fundamentally different to how the DFIs typically operate. **The average risk weighting of a given PIDG facility’s portfolio will be higher than a DFI³⁵** such as IFC or CDC, as the PIDG facilities have an explicit mandate to work in FCAS, DAC I/II geographies and in sectors where there may be high upfront costs or risks to infrastructure development.

Of particular interest to DFID is PIDG’s USP relative to CDC given the central role it is expected to play in DFID’s economic development strategy. DFID is also interested in how PIDG’s activities compare to IFC and AfDB, the main multilateral DFIs who are significant players in the infrastructure space. A review of recent literature, consultations with stakeholders, and statements around IDA18 priorities³⁶, indicate that there may be increased pressure on DFIs to shift their focus from middle income countries to more challenging economies and more challenging projects (i.e. to take on more risks), which PIDG already does as BAU. However, this is still very early stage and it may take a considerable period of time for the DFIs to achieve, as it will represent a fundamental shift in how they do business (e.g. seeking returns vs. implementing a development agenda).

Annex A provides a detailed comparison of how the different PIDG interventions compare to the activities of four key DFIs – CDC, IFC, AfDB and FMO. While the first three are of particular interest to DFID, we have included FMO as a comparator given it is widely regarded as one of the more innovative DFIs and as such is often seen as operating at the frontier.

Table 5.5 provides a summary of our analysis of how PIDG’s activities compare to the different DFIs. This also includes a gauge of how similar each institution’s support is to PIDG interventions, with zero being no overlap and four being complete overlap.

Table 5.5: Summary of DFI comparison to different PIDG interventions

PIDG intervention	CDC	IFC	AfDB	FMO
Debt	 <p>Has started to provide direct loans to infrastructure transactions in EAIF’s markets, but</p>	 <p>Has been the largest debt provider to infrastructure projects in SSA, and has co-financed many projects with EAIF.</p>	 <p>Similar to EAIF in its focus on Africa, but has generally supported larger transactions than EAIF. A number of</p>	 <p>Often noted for being the most similar DFI to EAIF, and has worked with it more than the other key</p>

³⁴ CSIS, and the ODI (2016). “Development Finance Institutions Come of Age: Policy Engagement, Impact, and New Directions”.

³⁵ Mckinsey (2012), PIDG Strategy Review.

³⁶ Report from the Executive Directors of the International Development Association to the Board of Governors. Additions to IDA Resources: Eighteenth Replenishment Towards 2030: Investing in Growth, Resilience and Opportunity, January 2017.

PIDG intervention	CDC	IFC	AfDB	FMO
	has been limited to date and is likely to take some time for CDC to build up the same amount of institutional knowledge.	However, EAIF has been considerably more focused in DAC I/II countries (although this may change for IFC with the IDA18 PSW), and has provided smaller ticket sizes and tends to work closer with sponsors than IFC.	stakeholders have also noted that EAIF operates much more like a commercial entity in terms of its professionalism, relative to AfDB.	comparators. Major difference between EAIF and FMO is its focus on DAC I/II countries and FCAS, with FMO's exposure being relatively more limited.
Contingent finance and local currency	 <p>No identifiable activity could be found.</p>	 <p>Has the mandate to provide guarantees but limited provision to date. Also supports local currency financing but often outside of infrastructure and through funded rather than contingent finance. Support for financing infrastructure with local currency loans may increase as a result of the IDA18 PSW.</p>	 <p>Has the mandate to provide guarantees but limited provision to date. Similar to other DFIs in that it has supported local currency finance but rarely overlaps with GuarantCo's support.</p>	 <p>Has worked with GuarantCo on some transactions, but limited support provided relative to its other activities. Sponsor of GuarantCo and tends to support initiatives in local currencies through intermediaries rather than directly.</p>
Project development	 <p>Main project development activities supported through Globeleq and through its investment in DI Frontier, but support for early stage project development relatively limited and only in energy.</p> <p>An allocation of its Proparco joint venture (JV) Fund (10%) is planned to go to project development costs.</p>	 <p>InfraVentures is the most direct comparator to the InfraCos, but extent of support provided and initial results have been limited. InfraVentures is generally a strategic partner in projects and takes a minority equity stake in transactions (e.g. 15-20%).</p>	 <p>Possible overlap with Africa50 support (although not directly managed by AfDB). Africa50 has only recently started operations so it is unclear if there will be much overlap going forward.</p>	 <p>No identifiable activity could be found, except for an allocation to the Climate1 Fund, of around US\$30m for project development.</p>
Equity and				

PIDG intervention	CDC	IFC	AfDB	FMO
Mezzanine	Extensive provider of equity finance, although support to infrastructure has been limited relative to other sectors.	Has provided mezzanine finance to projects, but rationale for intervention may be less strictly defined to that of IEMF (e.g. to increase returns as opposed to addressing market gap).	Has provided mezzanine finance to projects, but rationale for intervention may also be less strictly defined than IEMF.	Has provided mezzanine finance to projects, but rationale for intervention may be less strictly defined than IEMF.
TA and VGF	 No TA available in its main portfolio, although the Impact Fund and Impact Accelerator have access to a facility offering TA funds.	 IFC Advisory Services manages DevCo funds, but limited overlap with TAF VGF funding.	 NEPAD IPPF funds similar activities to TAF, but often is provided for regional and/or public sector infrastructure projects. Limited overlap with VGF support.	 Has funding available to support TA, but is not focused on infrastructure specifically.



– No overlap in activities



– Full overlap in activities

As Table 5.5 shows, EAIIF’s activities have the most overlap with the other DFIs, while GuarantCo is the most unique when compared to these other institutions. Among the DFIs analysed, IFC generally supports activities that are similar to PIDG, but *how* it supports these areas is often considerably different, whereas FMO is widely regarded as supporting infrastructure activities in a similar way to PIDG (even though its coverage of activities is less so than IFC’s). While AfDB has a similar geographic focus to PIDG (i.e. predominantly in Africa, although PIDG may have a greater focus on SSA), how it provides its support is often different from the PIDG facilities. **Relative to the other DFIs, it could be argued that CDC overlaps with PIDG the least frequently, particularly when it comes to TA and contingent financing.**

Q4 - In which sectors and regions is the private sector infrastructure investment market still underdeveloped to justify PIDG’s role as a catalysing agent for change?

In SSA, most private infrastructure financing has been limited to mobile telephony, IT infrastructure, electricity generation, ports and airports. For the most part, network power and water infrastructure has remained closed to private sector participation (PSP). This remains a significant impediment to private financing in general. Outside of South Africa, most debt project financing is still provided by DFIs. More recently, falls in commodity prices has had both budgetary and access to FX impacts. In some countries this may create a greater impetus for both private financing and local currency financing. Mozambique is a potential example of the former and Nigeria the latter. In both instances, there will be an imperative of reducing government funding and financing and increasing private sector funding (payment for services) and financing.

According to PIDG’s 2015 Annual Review (AR), “the shortage of infrastructure – power, transport, water, sanitation, and communications - in the world’s poorest countries is a major and growing obstacle to economic growth and the elimination of poverty. The scale of the infrastructure investment needed far exceeds the capacity of the public sector to respond and so requires a private sector response in addition to public investment. Yet government, market

and institutional failures discourage private sector investment in developing and financing much needed infrastructure.”³⁷

The Demand for IDA18 Resources and the Strategy for their Effective Use paper, confirms the underdevelopment and need for private finance in the sectors and regions where PIDG operates. It notes that “African economic transformation depends crucially on infrastructure development to remove bottlenecks” and “where private finance can play a significant role.”³⁸

Some sub-sectors are more developed than others, mobile telephony, for example can more easily attract private finance than, say, water and sanitation.

It is important to note that private financing of infrastructure can experience set-backs. The greatest driver of this can be the ability of government-backed entities to purchase infrastructure services as budgets come under pressure, from say, a fall in commodity prices such as oil, reducing affordability. A reduction in FX earnings can also make it difficult for commercial banks to invest and lend, because of convertibility issues. Taken together this means that there is not a constant market development path, with varying degrees of need over time and across countries for the type of development finance provided by the DFIs and PIDG. Thus, even a country like Nigeria which was previously developing a significant domestic capability to finance infrastructure has had set-backs due to budgetary constraints and reduced access to US dollars.

The impact of budgetary constraints can make governments more willing to open up infrastructure opportunities to the private sector. A shortage of FX can also increase opportunities for local currency financing. As such, where there are constraints, opportunities can emerge. However, in the first instance, such projects will need to turn to the DFIs and the PIDG facilities to provide finance. Nigeria and Mozambique are good examples of countries with major potential that will require financing from PIDG and the DFIs. Due to its limited access to FX, Nigeria will need to start improving its local currency financing capabilities. Mozambique has been taking far too much risk onto its national balance sheet through guaranteeing credit and needs to turn to more stand-alone private funding and financing.

Q5 - What is the role for grant and/or investment capital type investments in the market?

If pricing was fully risk reflective, for instance, taking into account country risk, it would make many projects unaffordable. Different forms of capital that do not seek a full market return (including grants, DevCap, impact capital, etc.) can therefore improve affordability due to lower financing costs than would otherwise be the case, resulting in lower tariffs. Grants can be used either to subsidise costs even further (for instance through interest rate subsidies), or where it is provided as first loss – and blended with commercial products - can mobilise financing that otherwise would not be available. Such support can either be provided at the individual project level (as in the case of TAF funding) or at the facility level in the form of first loss capital.

There is an important role for grant and DevCap in infrastructure development in PIDG’s markets. **Blended finance** plays and will continue to play a significant role. Blended finance is defined as the complementary use of grants (or grant-equivalent instruments) and non-grant financing from private and/or public sources to provide financing on terms that would make projects financially viable and/or financially sustainable.³⁹ This approach is favoured by the European Commission (EC) in blended facilities such as the European Union-Africa Infrastructure Trust Fund (EU-AITF) in which the EC (and other donor) grant money is blended with that of more market-based DFI capital.⁴⁰

³⁷ PIDG Annual Review, 2015.

³⁸ “The Demand for IDA18 Resources and the Strategy for their Effective Use.” IDA Resource Mobilization Department, May 2016.

³⁹ Mustapha, S.; Prizzon, A.; Gavas, M. Topic Guide: Blended finance for infrastructure and low-carbon development [full report]. Evidence on Demand, UK (2014) 51 pp. [DOI: http://dx.doi.org/10.12774/eod_tg9_jan2014.odi]

⁴⁰ As regards EU-AITF support overall, interest rate subsidy support has not been provided to any projects since 2012 (and was last provided to the Lake Victoria Watsan Mwanza project). Instead, recent support for projects has come in the form of investment grants and first-loss capital facilities (although TA grants have continued to be provided).

Historically, the approach has been based around the provision of interest rate subsidies, more recently there has been a shift in emphasis to first loss capital.⁴¹

An approach which is being turned to by several bilateral and multilateral donor agencies is the provision of **first loss capital** on a project specific basis (in many ways mimicking the structuring of facilities such as EAIF and GuarantCo).⁴² In this approach, the donor capital provides a “risk cushion” to the other financing participants: it is subordinated to other more commercial participants (such as DFIs and commercial banks) in terms of payment and takes the first hit if a project runs into problems. Donor first loss capital is effectively a form of subsidy as it is not priced at the level of risk that it is assuming. As such, it can only be provided at scale by development agencies, not DFIs which need a risk-adjusted return on their capital.

Monies that do not need to be returned are the most flexible form of first loss capital, as a project or facility benefiting would not be in default if the first loss capital was impaired. If the first loss capital was provided in such a way that in the event of an impairment the provider would have, say, step-in rights, such capital would be less flexible.

In any further future financing of EAIF by DFID such capital could rank pari-passu with the existing first loss capital. Indeed, given EAIF’s historic performance it should be able to take this. However, with the agreement of other donors it could rank senior, given the terms of its provision will be harder than traditional grants as it is required to maintain its value. Indeed, other donors may be more willing to provide future capital in a similar way. In such an instance it would sit between the legacy first loss capital and other higher ranking capital (say from DFIs and/or commercial banks). Such an approach would be most warranted if EAIF was to increase the level of risk within its portfolio.

Whereas the InfraCos up to project close would ideally draw-down on softer capital, as projects progress they should be able to tolerate harder capital, certainly at financial close but potentially during late stage project development activities. Even in SSA, infrastructure funds - such as the African Renewable Energy Fund (AREF) - are coming into projects earlier than they historically have.

Q6 – Are the PIDG facilities taking enough risk in the markets and sectors they work in?

Each PIDG facility can take more or less risk; however, the underlying capital structure will need to reflect the nature and extent of the risks being taken. For instance, EAIF is essentially seeking to be more commercial, although there are ways in which it could be made less so. The InfraCos are taking considerable risk at the front-end of greenfield transactions, many of them small and in very challenging markets. They could become more sustainable by targeting larger transactions (with larger development fees) and/or by investing equity capital in the projects that they have developed (in addition to their capitalised development costs - carried interest).

This is really a question of donor preference. More risk – or developmental focus – means the facilities will be less sustainable. Facilities can be made to be more or less risky/developmental by altering where they sit on the “*what*”, “*where*”, and “*how*” dimensions of the frontier. Whilst this is a choice for DFID to make it needs to be made cognisant of where the frontier sits and what could be done (and at what cost) to encourage the facilities to take on more risk should that be what DFID wants. The more risky/developmental the portfolio, the softer the capital needs to be to support the activities in question. Table 5.6 presents some options for altering the balance between sustainability and developmental focus for each facility.

Table 5.6: Options for altering facility-level balance between sustainability and developmental focus

Facility	Where it is operating at present	Where could it operate
IAfD		

⁴¹ First loss capital is subordinated to other capital in financing structure; it is the last to make a return and to be paid out.

⁴² For instance, bilateral agencies may put money into a Trust at the WBG which can be drawn on in the event of a project default, thus protecting IFC or MIGA from their own-capital impairment.

Facility	Where it is operating at present	Where could it operate
IAsD	The InfraCos have a high degree of risk in their portfolios in terms of <i>what, where</i> and <i>how</i> . The question is whether this is too much.	A way of balancing this would be to allow them to invest more capital at financial close in the transaction opportunities that they are creating (as IAsI currently does for IAsD projects). If they were to do this, they would likely require blended finance – although in principle, financial close investment should be able to accommodate DevCap.
EaIF	EaIF is clearly a long way along the more developmental spectrum on the “where” element compared with DFIs but in terms of the “how” it is like the DFIs holding its investments to term.	There are choices, say, on how it does things: for instance, EaIF could be pushed to refinance itself out of transactions on a more regular basis to allow local investors to come in rather than holding debt to term. This would, though, create risk to EaIF’s balance sheet and will likely have cost implications.
GuarantCo	GuarantCo is less risky from a “where” perspective, but it cannot get ahead of the frontier and to push it further would be counter-productive.	
DevCo	Like GuarantCo, it would be counter-productive to push DevCo into countries that are not yet ready for the types of projects they support, nonetheless it may still be able to move a bit further along the “where” spectrum.	From a “how” perspective, DevCo could do more work upstream and where possible try to use more local resources.
TAF	TAF by definition exists in order to help the other facilities push the frontier. Its “where” “what” and “how” are determined by the projects pursued by the individual facilities.	

Q7 - Are the PIDG facilities that could accept DevCap investment (EaIF, GuarantCo, GAP, and IEMF) still additional?

The different facilities differ in the degree of their additionality. GuarantCo is the most additional in the sense that no DFI only focuses solely on credit guarantees (MIGA provides political risk insurance although the boundary is blurred where the commercial operations of state-owned entities are involved) and no traditional DFI has the same extent of focus on local currency. The other SSA market participants are development agencies such as USAID and the Swedish International Development Agency (Sida). The former has become more active through the Power Africa initiative, whereas Sida is less active in infrastructure guarantees than it was previously (having been an early mover in mobile telephony). For the most part, other DFIs could probably step into EaIF’s shoes, and there are increasing numbers of participants in the renewables equity / mezzanine fund space, such as AREF and DI Frontier. As these markets continue to rely heavily on DFI finance, this does not however, mean that the PIDG facilities are not in themselves additional on an absolute basis.

Being able to meet the DevCap test does not dictate whether a particular facility is additional or not. However, depending on how the DevCap threshold is applied, it could push facilities to take on less risk than previous which could render their offer less additional (or more similar to their DFI comparators).

As set out, the equity capital in many of the PIDG facilities is first loss capital that in the event of an impairment, takes the hit before any other capital. The difference between PIDG’s capital and that of other equity capital is that

it is not seeking a return commensurate with the risk that it is taking. This return would either need to be generated from the market and/or possibly from the other participants in the facility structure. If it were seeking a risk reflective return it would need to target a return that reflected factors such as country risk, investment illiquidity, market and other risks. In this sense the fact that the capital is not meeting such returns means that it can be seen as being subsidised.

The DevCap test, as we understand it, is not just based on recovering risk capital, but also the intermediation and unrecovered transaction costs (from projects) associated with its deployment. Obviously given this, separate to the question of risk, the greater the operational economies of scale and scope, the more likely a facility will pass the DevCap test.

The track record of the different PIDG facilities would point to:

- EAIF maintaining its capital plus recovering its intermediation costs, plus a reasonable return (especially where provisions are stripped out).
- GuarantCo maintaining its capital, but not yet breaking even once provisioning costs are taken into account (but with the potential to do so in the near future).
- GAP failing, not least because of not being in a position to build up a portfolio of transactions, but also not having been in operation as long as the other facilities. However, if it were to work with IAfD, the model would look more like the DI Frontier fund which CDC has invested in.⁴³ It is important to note that DI Frontier seeks a return at the portfolio level even after undertaking project development activities (which are then invested in by the fund).

Is DevCap a realistic source of first loss capital for the PIDG facilities? Assuming a realistic scale of operations and a suitably balanced portfolio, yes. However, if this is set as the target it needs to be recognised that this will limit the extent to which very high risk relative to potential reward projects can be accommodated.

How hard the DevCap target is – in terms of maintaining its value over ten years - also needs to be considered. A very hard target, prioritised within the facility management agreements, will inevitably promote a more conservative investment approach, essentially making the PIDG facilities more like traditional DFIs, who seek to make a return on one hand to demonstrate they are acting as commercial entities, and on the other for a reinvestment in order to build their balance sheets (as MIGA has been very successful at doing), rather than turning to their sponsors for capital injections. In the case of IFC, significant amounts of reflows are contributed to IDA. Thus, the willingness of DevCap providers to tolerate a degree of impairment in the interests of “pushing the envelope” is important. It goes without saying that additional capital will most likely need to come from additional commitments rather than reinvestment of profits.

The appropriate capital structures for the PIDG facilities will depend upon this degree of tolerance. If this is reasonable, then in most instances, there should be considerable scope to deploy it (although this might depend on who has the responsibility for doing so; for instance, would DevCap directly from DFID be on different terms than, say, via CDC). Where such tolerance is lower, blending with grants will be required. Returnable grants might be differentiated from DevCap in terms of the expectation of return; in the case of the former there is essentially a much higher tolerance of impairment, indeed an expectation of write-off; however, repayment either in part or full can occur in many circumstances.

This can be done, either at the facility level or on an individual transaction basis (utilising the returnable grants of TAF). At the facility level this could be done on either a paid in, or returnable basis, the existing softer capital being subordinated to new DevCap commitments.

⁴³ GAP and IAfD are currently collaborating on two projects Corbetti in Ethiopia and Djermya in Chad.

Q8 - What level of return at a PIDG facility level is appropriate for the types of investments they make and the unique space they occupy (compared to for example CDC's return expectations)?

The potential to make returns differs between the facilities due to a number of factors, including the costs of their own financing and how possible it is to achieve cost reflective pricing / returns for products and services. This is, say, greater for EAIF than it is for the InfraCos. Some facilities will therefore have greater returns than others. At the PIDG level, there is the separate question of whether any undistributed returns from one facility should be used to support another, or to be re-invested in the same facility. In turn, this goes to the heart of One PIDG and whether it is just a holding vehicle or something which is more multi-facility in a given approach to an opportunity. A One PIDG approach would point more to a maintenance of value approach, in comparison to CDC which we understand is currently targeting 3.5%, although each facility will need to target returns that facilitate capital raising.

A portfolio of more developmental (i.e. higher risk) projects (especially if not priced for the risk) would yield a lower return; whereas a portfolio of less developmental (i.e. lower risk) projects would yield a higher return.

A DFI (like CDC) will price for administrative costs, expected losses across their portfolio, and for a return. Whereas, Sida (a bilateral), prices its guarantee portfolio to cover administrative costs and expected loss but does not target a return. DevCap as we understand it, in principle requires pricing that takes into account administrative costs and expected loss. There is then the question of whether this is applied on a facility-by-facility basis or for PIDG as a whole.

Given the high development impact and FCAS focus of PIDG and likely transition period as it begins to accept DevCap then a maintenance of value would seem the best option or there will be a tendency to shift to low hanging fruit. We understand that CDC return expectations are under negotiation so the 3.5% portfolio target might change shortly. Perhaps an ability to transfer surpluses or losses within PIDG may be more appropriate. This links in with the donor and trustee governance and mitigating some of the disadvantages of contracting out to largely siloed individual private sector fund managers. At a minimum, PIDG needs a more corporate holding company structure if it is to be more than the sum of its parts. A "TopCo" balance sheet could open up new avenues to be explored.

Q9 - Does the move towards a 'One PIDG' model alter the USP, whether positively or negatively?

The move to a One PIDG, especially with a strong TAF, creates the opportunity to do more than what a single facility can do. This could facilitate the trialling of new approaches to help target markets move towards developed market norms (such as recycling of capital approaches). In other instances, it could expedite the project development cycle. This would not be for all transactions, as the different facilities would still be pursuing their specific mandates. Put another way, not doing such things, represents missed opportunities for potential innovation.

Our understanding is that the focus of the One PIDG model is around improving governance arrangements, and strengthening internal operations with regards to risk management, compliance, financial reporting, communications, and impact monitoring. PIDG believes the new architecture will allow for greater collaboration between the facilities which in our view could be used to strengthen the USP of PIDG. Some ways in which this could be achieved include:

- Ensuring TAF is adequately funded/resourced so that the facilities could leverage its support in particular the use of returnable grants and VGF.
- Making TAF more programmatic and upstream to help governments originate projects.
- For smaller projects, in particularly challenging contexts (e.g. FCAS), PIDG could finance a project itself using a corporate finance approach (on balance sheet). This would require softer finance. The rationale for this would be that it may be more economic and efficient to do this in contexts where getting the project up and running quickly was of strategic importance to the UK. Once operational, PIDG could bring in local investors, although in FCAS this would most likely be through a trade sale.

- Taking a more joined up approach and replicating certain projects rather than always doing “one-offs”.
- Raising the scale of support and potentially taking more of a lead in priority initiatives.
- Developing strategic alliances with for example, CDC, and linking with DFID country offices and other thematic programming like Infrastructure and Cities for Economic Development (ICED).

6. REVIEW DIMENSION II: VALUE FOR MONEY

The second dimension of the review explores whether the PIDG investments represent good VfM for DFID and addresses the question:

Does PIDG represent good VfM? Has PIDG overall and the individual facilities been implemented economically, efficiently, and effectively?

This high level strategic question is assessed using the **3Es model of Economy, Efficiency and Effectiveness**. The 3Es sub-questions, we have looked at include:

- Q10 - Economy: Are the PIDG facilities buying the services they use and provide at the right prices (i.e. how cost-effective are the financial, human or material resources acquired and used by the PIDG facilities)?
- Q11 - Efficiency: How well do the PIDG facilities or its agents convert the services they provide into outputs they deliver?
- Q12 - Effectiveness: How successfully do interventions achieve their intended outcomes and how successfully are subsequent impacts realised (e.g. in attracting additional private financing to fund infrastructure investment, increasing the capacity of infrastructure operations, expanding access of target populations)?

This section is supported by analysis at the individual facility level in Annexes B through I.

6.1. Context

The National Audit Office (NAO) defines VfM as being “the optimal use of resources to achieve intended *outcomes*,” In DFID, VfM is more commonly used as an indicator “to maximise the *impact* of each taxpayer-pound spent to improve poor people’s lives.”

PIDG is a good example of donors choosing to work at the frontier of what is feasible for private sector infrastructure investment not what is cheapest or easiest; economy therefore has to be balanced with efficiency and effectiveness.

The VfM analysis is based largely on the reporting from the PIDG Annual Reports, the DFID ARs, particularly since 2014/2015 when a shift in governance and strategy took place following the NAO and Public Accounts Committee (PAC) reports.⁴⁴

It is worth noting that to date there has been a natural focus on the individual facilities and projects but less on the intervention portfolio across PIDG and the impact on making infrastructure finance markets. It is also clear from the literature review and stakeholder consultations, that the quality and relevance of the evidence base to inform a comprehensive VfM, particularly one that aims to rank facilities or PIDG overall against other comparable infrastructure platforms, is insufficient. This is something that PIDG itself has recognised and as a result is currently undertaking a series of activities to better measure the impact of the facilities and PIDG as a whole (these are discussed in Section 6.1.1.).

The main challenges in undertaking a VfM analysis given the data currently monitored are comparability in what the facilities do; and the development indicators (DIs) and total investment commitments (TICs) associated with transactions. The DI indicators remain predicted or estimated - depending on how far along the project is - rather than actual and are still only partially subject to independent verification through an evaluation programme or third party sources. In addition, the nature of many of PIDG’s projects - for instance, roads, ports, on-grid energy - is such that the number of actual beneficiaries is very difficult to measure. Attribution is also an issue with the default “claim”

⁴⁴ The December 2016 DFID Multilateral Review added little on specific VfM but PIDG fell in relative rankings on the somewhat different criteria used.

to all TICs in a transaction (a problem common to all DFIs not just PIDG) and possible distortion by some high impact “outlier” projects. All benefits are not the same and need context, particularly for difficult projects in difficult places or markets. In response to these challenges, the previous VfM reviews have tended to focus on governance, financial management and transparency issues. We detail some of these challenges further in the next section.

6.1.1. Challenges of VfM Analysis⁴⁵

In any VfM exercise, the principal initial challenge is to decide on the fundamental scope and purpose of the analysis and then select a set of indicators that inform; these may be a mix of quantifiable or qualitative indicators and usually provide some form of balanced scorecard or matrix. In the pro-poor, private infrastructure project development and financing space, **comparability of outcome/impact indicators is very difficult because there is no single approach that donors and DFIs have signed up to so considerable divergence in approaches and reporting persist.**

The problem of comparability between platforms is mirrored by issues of comparability between the individual PIDG facilities. PIDG is currently largely the aggregation of its individual facilities and these all have specific Theories of Change (ToC) and these differ markedly:

- **By type of intervention**, project development, debt or equity, local currency guarantee or TA – these vary enormously by degree of difficulty, resource intensity, gestation period, and exit options. Different activities have different impacts at different times in different markets.
- **Age and maturity**, some have existed since 2002 but others are more recent.
- **Funding profiles**, both in value and conditions and donor scheduling of contributions differ.
- **Scale of facility**, ability to leverage at project/facility level and transaction range.
- **Project cycle positioning, share and additionality of financing and hence effective attribution.** There is no robust system in place for attribution and this leads to large outliers or tails of benefits that are not proportionate or realistic.
- **Market realities**, using DACI/II and FCAS are broad categories, the “frontierness” of a project is best assessed at the individual level to gain context.
- **Sector differences**, for example telecoms network investment may lead to broader mobile coverage for an existing user and access for new users, whereas an increase in power service availability can improve financial inclusion, and long term growth and productivity.

In addition to the above, there are other difficulties associated with measuring the development benefits of infrastructure provision including: lumpiness and extended project life cycles; affordability and user tariffs; appropriate regulation and competition; network agglomeration; and the indirect nature of benefit transmission and realisation, often via induced effects.

PIDG DIs can be broadly grouped under the twin objectives of **increasing private sector investment in infrastructure** in target markets plus **improving the lives of the poor** via increased service quality, extended access, job creation (permanent - direct/indirect/ induced or temporary), enhanced incomes, and social/gender/environmental cross cutting assistance.

Despite recent improvements in collecting and reporting data, together they mainly inform a narrative on overall generalised outcomes, more about access and reach, than actual longer term impact on poor people’s lives. The latter should come from the enhanced Evaluation Programme and wider knowledge initiatives that have started since both the NAO and Evaluability stocktaking exercises.

⁴⁵ These challenges were highlighted in a note from the PIDG CMO to DFID in December 2016.

Another dimension that any overall or facility VfM assessment needs to take account of is the extent to which an intervention is fundamentally market-making or transformative as against a project transaction that has development benefits as well as being bankable. A literature search and internal document review has shown a wide use of terms or concepts – ranging from “high development intensity” to “demonstration” or “frontier” or, “transformational.” There needs to be a standardisation of use of terms in line with international M&E best practice. It also needs to be systematically reported on given PIDG objectives of progressively reducing market failures.

The focus on TICs/DIs suggests that this is a major driver of VfM, particularly for EAIF, GuarantCo and DevCo. On the other hand, both the Evaluability Report and contributions from the PIDG M&E team, suggest this may be also a possible cause of distortion as a few large project “outliers” can make up the majority of TICs and other DI benefits (access, jobs) for a particular facility.

Examples of “outliers” include:

- DevCo Central Java IPP, DevCo US\$1.75m commitment, TICs of US\$4.3bn;
- GuarantCo Housing Finance Guarantee Africa, GuarantCo \$5m guarantee, TICs of US\$223m and short-term jobs of 60,000;
- EAIF seven Energy Gas Pipelines, EAIF put in US\$29.6m, TICs of \$300m and 35m people with access to new or improved infrastructure;
- EAIF Azura Power in Nigeria, EAIF put in US\$30m, TICs of US\$892m and 21m people with access to new or improved infrastructure; and
- GuarantCo Shiriam Transport I and II, GuarantCo guarantees of US\$38.3m, TICs of US\$910m and long term jobs of 160,000.

Apart from the importance of a few projects, there is also the continued reliance on predicted (or estimated) DIs depending on where a project is in its lifecycle rather than actuals. More importantly is the question of attribution and the meaning of leverage – an issue common to many DFIs and infrastructure support programmes. Here VfM needs a more rigorous and harmonised approach not the common claim to all TICs as per the wider DFI community. The challenge of co-finance or leverage is however a long term one.

Previous VfM analyses (NAO/PAC/DFID) of PIDG using the 3Es approach focused on economy and efficiency areas, such as financial management, procurement, and travel/operating costs, in part because those areas are quantifiable and verifiable. This limits the scope but fulfils part of the objective of improving the impact per taxpayer-pound spent but it is essentially front-ended in the causality chain. The weakness that exists is the paucity of independent evidence on the strength of the chain between outputs and outcomes/impacts and the pressure to have the latter reporting fit programming cycles. Historically there has been a lack of investment in impact evaluation and the VfM aspects of the past individual facility reviews or evaluations while largely positive have been limited in scope.

Both IFC and CDC have simple and robust matrix style (or balanced score card) approaches. For PIDG there is scope to bring in more contextual and judgemental evidence that may be tabulated or incorporated in the VfM. This is at the crux of the transaction against transformation / market making trade-off; also what is the relative weighting of the TICs (Commercial Private / DFI / PIDG share) as against DIs such as jobs or access or environmental and social safeguards? It should be noted, however, that PIDG is currently reviewing its approach to these issues.

PIDG is working with a number of the facilities to revise their ToCs. This will move the participating facilities to developing a more holistic picture of their development impact rather than simply collecting and reporting discrete logframe targets. PIDG overall is moving towards a more blended approach which will involve adding more logframe lines to capture additional measures and potentially include weightings around the depth of impact (for instance, with energy provision to those who previously had no access weighted more heavily than improved mobile coverage).

PIDG is also involved in multilateral collaboration on indicator harmonisation and best practice. On the former, PIDG, with others have recognised that some of the harmonised indicators currently being reported on - for instance, access to energy - need work. On the latter, PIDG is working with Multilateral Development Banks (MDBs) to prevent double counting on multilateral programmes on measures like amount of private finance catalysed, jobs created, etc.

6.2. Economy

Q 10 – Are PIDG facilities buying the services they use and provide at the right prices (i.e. how cost-effective are the financial, human, or material services acquired and used by the PIDG facilities)?

Use of competitive procurement and recruitment processes, and recent tenders for the CMO, the fund management contracts for GuarantCo and EAIF, and for developers' contracts for IAsD and IAfD demonstrate that PIDG's key costs are subject to competitive pressure and should represent VfM from an Economy perspective. Previous VfM analyses have shown the PIDG facilities to have performed well or improved over time on Economy.

The PIDG Code of Conduct and Operating Policies and Procedures require use of competitive procurement and recruitment processes; these are typically based on EU or WBG systems. Benchmarking exercises and market soundings are undertaken in advance of contract retenders; examples of recent tenders are the CMO in 2014 and the fund management contracts of GuarantCo and EAIF in 2015 /2016. The core developer contracts for IAsD were also signed in early 2016 and for IAfD in 2013.

A PIDG lessons learned memorandum on the retender of fund management providers for EAIF and GuarantCo underlines how progressive changes in contracting can raise efficiency and effectiveness. When EAIF was first bid out, the requirements were to raise US\$200m in senior and subordinated loans against an "equity cushion" of US\$100m provided by the donors and to appoint a fund manager. However the main emphasis was on testing the model that commercial financing could be structured to work in the most difficult markets. There was no PIDG; the Standard Bank-led tender was the only one received and FMFM was appointed for EAIF and later also GuarantCo.

The gradual maturity of both the facilities allowed refinancing and donor objectives increasingly became focused on development impacts as well as the financial market goal. The viability of the approach and market recognition increased the level of competition for later mandates and allowed a 2015 retender that resulted in enhanced, separate fund management agreements that incorporated the development and finance objectives, reduced costs,⁴⁶ and incentivised teams whilst retaining continuity and flexibility. PIDG has also sought to integrate lessons learned and best practice in other ways; for example, developing the 2013 Code of Conduct and Operational Policies and Procedures, and the Handbook on Development Indicators, participating in international initiatives on DFI harmonisation, the private financiers group of the EU-AITF, and more recently the WBG platform GIF.

The enhanced PIDG CMO and governance arrangements are designed to increase coherence, scale up and joined up working but do come at increased cost: the reported annual costs of the CMO were £1.6m in 2013, £1.8m in 2014, and £2.0m in 2015. Against this, the NAO recommendations have been progressively implemented and DFID have invested in upgrading the oversight of PIDG and the facilities. A Supervisory Board has also been established. The NAO calculated that the 2012 operating and administrative costs of the then CMO and the facilities represented 2.8% of the PIDG portfolio value, or funds available to invest. The PIDG 2016 administrative and operating costs represented 3.3% of the PIDG portfolio value, or funds available to invest.

The increase from 2.8% to 3.3% over the five year period to 2016 is largely driven by an increase in facilities' developer costs of £12.1m or 70%. As the facilities have established themselves and grown from 2012, so has their portfolio of developers as they have identified developers with the expertise in the relevant geographies and sectors. That, in turn, has seen the PIDG portfolio value grow by 44% between 2012 and 2016, driven by the work of the new

⁴⁶ EAIF and GuarantCo "Lessons learned from the evolution of the relationships between EAIF and GuarantCo and their manager FMFM."

developers and the portfolio value continues to grow. In addition, PIDG's administrative cost grew over the period as PIDG invested in the CMO and facilities, to develop and manage a larger pipeline of future projects. Comparing this figure with other DFIs is incredibly difficult and like-for-like comparisons were not available.

The strengthened CMO includes additional capacity in risk and compliance and financial management, reporting and communication, strategy and M&E. There is a near complete exercise to benchmark remuneration and staffing to those of the CDC and other comparator DFIs; this should inform future questions on economy but was not available for this review.

6.3. Efficiency

Q11 – How well do the PIDG Facilities or its agents convert the services they provide into outputs they deliver?

PIDG has performed well against its logframe targets. For 2012 to 2015, for all years except 2013 when it gained a weighted B score it has been given an A; the overall level of risk has remained medium. At the facility level, what is evident is the unpredictability of working in frontier markets and how the performance scores vary from year-to-year over the four year period.

The evidence base on DFI efficiency comparators is narrow to negligible. One is the NAO "DFID: Investing through CDC" report of November 2016, where there is reference to two benchmarking studies by CDC (2014 and 2016), where it compared CDC's performance with six DFIs. The comparators are not named/detailed and the comparison was for all investments.⁴⁷ In the same report, CDC's operating costs were mapped against the value of its portfolio; as it geared up and shifted its business model, operating costs as a percentage of its portfolio increased from 0.66% in 2012 to 1.12% in 2015 and is expected to peak at 1.6% in 2017 and then fall back to 1.2% by 2020.

Looking across the other six DFIs, CDC presents itself as being generally at the lower end; having the lowest percentage in 2012 and 2015, the second lowest in 2013 and the third lowest in 2014. In comparison, the NAO in 2014 calculated that the administrative and operating costs of the then PIDG CMO and all the facilities represented 2.8% of the value of funds available to invest. CDC's operating costs are only their internal operating costs and exclude fund management fees embedded in their fund investments. This should not therefore be used as a like-for-like comparison with PIDG's costs.

The overall administration costs of PIDG – which include the CMO, the facility fund managers, Trusts and general expenses – were £29.9m in 2013, £28.0m in 2014, and £38.0m in 2015, as reported in the DFID ARs. PIDG's overall assets at the end of 2016 are estimated at \$783m (\$691m at the end of 2015) with assets under management of \$889m. PIDG administration costs have increased by approximately \$1m due to the increased resources given to the CMO to improve financial management, oversight, monitoring and evaluation, and communications. By comparison, total operating costs for CDC increased from £14.8m in 2012 to £33.5m in 2015, CDC's overall portfolio value of investments was valued at £3bn at end 2015 and its portfolio of companies is valued at £3.9bn.⁴⁸

DFID also introduced a contestability mechanism in 2012 such that both baseline and individual funds could be allocated based on the performance of individual facilities; this was to drive VfM in line with incremental resourcing of high performing facilities. While the contestability mechanism has since ceased, in 2013 owing to good performance EAIF, IAfD and IAsD were all allocated⁴⁹ additional funds (£66.5m, £35m, and £19m respectively).

The evidence base is strong on continuing efforts to improve the efficiency of PIDG overall and the individual facilities, reflecting a combination of trends in the private infrastructure market and donor preferences or reporting

⁴⁷ The CDC benchmarking exercise is not in the public domain and therefore we did not have access to any disaggregated data which we could compare with PIDG.

⁴⁸ "Department for International Development: Investing through CDC" NAO, 2016; "CDC Annual Review 2015", CDC, 2015.

⁴⁹ Not all the allocated funds were spent.

requirements. These changes impact different facilities in different ways and at different times. What is evident is the unpredictability of working in frontier markets and how the performance scores vary over the four year period.

The DFID ARs give summaries of overall PIDG performance against logframe targets, as well as for individual facilities. For 2012 to 2015, for all years except 2013 when it gained a weighted B score it has been given an A; the overall level of risk has remained medium. Table 6.1 below breaks this down to the facility level over the same period. In Annexes B through I, we provide detailed summaries of how each facility has performed against its logframe targets.

Table 6.1: DFID PIDG ARs 2012 to 2015 – Facilities’ performance scores

Year	EaIF	GuarantCo	IAfD	IASD	IAI	TAF	GAP	DevCo
2012	C	A	A+	A+	A+	N/A	A	N/A
2013	B	B	B	B	B	B	B	N/A
2014	A	A +	C	A	A	A	A	A
2015	A	A	A	B	B	B	C	A+

Source: DFID ARs.

6.4. Effectiveness

Q12 – How successfully do interventions achieve their intended outcomes and how successfully are subsequent impacts realised (e.g. in attracting additional private financing to fund infrastructure investment, increasing the capacity of infrastructure, expanding access of target populations)?

The amount of private sector and DFI/IFI investment mobilised per dollar of commitment, both by facility and PIDG overall is significant. Both DevCo and IAfD projects have relative high amounts of private sector and DFI/IFI investment on a per dollar basis compared to other facilities. This is driven by the low levels of funding these facilities provide to individual projects, particularly relative to the credit facilities. Taking the commitments of all the facilities (excluding GAP, TAF and ICF-DP), for each dollar of investment eleven dollars of private sector finance and three dollars of DFI/IFI finance are expected to be mobilised as part of the projects supported, which is mostly in line with EaIF’s per dollar leverage figures given that it represents almost two thirds of the facilities’ commitments.

Past reviews of effectiveness have flagged concerns around the use of the DIs, particularly: the reliance on predicted and estimated rather than actual figures; the difficulty in ensuring the facilities are not overestimating likely benefits; the problems of definition and comparability (e.g. comparing the impact of new technology and access to public and market services via mobile phones vs. household grid extension via a lifeline tariff); the worrying importance of a few large projects on overall totals (the outlier problem); and the need for systematic and timely revisions. However the overall indicator set and methodologies are aligned with international DFI comparators; the main issue being that they are facility and project dominated and the market making or other externalities associated with the overall intervention – for difficult projects in difficult markets – is not really systematically measured or reported.

Breaking down investment by individual facility and calculating a set of DIs per US\$1m invested while a straightforward exercise does not offer an appropriate picture of a facilities performance in particular for comparator purposes. Comparability is difficult as the facilities do very different activities, at different scale, at different stages of the project cycle, with funds provided at different times and have different maturity and different markets. Some are grants and others loans or guarantees or equity; the financial interventions therefore have some form or expectation of capital recovery.

Turning back to the DI data set, a major, long standing problem is attribution and the extent that PIDG interventions can be seen as catalytic and causal. In any typical PPP / PPI project all the DFIs involved claim leverage. The catalytic and causality question can only be answered by informed counterfactual argument in the specific context and this is

only feasible for a selected sample. The timing problem – particularly of linking outcomes to longer term impacts is also endemic.

Looking at PIDG aggregates for financially closed and completed projects (excluding ICF-DP) - PIDG commitments of US\$2.1bn generate TICs (excluding PIDG commitments) of US\$28.8bn or a leverage of some 14.3.⁵⁰ This seems high given the often small share of the PIDG facility in overall financing or its position in the project cycle or its nature. A more conservative view would be to treat all DFI and PIDG investments equally, doing so by adding PIDG and DFI gains (of US\$8.3bn) against Private Sector Investment (of US\$22.2bn) gives you a leverage of 2.7.

Looking at the shares of TICs generated per facility, it is clear that EAIF and GuarantCo make up 70% and DevCo and IAfD have similar shares of the residual 30%. Doing the same calculation as above for EAIF and GuarantCo only - we get an estimated leverage of 2, which is lower than the overall total.

Apart from investment, the long term jobs indicator would suggest itself as important but here GuarantCo dominates with over 94% of the predicted total. The “Additional People with Access to Infrastructure” indicator is dominated by EAIF with 75%; GuarantCo has 13% and DevCo 12% of the 148m total.

VfM can be increased by leverage at both the facility level –for the financial vehicles with balance sheets – and at the project level. Extending facility level leverage may however come with conditions that impact the ability of that facility to work in FCAS or frontier projects. Use of per dollar funding VfM analysis across the facilities – what the facilities invest not just donors⁵¹ - requires a reasonable degree of comparability in the indicators used; this is most easily achieved in investment.

Table 6.2 below summarises the amount of private sector and DFI/IFI investment mobilised per dollar of PIDG commitment, both by facility and PIDG overall (as opposed to donor commitment).

Table 6.2: Private sector and DFI/IFI investment mobilised by facility (predicted US\$)⁵²

Facility	Private sector		DFI/IFI	
	Total investment	Investment per US\$ of PIDG commitment	Total investment	Investment per US\$ of PIDG commitment
DevCo	US\$6.1bn	US\$363	US\$0.2bn	US\$13
EAIF	US\$10.2bn	US\$9	US\$5.9bn	US\$4
GuarantCo	US\$4.3bn	US\$6	US\$0.8bn	US\$0.8
IAfD	US\$1.4bn	US\$43	US\$0.6bn	US\$18
IAsD	US\$0.2bn	US\$7	US\$0.1bn	US\$5
Total for facilities	US\$22.2bn	US\$11	US\$7.7bn	US\$3

Source: Data provided by the PIDG CMO to CEPA on 28/02/2017 titled “Q_Intervention_All for CEPA”.

As shown, both DevCo and IAfD projects have relative high amounts of private sector and DFI/IFI investment on a per dollar basis compared to other facilities, while EAIF has mobilised the highest total investment amounts. The high per dollar figures for DevCo and IAfD are driven by the low levels of funding these facilities provide to individual projects, particularly relative to the credit facilities. For example, total DevCo commitments to projects was US\$16.8m while IAfD commitments total US\$33.5m, based on the data provided by the PIDG CMO. DevCo has a

⁵⁰ All figures here have been taken from preliminary aggregate numbers for PIDG facilities up to 2016, received by the PIDG CMO on 28/05/2017. As such, these numbers may need to be updated once data has been finalised by the PIDG CMO. The methodology for removing PIDG commitments is explained in footnote 3.

⁵¹ For example DI / TICS per \$ committed as against \$ per \$ funded.

⁵² Note that TAF and InfraCo Asia (Investment) figures have been excluded to avoid double-counting. GAP has been excluded given that only one transaction has been completed to date. ICF-DP figures have also been excluded. For all the included facilities, PIDG commitments from the DFI/IFI figures have been removed where appropriate to avoid double-counting.

particularly high figure for the amount of private sector financed mobilised per dollar of PIDG commitment. This is driven by one very large project, a US\$4.3bn IPP in Central Java, Indonesia, reaching financial close in 2016. If this project is excluded, private sector commitments per dollar would be US\$119 for DevCo. Similarly, US\$1.3bn of private finance mobilised by IAfD is driven by private finance mobilised by three projects, namely the Kpone IPP, Muchinga Hydropwer, and Geometrics Power Aba (and figures for the latter two are preliminary estimates of private investment, given that IAfD has exited the project). This is discussed further in Annex B.

Taking the commitments of all the facilities in the table, for each dollar of investment eleven dollars of private sector finance and three dollars of DFI/IFI finance are expected to be mobilised as part of the projects supported, which is closely in line with EAIF's per dollar leverage figures given that it represents almost 60% of the facilities' commitments.

As noted earlier the level of difficulty and need for facility management engagement varies by type of facility; here it may be useful to have some typical periods of engagement; this turnaround and failure /closure rates could be compared to existing statistics for say IFC or InfraVentures or CDC infrastructure transactions.

The risk appetite and ability to work on difficult projects in difficult places shown by PIDG exceeds that of the CDC or IFC – this degree of difficulty – needs to be recognised in VfM comparisons.

6.4.1. Financial sustainability

The PIDG assets are all held by the PIDG Trust of which SG Hambros Trust Company Ltd are the principal trustee; the Trust holds 100% ownership of the PIDG companies and LLPs on behalf of the donors. GuarantCo is an exception in that it is part-owned by FMO (using DGIS funds).

Assets can only be realised if a company is wound up or it generates a profit and pays a dividend to the PIDG Trust. Proceeds can then be returned to donors based on the terms and conditions of the funders' agreements. The value of the assets held within PIDG are checked annually by auditors and monitored within the governance structures.

Recently DFID provided GuarantCo with up to £40m of callable capital. The objective of using callable capital is to improve VfM for taxpayers, achieving the same development outcomes but without a cash flow impact. Callable capital is also the most efficient way of increasing the capital of a facility that provides contingent products. The 10 year agreement allows for capital to be called if the value of the GuarantCo portfolio is more than five times its equity; this would require GuarantCo to lose about 60% of its paid-in equity on a guarantee portfolio of US\$1bn. This is a low but not negligible risk.

The DFID AR 2016 also reports that the funding models for IAfD, IAsD, and GAP reduces the need for cash in advance while maintaining liquidity and is also driven by VfM following NAO recommendations.

Generally there was expectation in the design of the PIDG facilities that - with the exceptions of TAF and DevCo – they would be run in a commercial manner and over the long term at least maintain their capital values (something achieved by EAIF a few years ago). In practice this has not yet proved possible for IAfD and the model of IAsD, while more flexible and in somewhat less difficult markets, remains to be proven in terms of capital retention.

The structure and source of any future financing – which could involve a move to corporate balance sheet – will clearly impact VfM associated with these investments; it is also likely that greater financial efficiency will influence future VfM.

6.5. Ways to improve VfM

There are ways in which the VfM of PIDG could be enhanced - some of which we understand are already underway/being considered – and are briefly outlined below.

- PIDG could improve capital productivity by moving to a consolidated balance sheet, this for example could improve financial efficiency and allow for the corporate financing of smaller projects that are currently being project financed.
- Under One PIDG, there could be a more joined up programmatic approach which would allow for responses which tackle the multifaceted nature of problems rather than a one tool – one solution approach currently employed. This could be achieved through closer working with DevCo and TAF, joint development plans, collaboration between facilities, and embedded advisors for pipeline development. Facilities in the lead position in deals could promote other facilities - subject to market needs and additionality.
- TAF could use redeemable grants more regularly, particularly for VGF, where it is possible to do so (noting that opportunities may be limited).
- The InfraCos could invest equity at financial close and sell later in the project life cycle when they could generate a return. While IAsI is currently able to do this on IAsD's behalf it is only as an investor of last resort.
- TAF could engage more with government on regulatory failures which are often the most significant barriers.
- By increasing in country presence (which is already underway e.g. in East Africa, West Africa, Singapore and Myanmar) there could be more clustering and better sequencing of projects which could enhance the potential for transformative impact.
- By aligning more closely with DFID country offices and programmes (e.g. ICED) there may be opportunities to improve outcomes and impact and provide prospects for replication and scale.

It is our understanding that a number of these suggestions are already being considered by PIDG, and are expected to be taken forward by the TopCo Board once it is in place.

7. REVIEW DIMENSION III: PIDG'S TRANSFORMATIONAL EFFECT

The third dimension of the review explores whether the PIDG investments have resulted in a transformational impact:

To what extent has PIDG delivered transformative impact?

Within this, we have looked at the following sub-questions:

- Q13 - With reference to the types of support PIDG provides identify what impact the PIDG model has had on the types of infrastructure investment services provided by new or existing organisations/institutions operating in the same space?
- Q14 - What evidence is there that PIDG activities have positively changed the behaviour of existing/ new commercial investors (local and foreign) and /or developers after PIDG's intervention and has this change been sustained/transformational?

This section should be read alongside **Annexes B through I**, which looks at transformational impact on an individual facility basis.

7.1. Context

The ToR defined transformative as: "a long lasting increase in the quality and/or quantity of private investment in infrastructure (not involving PIDG) that has been influenced by a PIDG activity in infrastructure (e.g. PIDG investment lead to: i) a lasting increased PPI, ii) crowding in of previously absent investors, and/or iii) better quality PPI."⁵³ At present this is not measured or reported in a systematic way, either by the individual facilities or across PIDG. On the other hand particular projects are often claimed to be "transformational" but this would need to be unbundled into judgements of what type of project or infrastructure has the most impact; this requires sector and locality context, particularly on trade-offs between new and enhanced service or indirect/direct impact.

It is worth noting that the WBG and other development literature take a different approach, instead emphasising programmes rather than transactional projects, relevance and the removal of binding constraints, depth of change or impact, and scale. Its definitions are more about acceleration and step-changes. The WBG definition of transformational engagements is "individual or series of interventions that support deep, systemic, and sustainable change with the potential for large-scale impact in an area of a major development challenge. Such engagements help clients remove critical constraints to development; cause or support fundamental change in a system; have large-scale impact at the national or global level; and are economically, financially, and environmentally sustainable."

If One PIDG were to lead to a more **systematic, joined up and directed approach** (as envisioned) this would align with what others in this space are doing and looking to do; it is also an approach stakeholders indicated would be necessary if PIDG aspired to remain at the forefront of their niche.

Historically the PIDG facilities were set up and operated based on independent, contracted out delivery of investment policies that were targeted at a specific market failure; in a sense they were deliberately siloed and the PIDG central management and administrative capacities minimised. This uncoordinated approach did not encourage cooperation or clustering by geography, sector, or project. If it happened – and the number of transactions involving two or more facilities remained relatively small until after 2015 – it was unusual and there was concern that market distortions might result if grants were involved. Under the One PIDG business model the aim is be more coordinated – with target countries, embedded advisers for pipeline development, greater cooperation in project development and origination with DevCo, TAF, and the InfraCos, and overall a more centralised joined up PIDG branded strategy. **A transformational impact is clearly more likely under the One PIDG than the previous business model.** In the latter the emphasis was on individual facility project transactions – of which the PIDG infrastructure investment was

⁵³ Project Terms of Reference.

typically a small share but as additional as possible – and those in particular which had what PIDG defined as high development impact. In practice, due to attribution issues and the extended time elapse between facility initial involvement, financial close, construction and operation (also then allowing a minimum of, say, two years of infrastructure service provision to allow impacts to be realised and measurable), the development indicators largely remain predicted or estimated. The maturity constraints are only recently relaxing sufficiently to allow independent evaluation of the causality links from outputs to outcomes and impacts. The **Ghana Kpone IPP** is an example; initial IAFD involvement was in 2005, financial close in 2015, construction 2017 – 2018 and generation expected from 2020. The DevCo **Central Java IPP** story also extends over a decade, with financial close in 2016, and generation not anticipated until 2020.

It could also be argued that not all high development impact projects are also transformational; the use of terms needs to be standardised, as some high impact projects may simply improve household access or service quality in a marginal way, perhaps limited by questions of affordability or distribution, the reach may be large but the long term, sustainable impact on the poor may be much more limited; it is also difficult to trace or map pro-poor usage of say grid power.

The PIDG facilities also cover a range of infrastructure sectors and have flexibly interpreted this to include logistics, infrastructure linked to extractive and industrial anchor private investments, in addition to the traditional infrastructure sectors. However, the bulk of project transformative examples are in **power generation** (including more recently renewables) and **mobile telephony**; these are **the two main sectors that have been reformed and unbundled** and, in some markets, have enabling environments that facilitate private sector infrastructure investment. In the case of mobile telephony – excluding some FCAS and subnational market failures - the market failures have been removed and now private investment in the sector dominates flows.

The WBG PPI Database for 2000 to 2015 illustrates the dominance of ICT and power in SSA; with total PPI investment in just over 400 projects and investment of US\$155bn, some 69% and 18% by value were in ICT and power respectively, with the ICT projects typically much bigger. Other areas like roads, ports, railways, and water and sanitation were marginal by comparison. There was also a significant concentration in the larger middle income states, like South Africa and Nigeria. **PIDG activities in its chosen target markets has to be judged in terms of the overall level of private sector activity in infrastructure; particularly in FCAS which remains very low in SSA.**

Q13 - With reference to the types of support PIDG provides identify what impact the PIDG model has had on the types of infrastructure investment services provided by new or existing organisations/institutions operating in the same space?

There is evidence that PIDG support has led to others undertaking new interventions. For example, the IFC created InfraVentures which is modelled on the InfraCos. IAsD's Coc San Hydro Power project provided the rationale for the WBG's Renewable Energy Development Programme in Vietnam subcomponent which offers a re-financing facility to participating commercial banks for loans to eligible renewable-based projects developed by private sponsors. GuarantCo's work - particularly in Pakistan, India and Nigeria - is seen as innovative and helping shift the frontier around local currency guarantees/ financing and capital markets development; its activities are seen by peers and stakeholders as potentially transformative in bringing in additional financing sources and helping de-risk countries and projects.

Facilities can influence new and existing private sector investment financing in a number of ways; by demonstration that a transaction is possible, in a particular project, in a target sector and at a particular time; by innovation; by replication of the same model or project concept; and by advocacy and influence. **Arguably, however, one of the PIDG's main transformational achievements has been in demonstrating to much larger DFIs what is possible and therefore influencing their behaviour. Different new initiatives have also attempted to roll out what the PIDG facilities have piloted.**

The AFDB Africa 50 initiative mirrors part of the PIDG structures in that it includes separate project development and financing instruments but this initiative remains nascent. As the only local currency guarantee facility in the world

targeting infrastructure in frontier markets, the GuarantCo model has certainly informed the recent leveraging of IDA 18 and the creation of IFC managed PSWs that include infrastructure guarantees.

INFRACREDIT created by the Nigeria Sovereign Investment Authority (NSIA) and GuarantCo, inaugurated in January 2017 (expected to be operational by Q2 2017) will provide guarantees to enhance the credit quality of local currency debt instruments such as bonds to finance infrastructure projects in Nigeria. **Its operation will accelerate the development of Nigerian capital markets.** It has been established as a commercial private limited company in Lagos. INFRACREDIT will be capitalised with up to US\$200m of paid in equity and “second loss” contingent capital, of which NSIA will subscribe US\$25m (Naira equivalent) with other interests being sourced from institutional and other DFIs. GuarantCo has executed a Callable Capital Funding Facility Agreement providing £50m of contingent capital and will act as the lead arranger for a further US\$50m to be sourced from other DFIs. While it is largely at an outputs rather than an outcomes or impacts stage, **the transformative aim is to unlock capital from pensions** – local pension funds are expanding at more than US\$5bn per year - **and insurance on a scale not previously seen.** The INFRACREDIT business model is also potentially replicable.

Reviewing PIDG and DFID documentation, the following projects were identified at different points of time as either high development impact or transformational (this is not a comprehensive list but illustrates the breadth of projects):

- **Helios Towers** - in Congo-Brazzaville, a FCAS market, EAIF provide long term debt (US\$7m) for the first time in the country for a new shared infrastructure initiative.
- **Niger Dry Port** - with DevCo advice of US\$0.8m to help structure and implement a trade facilitation and integration project, the port attracted US\$77m in private investment.
- **Ghana Kpone IPP** - 340 MW combined-cycle with IAfD (US\$11m) and EAIF (US\$22m) participation. It was the first private thermal IPP closed in Ghana and first PPA; it mobilised US\$900m mainly via African financing institutions (both equity and debt). It was also the first Sumitomo Corporation project in Africa and will add 10% of generating capacity servicing up to one million households. The IPP started in 2005 and closed in 2015 with operation likely in 2020.
- **Azura Power** - Edo State Nigeria, EAIF (US\$30m) and ICF –DP (US\$25m), first post reform gas IPP with high levels of perceived risk across equity and debt, the PIDG facilities acted as a catalyst for a mezzanine debt tranche and attracted OPIC and Proparco as co-financiers, hence avoiding the project being stranded.
- **Gul Ahmed Wind** - IAsD invested in a 50MW wind power project in Pakistan, mobilising an additional US\$119.4m of investment. The project reduces Pakistan’s reliance on fuel imports, with electricity from the facility priced at 14-16 cents per kWh compared to 20-25 cents per kWh for oil / diesel generation.
- **Redavia Solar** - IAfD enabled a rapid scale up of Redavia, an innovative off-grid containerised solar business in Tanzania. The investment expected to contribute to reducing Tanzania’s CO2 emissions and brings health benefits from displacing diesel generators, kerosene and wood fuels. Redavia has considerable potential for replication and is seen as transformational in terms of proof of concept.
- **Coc San Hydropower Project** - a 30MW run-of-river plant located in the Lao Cai province, Vietnam. IAsD took over development of the project special purpose vehicle in 2012 after it had failed to attract sufficient finance for construction works and stalled in 2011. TAF provided a US\$5m VGF grant. Stakeholders reported that the project would have been unlikely to proceed without TAF support and that there has been a bigger interest in the renewables sector in Vietnam as a result of this project. It was the first foreign direct investment in the low-income Lao Cai province. The Vietnam Ministry of Finance has now reportedly been considering implementing a VGF programme for PPP projects.
- **Pakistan Mobile Telecoms** - GuarantCo provided a guarantee for the Islamic (Shukuk) bond for Mobilink, on the grounds that it was a highly innovative deal in a fragile state and resulted in a high number of projected additional beneficiaries (6m). GuarantCo’s involvement helped existing investors overcome their regulatory limits and, by improving Mobilink’s local credit rating from AA- to AA+ and developing an innovative Shariah

compliant structure, it enabled new, more conservative, Islamic investors to participate. Over 60% of the issue was taken up by investors which had not previously supported Mobilink, and the broadening of their investor base has had a positive impact on the cost of borrowing for subsequent financings, helping keep their mobile services affordable.

- **Muchinga Power** – a 200MW hydropower project designed to generate sustainable renewable electric power, with substantial access impact in Zambia. It has been jointly developed by a Zambian power generation company, and IAfD. Muchinga is the first privately developed and owned hydroelectric power plant in Zambia and has significant local ownership.
- **Multiple telecoms project in SSA** - during the market's infancy, EAIF was among the first long-term lenders to the sector: between 2003 and 2007 it closed nine telecoms financings - mostly in DAC I countries and FCAS. EAIF helped to demonstrate their commercial viability to the point that private investment is now the norm rather than the exception both in mobile telephony and broadband investment (particularly mobile data services). More recently, EAIF has down-scaled its share of new investments in pure telecoms projects since private sector debt has become more widespread in the sector. It has refocused to tower leasing projects, where private investors are less active (especially in FCAS) and where there is greater potential for additionality through demonstration effects.

Q14 - What evidence is there that PIDG activities have positively changed the behaviour of existing/new commercial investors (local and foreign) and /or developers after PIDG's intervention and has this change been sustained/transformational?

Stakeholders have noted that PIDG has pushed DFIs out of their natural comfort zone and through its various facilities assisted them to work in places and on transactions they would have previously bypassed. On an individual facility/transaction basis there are a number of examples of transformational impact.

In answering this question, it is important to consider the counterfactual – in the absence of PIDG, what would have happened? It is difficult to say. Like-minded donors may have fallen away or given more grants to existing DFIs to operate outside of their comfort zones. DevCo has certainly influenced IFC Advisory and has possibly helped the shift towards IDA18. The focus on project development and origination and government capacity failures is now established as a binding constraint and DFIs / MDBs are still struggling to respond to the infrastructure deficit with various platforms, co-financing and capital market development initiatives.

There has also been a lot of churn and crisis in infrastructure investment: 1997/98 and 2008 financial crises which has extended project preparation times; many external shocks in FCAS markets; and CDC moving out of and then back into more challenging geographies. Over this period, PIDG has been there and helped avoid stranded or failed projects. A recent example of this includes IASD's support for the Coc San Hydropower project in Vietnam, which prior to its involvement was stranded due to lack of funding.

In terms of DFID, ensuring PIDG has greater linkages with country offices and programmes including new global initiatives like ICED will serve to underpin the transformational potential. For PIDG impacts, reporting needs to be structured around the systematic market-making objectives not individual project or transaction DIs. That said, on an individual facility basis there are examples of individual transformational projects – the most transformational of which we highlight below. For more detailed analysis on an individual facility basis – see Annex B through I.

EAIF played a key role in crowding in private sector and DFI investment into Africa's telecoms infrastructure. When EAIF was first established, there was limited investment in telecoms on the continent. Since then, Africa has benefited from considerable investment in the sector, both in mobile telephony and broadband investment (particularly mobile data services). Across the continent, several governments have liberalised their telecoms markets, allowing for greater investment in the sector and considerable improvements in service delivery. During the market's infancy, EAIF was among the first long-term lenders to the sector, with other DFIs and private sector

lenders increasing their investment in future years. While it is difficult to establish a fully causal link between them, EAIIF's role in the telecoms sector during its infancy is an important indicator of it operating at the frontier and crowding in investment from other sources.

Outside of telecoms, EAIIF has also been a lender to some of the first IPPs in a number of markets. For example:

- EAIIF acted as the lead arranger for the debt financing of Rabai Power in 2008, which was the sector's largest IPP investment at the time of financial close. Following this, Kenya received considerable amounts of private investment for its IPP sector, becoming one of the most developed IPP markets on the continent.
- EAIIF also provided US\$10.6m of financing to the Gigawatt Solar project, the first solar IPP in East Africa.
- More recently, EAIIF acted as the structuring bank for the CECA heavy fuel oil power plant in Sierra Leone, one of the largest investments in Sierra Leone's energy sector to date.

GuarantCo's core product of providing **partial credit guarantees** (PCGs) for local currency financing is among the clearest examples of how PIDG has helped to crowd in private, local currency investment that would not otherwise be possible. Stakeholders often noted that GuarantCo's product is essential for ensuring that their investments are of sufficient credit quality to enable the investments to occur. For example, commercial banks such as Standard Chartered, ABSA and Deutsche Bank have been supported by GuarantCo on transactions where in the absence of guarantees such lending would not have been available, given the credit quality of borrowers.

Following GuarantCo support, there have been instances where similar financing has then been provided without needing a GuarantCo guarantee. For example – **Shriram I** – an INR 900m PCG of the mezzanine tranche of a truck finance receivables securitisation in India. Initially the local market was unwilling to cover the second loss position within a securitisation vehicle but were happy to invest in the senior debt. By GuarantCo taking this position (with FMO) and thereby providing a track record for the market, later securitisations involved the local banks in supporting both the second loss position and the senior debt. **Wataniya** – an USD US\$10m partial risk guarantee of two Palestinian banks lending to a start-up mobile telecommunications operator in the Palestinian Territories. Roughly two years into the successful operation of the mobile phone company operating, there was a refinancing. The local banks that originally required support from GuarantCo in order to lend under a project finance structure and to a new company, were then comfortable taking the full risk without GuarantCo's support.

South Africa Taxi involved three transactions. The first, during the height of the financial crisis, required GuarantCo to support FMO lending in dollars but swapped into Rand as the local market was very illiquid even with GuarantCo's support. The second transaction three years later brought in ABSA to lend ZAR 200m to the company for the first time and required 75% cover. Two years later, ABSA lent a further ZAR 200m and whilst the guarantee cover was only slightly smaller, this facility was closed after African Bank collapsed in South Africa which led to a significant disruption in the local market. Less than a year later, ABSA provided a much larger revolving facility without any support from GuarantCo.

Beyond leveraging private sector and DFI financing for IAfD projects, IAfD has also had some success with leveraging transformational impact, one such example is the **Cabeolica Wind Farm Extension**. Under the US\$84m Cabeolica Wind Farm Project in Cape Verde, IAfD developed four wind farms on the islands of Boa Vista, Sao Vicente, Sal and Santiago. The wind turbines began operations in 2012 and collectively produce 28MW per year of renewable power benefiting nearly 500,000 people, and meeting 25% of the country's energy requirements. Cabeolica is also "**the first commercial-scale, privately financed, PPP wind farm in SSA**".⁵⁴ The project followed an unsuccessful attempt between 1995 and 2004 by the Government, with assistance from the WBG, to develop wind capacity. IAfD staff noted that Cabeolica is considered a standard for wind power projects across SSA and was the leader in a now much more expansive industry on the continent.

⁵⁴ eleQtra (2017). "Cabeolica Wind: Cape Verde". Accessed at: <http://eleqtra.com/projects/cabeolica-wind/>

8. CONCLUSIONS

In this section we draw together a number of the threads that have been explored in the preceding sections. We conclude on the three aspects of the main ToR themes of USP, VfM and transformational impact.

8.1. Overall conclusions

At a high level, to varying degrees, the PIDG facilities have had an enduring role operating at the frontier (USP), VfM exists but is variable and PIDG can claim as much transformational impact as any comparable institution within its focus of operations. But there could be a clearer and contemporaneous articulation of why singularly and collectively they exist, what they are trying to achieve and the boundaries of this, especially as regards other institutions, vehicles and initiatives.

Whilst the different facilities were set up to address specific financial market and linked government failures, assessment of performance has been largely on development impact.⁵⁵ There appears to be still a much relatively greater and arguably disproportionate focus on transformational development/social impact – than measuring outcomes and impacts of developing the different capabilities and markets that are needed to underpin evolution of private financing of infrastructure.

Although closing transactions and provision of infrastructure to target groups, was always important from commercial and use of development funding perspectives respectively (the former not least given the involvement of commercial management and capital), addressing and not just mitigating the problems that gave rise to their existence, was also an aim of PIDG. The rationale(s) for intervention as well as how problems are addressed have not evolved as they might, in terms of articulating where the frontier is and the nature of interventions required to shift it.

Going forward there could be a more acute vision, objectives, and strategic framework within which this is operationalised and measured. This should take into account PIDG's current greatest differentiator, the existing endowment of first-loss capital that can be used in different ways to achieve different potential objectives. This will involve choices as regards:

- Which facilities and their approaches remain most relevant to what PIDG is seeking to achieve and therefore which remain priorities for both grant and DevCap funding.
- The target overall developmental/sustainability trade-offs at both the individual facility as well as PIDG levels.
- The extent to which the operations of the facilities are devolved to facility managers and the extent to which they are coordinated centrally by a TopCo board. A key determinant of this will be what they are individually and collectively seeking to achieve and the extent to which this is best achieved on a facility stand-alone basis or by more joined-up approaches.

8.2. Market context

Although we have experienced a degree of development in the past 15 years since the inception of PIDG, many of the market and government failures, together with affordability challenges, still exist in many markets, although they might manifest slightly differently from time to time and place to place. What has changed, is the number of new bespoke interventions as well as increased focus of traditional institutions on trying to address them. It is, however, important to distinguish between objectives and intent and actual results on the ground in terms of which entities are doing what and how. Sustainable impacts in these contexts will ultimately only be achieved by developing infrastructure finance markets which replicate features that characterise more developed ones. **From a policy**

⁵⁵ PIDG reporting is still not smart and has not moved to re-establish trust after the NAO report.

perspective, the role of development finance should therefore not just be about *closing projects*, but also about *developing markets*.

8.3. Current USP

A greater proportion of PIDG activities for each facility are taking place at, or near, the frontier than most comparator DFIs, across different, “*where*”, “*what*” and “*how*” dimensions. The precise nature of the positioning at an individual facility level does, however, differ across these.

Overall, PIDG is different to DFIs and other comparators operating in infrastructure owing to its major focus on **greenfield** private infrastructure provision in **DACI/II countries** and **FCAS**. Stakeholders appreciate the flexible approaches of the individual facilities, noting they are **nimble, quick and less bureaucratic than the traditional DFIs**. This differs from the mainstream DFIs who are **typically more conservative** and who **need to make a return on their capital**, and according to stakeholders can show a **lack of responsiveness** to clients’ needs compared with PIDG.

Given that the target risk in an investment portfolio needs to be underpinned by capital that can tolerate this, the PIDG facilities can take the positions they do due to the nature of their **first loss capital. This absorbs risk without fully pricing for it** and its existence means that other senior ranking participants do not have to price as highly as they would if investing/ lending directly in projects. Such capital has enabled DFIs to increase their risk exposure by working through PIDG, with PIDG capital providing protection against impairment of their own capital.

This illustrates the **trade-offs that exist between being as developmental as possible versus being sustainable**. Where institutions position themselves across this spectrum is a policy choice – there are no right or wrong answers. However the implications of any positions need to be recognised, not least that highly developmental positions need to be supported by softer capital, and with a potentially greater need for replenishment (given greater risks of impairment). The provision of harder capital to facilities will inevitably reduce risk appetite in the absence of softer capital on a case-by-case basis to mitigate potential losses. But facility financing can be blended in order to reflect the nature of the risks faced in the investment portfolio in question.

There are therefore options for given facilities to become more or less developmental. TAF can help especially in the undertaking of more developmental projects on a case-by-case basis. Doing so on a portfolio basis – across the piece – requires soft capital that donors are prepared to lose (and not penalise facility managers for doing so).

8.4. Future USP

Each PIDG facility was set up to address specific impediments to private finance existing in markets. Even though different country and/or sector markets have developed, these challenges still exist to varying degrees – with the exception of mobile telephony it is difficult to see many examples of “graduation”. So to varying degrees the challenges still remain.

There is considerable uncertainty regarding where the different DFIs will focus in future, notwithstanding the pressures they are under to take more risk in their portfolios, by operating in more challenging environments. But as most of the DFIs are first and foremost run as self-standing commercial businesses, it is difficult to see this position changing fundamentally in future. Moreover, reflows from the multilateral DFIs can be important sources of funding for, say IDA, so the desire to reduce these will always be bounded. There will still be likely limits as regards how much risk they will take in the absence of bespoke first loss support or other credit enhancements, either at the portfolio or individual transaction level.⁵⁶ As a result, they may not take the lead in finding new ways to move forward the frontier of what is possible in a given context.

The position with CDC is unclear, with its investment policy under negotiation. In any event, even if CDC were willing as well as able to position around the frontier to the same degree as PIDG, the challenges in doing so should not be

⁵⁶ Capital that requires a return will need to diversify its risks (as concentration and covariance / correlated risks –such as exchange rate depreciation – cannot be priced on an individual transaction basis).

underestimated. These will be both philosophical (mind set) and practical (e.g. improving origination capabilities in the chosen markets). CDC is, currently largely and could be more, complementary to PIDG and certainly not geared up to replace PIDG as a whole, but some facilities could provide a useful entry point and origination opportunities, especially EAIF.

Other initiatives, such as Africa 50 especially, have held the headlines but have been very slow to get going.

It is likely therefore, that at least during the next funding cycle, **the PIDG facilities**, for the most part, **will continue to occupy a more distinct frontier positioning**, helping to path-find different new approaches. This does not, however, preclude them from helping CDC re-orientate its positioning, by acting as a bridge (not least through the first loss capital protection offered by them). But overall, **PIDG still provides a unique opportunity to push the frontier that can then be mainstreamed by the conventional DFIs, as facilities have arguably previously done.**

A key question going forward is what USPs PIDG could and should be targeting and whether this is just based on individual facilities or, in some contexts, a more integrated approach between facilities. There are two instances in which this might be justified:

- in order to do projects, or to do them more quickly and efficiently, than would otherwise be the case; or
- to undertake projects in such a way that it helps develop markets, rather than just close a transaction.

The former is likely to recognise the limits of what can currently be achieved. The assumption being that a more expeditious “turnkey” approach would improve facility productivity (that is, generate more output for a given level of intermediation cost) and reduce (variable) transaction costs (such as legal and travel). This may also allow projects to get done that would otherwise fail if the current approach taken by the facilities was used.

The latter is to push forward the frontier in such a way that it increases convergence with what happens in developed markets. This may require a re-think and re-engineering of current DFI-led approaches, across several facets of how transactions are currently done. PIDG provides a platform to experiment where a multi-facility approach is required. The learning from this could be used to help shape the strategy of DFIs in future, in terms of how they improve their market-making role, rather than just focusing on their own books of business.

Ultimately any changes are a choice for PIDG’s donors, (subject to any contractual constraints faced). This should be undertaken in the light of a considered evaluation of options. The precise scope for any enhanced One PIDG approach requires a market assessment that is more sophisticated than a “one problem - one tool” tactic. PIDG’s governance requires the market insight and independence to pursue approaches where there may be conflicts between commercial and developmental objectives.

8.5. Value for money

In response to recommendations made by the NAO, a recent Evaluability Report, and additional investment by donors in the central M&E function, PIDG is undertaking a series of activities set to improve how it measures its impact. Once these measures are implemented developing a more accurate picture of PIDG’s VfM will be possible. To date there has been a natural focus on the individual facilities and projects but less on the intervention portfolio across PIDG and the impact on the development of infrastructure finance markets. It is also clear from the literature review and stakeholder consultations, that the quality and relevance of the evidence base to inform a comprehensive VfM, particularly one that aims to rank facilities or PIDG overall against other comparable infrastructure platforms, is insufficient.

PIDG’s use of competitive procurement and recruitment processes, including recent tenders for the CMO, the fund management contracts for GuarantCo and EAIF, and for developers’ contracts for IAsD and IAfD demonstrate that PIDG’s key costs are subject to competitive pressure and should **represent VfM from an Economy perspective.** Previous VfM analyses have shown the PIDG facilities to have performed well or improved over time on Economy.

From an **efficiency perspective PIDG performs well against its logframe targets**. For 2012 to 2015, for all years except 2013 when it gained a weighted B score it has been given an A; the overall level of risk has remained medium. At the facility level, what is evident is the unpredictability of working in frontier markets and how the performance scores vary year-to-year over the four year period.

PIDG is effective in achieving its outcomes. The amount of private sector and DFI/IFI investment mobilised per dollar of commitment, both by facility and PIDG overall is significant. **For each dollar of investment by PIDG, eleven dollars of private sector finance and three dollars of DFI/IFI finance are expected to be mobilised as part of the projects supported.**

8.6. Transformational impact

Historically the PIDG facilities were set up and operated based on independent, contracted out delivery of investment policies that were targeted at a specific market failure; in a sense they were deliberately siloed and the PIDG central management and administrative capacities minimised. This uncoordinated approach did not encourage cooperation or clustering by geography, sector, or project. Under the One PIDG business model the aim is be more coordinated – with target countries, embedded advisers for pipeline development, greater cooperation in project development and origination with DevCo, TAF, and the InfraCos, and overall a more centralised joined up PIDG branded strategy. **A transformational impact is clearly more likely under the One PIDG than the previous business model.**

The facilities can (and have) influenced new and existing private sector investment financing in a number of ways; by demonstration that a transaction is possible, in a particular project, in a target sector, and at a particular time; by innovation; by replication of the same model or project concept; and by advocacy and influence. **Arguably, however, one of PIDG's main transformational achievements has been in demonstrating to much larger DFIs what is possible and therefore influencing their behaviour. Different new initiatives have also attempted to roll out what the PIDG facilities have piloted.**

While it is important to consider the counterfactual – in the absence of PIDG, what would have happened – in proving transformation, it is difficult to say whether something would have simply happened later without PIDG or not at all. Stakeholders however, noted that a number of PIDG initiatives and projects have been pioneering and have influenced their own behaviour at both the transaction level where they engaged with PIDG and in future transactions.

ANNEX A COMPARISONS OF PIDG WITH OTHER DFIS

DFID is particularly interested in analysing PIDG's USP relative to other DFIs, especially CDC given the central role it is expected to play in DFID's economic development strategy. DFID is also interested in how PIDG's activities compare to IFC and AfDB, the main multilateral DFIs who are significant players in the infrastructure space. A review of recent literature, consultations with stakeholders, and statements around IDA18 priorities⁵⁷, indicate that there may be increased pressure on DFIs to shift their focus from middle income countries to more challenging economies and more challenging projects (i.e. to take on more risks), like PIDG already does as BAU.

Below we compare how PIDG's different areas of intervention (debt, contingent finance, project development, equity and mezzanine, and TA/VGF) compares with that of other DFIs supporting infrastructure project development and finance.⁵⁸ In addition to CDC, IFC, and AfDB, we have also included FMO in the analysis, given that it is widely regarded as one of the more innovative DFIs and as such is often seen as operating 'at the frontier.'

A.1. Debt

Debt finance (particularly FX finance) has been the central means by which DFIs have supported infrastructure development. DFIs play a particularly important role in financing African infrastructure, often clubbing together to finance the majority (if not all) of an individual project's debt requirements. These DFI club deals have often included EAIF, either as a co-lender or lead/co-lead arranger on projects. As such, the main product provided by EAIF (i.e. the 'what') does not differ significantly from that provided by the DFIs. An exception to this is CDC, who has traditionally adopted a fund-of-fund approach to financing activities, predominantly through equity investments. Since its change of strategy in 2012, CDC has started to lend directly to projects, but this remains only a small part of its activities. For example, despite committing over US\$3.8bn in debt and equity between 2012 and 2016, only US\$275m (7%) has been direct debt investments in SSA infrastructure, compared to more than US\$548m provided by EAIF.

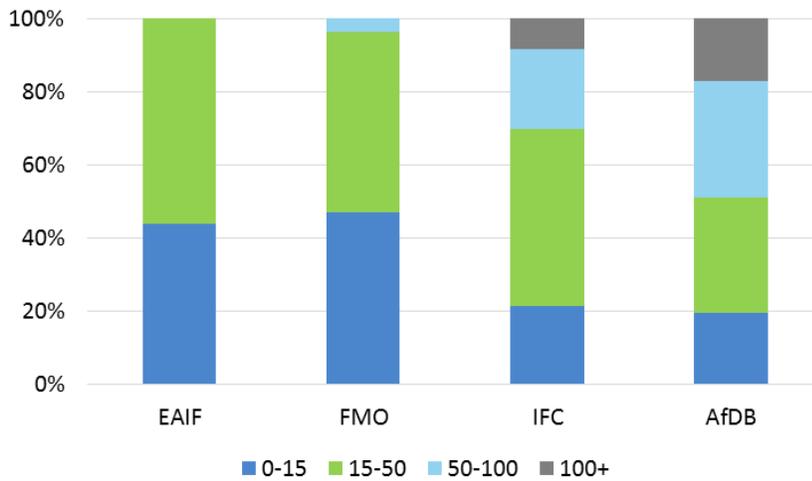
An obvious distinction between EAIF and the DFIs is its primary focus on African infrastructure. Over the past 15 years EAIF has been able to develop a solid reputation of being a central player in the African infrastructure market, financing a number of high-profile and innovative projects. While the DFIs have also supported these activities, on the whole it has not been such a dedicated focus, with many providing more support to financial institutions and SMEs.

Given EAIF's individual project exposure limit, EAIF's loan sizes have been smaller on a portfolio level relative to others, as shown in Figure A.1.

⁵⁷ Report from the Executive Directors of the International Development Association to the Board of Governors. Additions to IDA Resources: Eighteenth Replenishment Towards 2030: Investing in Growth, Resilience and Opportunity, January 2017.

⁵⁸ We have excluded ICF-DP from our analysis, given that: i) the facility formed part of the PIDG mainly for convenience (i.e. it was initially to be established as an IFC Trust Fund until PIDG was chosen as a more convenient option); ii) DFID has not provided any funds to support the facility and has said it is beyond the scope of the study; and iii) the facility is no longer active.

Figure A.1: Distribution of infrastructure debt commitments for selected DFIs by size (US\$m)

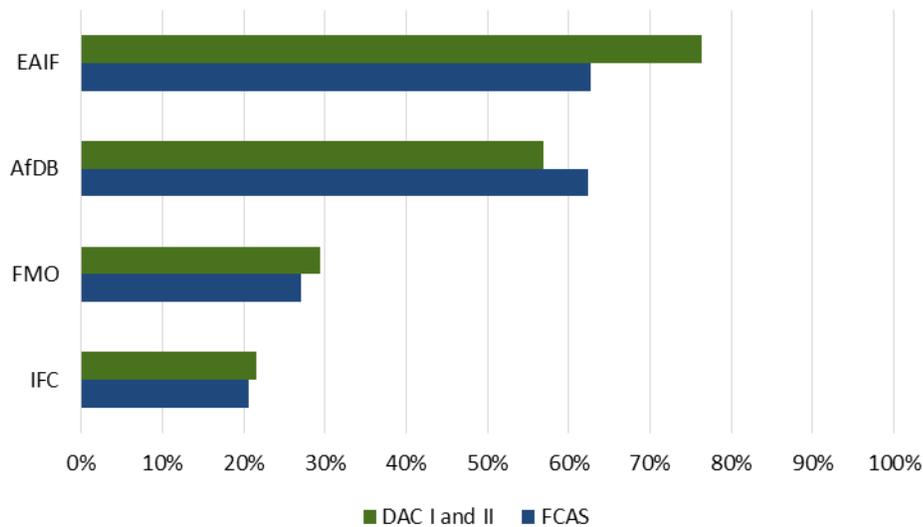


Source: WBG PPI Database; IJ Global; PIDG project database; and individual DFI project databases.

As shown above, the size of EAIF’s loans have been relatively similar to those of FMO, while IFC’s and AfDB’s portfolios include a significant amount of loans over EAIF’s US\$50m exposure limit, particularly AfDB’s. Having the mandate to do these larger ticket sizes has allowed IFC and AfDB often to take on the mandated lead arranger role on large infrastructure transactions, something that EAIF wishes to emulate as outlined in its latest business plan.

The clearest distinction between EAIF and the DFIs is its focus on DAC I/II and FCAS. This is highlighted in Figure A.2.

Figure A.2: Proportion of DFI infrastructure lending since 2003 in DAC I/II countries and FCAS (%)^{59,60}



Source: WBG PPI Database; IJ Global; PIDG project database; and individual DFI project databases.

As Figure A.2 shows, EAIF’s has developed a portfolio of sound investments in the most difficult markets. While the DFIs (particularly CDC and IFC) have attempted to increase their relative focus in these markets, this is still very early

⁵⁹ We have not included CDC in this comparison, given that it was not possible to obtain figures on its historic debt investments. In addition, as mentioned CDC has provided limited debt to infrastructure relative to other entities since its change in strategy in 2012.

⁶⁰ Note that these figures are the total amount that individual DFIs have committed to projects, as opposed to the total investment commitments of projects that the DFIs have invested in, as EAIF reports in its logframe.

stage and it is likely that it will take a long time for the DFIs to obtain the same level of exposure (if they so desired), given that it would represent a fundamental shift in how they do business (that is, developing a quality portfolio versus pursuing a greater development agenda).

EAIF’s focus on DACI/II countries and FCAS can be explained by its logframe targets, which state that 75% and 50% of total investments raised by projects must be in DAC I/II countries and FCAS respectively (however, its most recent logframe has set its cumulative target for DAC I/II countries at 65%). Although EAIF has often been compared to FMO in terms of *what* support they provide and *how* they support it, EAIF has clearly focused its portfolio at the frontier in terms of *where* it has invested relative to FMO. IFC and FMO’s low proportions of investments in DAC I/II countries and FCAS can be explained by a significant amount of their investments taking place in middle income countries in Latin America, South East and East Asia.

In addition, EAIF’s niche relative to other DFIs is *how* it intervenes in the market. Project sponsors and market experts consulted noted that traditional DFIs such as IFC operate in a highly conservative manner, undertaking extensive project due diligence that increase both costs and the time it takes to close projects. On the other hand, stakeholders remarked that EAIF operates in a pragmatic, nimble and highly professional manner, often getting involved much earlier in the project’s development process than the DFIs and supporting sponsors with structuring projects to ensure they can achieve bankability. EAIF’s relative nimbleness and professionalism is highly regarded in the market, with sponsors noting that they are a much more business-friendly entity to work with than most of the DFIs they have worked with. While this USP does not lend itself well to tangible measures, EAIF’s approach is a factor in ensuring that entities can have an impact, both in terms of getting projects to close and building the capacity of project sponsors, helping them to develop bankable projects going forward.

A.2. Contingent finance and local currency development

While DFI debt investment has been essential for closing infrastructure transactions, the extent to which such finance has crowded in other debt investment (particularly institutional investors in the African market) is questionable. This is because the DFIs provide long-term FX finance which they typically hold to term. While this allows projects to benefit from relatively low cost of capital, the extent to which private capital – particularly from local lenders – can participate is limited, given that local finance providers are typically looking for local currency assets to match with their liabilities. Holding loans to term further precludes institutional investors from supporting projects at their natural entry point (once a project is operational and therefore less risky).

Given the issues with DFI FX finance, GuarantCo’s approach to support is currently PIDG’s most innovative intervention. GuarantCo’s focus on developing local currency financing solutions for infrastructure has seldom been replicated in the markets where PIDG is active. Where there has been overlap, this has often been at the edges, with institutions such as USAID, Sida and ADB’s Credit Guarantee Investment Facility (CGIF) being the main comparators / partners. However, GuarantCo’s focus on infrastructure development and in DAC I/II/III countries is not replicated by any of these entities, with most of their support being either focused outside of infrastructure, in more developed markets and/or not being focused on developing local currencies. In addition, GuarantCo’s use of contingent financing to overcome these barriers is essential for leveraging limited donor resources. While other DFIs do have the mandate to provide PCGs, they are not the primary focus of their operations, often favouring debt instruments, particularly when it comes to infrastructure investments. It is true that other DFIs have provided some support to local currency development (particularly IFC and FMO), but such support has not had an infrastructure focus nor been through using contingent financing products.

In terms of the key comparators, Table A.1 below summarises what support others provide that is similar to GuarantCo.

Table A.1: Summary of key DFI activities in contingent financing and local currency development

DFI	In theory	In practice
CDC	<ul style="list-style-type: none"> No similar products/activities. 	<ul style="list-style-type: none"> N/A

DFI	In theory	In practice
IFC	<ul style="list-style-type: none"> • Has mandate to provide guarantees, even in local currency. • Supporter of local currency financing. 	<ul style="list-style-type: none"> • Has made limited use of guarantee products (3.4% of portfolio), and few of these are supporting infrastructure. • Support for local currency development has often been provided through IFC's loan portfolio outside of infrastructure (e.g. for financial institutions), as opposed to contingent support.
AfDB	<ul style="list-style-type: none"> • Can provide support for local currency financing, including by providing PCGs. • Can provide guarantee products using its concessional window. 	<ul style="list-style-type: none"> • Limited focus on developing local currency financing for infrastructure development. • Guarantee products provided as Partial Risk Guarantees (PRG) for FX finance as opposed to credit guarantees for local currency.
FMO	<ul style="list-style-type: none"> • Works with GuarantCo on some transactions. • Shareholder in GuarantCo and has supported the facility since inception. 	<ul style="list-style-type: none"> • Support for local currency financing (particularly for infrastructure) remains relatively small part of its operations. • Uses GuarantCo as an entity to channel its funding to activities it would not normally do directly using its own resources.

Source: CEPA analysis.

As Table A.1 shows, while there is some overlap with the DFI activities, these are relatively limited and often do not have the same focus as GuarantCo. For instance, CDC – a key comparator for this study – does not currently have the mandate nor the track record to support activities similar to GuarantCo. For IFC, its long-term guarantee commitments amounted to US\$378m in 2016, or 3.4% of its portfolio, and covers a wide range of sectors outside of infrastructure and also covers hard currency guarantees, compared to GuarantCo's active portfolio of nearly US\$440m in 2015, **focused solely on infrastructure**. Rather than offering similar products, the DFIs have often used GuarantCo as a key entity to undertake activities that they would otherwise not do themselves, as is the case with FMO.

As with EAIF, GuarantCo is also seen as a pragmatic provider of contingent finance and often supports its clients with solutions to overcome project bankability constraints – with many noting that they would like to see GuarantCo take on larger ticket sizes so they could be involved in more transactions. Such support has earned it a strong reputation with its clients, which has resulted in some institutions using GuarantCo products on multiple occasions to overcome local currency obstacles. This includes Standard Chartered, who have regularly used GuarantCo's product to overcome credit concerns associated with sponsors in more challenging markets. Given the complex nature of its products and interventions, GuarantCo has been able to develop considerable in-house expertise that is targeted at supporting local currency financing for infrastructure development.

A.3. Project development – IAfD and IAoSD

The InfraCo facilities help developers early in the project development life cycle when risks are highest and in some of the most challenging countries and sectors. While the DFIs have supported activities in this space, they have rarely taken the same level of risk at the scale achieved by the InfraCos, or provided development skills/expertise in parallel.

For CDC, the most obvious comparison to the PIDG facilities is Globeleq – a large scale developer and operator of power generation assets, which in recent years has specifically focused on Africa. CDC has had a major role in

supporting Globeleq's activities, either as a funder through Actis-managed fund or as an owner of its shares. At present, CDC owns 70% of Globeleq whilst Norfund owns the other 30%.

While Globeleq has the mandate to support early-stage project development, the majority of its focus has been on acquiring brownfield infrastructure assets, bidding for project tenders and supporting their assets' operations. Where it has supported project development, this has often been at a later stage relative to when the InfraCos enter projects. In addition, Globeleq has generally operated on a much more commercial basis relative to the InfraCos – being a lead equity investor at financial close - and has had the balance sheet to support this. Further, the InfraCo facilities have supported a wide range of projects across different sectors, whereas Globeleq has primarily focused on power generation (with some support for distribution, including its ownership in Umeme in Uganda).

A closer comparator to the InfraCos is IFC InfraVentures. As noted in Annex B, IFC InfraVentures' mandate states that 75% of its resources are to be dedicated to IDA countries, highlighting that it has a relatively high developmental focus, considerably more so than IFC's wider activities. This has been made possible by making donor resources available via IFC's trust fund structure.

While operating in a similar space to the InfraCo facilities, differences between the institutions remain. For example, IFC InfraVentures is normally a minority partner in a transaction (maximum of 40% of project development costs), whereas the InfraCos play a leading role in transactions, often taking on the majority of the project development work/cost. In addition, the InfraCo facilities become involved considerably earlier in the project development cycle than IFC InfraVentures. Finally, InfraCo's current business model aims to crowd in private sector investment at financial close, whereas a key aspect of InfraVentures activities is to improve the project pipeline for other areas of IFC's business, particularly its lending activities.

Africa50, the project development and financing entity with considerable backing from AfDB and African governments, is also looking to support development activities in a similar way to the InfraCos. This support will mainly be as a strategic, minority equity partner in transactions to ensure projects can reach financial close. While it is unclear the extent to which Africa50's activities will overlap with IAfD, it appears that it is likely to be involved in a relatively later stage of the project development cycle. In addition, Africa50 will prioritise investments in energy and transport, and will mainly look to support larger transactions in the sector, whereas IAfD has the mandate to support a wider range of sectors and focuses on smaller projects.

A.4. Equity & Mezzanine

CDC has traditionally used equity to invest in a range of sectors, including infrastructure. Following the change in strategy, CDC shifted a lot of its work to investing equity directly in projects, with c.US\$1.1bn of equity being invested directly between 2012 and 2016 across all sectors.⁶¹ Other DFIs have also provided equity and mezzanine finance to projects, including to infrastructure transactions. This has often been provided alongside their senior debt tranches as a means to obtain higher returns compared with only providing senior debt.

Relative to its other activities, PIDG's mezzanine and equity financing (at financial close) experience has been relatively limited, with the majority of this coming from the InfraCo development facilities on a very limited basis and with IAsI in IAsD projects. This is likely to change going forward if IEMF is established. While it is not currently operational, the key market niche of IEMF is likely to be in the focus of its interventions relative to the DFIs, i.e. addressing key project financing gaps at close due to the lack of equity finance prior to construction of greenfield assets, as opposed to using mezzanine and equity finance as a means to boost project returns.

⁶¹ IATI (2016), *CDC Investment Portfolio 2012-16*.

A.5. TA and VGF

TAF and DevCo have been PIDG's key PPFs, with TAF's funds being solely available to support the PIDG facilities during project development (and more recently VGF) while DevCo's resources have been used to support IFC Advisory Services when developing publicly-originated projects.

There are a wide range of PPFs supporting infrastructure development, and each of these has a different mandate, objective and focus. Some of these PPFs are housed in key DFI institutions, such as AfDB's NEPAD Infrastructure Project Preparation Facility (IPPF). FMO also has a Capacity Development (CD) window that provides funding for TA in support of project development activities, although the extent to which it has supported infrastructure projects has been limited to date. As identified in CEPA's 2016 TAF evaluation and earlier work by CEPA and ASI for Africa and Asia respectively, the PPF landscape is relatively extensive yet fragmented, with many calling for a more coordinated approach between institutions for supporting project preparation.

A coordinated approach is something that TAF and DevCo (in collaboration with PPIAF) are looking to adopt going forward. This will involve both facilities working closely together and with PPIAF in order to improve the project pipeline and contribute to One PIDG, and increased funding for this may be essential to unlock key constraints that are more upstream than the activities targeted by the other facilities.

Outside of TA, TAF is also relatively uniquely placed to provide VGF support for infrastructure projects, funding which the DFIs do not currently provide. While this may change for the IFC with the Blended Financing Facility (BFF) being provided as part of the IDA18 PSW, it is unclear the extent to which such funds will be available to support infrastructure projects instead of other sectors. In addition, the BFF may provide different types of blended support instead of VGF, such as first loss capital and subordinated facilities. Further, TAF has now supported a number of projects with VGF funds, and has been able to draw lessons regarding where it can be used to greatest effect, whereas IFC's ability to identify such opportunities may be limited, particularly in the short-term. More widely, while a number of initiatives (such as the WBG's PPP project support funded by IDA loans and donor initiatives in countries) have discussed opening VGF windows, few of these are actively funding projects. On the other hand, TAF has been able to implement VGF grants in some recent transactions and approval has been provided for others. These interventions have been essential for ensuring projects can reach close.

A.6. Summary of PIDG comparison to other DFIs

The previous sections highlight that while some of the activities of the DFIs do overlap with the PIDG facilities, this has often been to a limited extent and is being approached in a different manner. The extent to which the key DFI comparators are supporting the different PIDG activities is summarised in the main text in Table 5.5 in Section 5.2.

ANNEX B INFRACo AFRICA

B.1. Review Dimension I - USP

B.1.1. Background and operations

Remit and geographical coverage

IAfD was launched in 2004 with the remit to “stimulate greater private sector involvement in the development of infrastructure and related projects by reducing the costs and risks of project development at the pre-financial close stage.”^{62,63}

IAfD was originally launched with a geographical focus including both Africa and Asia, however after its geographic separation from Asia in 2009, it now focuses on DACI/II countries and FCAS in SSA.⁶⁴ In line with this, IAfD’s Operating Policies and Procedures require that:

- no more than 25% of the private sector finance IAfD leverages⁶⁵ through its portfolio be for projects in “Lower Middle Income Countries” and “Upper Middle income Countries.”; and
- at least 20% of the private sector finance IAfD leverages through its portfolio must benefit projects in FCAS.

IAfD’s key operating principles are set out in Box B.1 below.

Box B.1: IAfD key operating principles⁶⁶

IAfD key operating principles from IAfD’s 2015 Statement of Operating Policies & Principles

The Company will operate as a private sector infrastructure development company, acting as:

- principal developer of Opportunities via Developers; and
- co-developer of Opportunities (“**Co-Developments**”) where there is a lead sponsor capable of developing such Opportunity (“**Lead Sponsor**”) already in place.

It will:

- normally undertake pre-financial close development activities for its own account and risk;
- operate at arm’s length from PIDG and PIDG Members with a board of directors from the private sector, acting in accordance with these operating policies, PIDG Code of Conduct, PIDG Operating Policies and Procedures and the Funders’ Agreement;
- not compete with the private sector, rather seek to stimulate expanded private sector involvement in infrastructure development;
- seek to structure Opportunities in a way that balances the interests of host governments and other national stakeholders with the requirements of private sector investors and providers of finance;
- seek to balance the goal of attaining attractive sales value with the goals of promoting Opportunities with a high developmental impact; and

⁶² InfraCo Africa (2015). “Operating Policies and Procedures: January 2015.”

⁶³ InfraCo Ltd. shifted its geographical focus to sub-Saharan Africa in 2010 when InfraCo Asia Development Ltd. (IASD) was established as a PIDG facility. In 2013, InfraCo Ltd. was renamed to InfraCo Africa Ltd.

⁶⁴ InfraCo Africa (2015). “Operating Policies and Procedures: January 2015.”

⁶⁵ InfraCo Africa refers to leveraged funds as “Total Investment Commitment” and defines this as “all monies provided by DFIs and the private sector whether through equity or debt and all grants”. It excludes “any investment committed by InfraCo Africa and remaining in the project at Financial Close”. Source: InfraCo Africa (2016). “InfraCo Africa Logframe 2016-2020”.

⁶⁶ InfraCo Africa (2015). “Operating Policies and Procedures: January 2015.”

IAfD key operating principles from IAfD’s 2015 Statement of Operating Policies & Principles

- over the long term, seek sufficient revenue from successful sales to maintain the value of its capital and fund its general operational costs.

Business model

IAfD enters infrastructure projects at a very early stage of development – whether at the point of project origination or soon thereafter – using a multi-source business development model. During its first nine years of operations, all of its transactions were developed and managed exclusively by infrastructure developer eleQtra Ltd. However, since 2013, to improve the efficiency of its operations and diversify delivery risk, IAfD has followed a multi-developer model based on two project development channels: a ‘captive’ channel and a ‘co-development’ channel (as highlighted in Box 3.1 above). IAfD uses third-party developers for its captive channel, with eleQtra and Aldwych Africa Development Ltd. (AADL) currently under contract. For the co-development channel, IAfD, through its Internal Management Team (IMT), develops projects with external developers. Both models are summarised in Table B.1 below.

Table B.1: Captive model versus co-development model

Captive development model	Co-development model
<ul style="list-style-type: none"> • IAfD undertakes all activities related to identification and development of a project to a point where it may be financed and sold to the private sector. • IAfD originates and develops projects through competitively-procured, third-party developers (e.g. eleQtra and AADL), on an hourly plus success fee basis. • Captive model allows “IAfD to take on difficult, low-return projects by spreading risk, potentially providing an exit route, and enabling IAfD to benefit from private sector developers’ technical and sector expertise and local networks.”⁶⁷ 	<ul style="list-style-type: none"> • IAfD, with the lead sponsor, jointly undertakes all activities related to identification and development of a project to a point where it may be financed and sold to the private sector. • IAfD shares delivery risk and costs with lead sponsor and both are equally incentivised to reach financial close.⁶⁸ • IAfD’s IMT co-develops projects with the lead sponsors who have “skin in the game” and are rewarded for their project contribution in cash and/or kind, by earning an equity stake in the project.

Sector focus

According to its Operating Policies and Procedures⁶⁹, IAfD has a broad sector focus – it may invest in any of the following sectors: energy services; water/wastewater services; transportation infrastructure services; bulk storage/logistics facilities; telecommunications; gas transportation, distribution and storage; oil transportation, distribution and storage; mining and upstream oil and gas; urban infrastructure; agriculture-supporting infrastructure; and other related activities. Despite this, of the nine IAfD projects that have reached financial close and the six currently under active development, eleven have been in the energy sector, three in the agri-infrastructure sector and one was multi-sector in nature. As well, IAfD’s website⁷⁰ lists the following as its sectors of strategic focus:

⁶⁷ Maxwell Stamp PLC (2016). “An Evaluation of InfraCo Africa Ltd.: Volume I”. Prepared for PIDG.

⁶⁸ Maxwell Stamp PLC (2016). “An Evaluation of InfraCo Africa Ltd.: Volume I”. Prepared for PIDG.

⁶⁹ InfraCo Africa (2015). “Operating Policies and Procedures: January 2015.”

⁷⁰ InfraCo Africa (2016). “What we can do”. Accessed at: <http://www.infracoafrica.com/what-we-can-do/>.

- **Energy:** “We support power generation, transmission and distribution projects, including rural electrification. We prioritise the development of gas-fuelled or renewable power such as solar, wind, hydro or geothermal.”
- **Transport:** “We support projects that develop transport infrastructure including rail systems and services, ports and harbours, ferries, roads, bridges and tunnels. We prioritise projects that create regional trade corridors.”
- **Water:** “We support projects that provide water and water-related services to urban or rural populations. We prioritise the treatment and supply of clean drinking water and the development of irrigation systems for farms and market gardens.”

While these three areas capture many of IAFD’s allowed sector areas in the Operating Policies and Procedures, they also suggest that some sectors have been de-prioritised in practice (e.g. bulk storage/ logistics facilities, telecommunications, mining and upstream oil and gas, urban infrastructure in the form of housing and other social infrastructure, etc.), in order to focus on IAFD’s core areas of expertise in the short term.

Rationale for intervention/ market failure

Over ten years from its introduction to the market, IAFD remains a relatively unique facility in the infrastructure project preparation, development and financing space in SSA. Maxwell Stamp note the following in their 2016 evaluation of IAFD:

- There is pressing need for infrastructure development in SSA (there is a spending gap of US\$50bn), and particularly in IAFD’s focus geographies given a poorer level of infrastructure on average than across SSA as a whole.
- The public sector’s ability to intervene in the market and further infrastructure development is limited by national capacity and budgetary constraints, such that development assistance and private sector are relied on to fill a large gap.
- However, the private sector’s ability to invest in infrastructure is constrained by a lack of suitable projects. There are significant costs and risks to progressing a project to the point of being bankable (project preparation costs can account for up to 10% of total project costs⁷¹).

Many of the risks associated with doing business in SSA relate to government counterparts’ lack of capacity and the necessary expertise to, for example, effectively participate in negotiations and progress key contractual arrangements such as PPAs. Equally, vested interests, extend time periods⁷², exogenous shocks, political change, and a lack of cross-government support for a given infrastructure project can result in a project becoming ‘unbankable’ or losing momentum such that costs and risks increase.

Further, an important barrier to the feasibility of a project is its affordability. For instance, if customers cannot pay for the service the infrastructure will be providing, no amount of project preparation or capacity building will make the project bankable. Although, early-stage project preparation should include detailed feasibility studies that include willingness-to-pay surveys to inform affordability assessments.

In line with this, the constraints to private sector participation in infrastructure development are overwhelmingly ‘upstream’, such that few projects in SSA proceed to the point of being bankable. Private sector players are often not willing or able to take on early-stage development risk and project preparation costs, and instead participate further downstream such that there can be considerable competition at financial close for the few bankable projects.

⁷¹ Maxwell Stamp PLC (2016). “An Evaluation of InfraCo Africa Ltd.: Volume I”. Prepared for PIDG.

⁷² Consultees noted that the time period to progress PPI transactions in FCAS and DAC I countries is typically far longer than for other geographies.

Accordingly, where there is demand and an appropriate customer base, the private sector can play a meaningful role in infrastructure development in SSA, however, to facilitate this there is a need for support for the high-cost and high-risk aspects of project preparation and development to progress projects to the point of being bankable. Equally, there is a need for TA for government and local market players; the market failure is mainly in government but also with incomplete markets and risk perceptions.

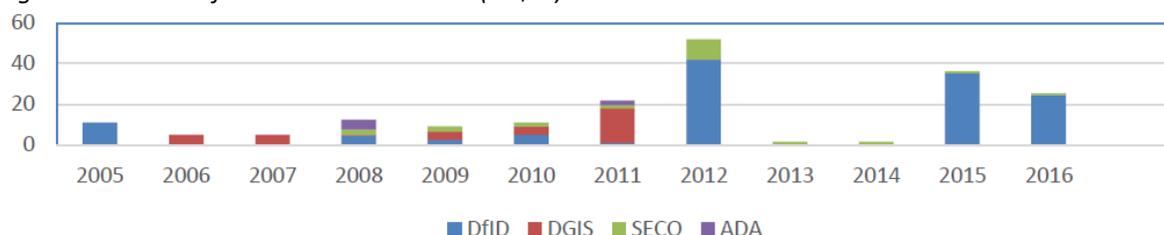
There are numerous TA providers in the infrastructure project preparation space in SSA.⁷³ However, IAfD notes in its 2017-2021 business plan that a review of various studies and databases “suggests that 60% of early-stage [PPFs] are DFI-funded programmes, often targeted at building government capacity”.⁷⁴ This is in line with Maxwell Stamp’s finding that IAfD continues to be a unique player in the market – with only “one facility with a similar mandate to IAfD: IFC InfraVentures”.⁷⁵ We discuss InfraVentures in further detail under Section B.1.3 below.

CEPA’s Assessment of PPFs for the Infrastructure Consortium for Africa (2012), drew similar conclusions. The report found that IAfD scored highly in terms of innovation and focus on taking very early stage project ideas forward, such that it “remains compelling, especially from the perspective of private sector support”.⁷⁶

Donor funds

Over twelve years of operations, donors have committed \$141.6m to IAfD, with over half of all funding coming from DFID (54%), with the remainder provided by DGIS (25%), SECO (17%) and ADA (5%). IAfD commitments over time, by donor, are illustrated in Figure B.1 below.

Figure B.1: Total IAfD donor commitments (US\$m)



Source: Maxwell Stamp PLC (2016). “An Evaluation of InfraCo Africa Ltd.: Volume I.” Prepared for PIDG.

Operations to date

As mentioned previously, according to the PIDG project database, IAfD has supported nine projects that have reached close, and currently has another nine projects under active development.⁷⁷ Of projects that have reached financial close, 89% were in DAC I/II countries, and 33% were in FCAS; and of projects currently under development, all are in DAC I countries and five are in FCAS.

Once completed, the nine IAfD projects to reach financial close, are expected to mobilise nearly US\$2.1bn in finance, including more than US\$1.3bn (64%) from the private sector. The rest of the finance has been sourced from DFIs (33%), PIDG (2%) and other sources (0.3%).⁷⁸ Figure B.2 illustrates the split of debt and equity finance by sector area.

⁷³ Maxwell Stamp provide the following list of project preparation facilities in their evaluation of InfraCo Africa: Common Market for Eastern and Southern Africa - East African Community / Southern African Development Community Project Preparation Implementation Unit, DBSA EIB Project Development and Support Facility, ECOWAS Project Preparation and Development Unit (PPDU), Africa 50 facility, etc.

⁷⁴ IAfD (2017). “InfraCo Africa Business Plan Update: 2017-2021.”

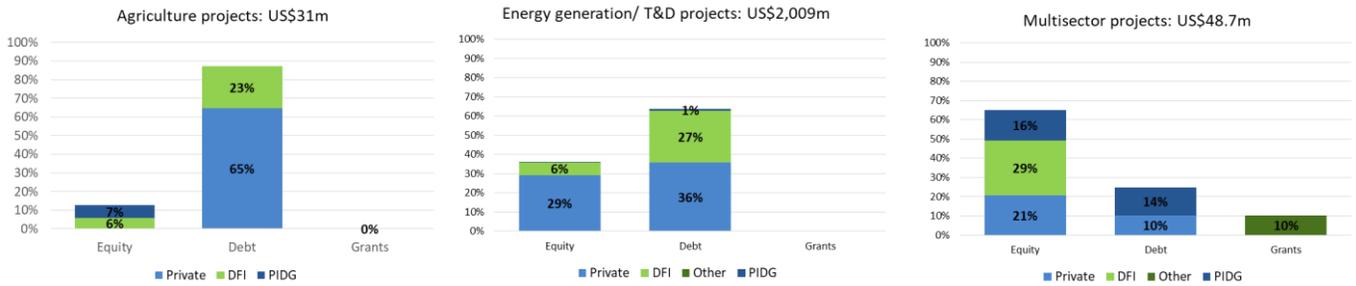
⁷⁵ Maxwell Stamp PLC (2016). “An Evaluation of InfraCo Africa Ltd.: Volume I.” Prepared for PIDG.

⁷⁶ CEPA (2012). “Assessment of Project Preparation Facilities for Africa. Volume A: Diagnostic & Recommendations”. Prepared for ICA.

⁷⁷ Note that IAfD projects are defined as “closed” once the facility exits a deal, as opposed to reaching financial close.

⁷⁸ We understand that grant or VGF support received from TAF, or any other investments made by PIDG facilities, are also counted as funds mobilised. To date, most TAF support has not been repaid, however PIDG Donors are encouraging VGF grant applications to agree

Figure B.2: Debt, equity, and grant finance split as a percentage of total financing, by sector area

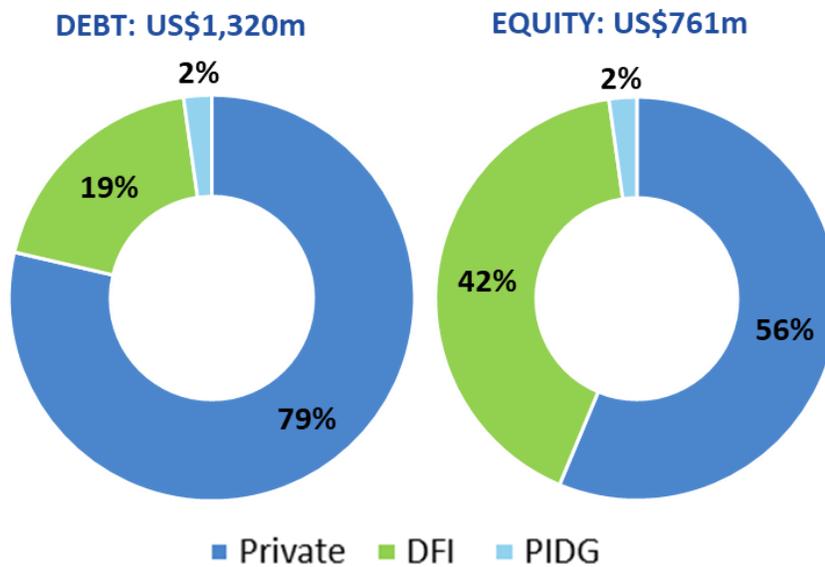


Source: PIDG (2017); CEPA analysis.

NB: Actual figures have been included where available. Otherwise, predicted figures have been used.

As the figure shows, the largest proportions of finance for IAfD projects in agriculture and energy are expected to come from the private sector, while PIDG support (which includes IAfD and EAIF support) has only played a small role in financing. On the other hand, the multisector support, which refers to the Kalangala project, received a considerable (c.30%) amount of financing from the PIDG facilities. Details regarding sources of financing for projects are provided in Figure B.3 below.

Figure B.3: Finance mobilised for IAfD projects that have reached financial close (US\$bn)



Source: PIDG (2017); CEPA analysis.

NB: Actual figures have been included where available. If not available, predicted figures have been used. Note figures have been rounded.

As, Figure B.3 shows, the proportion of equity finance provided by the private sector is higher than the proportion of debt finance provided. Similarly, the DFIs have provided a higher proportion of debt relative to equity, while PIDG proportions for both debt and equity have been 2%.

to treat VGF as returnable capital, such that it would be repaid if projects yield sufficient upside (e.g. equity IRR reaches a certain threshold). Further, as noted later in this report, TAF has launched a new form of support in the form of large returnable grants, which are provided through a new “Window 2”.

It should be noted that three IPP projects in IAfD's portfolio (Geometrics Power Aba Ltd, Kpone Independent Power Project, and Muchinga Power Company) represent a significant amount of IAfD's total finance mobilised. This can be seen in Table B.2 below.

Table B.2: Total finance leveraged in IAfD projects that have reached financial close (US\$m)⁷⁹

Project	Debt			Equity			Grants		Total finance leveraged	IAfD commitment	Type of data (predicted / actual)
	Private	DFI	PIDG	Private	DFI	PIDG	Other	PIDG			
Kpone Independent Power Project, Ghana	447.4	185.0	22.0	238.4	10.3			0.8	903.9	11	Actual
Muchinga Power Company, Zambia	100.0	300.0		200.0					600.0	1.5	Predicted
Geometrics Power Aba Ltd, Nigeria	270.0			150.0					420.0	0.5	Predicted
Wind Farm Extension Project, Cape Verde		56.0			19.5	2.5			78.0	7.9	Actual
Kalangala Infrastructure Services Project, Uganda	5.0		7.0	10.0	14.0	7.7	5.0		48.7	6.3 ⁸⁰	Actual
Antara Cold Storage Project, Vietnam	20.0	7.0			1.0				28.0	0.3	Actual
Chanyanya Pilot Irrigation Project, Zambia					0.8	2.2			3.0	1.1	Actual
Redavia Solar – Proof of concept	0.7				0.4			1.7	2.8	0.4	Predicted

⁷⁹ Note that the PIDG RMS sheets define the African Finance Corporation as a DFI for some projects (Cape Verde Wind) but as private sector for others (Kpone IPP).

⁸⁰ Please note that IAfD commitments for this project includes commitments to Kalangala Renewables, Uganda.

Project	Debt			Equity			Grants		Total finance leveraged	IAfD commitment	Type of data (predicted / actual)
	Private	DFI	PIDG	Private	DFI	PIDG	Other	PIDG			
Redavia Solar Phase 2						4.7		0.5	5.2	0 ⁸¹	Actual
Total	843.1	548.0	29.0	598.4	46.0	17.1	5.0	3.0	2,089.5	22.6⁸²	

Source: Data provided by the PIDG CMO to CEPA on 28/02/2017 titled "Q_Intervention_All for CEPA."

As Table B.2 shows, the three IPP projects represent US\$1.9bn, or 92%, of all finance mobilised for projects that IAfD has supported. More specifically:

- **Kpone IPP:** this project was 70% debt financed and 30% equity financed, with 76% of total financing coming from the private sector (50% debt, 26% equity) and 21% from DFIs (20% debt, 1% equity).
- **Muchinga Power Company:** this project was 50:50 debt to equity financed, with 33% of total financing coming from the private sector (all equity) and 67% from the DFIs (50% debt, 17% equity).
- **Geometrics Power Aba Ltd.:** this project was 64% debt financed and 34% equity financed, with 100% of total financing coming from the private sector.

Although, it is important to note that the above figures for two of the IPP projects, namely Muchinga Hydropower and Geometrics Power Aba, are predicted figures and do not include details of what institutions have supported the projects.

The Maxwell Stamp evaluation published in August 2016 noted that of IAfD's nine closed projects, "it has fully exited five projects and partially sold one project".⁸³ Further, the evaluation noted that of all joint development agreements (JDAs) signed by IAfD prior to 2014, all projects had reached financial close except for one that is still under development (the Chiansi Irrigation Infrastructure Project). As well, where projects had been stalled or abandoned, only two had incurred substantial (in excess of US\$1m) development costs: Nairobi Commuter Rail and Leona Wind projects – both of which suffered from a lack of government support. Accordingly, Maxwell Stamp noted that they considered that "IAfD has taken an effective approach to closing projects and has invested relatively limited amounts in projects that failed to reach financial close, despite falling behind targets for financial closures".⁸⁴

IAfD's 2017-2021 Business Plan notes that its financial closures include "the largest IPP in SSA (Cenpower), the only operational Wind IPP (Cabeolica), and the first multi-sector IPP (Kalangala Infrastructure Services)." Further, it also notes that of the 46 IPPs within IAfD's "in-scope countries" to reach financial close between 2004 and 2014, IAfD participated in 8% of them (4 of 46).⁸⁵

B.1.2. Future strategy

According to its 2017-2021 Business Plan, IAfD plans to invest £152m in 23 projects to develop more than 710MW of renewable energy and provide marine transport and water services. Further, IAfD expect to close 31 transactions over the period such that IAfD's impact is almost doubled "compared to the first ten years of its operations".

⁸¹ InfraCo's investment is a US\$4.65m convertible loan, included under the "Equity: PIDG" column.

⁸² Excludes the US\$4.65m convertible loan mentioned in the row above.

⁸³ Maxwell Stamp PLC (2016). "An Evaluation of InfraCo Africa Ltd.: Volume I". Prepared for PIDG.

⁸⁴ Maxwell Stamp PLC (2016). "An Evaluation of InfraCo Africa Ltd.: Volume I". Prepared for PIDG.

⁸⁵ IAfD (2017). "InfraCo Africa Business Plan Update: 2017-2021".

Critically, these ambitious plans are reliant on existing donor commitments of £141.4m continuing to be available throughout the Business Plan period.

To date, a key criticism of IAfD has been its performance against its logframe indicators, which have been found to be ambitious relative to performance. Even prior to 2013, when eleQtra negotiated five-year targets annually with PIDG as part of budget negotiations, the number of JDAs signed and the number of projects brought to financial close fell below targets. This has been addressed in the two years 2015-2016, with a total of 8 new JDAs signed. Going forward, this may continue to be an issue: IAfD's 2017-2021 Business Plan "presumes that IAfD will initiate another 23 projects and progress 34 over the plan period".⁸⁶ However, the Business Plan equally notes a number of important changes to how IAfD does business that should help to facilitate more financial closures.

IAfD is in the process of establishing two offices in SSA: one in Nairobi that will be shared with GuarantCo, and one in Dakar. IAfD expect that "having local offices will improve [its] proximity, engagement and awareness of local markets" thereby enabling IAfD to adapt to different environments and "better identify and mitigate project delivery risks".⁸⁷

IAfD notes that it is building strategic relationships with organisations that will help it to extend its pipeline. For example, IAfD is regularly engaging with the Shell Foundation to "review small but replicable infrastructure SMEs, with an intention that Shell supports initial R&D or set-up of these companies, then hands over to [IAfD] to inject capital and rapidly scale-up deployment".⁸⁸ This was a model recently tested with IAfD's Redavia project.

IAfD is continuing to build its IMT and the specific expertise within the team, recently bringing on specialists with project development expertise in hydro, biomass, geothermal and solar energy.

IAfD has enhanced its collaboration with the other PIDG facilities in line with the proposed One PIDG, including the establishment of the Nairobi office with GuarantCo, more regular interactions with IAsD and regular meetings with TAF to plan and better manage IAfD's pipeline of grants.

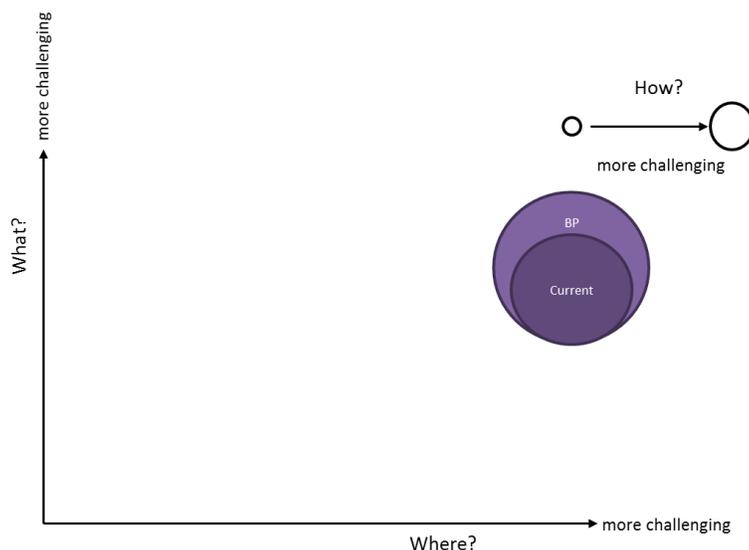
Based on these planned activities, under the framework we have used to define USP it appears implementing the 2017-21 Business Plan will expand *how* IAfD develops its projects, with more focus being placed on developing the Redavia model to creating a project pipeline. This is illustrated below.

⁸⁶ IAfD (2017). "InfraCo Africa Business Plan Update: 2017-2021".

⁸⁷ IAfD (2017). "InfraCo Africa Business Plan Update: 2017-2021".

⁸⁸ IAfD (2017). "InfraCo Africa Business Plan Update: 2017-2021".

Figure B.1: Comparison of current and potential future position of IAfD on the frontier



Source: CEPA analysis

B.1.3. IAfD comparators

As mentioned earlier in this section, IFC InfraVentures is seen as the closest comparator to IAfD. Founded in 2008, InfraVentures is a project development fund for PPPs or private sector investment in infrastructure, working across both Africa and Asia – with 50% of its budget allocated to Africa. InfraVentures invests 75% of its funds in IDA countries, with the balance in middle-income countries.

It was designed to finance co-development and add IFC early-stage project development expertise in transactions, with its support leading to equity positions for IFC at financial close. It is also able to support IFC in arranging and providing debt. Although a small core team, InfraVentures has staff participation from IFC hub offices in Washington D.C., Nairobi, Johannesburg, Dakar, Istanbul and New Delhi.

InfraVentures is roughly half the size of IAfD. It was funded with US\$100m for 2008 through 2013, a further US\$150m for 2013 through 2018, and will be similarly extended next year. It has a US\$8m spend limit per project and is typically a minority partner in a transaction, which limits the opportunities it can participate in – as does the fact that it is currently limited to using IFC staff in developing countries. As well, while it will take either a debt or equity position in a transaction, InfraVentures typically does not take more than a 20% equity stake in a transaction. InfraVentures seems to target investments in projects with a size of US\$200m or greater, and most of its portfolio has been in energy – principally in power generation – similar to IAfD.

CEPA noted in its 2012 assessment of PPFs that “InfraVentures shares many of the features of the IAfD model”, however “it has failed to transact any projects in Africa to that date, largely for reasons outside its control”.⁸⁹ Since then however, InfraVentures has had some success in both Africa and Asia, although more in latter. In Africa, it has successfully closed one project in Senegal and expects to close another two projects this year as well as two projects next year. However, beyond this, InfraVentures is not looking to add new transactions to its pipeline. InfraVentures has progressed fewer transactions over a relatively similar period (operations launched in 2008 versus IAfD’s 2004), although InfraVentures is more limited in its allowed investments than IAfD.

⁸⁹ CEPA (2012). “Assessment of Project Preparation Facilities for Africa. Volume A: Diagnostic & Recommendations”. Prepared for the Infrastructure Consortium for Africa (ICA).

B.1.4. Summary of USP

IAfD performs an important and additional role: it has continued to operate at the frontier, taking on higher risk, in especially challenging geographies, and through almost exclusively greenfield transactions. IAfD has few comparator organisations and the clear comparator (InfraVentures) has not managed to progress the same extent of transactions in a similar period. Further, although the infrastructure development market has certainly developed over IAfD's time, consultees have stressed that the market is still sufficiently underdeveloped to warrant the need for IAfD as a catalysing agent for change. IAfD's investments to date have overwhelmingly been in the energy sector and while still critically catalytic, going forward, it may be that IAfD's USP is furthered by a particular focus on those sectors that are higher risk and more challenging, such as water and sanitation, and transport.

Although the launch of country offices is likely to be costly upfront, the One PIDG model and its various characteristics has the potential to improve the cost efficiency of IAfD as well as its pipeline of projects going forward, as it better understands both what the other PIDG facilities are doing and has a greater physical presence in the market.

Finally, a critical implication of IAfD's business model, is that, without changes to the model, IAfD will continue to be reliant on donor funding that combine both grant finance and DevCap given that it is unlikely that returns from the sales of investments will generate sufficient surplus to cover management and operating costs.

B.2. Review Dimensions II - VFM

B.2.1. Economy

Two progress reviews and one evaluation have been completed for IAfD, in 2007, 2010 and 2016 respectively. We understand that IAfD's VfM has only formally been examined through the 2010 Progress Review completed by Castalia and the 2016 Evaluation completed by Maxwell Stamp, although only at a high level in both studies.

Castalia noted in 2010 that IAfD is difficult to benchmark in VfM studies given the uniqueness of its business model, "its net cost in public funds will not be known until it has fully exited more projects", and it is difficult to compare costs and benefits between projects given how different one project is to the next.⁹⁰

The Castalia Progress Review noted that when comparing costs per project developed between IAfD and other organisations in the project preparation space including IFC's PPP Transaction Advisory Services, and the NEPAD-IPFF, "public costs per project completed by InfraCo are in the same general range as the costs of PPP transactions supported by IFC and NEPAD-IPFF. This is despite the fact that InfraCo has a more extensive role, and so could be expected to have higher costs."

The Maxwell Stamp Evaluation noted that IAfD administrative costs, which include the IMT's costs, "were 12% of project development costs in 2013 and 2014, and 14% of project costs in 2015".⁹¹ Maxwell Stamp noted that this is on par with administrative cost expenditure by bilateral agencies as a percentage of activities (12%) and lower than the equivalent for multilateral agencies (26%). Maxwell Stamp also noted that IAfD's share is less than IAsD's share of administrative costs against project costs of 16%.⁹²

Table B.3 provides the expected project development costs and administrative costs from the IAfD Business Plan. Although administrative costs were a high 30% of project development costs in 2016, IAfD forecast them to be approximately 10% over the 2017-2021 period despite the launch of new offices in Africa and the corresponding expenses.

⁹⁰ Castalia (2011). "2010 Progress Review of InfraCo".

⁹¹ Maxwell Stamp (2016). "An Evaluation of InfraCo Africa Ltd.: Volume I". Prepared for the PIDG.

⁹² Maxwell Stamp (2016). "An Evaluation of InfraCo Africa Ltd.: Volume I". Prepared for the PIDG.

Table B.3: IAfD administrative costs from 2016 through 2021⁹³

IAfD administrative costs (£m)	2016	2017	2018	2019	2020	2021
Project development costs	8.74	15.12	17.66	16.11	16.33	18.21
Administrative costs	2.65	1.73	1.43	1.62	1.6	2
Total						
As a percentage of project development costs	30%	11%	8%	10%	10%	11%

Equally, Table B.4 below sets out IAfD’s anticipated project developer costs for the 2017 to 2021 period. They are expected to average 28% of project development costs over the five-year period.

Table B.4: IAfD developer costs from 2016 through 2021⁹⁴

IAfD developer costs (£m)	2016	2017	2018	2019	2020	2021
Project development costs	8.74	15.12	17.66	16.11	16.33	18.21
Developer costs	4.72	3.5	6.48	5.1	3.65	5.15
As a percentage of project development costs	54%	23%	37%	32%	22%	28%

IAfD’s ability to re-tender and change its developers would suggest that its developer costs are subject to some degree of competitive pressure.

B.2.2. Efficiency

The 2016 Maxwell Stamp Evaluation explored IAfD VfM in terms of the Facility’s ability to convert the services they provide into outputs. Maxwell Stamp noted the following:

“Overall costs per beneficiary are reasonable when compared to benchmarks, indicating that IAfD’s projects deliver good value for money. For IAfD’s power generation projects, project costs per MW are within a reasonable range compared to benchmarks as well. Furthermore, over the review period, IAfD has become more effective in disbursing Donor funds. The percentage of Donor funds committed to projects rose from 30% to 48% between 2012 and 2015, which is in line with the level of funding committed to projects in other infrastructure development facilities”.

Maxwell Stamp also noted that when evaluating IAfD’s costs relative to estimated impacts, *“IAfD’s projects were reasonable when compared to other IPPs in SSA. IAfD represented value for money compared to other PIDG facilities; cost per beneficiary was reported to be US\$9.80, which is below the average of US\$11.13 across all PIDG facilities.”*⁹⁵

Further, we have also considered the efficiency of IAfD by reviewing its performance against its logframe targets, as presented in Table E.5.⁹⁶

Table B.5: IAfD performance relative to logframe targets

⁹³ IAfD (2016). “InfraCo Africa Business Plan Updated: 2017 – 2021”.

⁹⁴ IAfD (2016). “InfraCo Africa Business Plan Updated: 2017 – 2021”.

⁹⁵ Maxwell Stamp (2016). “An Evaluation of InfraCo Africa Ltd.: Volume I”. Prepared for the PIDG.

⁹⁶ Note that we have only included logframe targets reported by DFID and PIDG in their annual updates.

Logframe target	2013		2014		2015		2016*		All years
DFID output score	B		C		A		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target	Result	Target met
No. of new projects (i.e. JDAs) (annual)	--	--	--	--	4	5	3	3	2 of 2
No. of projects where InfraCo Africa has sold or partially sold its equity stake (annual)	--	--	--	--	1	1	2	2	2 of 2
No. of projects where InfraCo Africa has sold or partially sold its equity stake (cumulative)	--	--	--	--	9	9	11	10	2 of 2
No. of projects achieving financial close (annual)	--	--	1	0	1	1	2	1	2 of 3
No. of projects achieving financial close (cumulative)	--	--	9	8	8	8	10	8	2 of 3
TICs (US\$m) (annual)	--	--	30	0	14.78	2.4	96	5.2	1 of 3
TICs (US\$m) (cumulative)	--	--	1,802	2,075	2,090	2,078	2,159	2,066	2 of 3
% of TICs in DAC I and II countries (cumulative)	75%	96%	75%	96%	>75%	96%	75%	>96%	4 of 4
% of TICs in post-conflict and fragile states (cumulative)	20%	26%	20%	22%	>20%	22%	20%	>22%	4 of 4
No. of people with access to new or improved infrastructure (m) (annual)	0.047	0	0.007	0	0.01	0.01	2.2	TBD ⁹⁷	2 of 4
No. of people with access to new or improved infrastructure (m) (cumulative)	13.86	15.25 ⁹⁸	15.30	13.01	13.04	13.04	15.2	13.04	3 of 4
Ratio of InfraCo Africa's spend on financially closed projects compared to TICs (cumulative)	--	--	--	--	--	--	15	62	N/A
Cumulative % of Highly Additional projects (cumulative)	--	--	--	--	--	--	30%	>81%	N/A

* Source: DFID (2013, 2014, 2015); PIDG (2016).

⁹⁷ This figure is pending CMO assessment of number of people affected by Redavia.

⁹⁸ Figure is as given in the DFID 2013 Annual Review of the PIDG, however the figure does not appear to be correct given data for future years (as reported in more recent DFID Annual Reviews of the PIDG).

As Table E.5 shows, IAfD has demonstrated mixed performance across the last few years in terms of progress against its logframe targets; and this is echoed by the fact that DFID's output score for IAfD fluctuated from B to C to A across 2013-2015. Whereas IAfD has performed well against targets related to investments in DAC I/II countries and FCAS, its annual progress against targets related to TICs attracted to IAfD projects and correspondingly, the target related to the annual number of people with access to new or improved infrastructure, has been weaker. IAfD has met most of the targets set for 2016, continuing IAfD's strong 2015 performance against its logframes –and signalling a strong ability to convert the services it provides into outputs it delivers.

B.2.3. Effectiveness

In addition to Maxwell Stamps' findings noted above, we explain in Section B.1 that IAfD has successfully leveraged private sector and DFI funding for its projects, as well as delivered transformational impact by means of demonstration effects that have supported the crowding in of further private sector or DFI investment in the given market.

B.3. Review Dimension III - Transformational impact

Beyond leveraging private sector and DFI funding for IAfD projects, IAfD has also had some success with leveraging transformational impact (i.e. long lasting increase in the quantity and/or quality of private investment in infrastructure not involving but influenced by PIDG). Specifically:

- **Cabeolica Wind Farm Extension Project:** Under the US\$84m Cabeolica Wind Farm Project in Cape Verde, IAfD developed four wind farms. The wind turbines began operations in 2012 and collectively produce 28MW per year of renewable power benefiting nearly 500,000 people, and meeting 25% of the country's energy requirements. Cabeolica is also "the first commercial-scale, privately financed, PPP wind farm in SSA".⁹⁹ The Project followed an unsuccessful attempt between 1995 and 2004 by the Government, with assistance from the WBG, to develop wind capacity. Cabeolica is considered a standard for wind power projects across SSA and was the leader in a now much more expansive industry on the continent.
- **Muchinga Power Company:** Muchinga was successful in raising private sector equity, as well as DFI debt and equity. The Project is expected to produce 200MW of sustainable hydropower per year, to extend the capacity of the national grid and potentially support Zambia's capacity to export power through the Southern Africa Power Pool. EleQtra note that Muchinga is a "pioneering initiative as it is the first privately owned hydro with significant local ownership" and that it is a model that IAfD intends to replicate, which is through the 100MW Western Power HPP.¹⁰⁰ IAfD staff noted that the Muchinga Project provided a demonstration effect to support the 'kick-starting' of the private hydropower market in Zambia such that the market is now fairly developed and there is less of a need for IAfD to participate in the Zambian hydropower market in the future.
- **Chiansi Irrigation Infrastructure Project:** The approximately US\$30m Chiansi project is based on a tiered farming model whereby a 'hub' commercial farm will support the uptake and use of irrigation infrastructure among smallholder farmers at surrounding market gardens. While the Project is still in development, it has already been a catalyst in the agricultural development space for similarly-structured irrigation schemes. For instance, the model for the US\$200m WBG-financed, Ministry of Agriculture-led Irrigation Development & Support Project in Zambia (IDSP) involves three PPP irrigation schemes whose design has been influenced by Chiansi.¹⁰¹

⁹⁹ eleQtra (2017). "Cabeolica Wind: Cape Verde". Accessed at: <http://eleqtra.com/projects/cabeolica-wind/>

¹⁰⁰ eleQtra (2017). "Muchinga Power: Zambia". Accessed at: <http://eleqtra.com/projects/muchinga-power/>

¹⁰¹ This is based on CEPA's knowledge of the IDSP as its transaction advisor.

ANNEX C INFRACo ASIA

C.1. Review Dimension I - USP

C.1.1. Background and operations

IASD was incorporated in 2009 and served to separate the then InfraCo Ltd. into two separate businesses: one London-based and focused on SSA (IAfD), and one Singapore-based and focused on South and South East Asia (IASD). The separation of InfraCo Ltd. mean that separate boards and investment committees were established for each entity. Like IAfD, IASD is intended to “stimulate greater private sector involvement and investment in the development of infrastructure and related projects by reducing the costs and risks of project development, usually at the pre-financial close stage”.¹⁰² Like IAfD, IASD, is an infrastructure project developer focused on identifying and developing bankable opportunities to a point where they may be financed and sold to private sector investors.

As mentioned, IASD has a geographical focus of Asia. It is expected to operate primarily in DAC I/II countries and FCAS, and in exceptional circumstances in DAC III countries. IASD’s Operating Policies and Procedures set out a list of approved countries for transactions, as given in Table C.1 below.

Table C.1: List of approved countries for IASD activities

Regions	Least Developed Countries (DAC I)	Other Low Income Countries (DAC II)	Lower Middle Income Countries and Territories (DAC III)
South East Asia	Cambodia, Laos, Myanmar	n/a	Indonesia, Philippines, Vietnam
South Asia	Bangladesh, Bhutan, Nepal	n/a	Pakistan, Sri Lanka, India

Further, IASD’s Operating Policies and Procedures state the following:

- No more than 33% of projects in IASD’s portfolio may be in DAC III and although this applies to the number of projects, “the value of investment in development activity should not materially vary from this ratio”.
- In Pakistan and in DFID’s priority states in India of Madhya Pradesh, Orissa, West Bengal, Bihar, Rajasthan, Uttar Pradesh, Chhattisgarh and Jharkhand, projects shall be deemed as in DAC II geographies and excluded from the 33% limit.
- Unlike for IAfD, there are no requirements in IASD’s Operating Policies and Procedures for a certain share of the portfolio to be in FCAS, although we note that IASD has a dedicated programme in Myanmar – the only IASD country currently included on the WBG’s current list of FCAS¹⁰³ – and IASD’s logframe indicators include an indicator to set a threshold of at least 50% of TICs being raised in FCAS. This indicator is based on the PIDG list of FCAS, which includes the following IASD mandate countries: Bangladesh, Myanmar, Nepal and Pakistan. Prior to April 2017, Sri Lanka was also included on the PIDG list of FCAS.
- IASD’s investment opportunities may include: start-ups or greenfield developments; partly developed projects; abandoned projects; currently operating companies where the owners are unable to finance/ implement major investments; privatised or to be privatised projects/companies; and majority state-owned projects where the private sector is to participate in a risk sharing capacity.

¹⁰² IASD (2015). “InfraCo Asia Development Pte. Ltd.: Operating Policies and Procedures”.

¹⁰³ World Bank (2015). “Harmonized List of Fragile Situations FY17”.

IASD's key operating principles are provided in Box C.1 below.

Box C.1: IASD key operating principles¹⁰⁴

IASD key operating principles from IASD's 2011 Statement of Operating Policies & Principles

IASD will operate as a private sector infrastructure development company, acting as principal. It will:

- normally undertake pre-financial close development activities for its own account and risk;
- operate at arm's length from PIDG and its members with a Board of Directors from the private sector, acting in accordance with these Operating Policies and Procedures;
- not compete with the private sector, but seek to stimulate expanded private sector involvement in infrastructure development;
- seek to structure opportunities in a way that balances the interests of host governments and other national stakeholders with the requirements of private sector investors and providers of finance;
- seek to balance the goal of attaining attractive sales value with the goals of promoting opportunities with a high developmental impact; and
- over the long term, seek sufficient revenue from successful sales to fund its general operational costs and the direct project preparation costs of the sold opportunities and to make a contribution to the costs of unsold opportunities.

Further, in addition to IASD, the facility has a sister facility also based in Singapore called IASl, which is intended to serve as an investor of 'last resort' in IASD projects at or prior to financial close. IASl was developed as a tool for IASD to address market failures by filling financing gaps to enable IASD projects to reach financial close, and thereby facilitating the acceleration of construction and completion of IASD projects. As IASl funding is only available to IASD projects, it works in the same geographies as IASD. However, IASl has started considering third party projects; a formal call for proposals was issued in Q42016.

Business model

Again like IAfD, IASD initially operated on a single developer model with Nexif Management Pte. Ltd. (NexifIM) as the third-party developer assigned exclusive rights to screen and develop projects on behalf of IASD. However, following the expiry of NexifIM's contract in 2015, IASD shifted to multi-source business development model with a 'captive' channel and a 'co-development' channel, with the captive delivery channel being implemented via third party developers and the co-development channel being led by IASD's IMT. IASD's portfolio aims to split 50:50 between the two project development models but to date the captive channel dominates as the co-development channel was only introduced two years ago.

Under the captive model, there are three developers currently under contract with a total funding commitment of US\$105m:

- Infra Capital Myanmar Pte Ltd. (Infra Capital Myanmar) has a five-year contract commencing in 2015 to originate, screen and develop projects in Myanmar;
- Equicap Asia Private Ltd (Equicap) has a five-year contract commencing in 2016 to originate screen and develop projects in South Asia; and
- Infunde Development Private Ltd (Infunde) has a five-year contract commencing in 2016 to originate, screen and develop projects in South East Asia.

¹⁰⁴ InfraCo Africa (2015). "Operating Policies and Procedures: January 2015

During consultations, IAsD noted that the IMT had screened over one hundred opportunities under its co-development programme, many of which were referrals from venture capital and private equity funds unwilling to take on early-stage delivery risk but who are interested in later-stage, well-structured transactions.

Under the co-development programme, developers facing financial, policy or regulatory issues in a given transaction bring the transaction to IAsD for support to help it progress. IAsD has an investment mandate to only take a maximum of 50% shareholding and is not required to charge success fees on deals, in order for the co-developer to stay in the lead position. IAsD staff noted that such transactions are typically quicker to progress than those under the captive model, and some co-development opportunities are already more progressed than those under the captive model and are managed in-house by IAsD's IMT.

Sector focus

IAsD has a broad sector focus, like IAfD. It may invest in any of the following sectors: energy services; water/wastewater services; transportation infrastructure services; bulk storage/ logistics facilities; telecommunications; gas transportation, distribution and storage; oil transportation, distribution and storage; mining and upstream oil and gas; urban infrastructure; agriculture-supporting infrastructure; and other related activities. All of these sector areas are advertised on the IAsD website¹⁰⁵, unlike for IAfD which only advertises energy, water and transport as its sectors of operations.

Despite the wide range of sector areas possible for investment, of the four IAsD projects that have reached financial close and the six currently under active development, six projects are in the energy sector, three are in the agri-infrastructure sector and one is in the waste management sector. Further, during consultations, IAsD staff noted that the company is developing its project pipeline with a strong focus on renewable energy, such that 40% of its projects are in renewable energy.

Rationale for intervention/ market failure

Similar to the rationale for IAfD, there is a significant infrastructure deficit in Asia and IAsD remains a relatively unique and important facility in the infrastructure project preparation, development and financing space in Asia. The 2015 ASI Progress Review of IAsD found that all the traditional indicators of market failures (asymmetric information, imperfect competition, externalities and public goods) are all characteristic of the challenges faced in transacting infrastructure development projects in Asia. More specifically, ASI noted the following as frequently cited challenges¹⁰⁶:

- poor understanding of government processes and key documents by private sector developers such that there are critical information asymmetries when trying to bring a project to financial close;
- weak institutional, regulatory and legal structures raise delivery, development and post-financial close risk for private sector developers;
- a lack of competition in markets due to markets being fairly nascent makes it difficult to raise finance as well as often means that the regulatory environment is equally nascent and difficult to rely on;
- a lack of appropriate skills and institutional capacity within markets leads to inefficient operation of markets given such things as limited government capacity to tender or negotiate contracts; and
- corruption raises risk and market costs disproportionately thereby raising hassle costs and making transactions more difficult to progress.

Accordingly, ASI stressed that IAsD adds significant value to market as it:

¹⁰⁵ IAsD (2017). "Sectors". Accessed at: <http://www.infracoasia.com/about-sectors.asp>

¹⁰⁶ ASI (2015). "InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report". Produced for PIDG.

- “has a role to play in securing private sector investment in infrastructure that would otherwise be at serious risk of not proceeding”;
- “brings a broader perspective than other private project developers”;
- “has the capacity to bring together a range of private and public-related financial institutions to assist in project financing”; and
- its importance “is demonstrated by financiers’ need for its involvement beyond Financial Close”.¹⁰⁷

Donor funds

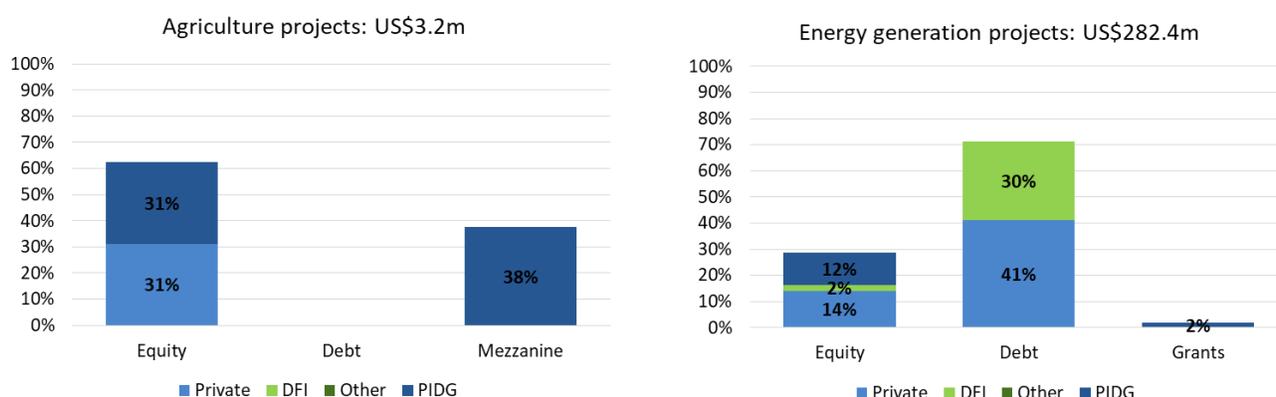
The PIDG 2015 Annual Report¹⁰⁸, notes that IAsD has received US\$87.3m in donor commitments, of which US\$58.2m (67%) has been committed by DFID, US\$19.1m (22%) by DFAT, and US\$10m (11%) by SECO.

In contrast to IAsD, IAsI is entirely funded by DFID and has received US\$26.9m in commitments from DFID according to the PIDG 2015 Annual Report.

Operations to date

According to the latest PIDG Results Monitoring Database, four IAsD projects (Salt Farm Development, Coc San Hydro Power Project, Metro Wind Power and Gul Ahmed Wind) have reached financial close, mobilising over US\$284m in financing, of which US\$42m was provided by the InfraCo Asia facilities while approximately US\$170m (54%) has been provided by private sources. Figure C.1 below highlights the split of debt versus equity financing for the four transactions, by sector.

Figure C.1: Total financing by sector for IAsD projects



Source: PIDG (2017); CEPA analysis.

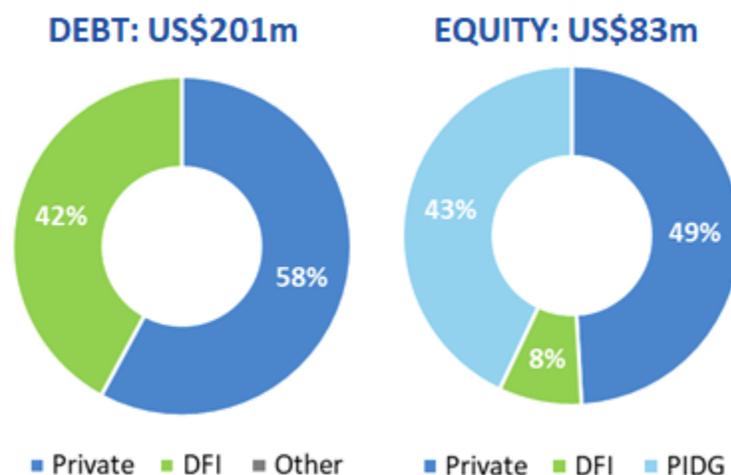
Figure C.2 shows the main sources of finance for the projects (although there was also US\$1.21m of mezzanine¹⁰⁹ finance provided by DFIs and US\$5m of grants provided through TAF). As can be seen, the proportion of debt finance provided by the private sector is higher than the proportion of equity finance provided. Similarly, collectively IAsD and DFIs have provided a higher proportion of equity relative to debt.

¹⁰⁷ ASI (2015). “InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report”. Produced for PIDG.

¹⁰⁸ PIDG (2015). “Annual Report 2015”.

¹⁰⁹ For the Cambodia Salt Farm Development.

Figure C.2: Main sources of finance for the four closed IAsD projects



Source: PIDG (2016); CEPA analysis.

Further all of the four closed projects are in DAC I/II countries, and half are in FCAS. Equally, of the projects currently under development, 54% are in DAC I/II countries, 62% are in FCAS, and 33% are in Indian states (excluded from the cap on projects in Lower Middle Income Countries and Territories).

Table C.2 below provides further detail on IAsD's pipeline based on data from the 2015 Progress Review completed by ASI and data from the PIDG Results Monitoring Database.

Table C.2: IAsD projects that have reached financial close or under active development (US\$m)^{110,111}

Project	Start year	Status (end May 2017)	IAsD Commitment (US\$m) ¹¹²	Project cost and financing (US\$m) ¹¹³				
				Total financing	Domestic PS investment	Foreign PS investment	DFI investment	PIDG investment ¹¹⁴
Salt Farm Development, Cambodia	2012	Financial Close, Operational	2.5	3.2	-	1	-	2.2
Coc San Hydro Power Project, Vietnam	2012	Financial Close, Operational	7.6	44.5	25.5	5.1	-	13.9
Gul Ahmed Wind, Pakistan	2012	Financial Close, Operational	8.4	125.6	65.1	-	49.4	11.1
Metro Wind Power, Pakistan	2012	Financial Close, Operational	7.5	117.3	60.7	-	41.9	14.7

¹¹⁰ ASI (2015). "InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report". Produced for IAsD.

¹¹¹ PIDG (2017). "Results Monitoring Database". Accessed at: <http://data.pidg.org/>

¹¹² Note that figure is not always equal to the equity contribution IAsD has made to projects, given that some funding is not rolled into equity contributions.

¹¹³ Note that actual figures have been used for financially closed projects, while predicted figures have been used for projects under development.

¹¹⁴ Includes IAsD, IAsI and TAF.

Project	Start year	Status (end May 2017)	IAsD Commitment (US\$m) ¹¹²	Project cost and financing (US\$m) ¹¹³				
				Total financing	Domestic PS investment	Foreign PS investment	DFI investment	PIDG investment ¹¹⁴
Municipal Waste-to-Energy Project, Sri Lanka	2012	Under active development	6.2	40	10	9.6	14.2	6.2
Kota Mechanised Grain Market Infrastructure Development Project, Rajasthan, India	2012	Under active development	1.6	7	3.4	2	-	1.6
Bikaner Mechanised Grain Market Infrastructure Development Project, Rajasthan, India	2012	Under active development	0.5	7	5.2	1.4	-	0.5
Kabeli A Hydro Power, Nepal	2012	Under active development	8.8	8.8	-	-	-	8.8
Lower Manang Marsyangdi Hydro Power Project, Nepal	2012	Under active development	0.2	0.2	-	-	-	0.2
CHP Combined Cycle Gas Turbine Plant in YaeNi, Myanmar	2016	Under active development	1.8	1.8	-	-	-	1.8
Mini Hydro Portfolio in North Luzon, Philippines	2016	Under active development	2.2	2.2	-	-	-	2.2
Keyi Run of River Hydro Plant in Arunachal Pradesh, India	2016	Under active development	3.2	3.2	-	-	-	3.2
Pareng Run of River Hydro Plant in Arunachal Pradesh, India	2016	Under active development	1.8	1.8	-	-	-	1.8
Rice Processing, Myanmar	2016	Under active development	0.4	0.3	-	-	-	0.4
Seed Hybrid Center and CBO in Yae Ni, Myanmar	2016	Under active development	2	2	-	-	-	2
Telco ESCO, Myanmar	2016	Under active development	1	1	-	-	-	1
Waste to Fish Feed, Myanmar	2016	Under active development	0.5	0.5	-	-	-	0.5

During consultations, IAsD staff noted that for the Coc San Hydro Power Project, this run-of-the-river hydropower project in Vietnam had one single Vietnamese lender. As well, for the Metro Wind Power and Gul Ahmed Wind projects in Pakistan, they received a mix of debt and equity (75% commercial debt and 25% equity) from a group of investors including four commercial banks and three DFIs (Debt and equity: IFC; Debt only: FMO and Proparco).

IAsD noted that they can often find debt for a well-structured project but finding suitable equity continues to be an ongoing issue. During telephone consultations, IAsD staff noted that IAsI was created in anticipation that IAsD may face difficulties in raising all the capital needed at or near to financial close and this proved to be the case for three of the projects closed to date. Accordingly, three of the four projects to reach financial close have received support from IAsI, totalling slightly more than US\$31m: US\$21.7m in 2014 for Coc San Hydro Power Project and Metro Wind Power; and US\$9.3m in 2015 for the Gul Ahmed Wind.

C.1.2. Future strategy

According to its 2017-2021 Business Plan, IAsD plans to bring 44 projects to financial close over the period. The bulk of projects are expected to be in the power sector, such that the power sector exposure is approximately 50% of the IAsD's overall committed portfolio. Agribusiness is expected to be the sector area with the second most number of projects.

To achieve its targets, IAsD is expecting to drawdown US\$89.7m of existing DFID commitments to its core programme of operations in South and South East Asia, and US\$16.2m of existing DFID commitments for its Myanmar programme. IAsD's Business Plan states that the facility would potentially not require further capital injections during the period so long as existing commitments are still available for drawdown, cash proceeds from successful sales of projects are achieved as forecast and all other assumptions hold true. However, IAsD staff did note that there may be between-period cash flow issues in the current Business Plan. Without changes to the IAsD model, donor commitments will likely continue to be required in order to allow IAsD to deliver on its business plan, and continue to operate as close to the frontier as possible in its development mandate. With a more flexible model, a blended finance approach could be employed. IAsD's Business Plan highlighted that it has started to invest by way of convertible loans, in addition to equity. For certain opportunities under the Developer Services Programme, IAsD is taking a minority role in projects being developed by credible developers that lack specific expertise that IAsD can provide, rather than the traditional position of assuming a majority position. IAsD is also exploring the option of allowing service providers to take equity shares in projects for remuneration, instead of (or in addition to) typical fee-based remuneration.

At the last PIDG Governing Council meeting in November 2016, it was agreed that PIDG would try to broaden its donor base. In line with this, IAsD has been speaking with the governments of the Republic of Korea, Japan and Singapore about their appetite for investing in IAsD. Although Japan already has an equity facility for infrastructure investment and follows a tied-aid agenda (which we understand to be in contradiction with the terms of PIDG), there appears to be some interest from Japan to invest in IAsD.

With respect to One PIDG, IAsD notes the following in its Business Plan:

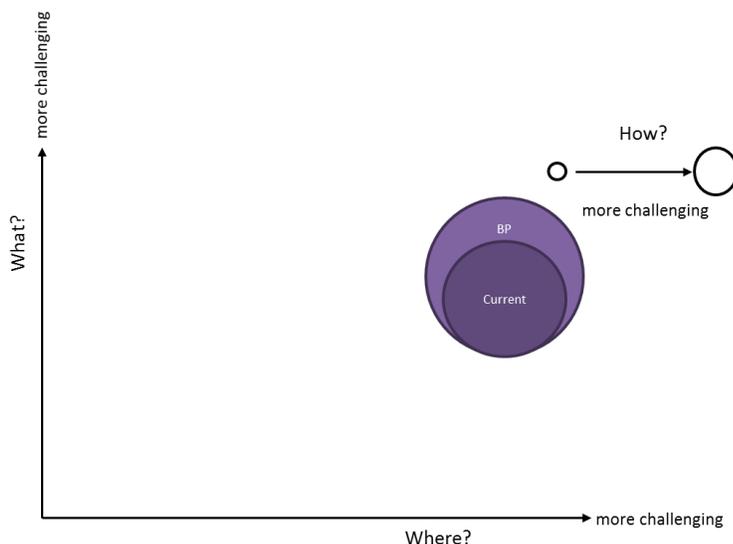
- IAsD is continuing to work with TAF to leverage TAF support for various purposes.
- IAsD is working closely with both TAF and DevCo to identify strategic sector and country-based opportunities, such as the development of a PIDG strategy for doing business in Myanmar.
- IAsD is working closely with GuarantCo where IAsD projects require the extension of local debt tenor.
- IAsD is also in conversation with DevCo for the two facilities to jointly develop a pilot project.

More generally, IAsD is looking to grow its staff headcount by approximately two per year over the Business Plan's period to support the anticipated growing portfolio of projects, as well as divestments.

Based on its future plans, IAsD is looking to bring in measures to help improve sustainability, bringing it closer as opposed to beyond the frontier¹¹⁵ in terms of *how* it supports projects, while keeping other aspects of its USP the same. This is summarised in Figure C.1 below.

¹¹⁵ Here we define being beyond the frontier as working in areas that are simply too difficult at present.

Figure C.1: Comparison of current and potential future position of IAsD on the frontier



Source: CEPA analysis

C.1.3. IAsD comparators

As with IAfD, InfraVentures is seen as the closest comparator to IAsD. InfraVentures is comparable in size to IAsD: it was funded with US\$100m for 2008 through 2013, a further US\$150m for 2013 through 2018, and will be similarly extended next year, although only up to half of this is for work in Asia. Although InfraVentures has had some success in Asia, consultees have noted that they do not see it as a competitor to IAsD. IAsD staff noted that InfraVentures does not necessarily enter the market as early as IAsD, typically take a minority stake of 25% or less, and seems to be focused on developing a pipeline of opportunities for IFC to lend to. IAsD staff noted that they speak with their IFC counterparts, which includes InfraVentures, frequently. InfraVentures has recently decided not to pursue an opportunity that is currently under due diligence by IAsD.

C.1.4. Summary of USP

Throughout the consultations to date, stakeholders have confirmed that IAsD is an important project originator and developer in the Asian market. Like IAfD, IAsD is operating ‘at the frontier’: all closed projects and over two-thirds of projects under development are in DAC I/II geographies, in addition to half of IAsD’s portfolio being in FCAS.

IAsD is also more responsive and proactive than DFIs in the space. For example, consultees have stressed that IFC can be slow to act given the institutional structure (i.e. the need to liaise with many different teams), whereas IAsD is lean and quick-acting.

Further, ASI note in its 2015 Progress Review¹¹⁶, which found that IAsD “established a unique and positive role in the infrastructure development market”, the following:

“There is an important niche role for [IAsD] in the infrastructure development market. [IAsD] serves a unique role in two respects: it takes to financial close projects that would otherwise be unlikely to proceed; and it does this with a

¹¹⁶ ASI (2015). “InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report”. Produced for PIDG.

broader economic, environmental and social development perspective than usual for conventional commercial projects.”¹¹⁷

IAsD has tended to focus on stranded or stalled projects, which reflects market needs and conditions. The challenging endeavour of developing such projects is reflected in the long gestation period for projects.

IAsD is clearly working in a challenging environment given the difficulty it has experienced raising purely private sector capital: “In practice, the amount of capital raised from the private sector has been substantial, though almost as much capital has come from public institutions. This is positive in the sense of demonstrating that [IAsD] is working with other development agencies. But it also reflects the challenge in mobilising private sector capital.”¹¹⁸

C.2. Review Dimension II – VFM

C.2.1. Economy

The first and only Progress Review of IAsD was completed by ASI in August 2015, which included some high-level VfM analysis. At the time of the ASI study, IAsD was operating under a different model, where NexifIM was the Company’s sole developer. ASI found that IAsD administrative costs over the 2009 to 2013 period were “an average of 16.2 percent of the total of US\$34.74 million paid for project development over the same period”.¹¹⁹ ASI noted that other AusAID co-financed trust funds had an average administrative fee of 12% (as a percentage of trust fund expenditure), with the share ranging from 5% to 24% across the trust funds. ASI further noted that “The small scale of IAsD (with some costs being relatively fixed with regard to scale), the generally difficult projects it undertakes and possibly more detailed monitoring oversight requirements for PIDG will contribute to the higher share for by IAsD.”

Table C.3 provides the expected project development costs and administrative costs from the IAsD Business Plan. IAsD expect administrative costs to average 20% of project development costs over the 2017-2021 period. Note that project development costs in this analysis exclude costs associated with development co-investment projects, where IAsD’s developers bear the costs.

Table C.3: IAsD administrative costs from 2016 through 2021¹²⁰

IAsD administrative costs (\$m)	2016	2017	2018	2019	2020	2021
Project development of projects	8.8	27	19.3	21.4	11.6	9.7
Administrative costs	1.42	1.98	2.41	2.91	3.31	3.72
As a percentage of project development costs	16%	7%	12%	14%	29%	38%

Equally, Table C.4 below sets out IAsD’s anticipated project development costs for co-investment projects across the 2017 to 2021 period. They are expected to average 27% of project development costs over the five-year period, which is very similar to the 28% value IAsD expects.

Table C.4: IAsD developer costs from 2016 through 2021¹²¹

IAsD developer costs (\$m)	2016	2017	2018	2019	2020	2021
Project development costs	8.0	14.0	14.0	12.0	12.0	12.0
Developer costs	0.95	3.85	1.58	2.55	4.45	4.39

¹¹⁷ ASI (2015). “InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report”. Produced for PIDG.

¹¹⁸ ASI (2015). “InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report”. Produced for PIDG.

¹¹⁹ ASI (2015). “InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report.”

¹²⁰ IAsD (2016). “InfraCo Asia Business Plan Update: 2017 – 2021”.

¹²¹ IAsD (2016). “InfraCo Asia Business Plan Update: 2017 – 2021”.

IaD developer costs (\$m)	2016	2017	2018	2019	2020	2021
As a percentage of project development costs	12%	28%	11%	21%	37%	37%

Since the ASI Progress Review, IAsD has shifted to a multi-developer model such that it competitively tenders developer contracts for discrete periods of time and requires developers to share in delivery risk, such that developer costs should be subject to some degree of competitive pressure.

C.2.2. Efficiency

Given that IAsD has only closed four projects to date, it is difficult to assess the extent to which the facility has successfully converted the services it provides into the outputs it delivers. Consultees have reported that IAsD is very proactive and is less burdensome to deal with than DFIs operating in the infrastructure development space in Asia. Equally, IAsD has a stronger track record in Asia than its closest comparator organisation InfraVentures. Further, despite its short history (it began operations in 2010), IAsD is a recognised brand name backed by a strong reputation in the infrastructure development market in Asia.

Table E.5. highlights how IAsD and IAI have performed relative to their logframe targets. Note that we have only included logframe targets reported by DFID and PIDG in their annual updates.

Table C.5: IAsD & IAI performance relative to logframe targets

Logframe target	2013		2014		2015		2016		All years
DFID output score (in all cases, for both IAsD & IAI)	B		A		B		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target	Result	Target met
New projects under active development (i.e. JDAs signed) (annual)	8	10 ¹²²	0	0	4	0	12	8	2 of 4
Sales of IAsD's equity in infrastructure projects under development (on or before financial close) (annual)	--	--	--	--	1	0	2	0	0 of 2
Sales of IAsD's equity in infrastructure projects under development (on or before financial close) (cumulative)	--	--	--	--	1	0	2	0	0 of 2
No. of projects achieving financial close (annual)	1	1	2	2	4	1	3	0	2 of 4
No. of projects achieving financial close (cumulative)	1	1	3	3	7	4	7	4	2 of 4

¹²² The 2013 DFID Annual Review of PIDG notes that IAsD achieved 10 projects with signed JDAs (an increase of 25%) on the previous year. Based on this and reported data for future years, the 2013 target and result figures for "new projects under active development (i.e. JDAs signed) (annual)" appear to be cumulative rather than annual figures.

Logframe target	2013		2014		2015		2016		All years
DFID output score (in all cases, for both IAsD & IAI)	B		A		B		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target	Result	Target met
TICs (US\$m) (annual)	--	--	175.6	176.4	225.9	119.4	133	0	1 of 3
TICs (US\$m) (cumulative)	--	--	179.4	179.3	379.3	272.8	406	273	0 of 3
% of TICs from IAsD projects in target countries/ states (cumulative)	67%	100%	67%	75%	67%	87%	67%	87%	4 of 4
% of TICs from IAsI projects in target countries/ states (cumulative)	50%	0	50%	54%	50%	87%	50%	87%	3 of 4
% of TICs in post-conflict and fragile states (cumulative)	--	--	50%	73%	50%	87%	50%	87%	3 of 3
No. of people with access to new or improved infrastructure (million) (annual)	0.25	0	0.48	0.48	--	--	0.8	0	1 of 3
No. of people with access to new or improved infrastructure (m) (cumulative)	0.25	0	0.48	0.48	--	--	1.6	0.83	1 of 3
The gross ratio of TICs to IAsD's development spend on financially closed projects (cumulative)	--	--	--	--	--	--	8	11.7	1 of 1
Number of IAsI projects with signed debt or equity investment agreements (annual)	--	--	2	2	4	1	2	0	1 of 3
Number of IAsI projects with signed debt or equity investment agreements (cumulative)	--	--	2	2	6	3	5	3	1 of 3
Return on Investment for IAsI in infrastructure projects (debt or equity) (cumulative)	--	--	--	--	>10%	0	10%	10.3%	1 of 2

Logframe target	2013		2014		2015		2016		All years
DFID output score (in all cases, for both IAsD & IAI)	B		A		B		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target	Result	Target met
Number of projects where IAsI's investment recovered at or after financial close (annual)	--	--	--	--	0	0	2	0	0 of 2
Number of projects where IAsI's investment recovered at or after financial close (cumulative)	--	--	--	--	0	0	2	0	0 of 2

Source: DFID (2013, 2014, 2015); PIDG (2016).

As Table E.5 shows, like IAfD, IAsD and IAsI have had mixed performance across the last few years in terms of progress against their logframe targets/forecasts – although, the facilities performed better than IAfD with regards to DFID's output score: their scores fluctuated between A and B between 2013 and 2015. Like IAfD, IAsD has performed well against targets on investment in DAC I/II countries and FCAS; and IAsD and IAsI have performed less well in terms of signing new JDAs, progressing transactions to financial close, and meeting forecasts related to the annual number of people with access to new or improved infrastructure. IAsD and IAsI's results for 2016 also reflect these high-level trends. Accordingly, both the recorded performance against logframe targets and DFID's annual output score for both IAsD and IAsI suggest that both facilities convert the services they provide into outputs they deliver with a reasonable degree of success given the challenges associated with doing business in DAC I/II countries and FCAS.

C.2.3. Effectiveness

As discussed in Section C.2, IAsD has successfully leveraged private sector and DFI funding for four projects to date, as well as delivered transformation impact by means of demonstrations effects that have supported the crowding in of further DFI investment in the hydropower sector in Vietnam. Further, ASI note in the 2015 Progress Review that, as at the time of the study:

*"IAsD has generated substantial capital from the private sector (of US\$191 million) but it is well below that originally envisaged. The tighter market conditions that have prevailed since the global financial crisis will have contributed to this, with the challenging, though worthwhile, projects pursued by IAsD also making it more difficult to secure private sector finance."*¹²³

C.3. Review Dimension III – Transformational impact

In terms of IAsD's success in leveraging transformational impact, this has been fairly limited to date given that only four IAsD transactions have reached financial close. However, stakeholders have stressed the transformational impact of Coc San Hydro Power Project. In particular, the WBG currently has a facility (the Vietnam Renewable Energy Development Project) that is trying to get local banks to on-lend funds to the power sector. We understand that this programme has been active for two to three years and that at least twelve projects have benefited from support. We understand that the Coc San Hydro Power Project provided important demonstration impact to support the rationale for this WBG programme.

¹²³ ASI (2015). "InfraCo Asia Development Pte. Ltd: A Progress Review. Final Report."

ANNEX D INFRASTRUCTURE EQUITY AND MEZZANINE FINANCING (IEMF) FACILITY

D.1. Review Dimension I - USP

D.1.1. Background and operations

Remit and geographical coverage

PIDG has proposed to launch a new facility called the IEMF facility for the purpose of providing mezzanine and equity funding for infrastructure projects at financial close – a point in the project lifecycle “where there is strong evidence of genuine additionality or unmet need.”¹²⁴ We understand that the facility will consolidate a number of already-existing facilities, including: IAsI, IAfD Investments Ltd. (which was established in 2014 but never capitalised or implemented).

IEMF will have separate Asia- and Africa- specific windows: (i) IEMF Asia – a legal entity to be housed in Singapore; (ii) and IEMF Africa – a legal entity to be incorporated in Mauritius. Despite the two separate geography-specific entities, IEMF will operate under a single board structure with board member business experience reflecting both Africa and Asia, and common governance arrangements across the two regions.

Business model

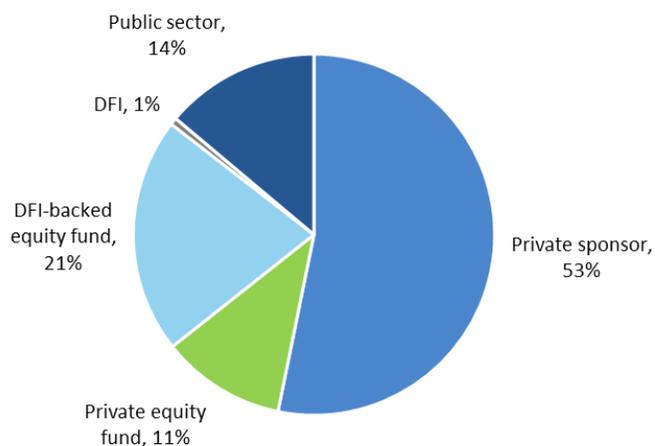
IEMF will not be tied to PIDG projects - it will be available to the market as a whole for greenfield infrastructure investments in PIDG countries. The facility will offer:

- ‘gap’ filling equity and/or mezzanine instruments; and
- equity instruments for all-equity projects not available to project finance subject to the 50% maximum exposure rule.

To get a clearer picture of the main providers of equity finance in low and lower-middle income countries in SSA, we have reviewed projects in the energy, transport and water sector that have reached financial close in this region in 2015 and 2016. From this review, we found that of the US\$4.4bn of financing that had been mobilised, US\$875m (20%) of this was equity finance, while US\$142m (3%) was provided as mezzanine, with debt being the major source of financing for these projects. Figure D.1 below shows the proportion of equity finance provided by each financing source.

¹²⁴ DFID (2016). “Addendum to Business Case for the Private Infrastructure Development Group”.

Figure D.1: Sources of equity finance as a proportion of total equity provision for infrastructure projects



Source: IJ Global; World Bank; PIDG.

As Figure D.1 shows, private sector sponsors have provided the majority of equity finance for projects, while DFI-backed equity funds (such as funds managed by DI Frontier and European Capital Partners) have also provided a relatively large proportion of equity support.

It is expected that IEMF will be present in the project life cycle from commercial close/ financial close, through construction, operations and asset management. Further, it is expected that IEMF's minimal capital deployment per investment will be US\$5m, and the facility will require that no single investment exceed 50% of a given project's total costs.

An addendum to the DFID business case for PIDG¹²⁵ notes that IEMF will complement existing PIDG facilities and is expected to expand investment opportunities beyond the existing facilities' pipelines, with the potential for US\$500m investment over five years and US\$1bn over ten years – with an average of four to six investments per year with a total investment value of US\$100m.

Further, for GAP specifically, Fieldstone propose that GAP's mandate and policies be widened to include a broader range of junior finance instruments under the IEMF business model.¹²⁶

Rationale for intervention/market failure

IEMF has been designed to respond to challenges with local currency financing. Consultees have stressed that various market constraints lead to there being strong DFI and international lender appetite for debt investment but limited interest in equity investment, such that developers seek to raise equity from domestic sponsors. However, in an addendum to the PIDG business case in August 2016, DFID note that "an equity gap often arises in these infrastructure projects where there are commitments from debt providers and equity from investors, but the balance of equity cannot be raised by smaller domestic sponsors."¹²⁷

More specifically, in its market review, Fieldstone lists a number of market needs that provide the rationale for an equity and mezzanine facility, as given in Table D.1 below.

¹²⁵ DFID (2016). "Addendum to Business Case for the Private Infrastructure Development Group".

¹²⁶ Fieldstone Africa (2016). "Market Review for PIDG Equity and Mezzanine Finance Facility". Report for PIDG.

¹²⁷ DFID (2016). "Addendum to Business Case for the Private Infrastructure Development Group".

Table D.1: Rationale for IEMF support¹²⁸

Market need	Rationale for support
Late stage development funding as a precursor to investment in/ at financial close	Projects lacking significant government support or political risk insurance, or for which there is a need for currency risk mitigation, require development finance to close but struggle to find later stage development finance.
Mezzanine funding to assist projects where volumes are expected to ramp up over time	Where infrastructure projects are sized for growth (e.g. transport projects), mezzanine finance where payments can be deferred during a period of lower revenues can improve the equity returns and the attractiveness of investments for private sector investors.
Subordinated funding for local developers	There are often few locally-based sufficiently-experienced developers in PIDG geographies and they tend to be capital constrained, such that development funding in the form of liquid facilities such as cost overrun facilities would be of significant value for encouraging local private sector participation in infrastructure development.
Construction risk oriented mezzanine funding	Although there are several country pension funds that could provide long-term local currency finance well-suited to fund infrastructure, infrastructure appears to be an unsafe investment in part because of limited capacity to evaluate and manage infrastructure risks (e.g. construction risk) and the need to prove business models. Mezzanine finance could be used to bridge construction risk for local currency investors.
Portfolio of projects prior to refinancing	Mezzanine finance could be used to build and finance a portfolio of smaller projects to the point where they have established an operating track record as a portfolio and can be refinanced.
Scaling of smaller renewables	Mezzanine finance has the potential to support infrastructure development to a point when a business model has been proven, particularly where there are technology challenges that restrict a company from achieving scale during a specific period of time.
Specialist equity linked risks	Some areas of infrastructure development require capital to fund exploration risk (e.g. geothermal) and prove a business model.
Funding that is willing to forego FX linkage	Provision of local currency finance is optimal when a revenue stream is in local currency, since it makes it easier to respond to currency movements and may reduce FX obligations.

Further, Fieldstone also discusses which sectors tend to be especially challenging to finance in infrastructure and thus where IEMF can be most additional; these areas are outlined in Table D.2 below. In general, the shorter it takes for a project to progress from construction to operations, and the more direct access a given project has to US Dollar earnings, the easier it is to finance.

Table D.2: Scope of additionality by sector¹²⁹

	Forex earning	Non-forex earning
Shorter construction to utilisation period	<ul style="list-style-type: none"> Mine-related logistics 	<ul style="list-style-type: none"> Redistribution logistics Power generation
Longer construction to utilisation period	<ul style="list-style-type: none"> Ports Airports 	<ul style="list-style-type: none"> Power transmission Roads Gas networks for domestic consumption

¹²⁸ Fieldstone Africa (2016). "Market Review for PIDG Equity and Mezzanine Finance Facility". Report for PIDG.

¹²⁹ Fieldstone Africa (2016). "Market Review for PIDG Equity and Mezzanine Finance Facility". Report for PIDG.

	Forex earning	Non-forex earning
		<ul style="list-style-type: none"> • Water and sanitation

Donor funds

DFID will be the sole funder of IEMF and, accordingly, will be able to set its specific geographic focus beyond that of the existing PIDG facilities (i.e. DAC I/II countries, FCAS, or simply DFID focus countries). As of August 2016, we understand that DFID had already approved a re-allocation of funding to support IEMF.

D.1.2. Summary of USP

The USP of the proposed IEMF will depend on its eventual design. It is not clear that IEMF will have an obvious USP relative to the DFIs and funds in this space¹³⁰, which are already able to make equity and mezzanine investments at financial close. To establish a market niche, IEMF would need to support projects not already able to find finance – that is, which are commercially marginal – or would need to operate in a unique way to overcome specific obstacles. A straight equity investment facility without a clear USP might nevertheless be successful if there is sufficient effective demand that is not already being met (which may be more difficult in SSA than Asia¹³¹).

For Dfid in particular, the main consideration is whether IEMF would operate differently to CDC. CDC is already able to provide equity and mezzanine. Although it has historically invested as a fund of funds, approximately 24% of CDC’s current portfolio is direct equity, and it is targeting a portfolio structure of 54% direct equity by 2021. CDC is also involved in African power infrastructure through its 70% share in Globeleq, and is managing Dfid’s ‘Impact Accelerator’ facility focused on frontier geographies (though only one of its three investments to-date have been in infrastructure).

Our review has found little evidence to suggest significant overlap between CDC and the PIDG’s current facilities, but the proposed IEMF would need to ensure that it had clear USP with respect to CDC, beyond having a pure infrastructure focus.

¹³⁰ AREF; Frontier; Africa Infrastructure Investment Fund; AfDB mezzanine and equity facility; etc.

¹³¹ Ibid.: “our assessment of expected facility demand in Africa is lower and more uncertain”.

ANNEX E EAIF

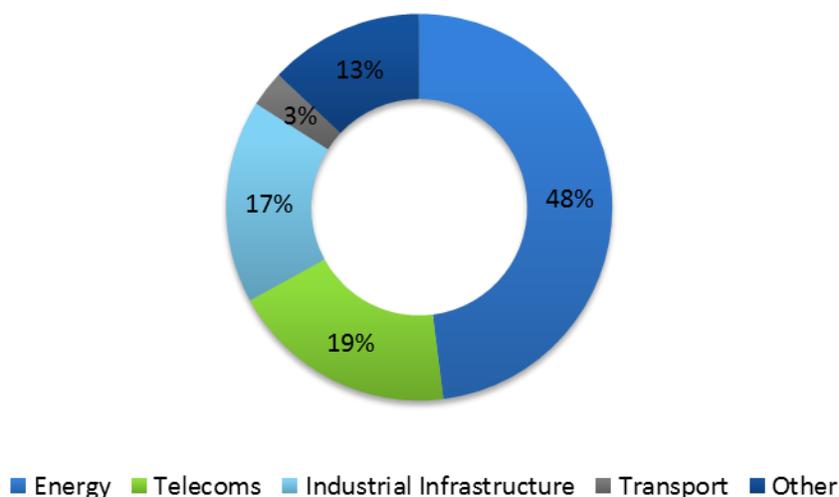
E.1. Review Dimension I – USP

E.1.1. Background and operations

EAIF was established in 2002 by four founding donors: DFID, Sida, DGIS, and SECO. EAIF was the first multi-donor PIDG facility and the first debt fund specifically focused on SSA infrastructure. EAIF was established to respond to a market failure that there was a significant lack of long-term debt finance available for infrastructure projects in SSA, especially since a number of donors and MDBs were reducing their support for infrastructure investments. The facility was also established during a period when private sector participation was being actively pursued by the donor community due to the failure of African governments and utilities to provide infrastructure services.

According to the PIDG project database, EAIF has invested over US\$1bn in 58 infrastructure projects across 20 countries, and US\$9.4bn of private sector commitments have been made to projects it has supported.¹³² As Figure E.1 below shows, the majority of these investments have been in the energy and telecoms sectors, although in recent years EAIF has de-prioritised telecoms investments in general as private sector debt has become more widespread in the sector, with EAIF investments in recent years focusing on tower leasing projects where private investment is more limited, especially in FCAS.

Figure E.1: Share of EAIF investments to date by sector



Source: EAIF (2016).

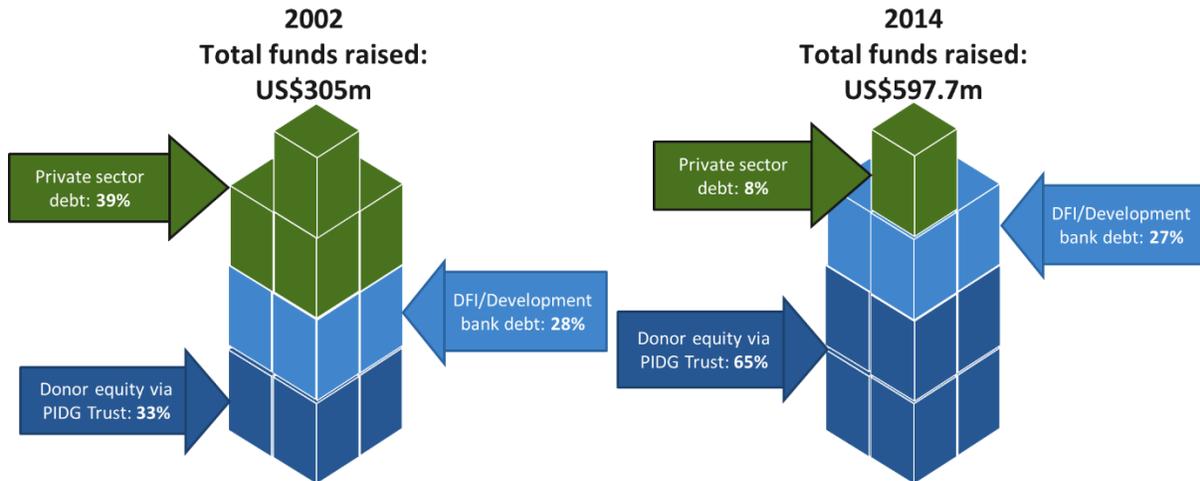
A particularly innovative aspect of EAIF is its funding structure. For example, PIDG donors invest equity in EAIF (via the PIDG Trust), which acts as a first-loss tranche. This is then supported by a subordinated debt tranche financed by DFIs and development banks, while private sector lending is provided as part of a senior debt tranche. When EAIF was established, this allowed for long-term lending from the private sector to take place that would have been very difficult to mobilise had the commercial banks been required to lend directly to infrastructure projects, without such a credit enhancement. The DFIs who provided subordinated debt at EAIF's establishment were FMO (US\$40m), the Development Bank of Southern Africa (DBSA, US\$25m) and DEG – the German Investment and Development

¹³² PIDG (2016), "PIDG Database of Projects". Downloaded at data.pidg.org [Accessed 02/02/2017]. Note that these figures do not include the latest projects.

Corporation (US\$20m), while the commercial lenders were Barclays and Standard Bank, who both provided US\$60m of senior debt.

While this structure does de-risk the private sector lending to infrastructure projects, the amount and share of commercial debt in EAIF has declined in recent years while donor capital especially has grown significantly after the refinancing that took place in 2014. An illustration of financing in EAIF by the different types of institution at establishment and after the recent refinancing are provided in Figure E.2 below.

Figure E.2: Financial structure of EAIF by source of finance



Source: EAIF (2014); PIDG (2004; 2009; 2015).

Note: Some DFI finance has been provided as senior rather than subordinated debt to EAIF.

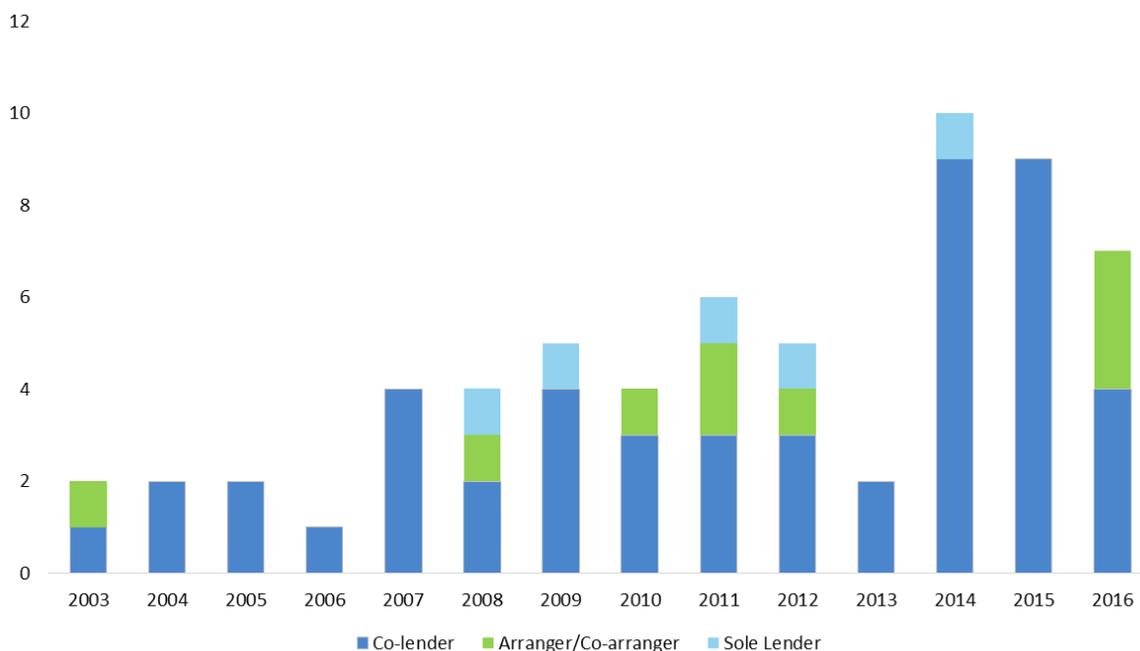
As Figure E.2 shows, donor equity in EAIF has increased significantly since its establishment. This has mostly been provided by DFID, which had provided 83% of disbursed funds to EAIF as of 2015.¹³³ KfW has also become a key lender to EAIF, providing US\$106.6m in senior debt. FMO has increased its exposure to US\$53m as part of the refinancing (which is also provided as senior rather than subordinated debt), while commercial finance was provided by Standard Bank and Standard Chartered (US\$25m each), yet prior to the 2014 refinancing, Barclays and Standard Bank increased their commitments to EAIF to US\$150m, or US\$75m each.¹³⁴ In addition, commercial bank loans were initially provided on a long-term basis, however they are now provided as part of revolving credit facilities.

Figure E.3 below shows what role EAIF has had on different projects over time.

¹³³ PIDG (2015), "Annual Report 2015".

¹³⁴ PIDG (2009), "Emerging Africa Infrastructure Fund Progress Review 2009".

Figure E.3: EAIF role on transactions¹³⁵



Source: McKinsey (2012); DFID (2015); PIDG (2016); EAIF (2016).

As Figure E.3 shows, EAIF has mostly acted as a co-lender on projects, although it did act as the lead arranger/co-arranger or sole lender on several transactions between 2008 and 2012. In recent years, EAIF has significantly increased the number of deals that it has completed (particularly in 2014 and 2015), but on many of these deals EAIF has acted as a co-lender, suggesting that it has relied significantly on other DFIs for originating transactions. Having said this, EAIF did act as a lead arranger or co-arranger on many deals in 2016. According to DFID’s 2015 annual review of PIDG, EAIF aims to be the lead arranger on 40% of its projects, suggesting that greater efforts are going into EAIF playing a more central role on transactions.

E.1.2. Future strategy

Since its inception until 2016, FMFM were the fund manager for EAIF. However, following a competitive procurement process FMFM was replaced by Investec Asset Management (IAM). IAM was favoured over FMFM as it showed greater ambition in its proposal as opposed to a more BAU approach proposed by FMFM. Investec also offered a more attractive financial offer than other tenderers, demonstrated that it had greater back office support functions, a strong track record in identifying credit opportunities and a wider reach.¹³⁶ Given this change in management, the Board are confident that EAIF can build on the experience the facility has had under FMFM’s management and scale up its operations going forward.

EAIF’s 2017-2021 Business Plan outlines a number of new proposals for the facility, including:

- **Product focus:** EAIF proposed refinancing distressed projects and mature assets to increase investment in new, higher risk opportunities.

¹³⁵ These figures are based on the PIDG Strategy Review up until 2011 and from 2012 to 2016 are based on the PIDG project database, DFID’s PIDG Annual Reviews, EAIF’s latest business plan and CEPA research. 2016 includes projects signed by EAIF but may not have reached full financial close.

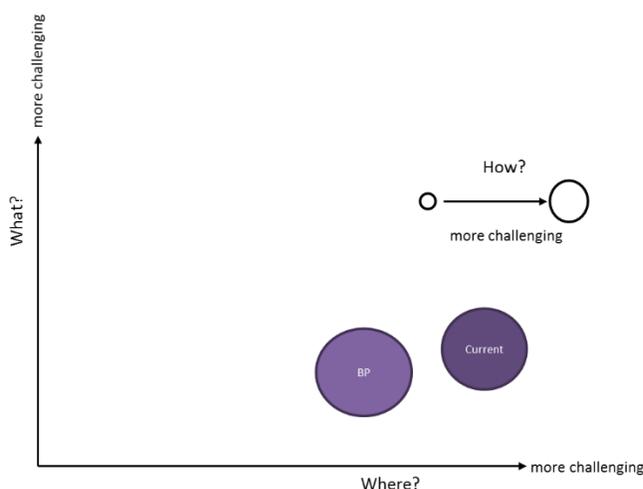
¹³⁶ It should be noted that while the fund manager has changed, in order not to significantly disrupt operations several staff members at FMFM responsible for the day-to-day management of EAIF have since moved to IAM.

- **Increase the single counterparty limit** to the higher of US\$150m or 10% of portfolio size, given that the US\$50m limit is no longer appropriate from a risk or diversification perspective. A higher counterparty limit would allow EAIIF to take a lead role in larger transactions that form part of Africa’s current infrastructure pipeline and to take a lead role in arranging transactions (for example, by taking an underwriting position¹³⁷).
- **Expanding sectors.** EAIIF proposed including social infrastructure, digital and cloud-based services and oil beneficiation.¹³⁸
- **Increase the permitted countries.** This involves including all African countries (including those in North Africa¹³⁹), given that some countries have high levels of inequality and excluding such countries excludes some poorer individuals from accessing infrastructure services. Some DAC III and IV countries in Africa are also relatively small and therefore are unable to attract adequate private sector investment.

To support these ambitions, EAIIF requested additional equity from PIDG donors for the coming years, which in turn would help mobilise further long-term debt from DFIs and shorter-term facilities from commercial banks.

Figure E.4. summarises how these changes would affect EAIIF’s positioning on the different frontier dimensions.

Figure E.4: Comparison of current and potential future position of EAIIF on the frontier



Source: CEPA analysis.

As Figure E.4 shows, these planned changes could move EAIIF away from the frontier on the *what* and *where* dimensions. In particular:

- Including refinancing and expanding coverage to suggested sectors will reduce its focus on projects in key economic infrastructure sectors; and
- Expanding EAIIF focus to FCAS countries in North Africa could reduce its focus on the poorest countries on the continent. However, its logframe targets remain unchanged.

Having said this, increasing EAIIF’s single party limit could allow it to take a more leading role on transactions, which in turn could improve its additionality on projects and respond to larger financing needs faced by clients, thus placing it closer to the frontier in terms of *how* it supports transactions.

¹³⁷ This was partly rejected by the donors.

¹³⁸ This was partly rejected by the donors.

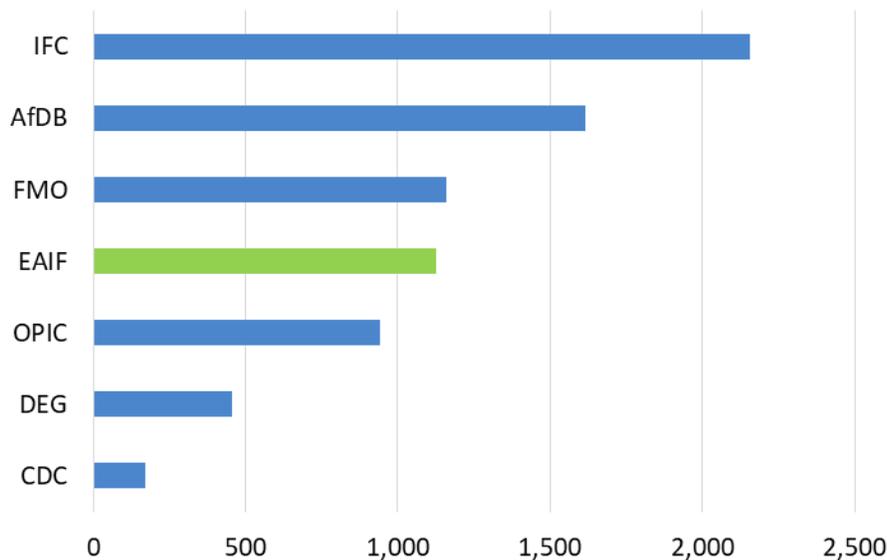
¹³⁹ This was partly rejected by the donors.

E.1.3. EAIF comparators^{140,141}

While there may have been fewer debt providers in SSA's private infrastructure market when EAIF was established, there are now a range of DFIs providing long-term hard currency finance for projects. This includes multilateral DFIs such as the IFC, AfDB (through its private sector lending arm) and the European Investment Bank (EIB) (through its African, Caribbean, and Pacific lending window) and bilateral European DFIs such as FMO, DEG, Proparco and (more recently) CDC. OPIC, the US DFI, has also been particularly active in supporting infrastructure projects in SSA in recent years, particularly since the launch of the Power Africa initiative in 2013.

Figure E.5 below shows the amount of direct debt investments provided by key DFIs in SSA (excluding South Africa and Mauritius) since EAIF began lending to projects in 2003 (including outstanding and repaid commitments).¹⁴²

Figure E.5: Direct debt commitments to SSA infrastructure by selected DFIs since 2003 (US\$bn)*



Source: WBG PPI Database; IJ Global; PIDG project database; Individual DFI project databases.

* This includes both commitments and loans that have been fully repaid.

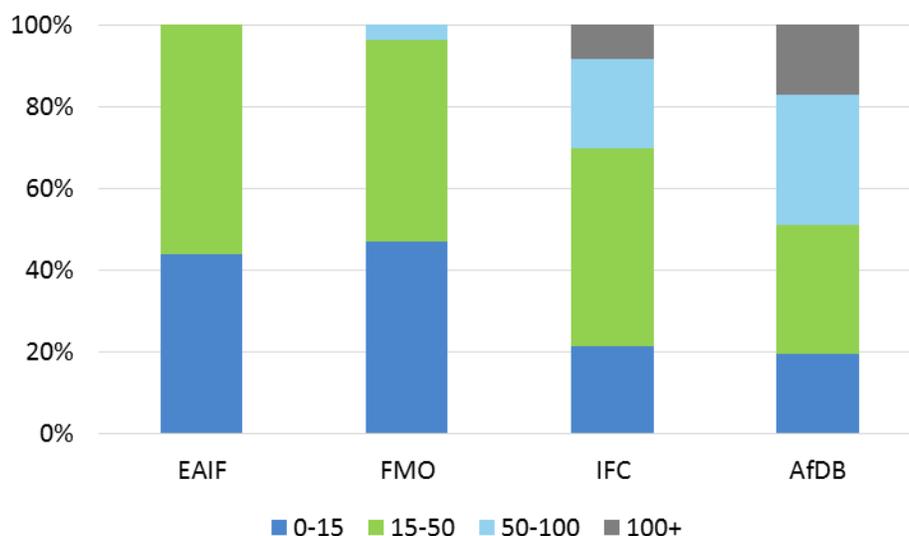
As can be seen from Figure E.5, EAIF falls within the middle range of the selected DFIs with regards to direct investments, with institutions such as IFC, AfDB and FMO providing more investment, which is likely to reflect their scale and establishment in the market place. While IFC and AfDB have provided the highest amounts of investments in projects, EAIF and FMO have supported more transactions. The value of IFC's and AfDB's loans have generally been higher than EAIF's for infrastructure transactions, while FMO's distribution of commitment sizes is relatively similar. This is highlighted in Figure E.6 below.

¹⁴⁰ We have not included CDC in this comparison, given that it was not possible to obtain figures on its historic debt investments. In addition, as mentioned CDC has provided limited debt to infrastructure relative to other entities since its change in strategy in 2012.

¹⁴¹ Note that these figures are the total amount that individual DFIs have committed to projects, as opposed to the total investment commitments of projects that the DFIs have invested in, as EAIF reports in its logframe.

¹⁴² Figures regarding DFI investments are based on publicly-available information taken from a range of sources, including the World Bank's PPI Database, IJ Global, the PIDG project database, previous research undertaken by CEPA for DFID and publicly available investment information on individual DFIs. However, this information may not include the most recent projects from the DFI's portfolio.

Figure E.6: Distribution of commitments for selected DFIs by size (US\$m)



Source: WBG PPI Database; IJ Global; PIDG project database; Individual DFI project databases.

As Figure E.6 above shows, AfDB has a relatively high proportion of larger loans in its infrastructure portfolio, with nearly half of its infrastructure transactions involving commitments greater than US\$50m, EAIF's single counterparty exposure limit.

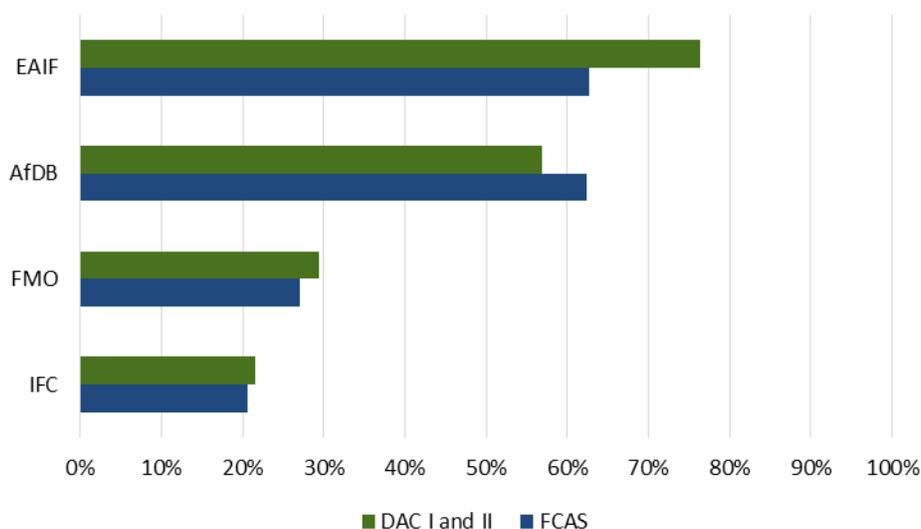
OPIC, the US DFI has provided considerable financing in recent years to power projects in Africa, but prior to the Power Africa initiative in 2013 investments were relatively limited, and investments in other sectors has been non-existent. While CDC has supported a range of equity and debt funds that have in-turn financed infrastructure projects, its direct lending to infrastructure projects in SSA has been limited, although this may increase going forward with its greater focus on direct investment.

While most DFIs have a more global focus with regards to their investments, one of EAIF's key differences is **it the only institution focusing solely on providing debt financing for infrastructure in SSA** (excluding South Africa). Institutions such as AfDB are clearly Africa-focused, but their activities are focused across a range of sectors. For example, of AfDB's (excluding the African Development Fund (ADF)) total loan and grant approvals up until 2015, 45% of these were in infrastructure, with industry, mining & quarrying, financial services and social infrastructure also forming part of its portfolio (although AfDB has placed a greater emphasis on infrastructure investment in recent years).¹⁴³ Other DFIs such as CDC, IFC, and FMO also have a considerable amount of focus in other sectors, particularly financial services.

Another aspect of EAIF's operations that make it distinctive from other DFIs is its focus on DAC I/II countries and FCAS. This is highlighted in Figure E.7 below.

¹⁴³ Note that these figures include both sovereign and private sector lending instruments.

Figure E.7: Proportion of DFI infrastructure investments since 2003 in DAC I/II countries & FCAS (%)



Source: WBG PPI Database; IJ Global; PIDG project database; and individual DFI project databases.

One reason for EAIF's greater focus in these countries is that a high proportion of DAC I/II countries and FCAS are located in Africa, which can also explain why a significant proportion of AfDB's investments have been in these countries (with AfDB's FCAS focus being higher than EAIF). With regards to IFC and FMO, their low proportions of investments in DAC I/II countries and FCAS can be explained by a significant amount of their investments taking place in middle income countries in Latin America, South East and East Asia. In addition to its regional focus, EAIF has specific logframe targets which require that 75% and 50% of cumulative investments be in DAC I/II countries and FCAS respectively (although its most recent logframe has set its cumulative target for DAC I/II countries at 65%).

Other DFIs have also set out greater focus on lower income countries. For example, as part of its 2012-16 strategy, CDC focused its investments solely in Africa and South Asia, and investments in countries with higher incomes (such as South Africa, Mauritius and Botswana) will only receive investments if they are linked to investments in nearby, poorer countries (e.g. Mauritius and Botswana) or where projects are highly developmental (e.g. South Africa). FMO has also set itself a target of 70% of its investments being in low and lower-middle income economies¹⁴⁴, with low-income expected to be 35% of this. As regards IFC, investments in DAC I/II countries and FCAS are likely to increase going forward, following the establishment of the PSW as part of the IDA 18 replenishment.

As regards investment policies, the DFIs have implemented stringent risk management policies to ensure that they are able to maintain either sufficient target returns or high credit ratings that enable them to raise finance at low rates. Table E.1 below summarises some of the key DFI's investment policies.

IFC, AfDB and FMO all use their AAA credit ratings to raise finance in international capital markets. Both IFC and AfDB have been assigned AAA ratings as a result of their high capital adequacy, prudent financial management, very high liquidity coverage and very strong shareholder support. FMO's AAA rating is derived from the Dutch government's reaffirmed commitment to provide extraordinary support to the organisation if required, which is set out in its 1998 agreement. According to Article 8 of the agreement, the state is required to provide financial support to FMO in order for it to meet its financial commitments if it cannot do so through its own operations. While it does not constitute an unconditional guarantee, credit rating agencies believe that the conditions stipulated under the agreement are sufficient to provide FMO with the same credit rating as the Dutch government, despite it only owning 51% of FMO's shares.

¹⁴⁴As defined by the WBG's country income classification.

To maintain these high ratings, **DFIs are required to adhere to strict investment policies**, and greater exposure to low and lower-middle income markets with low credit ratings are likely to affect this. For example, in a recent Moody's report, it was noted that AfDB's policy of expanding access to its non-concessional lending window to countries that were previously eligible for finance through the ADF, the Bank's concessional lending arm, would represent a potential challenge to its asset quality.¹⁴⁵ Therefore, in order to maintain its AAA rating, AfDB must ensure that other factors that determine its rating are more robust. This includes its liquidity and asset requirements and backing from its members.

Table E.1: Comparator DFI investment policies

	EAIF	CDC	IFC	AfDB	FMO
Individual project risk	Typically invests US\$15m-US\$50m in one project.	No restrictions.	No more than 25% of total cost.	A single counterparty can be financed up to 6% of the Bank's private sector risk capital.	Usually no more than 25% of project cost.
Annual return target	No formal return target.	3.5%	N/A	N/A	N/A
Current credit rating ¹⁴⁶	N/A	N/A	AAA	AAA	AAA
Country exposure	Cannot invest more than 25% of the total committed amount in any eligible country.	Individual eligible countries must have less than 20% of portfolio investment in them, with the exception of India (which is less than 30%). Non-eligible countries should be less than 5%.	Has individual country exposure limits, which are set by the economic capital required as a percentage of net worth plus reserves. Highest country exposure limit is 10% of total portfolio.	Individual country limits set at 15% of Bank's risk capital.	Ranges from 8% to 22% of FMO's capital, dependent on country credit ratings.
Countries with highest exposure	2015: Nigeria (15%); Multi-country SSA (14%); Kenya (8%); Cote d'Ivoire (7%); and Uganda (7%).	2015: India (23%); China (14%); Nigeria (7%); South Africa (6%); and Pan-Africa region (9%).	2016: India (10.2%); Turkey (7%); Brazil (5.7%); China (5.2%); and Nigeria (3.4%).	2016 ¹⁴⁷ : South Africa (21%); Multi-country (19%); Nigeria (13%); Egypt (5%); and Kenya (5%).	2016: India (7%); Nigeria (4%); Turkey (4%); Bangladesh (3%); and Mongolia (3%).

Source: EAIF (2014); PIDG (2016); Moody's (2016); AfDB (2016); CDC (2016); FMO (2016).

As is the case with EAIF, DFIs limit their exposure to individual projects and as such projects often require financing from multiple sources to meet their needs. Such requirements justify the need for an institution such as EAIF

¹⁴⁵ Moody's (2016), *Credit Opinion – African Development Bank – Aaa Stable*.

¹⁴⁶ Based on Moody's and Fitch credit ratings.

¹⁴⁷ AfDB's exposure refers to its non-sovereign portfolio for AfDB operations (e.g. ADF exposure and AfDB exposure to sovereign entities are excluded).

providing similar products to the DFIs, particularly if EAIF can respond relatively quickly to requests for financing, for which it has previously been praised by market participants.

E.1.4. Summary of USP

In conclusion, while EAIF does provide similar products to DFIs in the market, its capital structure and mandate allow it to operate in areas where traditional DFIs have had less focus. This is largely a result of the DFIs seeking to maintain higher credit ratings that ensure access to a lower cost of finance from international capital markets and also to ensure self-sustainability. In addition, EAIF is the only hard-currency debt provider solely focused on private infrastructure financing in SSA, whereas other DFIs are focused across a wide range of regions and sectors. Many market participants also note that EAIF is one of the less burdensome and more professional lenders working in this space, allowing financing to be agreed relatively quickly while still ensuring the necessary due diligence is undertaken.

E.2. Review Dimension II – VFM

E.2.1. Economy

To our knowledge, EAIF’s VfM criteria have not been assessed in any detail beyond DfID’s own AR of the PIDG facilities. Neither the 2004 nor the 2009 review of EAIF undertook a VfM analysis.

EAIF’s fund management contract was re-tendered competitively in 2016 and awarded to Investec, ending the long-term arrangement with FMFM (who were also fund managers to GuarantCo before their contract was retendered). EAIF’s ability to re-tender and change its fund manager would suggest that its management costs are subject to at least some degree of competitive pressure, and given the stronger tender was also more competitively priced, it suggests that VfM was achieved.

E.2.2. Efficiency

As above, evidence of EAIF’s efficiency is limited, though market participants have reported that it is one of the less burdensome and more commercially-aware lenders in the space - allowing financing to be agreed relatively quickly, and often working with clients for long periods when necessary. Whereas some of EAIF’s comparators (e.g. IFC, AfDB, and FMO) are required to adhere to investment policies that ensure they maintain AAA credit ratings they need to raise finance from international capital markets, EAIF is able to operate more flexibly while working within its investment policy.

Moreover, EAIF is now an established institution in SSA’s infrastructure financing market, having built a solid reputation over the past fifteen years for being an effective and important lender.

Table E.2 highlights how EAIF has performed relative to its logframe targets. Note that we have only included logframe targets reported by DFID and PIDG in their annual updates, given these were the only indicators where data has been provided over multiple years.

Table E.2: EAIF performance relative to logframe targets

Logframe target	2013		2014		2015		2016*		All years
DFID output score	B		A+		A		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target	Result	Target met
Financially closed projects	5	2	8	10	7	9	7	7	3 of 4

Logframe target	2013		2014		2015		2016*		All years
Investments to EAIF projects – cumulative (US\$bn)	11.48	11.45	13.21	14.26	14.26	14.63	15.78	16.09	3 of 4
Investments to EAIF projects – Annual (US\$bn)	1.46	1.28	1.76	3.17	0.31	0.63	1.10	1.41	3 of 4
% PSI in DAC I and II countries (cumulative)	75%	81%	75%	73%	65%	73%	65%	71%	3 of 4
% PSI in FCAS (cumulative)	50%	62%	50%	66%	50%	64%	50%	70%	4 of 4
Additional people with new/improved infrastructure services – cumulative	116m	113.7m	128.3m	189.3m	189.4m	182m	184.5m	185.6m	3 of 4
Additional people with new/improved infrastructure services – annual	8.85m	2.98m	14.6m	75.6m	9.6m	2.21m	4.6m	5.7m	2 of 4

* Source: DFID (2013, 2014, 2015); PIDG (2016).

As Table E.2 shows, EAIF has been able to meet its logframe targets in most years. Based on DFID’s 2015 AR of PIDG, EAIF scored an ‘A’ for its performance against its logframe, suggesting a relatively strong performance, while for 2014 it scored an ‘A+’ and for 2013 it scored a ‘B’, suggesting that this was an average year relative to previous performance. If EAIF hits its forecasts for 2016, it is likely to receive a similar score from DFID to what it obtained in 2015.

E.2.3. Effectiveness

As noted below, EAIF can report several interventions which might be considered transformational for triggering long-term increases in private investment for infrastructure: most prominently its early support for Africa’s telecoms infrastructure. EAIF has also been an investor in some of the first IPPs in a number of markets. Beyond this, EAIF can report some impressive developmental impacts, though these numbers can be easily distorted by a small number of “outlier” projects and can be difficult to attribute to EAIF’s specific investment.

E.3. Review Dimension III – Transformational impact

An often cited example of EAIF’s transformational impact is the role it had in crowding in private sector and DFI investment into Africa’s telecoms infrastructure. For example, when EAIF was first established, there was limited investment in telecoms on the continent. Since then, Africa has benefited from considerable investment in the sector, both in mobile telephony and broadband investment (particularly mobile data services). Across the continent, several governments have liberalised their telecoms markets, allowing for greater investment in the sector and considerable improvements in service delivery. During the market’s infancy, EAIF was among the first long-term

lenders to the sector, with other DFIs and private sector lenders increasing their investment in future years. While it is difficult to establish a fully causal link between them, EAIF's role in the telecoms sector during its infancy is an important indication of it operating at the frontier and crowding in investment from other sources.

Outside of telecoms, EAIF has also been an investor in some of the **first IPPs in a number of markets**. For example, EAIF acted as the lead arranger for the debt financing of Rabai Power in 2008, which was the sector's largest IPP investment at the time of financial close. Following this, Kenya has received considerable amounts of private investment from its IPP sector, becoming one of the most developed IPP markets on the continent. More recently, EAIF acted as the structuring banks for the CECA heavy fuel oil power plant in Sierra Leone, one of the largest investments in Sierra Leone's energy sector to date.

Other specific transactions demonstrating EAIF's transformation effect includes:

- EAIF played a key role in ensuring that Seacom, **Africa's first underwater sea cable**, reached financial close. EAIF lending was central to ensuring that project went ahead, given that the project's success rested on obtaining financing from EAIF. Since this investment, two other competing cables have been laid, and their progress and completion having been accelerated by the successful arrival of Seacom.
- EAIF has been a key lender to the Olkaria project in Kenya, the **first large-scale geothermal development** in the country. Kenya is in the process of expanding its geothermal generation capacity, and the experience from this project may act as a blueprint for attracting private sector investment going forward.
- EAIF was central to the financing of Kivuwatt in Rwanda, which uses **methane gas released from Lake Kivu to fuel a 25MW power plant**. Without this project, the gas from the lake could cause considerable environment damage, demonstrating how this volatile energy source can be used to improve the country's generation capacity. The project may in future add additional barges, potentially bringing the total generation of the plant to 100MW, which will be made possible as a result of EAIF's early participation.
- EAIF has invested considerably in **telecoms tower sharing** across SSA, which is likely to act as a model for financing telecoms infrastructure across the continent.

ANNEX F GUARANTCO

F.1. Review Dimension I – USP

F.1.1. Background and operations

GuarantCo was established in its current form in 2006 to address market failures associated with the lack of local currency financing for private sector infrastructure projects in developing countries. It does this by providing local currency credit guarantees to infrastructure projects, and can also provide hard currency guarantees in the least developed markets and fragile states (provided that locally-based financial institutions are prioritised). GuarantCo's guarantees are normally provided as PCGs, although it can also provide guarantees that cover liquidity as opposed to credit risk.

The lack of local currency financing for infrastructure has historically received relatively little attention relative to other constraints to private finance, therefore GuarantCo operates in a relatively innovative space. Supporting infrastructure projects with local currency finance overcomes problems associated with exchange rate risk while in the long-term helping to develop local capital markets and attracting institutional financing that has previously been absent in developing countries, particularly local institutional investors who are seeking long-term, high yielding assets. As such, GuarantCo has been given a dual objective of improving local currency financing for infrastructure projects whilst also supporting local capital market development. The former has a greater focus of getting infrastructure projects to financial close while the latter has much broader objectives regarding addressing wider economy issues in developing countries, specifically the lack of long-term financing in local currencies.

According to the PIDG 2015 Annual Report, DFID provided nearly US\$197m to GuarantCo since inception, while a further £40m of callable capital was approved by the UK Parliament in September 2016. Other supporters of GuarantCo include SECO (US\$35m as of 2015), FMO (US\$34m, who unlike the other donors owns shares in GuarantCo directly as opposed to contributing via the PIDG Trust), Sida (US\$15m), and DFAT (\$2.9m). Prior to achieving a credit-rating, GuarantCo was also supported by Barclays and KfW who provided a counter-guarantee to the facility on commercial terms, allowing it to provide more guarantees than what it could do if it were to rely on donors' and FMO's equity alone. The support from donors and counter-guarantors as well as the performance of GuarantCo's portfolio has resulted in it receiving high credit ratings. For example, in 2016 Fitch and Moody's rated GuarantCo as AA- and A1 respectively.

According to GuarantCo's 2017-2021 Business Plan, 44 projects have been supported and have mobilised US\$4.1bn of financial commitments from the private sector since inception. All of these projects have taken place in DAC I/II/III countries while 30% have taken place in FCAS.¹⁴⁸

GuarantCo has participated in a number of innovative activities across several markets. For example, in partnership with the NSIA, GuarantCo recently established an infrastructure credit enhancement facility in Nigeria (InfraCredit). GuarantCo provided US\$50m of contingent capital to this facility, while NSIA provided US\$25m in paid-in equity, with the rest sourced from Nigerian institutional investors and DFIs.¹⁴⁹ InfraCredit provides guarantees to enhance the credit quality of local currency debt instruments issued by corporates and state government to finance infrastructure projects. While it is too early to determine what impact InfraCredit will have, other countries (including Pakistan and Egypt) are looking to establish similar entities in order to help mobilise local currency lending from institutional investors. GuarantCo received a considerable amount of funding from TAF during InfraCredit's establishment, for feasibility work, establishment of the facility, and to obtain a credit rating from international agencies. TAF also supported GuarantCo with a range of capacity building activities in countries where its products are relatively unknown, which has helped support GuarantCo's capital market development objective.

¹⁴⁸ It should be noted that some countries (e.g. South Africa) have graduated to DAC IV since receiving GuarantCo support.

¹⁴⁹ GuarantCo (2017) "NSIA & GuarantCo Establish the Infrastructure Credit Enhancement Facility (InfraCredit). Accessed at: http://www.guarantco.com/storage/pdf/Press-Release_NSIA-and-GuarantCo-Announce-Establishment-of-InfraCredit.pdf.

Other examples of GuarantCo's innovative activities include:

- GuarantCo provided a NPR 2.75bn (US\$28.2m equivalent) local currency guarantee covering 90% of a local banks' exposures to Nepal's largest private sector power plant, this was the first time international and local debt had been used in a transaction.
- GuarantCo's PKR 980m (US\$9.2m equivalent) local currency Islamic bond (known as a Sukuk) issued as part of Pakistan Mobile Communications Limited's expansion of its network in 2013 was structured as a "Service Ijara", and was the first time such as structure was used in Pakistan.¹⁵⁰
- In 2015, GuarantCo provided a renewable liquidity local currency guarantee to investors in the Ulendo Road Infrastructure Note Programme to help overcome liquidity constraints often faced by local road contractors. This structure of supporting local contractors could be replicated in other countries to help increase the competitiveness of local suppliers in these markets.

F.1.2. Future strategy

As is the case with EAIF, GuarantCo has also changed its fund manager from FMFM to Cardano Development, an experienced fund manager with extensive experience working on local currency financing.¹⁵¹ Cardano Development also manage TCX, a provider of currency and interest rate swaps to protect borrowers and lenders against exchange rate risks in emerging markets.

GuarantCo's 2017-21 Business Plan includes a number of approved and proposed changes in activities. This includes opening regional offices in Nairobi and Singapore, co-locating with IAfD and IAsD respectively. The GuarantCo Board has also approved a number of new product lines. For example, GuarantCo has recently provided an EPC contractor guarantee to help a start-up datacentre operator, KOOBA, build its first greenfield datacentre in Kenya. This guarantee covers the EPC contractor against payment default by the project company, allowing a developer to bridge-finance the construction period whilst long-term debt is found. In addition, the Board recently approved debt service reserve account (DSRA) guarantees for ENEO in Cameroon and Seven Energy in Nigeria. The DSRA guarantee removes the requirement for a DSRA to be cash funded, enabling a more efficient funding structure and freeing up the cash to be used elsewhere. GuarantCo has also developed formal strategic partnerships with USAID, Shelter Afrique (an African-based financial institution that supports housing development) and Standard Chartered.

As regards projects, GuarantCo is looking to close an average of ten transactions per annum after 2018. In addition to this, GuarantCo is proposing some new and potentially transformational initiatives outside of individual projects. For example, following its experience establishing InfraCredit in Nigeria, GuarantCo would like to extend this model to other countries. The rationale for extending this model is based on GuarantCo's ability to use donor funds to leverage significantly more funding for actual projects than if donors' invested directly in these projects through a funded financing approach. This is achieved based on the ratings that are given to both GuarantCo and in turn the entities it provides contingent support to. For GuarantCo, it is able to mobilise three times its capital base funded by donors to support transactions. For example, in the case of InfraCredit in Nigeria, US\$16.7m of donor funds could be used to support GuarantCo's US\$50m contingent support for the facility, which in turn GuarantCo believes will leverage US\$1bn once operational, given that the credit rating Fitch has provided allows it to leverage four times its capital base (which is expected to be US\$200m) and provide guarantees up to five times its capital base. GuarantCo claims that the original donor investment could leverage up to **60 times this amount from other sources, most of which will be private sector**. GuarantCo also expects to collaborate with the facility on transactions, hence creating more direct transaction opportunities for its own portfolio. To achieve this, GuarantCo requires an additional US\$50m callable capital in the medium term from donors in order to establish three more facilities similar to

¹⁵⁰ Unlike traditional bonds, sukuk bond holders are paid through the share of an underlying asset's profits as opposed to interest payments, given that the payment of interest would violate sharia law. Ijara refers to the leasing of a bond for a certain period, whereby an investor will buy a bond from an issuer and lease them back in exchange for a share in the profits of an underlying asset.

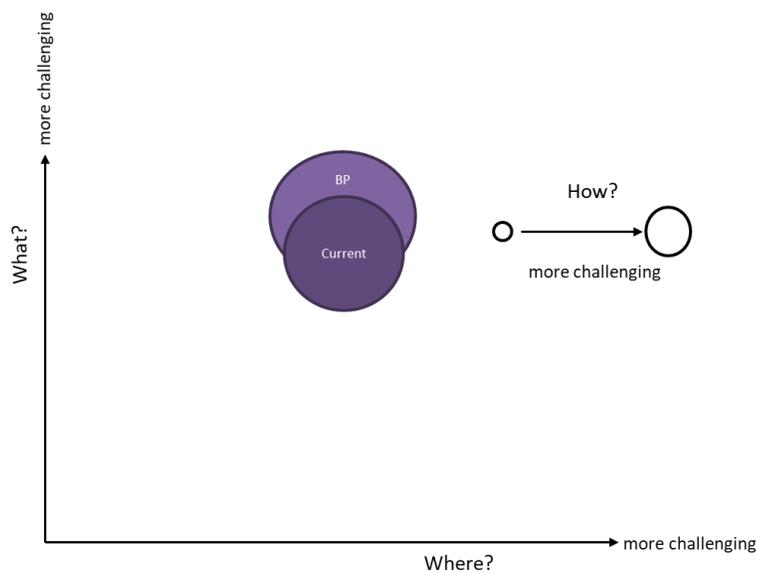
¹⁵¹ FMFM's staff who managed GuarantCo have moved from FMFM and are now employed by Cardano.

InfraCredit in other countries. According to GuarantCo, initial discussions are already taking place with representatives from Pakistan, while initial discussions are also taking place with other countries. GuarantCo is also considering establishing regional InfraCredits which can support countries where individual facilities are not feasible.

In addition to this, GuarantCo have been in discussions with the LSE to establish a partnership that will involve working with issuers of local currency corporate bonds in developing countries to help develop infrastructure projects. This is part of LSE’s wider initiative to establish a trading platform that is targeted at issuers of bonds in developing countries and will aim to bring these issuances to the attention of a wider pool of investors than what issuers would have in their own countries. This initiative is well-aligned with DFID’s Economic Development Strategy, which specifically states that it seeks to support the development of London as a financial centre for finance in developing countries.

Figure F.1 summarises how these changes will impact GuarantCo’s position on the frontier.

Figure F.1: Comparison of current and potential future position of GuarantCo on the frontier



Source: CEPA analysis.

As shown, while GuarantCo has historically operated on the frontier in many respects, these changes will allow it to be more flexible to clients’ needs as regards the products it provides and expand its existing activities which have significant market-building potential, which will increase its USP both in terms of *what* support it provides and *how* it provides it.

F.1.3. GuarantCo comparators

While several credit enhancement products are available from DFIs and MDBs, the nature of these guarantees are different from the products offered by GuarantCo and are seeking to address different issues. For example, both the WBG and AfDB offer PRGs to help mobilise private finance in *hard currencies*. Such support is usually provided to mitigate against projects risks that the private sector is not willing to bare without significantly increasing the cost of capital. This includes missing payments on contractual obligations agreed within a project (such as PPA payments) or specific risks that could affect the overall viability of the project (such as receiving termination payments in concession contracts).

PCGs can also be provided by MDBs and DFIs such as IFC and FMO. Unlike PRGs, PCGs provide irrevocable cover up to a certain percentage of financing (usually between 50% and 85%) regardless of what the specific projects risks are. These guarantees are provided for loans and bond instruments and allow borrowers to benefit from the high credit ratings of guarantors in order to lower the cost of debt. PCGs can also be focused on the back end of debt tenors.

DFIs can provide local currency PCGs similar to the products provided by GuarantCo, and have done so in the past (with some of GuarantCo’s earlier transactions being undertaken in partnership with DFIs). This has included IFC’s 50% PCG on bonds issued by Telecom Asia – the Thai-based telephone operator. However, guarantee products form a very small part of DFIs’ overall portfolio. For example, IFC’s long-term guarantee commitments amounted to US\$378m in 2016, or 3.4% of its portfolio, and cover a wide range of sectors outside of infrastructure and also cover hard currency guarantees. Such products have also been focused in middle and upper-middle income countries such as Brazil, South Africa and Mexico. More widely, DFIs’ PCG provision (especially in local currency) have been limited, possibly due to their greater focus on other financing (particularly loans) over such products. As regards PCGs provided by the WBG, these are only available for IBRD countries, therefore the poorest countries are unable to access such products.

As is the case with PRG and PCG products, the IDA18 PSW also includes some facilities where there are similarities to the support and focus provided by GuarantCo. For example, the Risk Mitigation Facility for Infrastructure (RMF) and the MIGA Guarantee Facility (MGF) both aim to provide contingent financing support to infrastructure projects, while the Local Currency Facility (LCF) is looking to support projects with local currency financing. While the extent to which the IDA18 PSW facilities overlap with GuarantCo’s support will become clearer when they are operational, GuarantCo’s USP is likely to remain. This is highlighted in Table F.1. below, which compares GuarantCo’s main instrument with those of the different IDA18 PSW facilities.

Table F.1: IDA18 PSW facilities and overlap with GuarantCo

	GuarantCo	RMF	MGF	LCF	BFF
Sector	Infrastructure	Infrastructure	Multiple	Multiple	Multiple
Main Instrument	PCG for local currency finance	Project-based guarantees (without sovereign indemnity)	Guarantees to MIGA, which in turn will provide PRI	Guarantee/swap to IFC, which in turn will provide local currency loan/hedge	Blended financing instruments
Main Focus	<ul style="list-style-type: none"> Mobilise local currency financing for infrastructure Local capital market development 	<ul style="list-style-type: none"> Mobilise private finance Increase exposure of IFC/MIGA to IDA-eligible FCAS countries 	<ul style="list-style-type: none"> Increase MIGA exposure to IDA-only and IDA-eligible FCAS countries 	<ul style="list-style-type: none"> Increase availability of local currency loans to projects. Increase IFC’s scope to provide local currency products 	<ul style="list-style-type: none"> Mitigate IFC’s exposure in IDA and IDA-FCAS countries, which in turn will increase exposure Increase financing in new sectors/undeserved client base

Source: World Bank (2016); CEPA analysis.

As Table F.1 notes, the nature of the instruments provide by the IDA18 PSW facilities and their focus is generally not aligned with GuarantCo. For example:

- The RMF is looking to provide project-based guarantees to mitigate against specific risks (similar to the WBG’s current PRG programme). However, the **focus of this is not on mobilising local currency finance specifically, but rather to remove the requirement for governments to indemnify risk-based guarantees** and expand the scope of IFC’s/MIGA’s support in IDA-eligible FCAS countries.

- The MGF will aim to expand **the availability of MIGA’s PRI product in IDA and IDA-eligible FCAS countries**. MIGA’s PRI products aim to address non-commercial risks faced on projects, such as war, civil disturbance and breach of contract cover. This is considerably different from GuarantCo’s support, which is largely focused on mitigating against credit risks for local currency finance providers in order to mobilise such finance. In addition, MIGA provides insurance as opposed to guarantees, and therefore work differently if they are called upon.
- The LCF is likely to support IFC’s *loans* by mitigating against potential exchange rate losses, as opposed to providing *contingent* support that is provided by GuarantCo. This contingent support exposes commercial lenders to some project risks, allowing them to build up their knowledge and experience of appraising infrastructure investments, whereas IFC’s support will involve local currency lenders taking risk on IFC repaying their loans, therefore limiting the extent to which they are exposed to specific projects.
- The BFF will provide a range of products that will provide first-loss capital, subordinated facilities and other instruments on more concessional terms to reduce IFC’s and MIGA’s exposures on individual projects. While this may **improve the availability of IFC and MIGA support, it is less focused on mobilising private sector finance**, which is the main focus of GuarantCo’s products.

An interesting comparator to GuarantCo in Asia is CGIF, a multi-donor trust fund housed in the ADB to develop and strengthen local currency and regional bond markets in the Association of South East Nations (ASEAN), and forms a core component of the Asian Bond Markets Initiative (ABMI). CGIF was established in 2010 and commenced operations in 2012, after receiving funding from China (US\$200m), the Japan Bank for International Cooperation (JBIC, US\$200m), ADB (US\$130m), the Republic of Korea (US\$100) and US\$70m from ASEAN members including Malaysia, the Philippines, Singapore, Thailand, Brunei Darussalam, Vietnam, Myanmar, Cambodia and Lao PDR. CGIF can guarantee up to US\$140m equivalent in a single issuance up to ten years to corporates across a number of sectors, including infrastructure. For example, in 2016 CGIF supported a Php. 10.7bn (US\$224m equivalent) bond issuance for AboitizPower’s geothermal energy vehicle (APRI), the proceeds of which will be used to expand the company’s renewable energy portfolio. CGIF guaranteed the issue in collaboration with ADB. CGIF also launched its Construction Period Guarantee (CPG) in 2016, which provides support to investors who are unwilling to take construction risk on greenfield infrastructure projects. This product is similar to the new EPC guarantee product that GuarantCo has provided, addressing similar concerns associated with greenfield infrastructure projects more widely.

While CGIF is less focused on infrastructure transactions than GuarantCo, this facility is relatively similar to it in terms of the activities it supports. The main difference between CGIF and GuarantCo (aside from the wider focus of CGIF), is that GuarantCo is more focused on lower income countries relative to CGIF, with CGIF’s support being provided to DAC III (Indonesia, the Philippines, Vietnam), DAC IV (Thailand) and even high income (Singapore) economies, whereas the lower income economies in the ASEAN (Myanmar, Cambodia and Lao PDR) have yet to receive support from CGIF.

Box F.1: Funds/Facilities other than GuarantCo that provide local currency guarantee

African Guarantee Fund or AGF, which was set up to support SME financing and on a smaller scale compared to GuarantCo. It typically provides conditional portfolio guarantees at margins below GuarantCo’s minimum fee requirements and for portfolios that wouldn’t qualify as “infrastructure”. GuarantCo has discussed some joint deals with AGF, particularly in Francophone Africa but none of these have progressed to first stage approval mainly because GuarantCo haven’t been able to get comfortable with the credit risk of the underlying portfolio.

CGIF that was set up by the ADB. To date, it has focussed on wrapping large bonds (for thin margins) for local blue chip corporations. However, it is now looking to support local issuances by lower tier corporates and project companies, which could well overlap with GuarantCo’s activities. The opening of GuarantCo’s Singapore office has been timely in regards to forging closer links with CGIF in overlapping countries and some joint deals may arise in the near term.

Some donors have also provided their own guarantee products. For example, both Sida and USAID both have active guarantee programmes that can offer local currency products to infrastructure transactions, with both working in

close partnership with each other and have both supported GuarantCo's transactions. For example, in 2014 GuarantCo and USAID jointly provided a PRG to Standard Chartered who provided a US\$90m loan to Zenith Bank to finance businesses in Nigeria's power generation and distribution sector. USAID has also recently supported a number of Pakistani banks with guarantees of up to US\$88m for clean energy projects. An example of Sida's support for local currency financing includes the local currency guarantee it provided to MTN Uganda in 2001. This covered a bond issuance and was used to help incentivise institutional investors to finance MTN's expansion programme (including into rural areas) during the early stages of Uganda's telecoms sector. Both USAID and Sida price their guarantees below commercial rates – through not pricing a risk reflective return - making these guarantees cheaper than those provided by GuarantCo and other DFIs. In the case of Sida, guarantees are priced so that it can break even across its guarantee portfolio (after accounting for administration costs).

While these donor institutions are capable and have provided similar products to GuarantCo (and have even provided co-guarantees with the facility), they both have a wider focus outside of infrastructure. For example, only 15% of Sida's 2015 portfolio was dedicated to infrastructure, and totalled SEK 525m (US\$57.8m equivalent, based on 2015 exchange rates). While USAID's Development Credit Authority (DCA) currently has over US\$420m in active effective maximum cumulative disbursements supporting infrastructure and project finance transactions, these are primarily US dollars based credit guarantees as opposed to local currency.¹⁵²

From these comparisons, one can argue that GuarantCo is one of the only providers in the market that are highly focused on supporting local currency financing for infrastructure, particularly in lower income countries and FCAS.

F.1.4. Summary of USP

No other entity matches GuarantCo's focus on local currency and infrastructure but there is overlap at the edges. Rather than worrying about competition, GuarantCo indicated that they would welcome more similar minded entities to help stimulate the market and to allow for larger guaranteed tranches of debt to be provided. A number of opportunities have been lost as the overall guarantee requirements have been beyond GuarantCo's capacity. Capacity matters, as a developer will only consider a local tranche of debt if this forms a significant part of its overall financing requirements and therefore makes the extra effort of accommodating such financing worthwhile. Accordingly, one of GuarantCo's challenges is to find other entities that can be used to syndicate larger guarantees to or to share some risk with on transactions to avoid hitting its portfolio concentration limits. This was confirmed by consultees who indicated a desire to see GuarantCo scale up and be able to cover larger tranches than they do currently.

One indication of a lack of competition is the limited number of joint deals (just seven out of 42) currently in the portfolio, four of which were signed before 2008. Since then, the only joint deals have been with USAID (the two Kalangala deals and Zenith). However, this is not reflective of the discussions that have been held to encourage others to join deals including with IFC, CDC and FMO. For various reasons, they either decide to utilise guarantees in different countries or sectors to GuarantCo's operations, if at all, or simply revert to lending in FX as a simpler option from their perspective. Therefore, the lack of joint deals does, to some extent, indicate a lack of competition.

Another indication is that GuarantCo are not aware of having lost deals to other entities providing guarantees in GuarantCo's markets but they have lost deals to Fx financing from DFIs. Export Credit Agencies (ECA) are another source of guarantees and can be very effective but are tied to exports and don't operate in local currency for the poorer countries that GuarantCo covers. However, GuarantCo has supported a local tranche of debt alongside an ECA covered tranche (Wataniya) and will hopefully do more in the future (currently discussing two such options in Asia).

So while there are institutions that are capable of providing similar products to GuarantCo, few of these are actively doing so. For example, DFIs such as IFC can provide guarantees in local currencies, but support for infrastructure investment, particularly in low income countries has been limited. The CGIF facility hosted by ADB does provide

¹⁵² The US\$420m quoted excludes transactions with a focus on SMEs, micro-finance, municipal finance and women.

support to local currency development, and has provided contingent support to recent infrastructure transactions. However, projects have been limited to upper middle income countries and the countries in which it can support are limited to ASEAN members. Donor agencies such as USAID and Sida do have their own guarantee programmes, but these neither specifically focus on contingent financing for infrastructure nor do they focus on local currency financing (as in the case of USAID). As such, the review suggests that GuarantCo operates in a very innovative space and is one of the most unique PIDG facilities. This is evidenced by both the innovative transactions that it has completed and the facility's continued efforts on developing local capital markets outside of individual projects, which it has achieved through its collaboration with TAF.

F.2. Review Dimension II – VFM

F.2.1. Economy

Like EAIF, GuarantCo also re-tendered its fund management contract during 2016. The contract was awarded to Cardano Development.¹⁵³ While the ability to select fund managers through a competitive tender is clear evidence of VFM, it was also associated with one off transaction costs to establish the new contract and terminate the previous one.

F.2.2. Efficiency

Table F.2 below summarises how GuarantCo has performed relative to its logframe targets in recent years.¹⁵⁴

Table F.2: GuarantCo performance relative to logframe targets

Logframe target	2014		2015		2016		All years
DFID output score	A+		A		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target met
Financially closed projects	6	7	7	6	8	6	1 of 3
Investments to GuarantCo projects – cumulative (US\$bn)	4.70	3.90	Not reported				0 of 1
Investments to GuarantCo projects – annual (US\$bn)	0.96	0.42					0 of 1
PSI investments - annual	Not reported		309	307	353	541	1 of 2
% investment in DAC I/II/III countries (cumulative)	100%	100%	100%	100%	100%	100%	3 of 3
% investment in FCAS (cumulative)	20%	44%	30%	46%	30%	43%	3 of 3
Additional people with new/improved infrastructure services - cumulative	25.7m	32.2m	35.5m	34.3m	37.9m	49.3m	2 of 3

¹⁵³ GuarantCo Updated Business Plan 2017-21

¹⁵⁴ Note that we have excluded figures for 2013 given that the logframe indicators vary significantly from what is reported in later years.

Logframe target	2014		2015		2016		All years
Additional people with new/improved infrastructure services – annual	9.4m	2.8m	3.2m	2m	3.68m	15.05m	1 of 3

Source: DFID (2013, 2014, 2015); PIDG (2016).

As Table F.2 shows, GuarantCo scored an ‘A+’ and an ‘A’ as part of Dfid’s 2014 and 2015 ARs respectively. In terms of logframe targets, it has had the most success in meeting its target allocation for DAC I/II and FCAS countries, while it has had less success in meeting access and investment mobilisation targets, although as mentioned elsewhere the former is particularly difficult to verify.

DFID’s 2015 AR also reported that GuarantCo made a loss of US\$7.16m in 2015. This was not interpreted as cause for concern given that GuarantCo broke even pre-provisions, whereas it had previously appeared to be structurally loss-making. We acknowledge that making a loss does not necessarily imply that GuarantCo is ineffective, given its developmental remit. Having said this, we understand that in 2016 GuarantCo was able to achieve self-sufficiency, having achieved a US\$1m operating profit.

F.2.3. Effectiveness

As noted below, GuarantCo can offer several examples of highly effective interventions - most clearly through its core product of providing PCGs for local currency financing. Stakeholders have often noted that GuarantCo’s products are essential for ensuring that their investments are of sufficient credit quality to achieve bankability. For example, commercial banks such as Standard Chartered, ABSA and Deutsche Bank have been supported by GuarantCo on transactions where in the absence of guarantees such lending would not have been available, given the credit quality of counterpart institutions.

Beyond this, GuarantCo can report some impressive developmental impacts, though these numbers can be easily distorted by a small number of “outlier” projects and can be difficult to attribute.

F.3. Review Dimension III – Transformational impact

GuarantCo’s core product of providing PCGs for local currency financing is among the clearest examples of how PIDG has helped to crowd in private, local currency investment that would not be possible without this support. Stakeholders often noted that GuarantCo’s product is essential for ensuring that their investments are of sufficient credit quality to enable the investments to occur. For example, commercial banks such as Standard Chartered, ABSA and Deutsche Bank have been supported by GuarantCo on transactions where in the absence of guarantees such lending would not have been available, given the credit quality of counterpart institutions. Following GuarantCo’s support, there have been instances where financing has been provided without needing GuarantCo’s support.

Specific examples of where GuarantCo has been able to have a transformational impact include:

- **SA Taxi:** Following an initial credit guarantee provided by GuarantCo to ABSA, the commercial bank provided a future credit facility without needing any form of credit enhancement, demonstrating that GuarantCo’s support had enabled ABSA to provide future financing that may not have been achieved without the initial credit cover.
- **Wataniya:** GuarantCo supported local commercial banks in Palestine with cover in support of financing for a telecoms company, which they had previously not done using a project financing structure. Two years after this support, the commercial banks refinanced and did not require GuarantCo cover, highlighting that they had become more comfortable taking on risks in the market that meant GuarantCo’s support was no longer required.

- **Shriram I:** Prior to GuarantCo's involvement, commercial lenders were unwilling to provide mezzanine capital to Shriram Transportation, preferring to provide senior debt to the entity. In order to mobilise sufficient mezzanine capital, GuarantCo (along with FMO) guaranteed Deutsche Bank's syndication of mezzanine finance on behalf of Shriram. Following this transaction, local lenders provided further mezzanine finance to the company without GuarantCo support.

In addition to these examples, GuarantCo's recent support for InfraCredit in Nigeria has the potential to be a prime example of the facility having a truly transformational impact, given that this facility has the **potential to leverage considerable amounts of institutional investment**. In addition, the InfraCredit model is being considered for other markets, suggesting that the transformational impact of this model may expand beyond Nigeria. However, given the relatively early stage of the facility the true extent of its transformational impact remains to be seen.

ANNEX G GAP

G.1. Review Dimension I – USP

G.1.1. Background and operations

GAP was set up in 2013 to stimulate private investment in renewable energy in SSA by acting as a provider of intermediate capital / mezzanine financing and contingent lines of credit. It was formed after a scoping exercise concluded that there was a need to address key market failures behind the slow pace of low-carbon technology adoption in Africa due to high construction risks and under-funding of projects with climate-neutral, pro-development impacts. GAP has committed funding from DFID (£70m), BEIS (£25m) and the Norwegian MFA (c. £29m), with EISER Infrastructure Partners LLP retained as fund managers.¹⁵⁵ It became operational in Q4 2014.

GAP's original investment policy, dated May 2014, defined three instruments it could provide:

- **Quasi-equity loan (QEL)** - a short-term mezzanine loan on terms that allow sponsors to reach an agreed threshold rate of return to offset some of the factors inhibiting renewable energy investment. QEL is intended to be GAP's primary instrument.
- **Contingent line of credit (CLC)** - guarantees to be drawn down in case of delays or cost overrun in construction to de-risk projects and attract long-term debt.
- **Tariff reform support** - accepting low returns over the early years of a PPA where necessary to encourage host countries to move towards cost-reflective tariffs.

In practice, CLC has been difficult to market given the long drawdown times on DFID promissory notes; and policy dialogue over tariff reform has proved unworkable since GAP is not in a position to negotiate with government counterparts, which would normally be the role of project sponsors or well-known multilaterals (e.g. WBG, AfDB). Tariff reform support has not attracted ear-marked funding and has been removed from GAP's mandate. QEL has therefore been GAP's primary offering to-date.

GAP is restricted to supporting projects in DAC I/II/III countries, with at least 75% of available funds invested in DAC I/II. Contributions may not exceed 20% of a given project's capital costs, or 40% for projects smaller than 20MW in DAC I/II. GAP targets a minimum private sector co-investment ratio of 1:2 across its portfolio as a whole. GAP is also explicitly restricted to projects which would be highly unlikely to proceed without GAP's support, but which are nevertheless economically viable.

Despite considering almost 400 projects and developing a strong project pipeline¹⁵⁶, GAP has only invested in one project so far: a EUR 20m construction finance loan for the 20MW Senergy 2 solar power plant in Senegal. This loan required Board approval as it greatly exceeded the 40% cap in GAP's investment criteria. At the time of our consultations, GAP had been in negotiations around c.12 other projects, some of which have been subject to delays (e.g. due to the Ethiopian state of emergency, or fall-out from failure of the Kinangop Wind Park in Kenya); found senior debt elsewhere; or GAP's involvement was blocked by other DFIs (see Scaling Solar example below).

G.1.2. Demand for GAP's product offering

In 2016, donors and the PIDG CMO commissioned a review of market demand for GAP's activities (Fieldstone Africa, 2016) which found that *"the product [QEL] that GAP currently offers, in general, is not in high demand"*.¹⁵⁷

¹⁵⁵ Camco Clean Energy plc was also originally contracted to support GAP as a sub-contractor to EISER, but was dropped from the mandate in November 2016 following concerns that the advisory structure was unnecessarily complicated.

¹⁵⁶ DFID - 2015 PIDG Annual Review

¹⁵⁷ Fieldstone (2016), Final draft GAP market review, p.19

Fieldstone's conclusion was based on the following observations:

- GAP's remit is narrow, with greater restrictions on country, sector, and product than other facilities.¹⁵⁸
- Complexity associated with introducing an intermediate capital tranche can outweigh the benefits, especially for small deal sizes typical in SSA renewables.

In its response to the review, the GAP Board stated that they do not think "there is no room for conventional mezzanine at financial close [but] recognise those opportunities are likely to be more limited".¹⁵⁹ GAP also observed that: Senior debt providers have become more willing to lend (raising their exposure from 70% to 75% of project cost and extending tenors beyond 15 years), squeezing GAP's niche further still.

Some senior lenders see mezzanine as unattractive for the projects to which they are willing to lend, and are demanding high levels of pure sponsor equity as the price for their support. GAP reported two instances of senior debt acting to exclude mezzanine in return for offering 75% loans in 2016:

- In Zambia (Scaling Solar), IFC Investments demanded 25% of pure equity to secure its debt for the remaining 75%, despite IFC Advisory Services / DevCo advising the client to accept the lowest tariff bid by Neoen, based on GAP providing 12.5% as mezzanine. IFC also prevented GAP from lending through Neoen rather than at a project company level. Our consultations have suggested that IFC was also concerned that GAP involvement would represent a double subsidy.
- In Senegal (Taiba wind concession), OPIC took the same approach, by providing 75% debt to the Mainstream-Actis consortium rather than lend to ACEI, who had been working with GAP.

Supply of equity for solar appears to be rising, pushing equity returns down and reducing demand for mezzanine.

G.1.3. GAP comparators

GAP's original rationale was based on the need for flexible risk-taking capital to fill the gap between equity and senior debt in SSA renewable projects. This niche, which was already quite limited, may now be even more so. The AfDB is in the process of launching a multi-investor commercial debt facility for renewable energy projects (<US\$30m) to be anchored by an investment from its Private Sector Department. "Climate Investor One" was also launched in December 2015 with an FMO anchor investment and is seeking commitments of US\$1.05bn for a development, construction equity, and refinancing fund to operate in DAC countries worldwide. Some existing DFIs are also capable of making mezzanine investments (e.g. FMO provided US\$5m subordinated debt to Uganda's Nyamwamba 9.2MW Hydro Power Plant).

However, we are not aware that any other institutions are targeting additionality in the same way as GAP, given that AfDB and FMO would typically lend alongside senior debt on commercial terms, as opposed to seeking projects that would otherwise struggle to reach the construction phase. GAP's competitors are also unlikely to target DAC I/II countries and FCAS in the same way GAP is mandated to.

G.1.4. Future strategy

Following the Fieldstone review, GAP's Business Plan for 2017-21 proposed changes to:

- modify cash availability to permit credible use of CLCs (e.g. by allowing drawdown at point of issue for CLCs rather than point of call);
- proactively market construction or bridging finance (i.e. up to US\$25m per project);

¹⁵⁸ Our own analysis has only found ten renewable power generation project financings in the past two years.

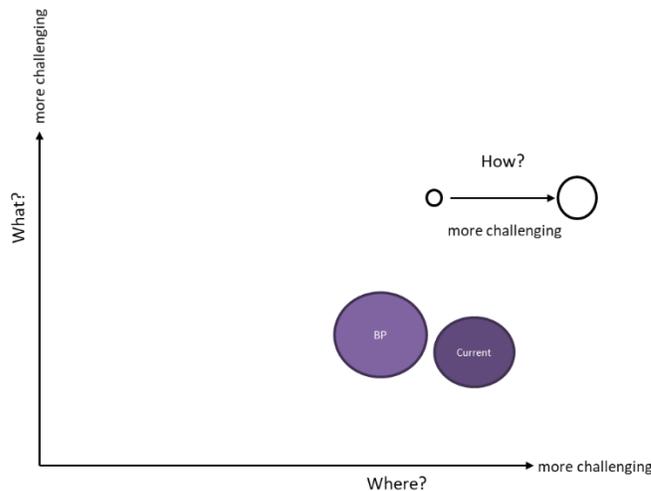
¹⁵⁹ GAP 2nd response to Fieldstone Market Review, p.

- permit preference share investment or minimum equity shareholdings;
- diversify into corporate loans to promoter holding companies where a range of similar assets could be grouped for efficiency (though loans would be project specific); and
- permit operations in North African DAC I - III countries and relax the DAC III ceiling for projects in FCAS areas.

We understand that some but not all of these proposals have been accepted by the GAP donors. GAP however, can now pursue opportunities outside of its current investment policy by obtaining a waiver from the donors on a case-by-case basis. We don't believe this is an efficient long term solution as it doesn't allow GAP to pro-actively market itself for activities outside of its current investment policy or develop a strategy around potential new activities, however it is our understanding that this is only a temporary stop gap until a new investment policy is in place. A few of the Fieldstone recommendations were rejected by GAP, in instances where it put GAP in direct competition with another PIDG facility or where they proposed taking GAP outside of an area where they currently have expertise, for instance, providing resource insurance. At present, PIDG is also considering the future relationship between GAP and the proposed IEMF. GAP's Business Plan assumed that its basic structure would remain unchanged.

Based on these proposals, Figure G.1 outlines how these proposed changes will affect its positioning on the frontier.

Figure G.1: Comparison of current and potential future position of GAP on the frontier



Source: CEPA analysis.

As shown, while relaxing the DAC III ceiling may move it away from the frontier in terms of *where* it operates, increasing the products it provides will allow it to support a broader range of clients within the renewable energy space (*what*) and will also allow for greater flexibility (*how*).

G.1.5. Summary of USP

In summary, GAP's intended USP lies in using intermediate capital to progress viable renewable power projects at the frontier in SSA which would otherwise struggle to pass the construction phase or attract conventional capital. Lower risk projects appear to be well served and GAP is unlikely to be additional. However, the remaining proportion of the market covered by GAP's focus is so thin that market demand may be insufficient to fully commit its capital before 2019. The Fieldstone report, did however suggest that GAP could commit all of its funds but only if their current mandate were to be expanded.

The 2016 review process highlighted the need for GAP to diversify towards a more flexible product offering that will enable it to “fill the gaps”, though this may be difficult in an already crowded landscape and may require further changes to its structure and investment policy.

G.2. Review Dimension II – VFM

GAP has not yet been the subject of a formal evaluation including VfM criteria (the 2016 review carried out by Fieldstone focused on GAP’s market and strategic options). This is partly due to the absence of investments to-date. For the same reason, we are not in a position to make informed judgements on GAP’s economy, efficiency and effectiveness.

However, we note that DfID’s 2015 AR considered that PIDG continued to represent good VfM, “with the possible exception of GAP”, and “given its current performance it is unclear whether GAP would continue to represent value for money, or if changes to GAP are needed.”¹⁶⁰ In the nine months since this review was written, GAP has made one investment, which is its first to-date. 2016 performance is therefore unlikely to represent VfM relative to a logframe target of three per year (reduced from five in 2014), and given that GAP was forecasted to incur expenses of \$2.2m during 2016.¹⁶¹

GAP also underwent a market and products review process during 2016, though we understand that some of the proposed changes resulting from the external reviewer were not accepted by GAP’s Board.

Table G.1 below summarises GAP’s performance relative to its logframe targets in recent years.

Table G. 1: GAP performance relative to logframe targets

Logframe target	2014		2015		2016*		All years
DFID output score	A		C		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target met
# projects achieving FC - annual	-	0	3	0	4	1	0 of 2
# projects achieving FC - cumulative	-	0	3	0	4	1	0 of 2
TICs (\$m) - annual	-	0	262	0	872	31	0 of 2
TICs (\$m) - cumulative	-	0	262	0	872	31	0 of 2
% TICs in DAC I/II - cumulative	-	-	75%	-	100%	100%	1 of 2
# people with access to new / improved infra from FC projects (m) - annual	-	0	0.9	0	14.7	0.2	0 of 2
# people with access to new / improved infra from FC projects (m) - cumulative	-	0	0.9	0	14.7	0.2	0 of 2
Power generated (GWH) - annual	-	0	199	0	1,292	35	0 of 2
Power generated (GWH) - annual	-	0	199	0	1,292	35	0 of 2

* Source: DFID (2013, 2014, 2015); PIDG (2016).

¹⁶⁰ DfID 2015 AR of PIDG

¹⁶¹ GAP Business Plan Update 2017-21

G.3. Review Dimension III – Transformational impact

GAP has had little opportunity to demonstrate transformational impact to date due to a lack of completed projects. At the time of writing, GAP's only investment has been a EUR 20m mezzanine construction loan to the 20MW Senergy II solar photovoltaics (PV) project in Senegal – which they believe was highly innovative - the first of its kind in this context. Going forward they think this might form an important part of their product offering. It would be premature at this stage to discuss transformative impact for GAP.

ANNEX H DevCo

H.1. Review Dimension I – USP

H.1.1. Background and operations

DevCo, established in 2003, is a multi-donor IFC Trust Fund managed by the IFC’s Cross Cutting Advisory Services Department (in the PPP Advisory Division) which assists public authorities with mid-to-late stage preparation of PPP/concession projects by providing IFC advisory support across a full range of areas including: legal, technical, financial, and investment banking advisory services. To a lesser extent, DevCo also offers early stage project preparation support including project and pipeline identification exercises, and pre-feasibility and feasibility phase studies. Most DevCo-supported mandates will end with the signing of key project agreements (i.e. commercial close), while support may continue to financial close in some cases.

DevCo’s inputs are the funds it provides to cover the consultant costs of applicable IFC Advisory Services mandates which lead, in about 50% of cases, to successfully bid-out infrastructure projects. IFC Advisory Services would normally aim to recover some of its costs through charges and success fees, but these are often unaffordable for poorer governments.¹⁶² DevCo’s support aims to encourage and enable IFC to work with these clients on pro-poor and capacity-building projects, targeting DAC I/II countries and FCAS.¹⁶³ Each mandate application requires the approval of the PIDG PMU and Governing Council. DevCo’s 2014 evaluation concluded that it was indeed increasing IFC’s support to DAC I/II countries.¹⁶⁴

To date, most of DevCo’s funding has been provided by DFID, with smaller amounts contributed by IFC, DGIS, Sida, and ADA.

IFC Advisory Services staff do not report to the PIDG CMO or Donors, but to the IFC Board of Directors, and this has historically meant that DevCo has operated at arms-length from other PIDG Facilities. One of the intentions of the One PIDG initiative is to improve collaboration between DevCo/IFC and the rest of PIDG – largely through a programme of cooperation with TAF.¹⁶⁵

H.1.2. Future strategy

DevCo’s 2017-2021 Business Plan broadly proposes a continuation of its current activities, as depicted in Figure H.1 below.

¹⁶² We understand that IFC Advisory Services aim to recover around 30% of its costs across its portfolio.

¹⁶³ DevCo’s 2017-21 business plan includes targets for 85% of newly signed mandates to be in DAC I/II countries or eight “poorer” Indian states, and 45% in FCAS (with more challenging targets than previously).

¹⁶⁴ Castalia (2014), DevCo independent evaluation.

¹⁶⁵ The TAF/DevCo scale-up was proposed to include activities such as: joint development plans for target countries (piloted in Zambia); collaborative engagement around pipeline screening and early transaction scoping studies); joint TAF-DevCo management of country-based transaction managers; and internal communication over development plan progress.

Figure H.1: Comparison of current and potential future position of DevCo on the frontier



Source: CEPA analysis.

DevCo intends to maintain the targets set under its 2016-19 Plan, and with the intention to formalise DevCo’s commitment to the TAF/DevCo scale-up if funding is made available. DevCo has estimated that its planned activities will require new funding commitments of US\$41.8m for 2017-21 (US\$8.72m per year).

During Q1-Q2 2016, DevCo received US\$7.2m in new contributions from DFID which are expected to cover operations until Q2 2017, after which DevCo funds will be fully deployed. If no further contributions are received before that time, the programme will cease operations. At the time of writing, we are not yet aware that it has received any further commitments; however, without DFID funding, IFC will likely have to find other donors to fill the gap.

H.1.3. DevCo comparators

DevCo is one of several facilities offering grants to assist public authorities with tendering concessions and PPPs, and are not entirely unique in some of the markets they operate in. ADB has started a PPP advisory support facility; AfDB is making TA grants for PPPs under its private sector window; and the WBG is funding TA to support the PPP mandates it works on (through the Singapore Infrastructure and Urban Hub initiative, for example). The WBG-hosted GIF also provides grants for PPP support, but is not required to work in DAC I/II countries or FCAS. In each of the aforementioned cases the client government is the recipient and can choose its own advisers, whereas DevCo funds advisors selected and managed by IFC and provides it as a complete turnkey package.

IFC’s offering is generally considered the most attractive to governments¹⁶⁶ for their strong transaction experience, continuity of service throughout the mid-to-late stage PPP process, and the perception that engaging IFC Advisory Services may improve their chance of attracting IFC investments.

DevCo/IFC’s activities are also distinct from organisations providing earlier stage PPP TA (e.g. PPIAF). Although historically IFC has in some cases used PPIAF grants to accelerate their pipelines.

H.1.4. Summary of USP

¹⁶⁶ This view was supported by Castalia’s 2014 independent review of DevCo.

The activities funded by DevCo through IFC are not the only mid-to-late stage PPP TA offering available, but it is the institution of choice for many client governments.¹⁶⁷ Ongoing availability of DevCo funds also enables IFC to react faster to government priorities than if it had to wait to assemble funds from fragmented donor sources.

Without DevCo, it is likely that fewer governments in DAC I/II countries would have received support from IFC Advisory Services, which may have been less willing or able to engage with challenging mandates on terms which its clients could afford.¹⁶⁸ **DevCo’s USP therefore lies in enabling IFC Advisory Services to do more work at the frontier than it otherwise would.**

This description of DevCo’s USP is predicated on IFC itself being less willing to work on high-risk projects on a BAU basis than PIDG. In the absence of DevCo support there is a risk that IFC would offer its advisory services (which are a cost-centre for IFC) on a less concessional basis.

H.2. Review Dimension II – VFM

H.2.1. Economy

Castalia’s 2016 evaluation argued that DevCo’s use of competitive procurement processes ensure that it pays no more than market price for the quality of advice procured. Programme overheads were reported to be 26% of total spend. Castalia considered this proportion to be “reasonable.” They also reported that DevCo’s project managers seemed to be requesting more funds than needed on mandates and, although these funds are returned to the DevCo Trust if unused, DevCo would benefit from a more accurate budgeting approach.

H.2.2. Efficiency

The Castalia evaluation found that DevCo delivered more successful transactions per dollar spent than the other alternatives reviewed, and project beneficiaries reported the quality of consultant support to be good in all cases sampled.

Castalia also reasoned that DevCo could improve its data management processes and set more ambitious targets for the proportion of mandates in DAC I/II countries (targets which are now reflected in DevCo’s current logframe).

Table H.1 below summarises DevCo’s performance relative to its logframe targets in recent years.

Table H.1: DevCo performance relative to logframe targets

Logframe target	2013		2014		2015		2016		Total
DFID output score	B		A		A+		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target	Result	Targets met
# newly originated PPP activities - annual	10	11	5	6	8	8	10	7	3 of 4
# newly originated PPP activities - cumulative	79	80			98	98	108	105	2 of 3
% of newly signed mandates in DAC I/II					85%	71.4%	85%	80%	0 of 2

¹⁶⁷ Castalia’s 2014 evaluation of DevCo found that all public authorities interviewed agreed that IFC was the right institution to provide transaction advice.

¹⁶⁸ Castalia (2014), DevCo independent evaluation - Section 4.5

Logframe target	2013		2014		2015		2016		Total
% of newly signed mandates in FCAS					35%	42.8%	45%	80%	2 of 2
# mandates reaching financial close (FC) - annual			4	5	3	3	3	1	2 of 3
# mandates reaching FC - cumulative					25	25	28	26	1 of 2
# mandates reaching commercial close - annual	5	4			5	4	5	4	0 of 3
# mandates reaching commercial close - cumulative	25	24			34	33	38	37	0 of 3
Total PSI Commitments at FC - annual (\$m)	700	15.1	4	4.8			100	4,300 ¹⁶⁹	2 of 3
Total PSI Commitments at FC - cumulative (\$m)	7,220	5,660					2,395	2,345*	0 of 2
% TICs (FC) in DAC I/II - cuml.			48%	48%			50%	46.2%	1 of 2
% TICs (FC) in FCAS - cuml.			35%	42%			35%	42%	2 of 2
# people with access to new / improved infra from FC projects (m) - annual	2.5	1.44	0.15	0.17	1	0.04	1.5	7.5	2 of 4
# people with access to new / improved infra from FC projects (m) - cumulative	24.1	34	2.61	2.61	27.4	26.31	27.94	26.31	2 of 4

Source: DFID (2013, 2014, 2015); PIDG (2016)

*2016 results include \$4.3b from Central Java. Due to the size of this result, the results will not be reported in cumulative figures after 2016.

H.2.3. Effectiveness

As discussed below, the Castalia evaluation provided evidence to suggest that DevCo had succeeded in raising the proportion of mandates carried out by IFC Advisory Services in DAC I/II countries and FCAS. Our own consultations have supported this view. DevCo also expects to meet and/or exceed most operational targets for 2016, concerning proportions of newly signed mandates in DAC I/II and FCAS, proportion reaching commercial and financial close, and number of people with access to new or improved infrastructure from closed projects. DevCo can also point to some examples of working on projects which may have had a transformational effect in the sense of demonstrating PPPs as a successful model to governments and investors in frontier countries, as set out below.

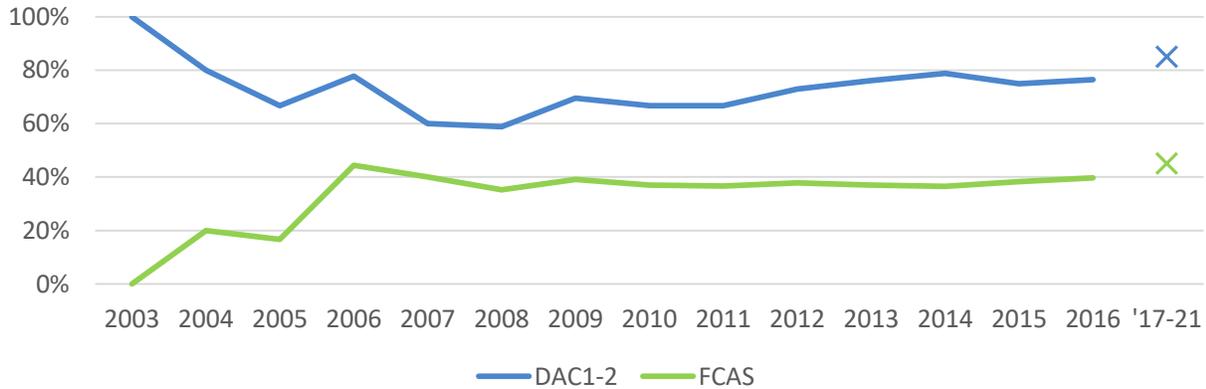
H.3. Review Dimension III – Transformational impact

At the output level (i.e. the results of activities directly within its control), it is a prerequisite to having transformational impact that DevCo is allowing IFC to advise clients that it otherwise would not have. DevCo's 2014 evaluation noted that, from 2008-13, 71% of IFC's DevCo-supported advisory projects were in DAC I/II countries,

¹⁶⁹ Total investment commitments.

compared to only 27% of its non-DevCo projects. Similarly, 24% of projects with DevCo support were in FCAS and only 8% without. Figure H.1 shows the cumulative proportion of DevCo mandates in DAC I/II and FCAS to-date, alongside its target for 2017-21. The FCAS target was raised from 35% to 45% in 2016.

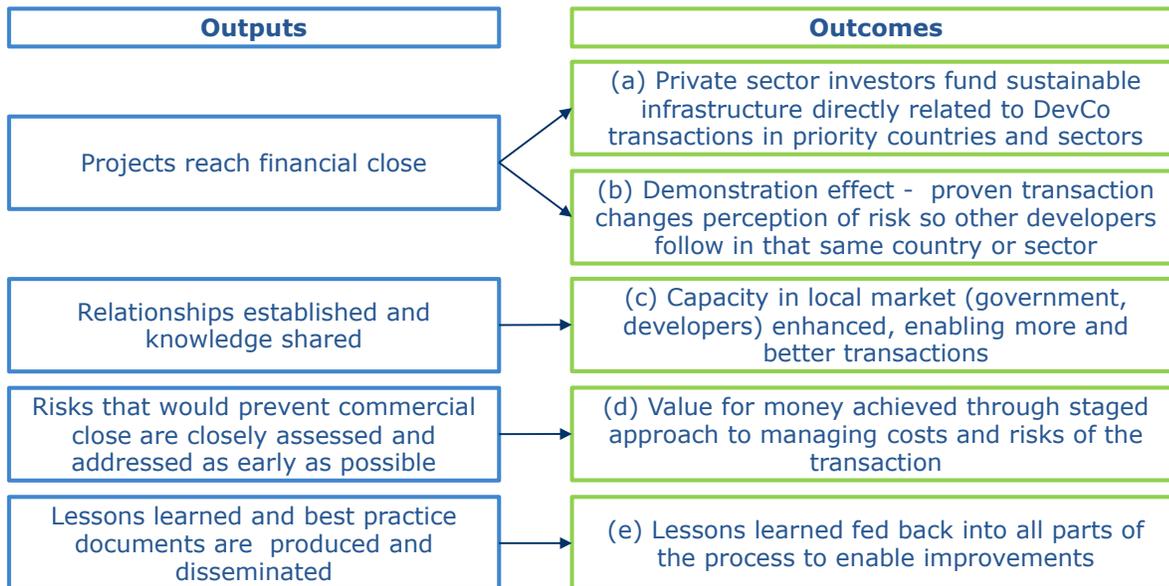
Figure H.2: Cumulative proportion of DevCo mandates in challenging countries (lines) & 2017-21 targets (crosses)



Our consultations have strongly supported the view that IFC Advisory Services would naturally work in less challenging countries where project durations are shorter and the prospect of reaching financial close (and generating success fees) are more favourable were it not for DevCo.

At the outcome level, DevCo’s theory of change¹⁷⁰ illustrates several paths through which it may have a transformational impact. We replicate a simplified version in Figure H.3 below:

Figure H.3: Simplified DevCo Theory of Change



Outcomes (c) - (e) relate to improvements in the quality of PPI, which could potentially be transformational, but are hard to provide evidence for or attribute to DevCo. They are also second order effects relative to DevCo/IFC’s main activity of assisting client governments with tendering projects: some of which then reach financial close. Outcome (a) relates to DevCo’s direct (rather than transformational) effect of building a pipeline of public projects for private investment. Outcome (b) would also be difficult to attribute, though DevCo can point to the following examples of

¹⁷⁰ DevCo Theory of Change, draft 30/9/16.

working on projects that may have had a transformational effect in the sense of demonstrating PPPs as a successful model to governments and investors in frontier countries:

- **Zambia: Scaling solar.** IFC transaction advisors with DevCo funding supported the Zambian government in the country's Scaling Solar programme. Scaling Solar is a WBG programme which offers a 'one-stop-shop' for coordinating several WBG products in a single process. The first major roll-out of Scaling Solar took place in Zambia, where DevCo funding paid for IFC transaction advisors to facilitate the tender execution with government. The tenders resulted in winning bids of 6c/kWh and 7.8c/kWh for the two projects, comparable to prices achieved in the most advanced of frontier solar markets.
- **Bhutan: Thimphu Parking PPP.** IFC, supported by DevCo, was appointed as advisor to the Government of Bhutan, via the Thimphu City Municipality, on structuring and tendering a PPP for the Thimphu Parking project. The tender raised \$8m in private investment. It was Bhutan's first urban infrastructure PPP, and the first PPP successfully closed by the Thimphu City Municipality - with 'replication potential in other parts of the country.'
- **West Bank & Gaza: Solid Waste Management PPP.** DevCo supported IFC's role in designing a PPP, selecting an operator, and providing post-transaction support for a landfill facility, as part of an integrated WBG solution for the Joint Services Council for Hebron and Bethlehem. This was the first PPP in the West Bank, with 'strong potential for demonstration effects.'
- **Haiti: Teleco modernisation PPP.** IFC, supported by DevCo, was appointed as advisor to the Central Bank of Haiti, to structure and tender a telecom PPP attracting \$99m in private investment. The project is Haiti's third PPP, and its largest foreign direct investment since the earthquake of 2011. IFC claims that it is 'expected to catalyse future [...] PPPs in critical power, transportation, and water sectors.'
- **Timor-Leste: Tibar Bay port concession.** IFC, supported by DevCo, assisted the Government of Timor-Leste to structure and tender the country's first PPP.
- **India: Punjab Silos pilot PPP.** IFC, supported by DevCo, was lead transaction advisor to the Punjab agency for grain procurement in designing and implementing a pilot PPP transaction for a grain storage facility. The transaction is expected to mobilise \$8m in private investment, and has served as a model for a similar programme being developed by IFC on a much larger scale for the Government of Pakistan.
- **India: Berhampur Solid Waste Management PPP.** IFC, supported by DevCo, was lead transaction advisor to the Berhampur Municipal Corporation for structuring and tendering a waste management PPP, raising \$8m in private investment. IFC report that the project has 'high potential for replication in other Indian municipalities' and that the Government of Odisha is using the bid documents developed under this project for two other projects in Odisha.
- **Indonesia: Central Java IPP.** IFC provided advice to Indonesia's state-owned energy corporation to structure and implement a PPP for a coal-fired power plant. The project was the first to be implemented under the country's new PPP and guarantee regulations, 'laying the groundwork for future private infrastructure projects'.

ANNEX I TAF

I.1. Review Dimension I – USP

I.2. Background and operations

TAF was established in 2003 as a pool of funding for general TA, capital market development support, and up-front capital provision to the PIDG facilities to help them address some of the cost and skill barriers to working in challenging environments. The market failure it seeks to address is a weak pipeline for private infrastructure projects due to:

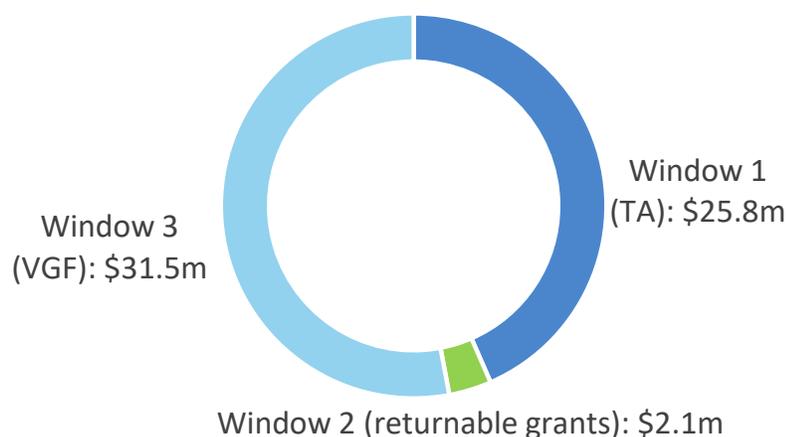
- low capacity of public or private counterparts working with the PIDG facilities;
- low appetite for developing high risk projects with strong developmental potential; and
- inability of project beneficiaries to afford the full costs required for project viability.

TAF is not a standalone legal entity and so funding for TAF is held by the PIDG Trust. TAF was initially only funded by contributions from the WBG but is currently funded by a subset of PIDG Members. Over the past decade, a number of PIDG Members have contributed to TAF (as has the ADB, despite it not being a PIDG Member). DFID has been the largest contributor: providing 43% of commitments between 2004 and August 2015.

TAF awards grants and returnable capital for projects supported by the PIDG facilities for: TA / capacity-building of project counterparts; returnable grants to part-fund project development when high repayment risk deters commercial lenders; and VGF grants to close the gap between expected costs and revenues for projects serving people with low ability to pay.

TAF activities range from advice and training for institutional strengthening and capacity building, to up-front capital grants (e.g. VGF) to address issues of *commercial* viability in *economically* viable projects. These products are arranged across three windows: general TA (Window 1), capital market development via returnable grants (Window 2) and project capital grants (Window 3). At the end of 2016, Windows 1 and 3 have accounted for around 43% and 53% of TAF commitments respectively (by value).¹⁷¹

Figure I.1: TAF commitments by window, 2004 – 2016

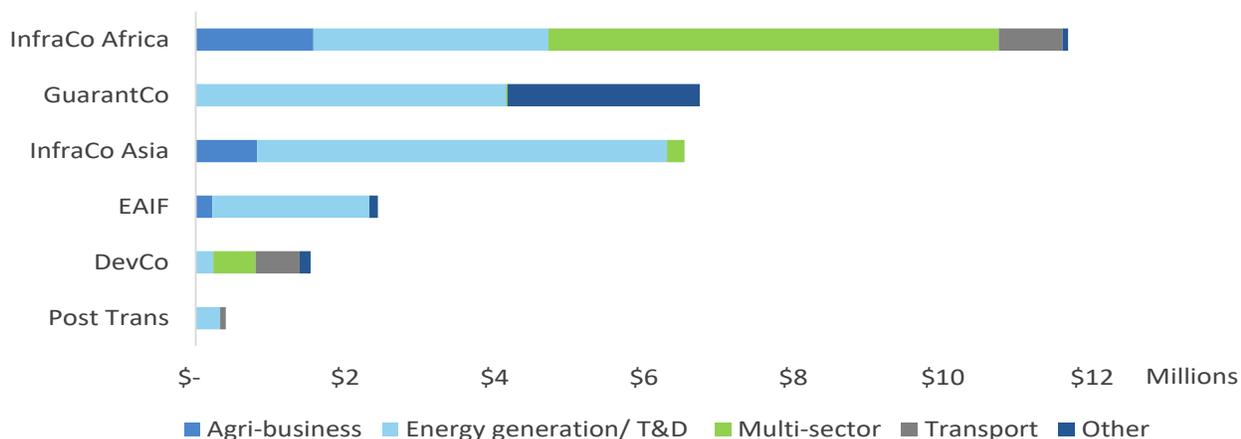


Source: Provisional update of the PIDG monitoring database.

¹⁷¹As of the end of 2016 (based on provisional data), there have been six VGF commitments averaging \$5.25m each; and around 120 general TA grants averaging around \$200,000.

Through its activities under these windows, TAF is involved in all steps of the project lifecycle, and is able to collaborate with almost all the PIDG Facilities¹⁷², as shown Figure I.2. The sectoral and geographic distribution of TAF support broadly matches the characteristics of recipient facility portfolios, with about 90% of commitments in SSA.

Figure I.2: TAF amounts approved by facility & sector, 2004 – Mar 2015



Source: PIDG (2015); CEPA analysis.

I.2.1. Future strategy

The PIDG Governing Council approved a scale-up plan for TAF-DevCo TA activities in December 2015, based on the recommendations of a TAF-DevCo Working Group.¹⁷³ The scale-up action plan and budget has since been amended, as TAF donors were not in a position to fund the full scope of the programme. The scale-up formally started in June 2016, and TAF’s Business Plan Update for 2017-21 reports that the following changes have been introduced:

- *Joint Development Plans (JDPs) in Targeted Countries:* collaboration between TAF, DevCo, and the other PIDG facilities over a pipeline of projects for a specific sector or country (piloted in Zambia, Myanmar, and for solar PV IPPs).
- *Proactive TA:* use of targeted grants in the upstream space to clear specific blockages.
- *Expanded Menu of TAF financial products:* an increase in the number and range of grants approved, with five additional “normal” grants and one more VGF grant per year, as well as the introduction of large returnable grants (>\$10m), and an allowance that up to 7% of grants can be used to cover administrative costs.
- *Collaborative DevCo Engagement:* to scope project pipelines for PIDG priority countries.
- *TAF-DevCo Management of Country-based Transaction Managers:* to work with counterpart government officials during PPP and private investment structuring and negotiations where development plans identify concrete large-scale opportunities.

¹⁷² TAF has yet to work directly with GAP (although they have engaged them regularly on how they could use TAF funds) and the ICF-DP (which is now closed and was not a suitable client for TAF products). Despite TAF’s objective of collaborating with affiliated programmes, Windows 1 and 2 have never been used by affiliated programmes like GPOBA or PPIAF. Although, it is worth noting that both are much larger than TAF and have access to significant funds, so it may not make sense for TAF to provide grant support to them (and there would be restrictions around the provision of such support, namely that a WBG employee act as the Task Team Leader). The TAF however does coordinate and communicate with them on a regular basis.

¹⁷³ The working group consisted of Philip Valahu, John Hodges, James Leigland, and Emmanuel Nyirinkindi.

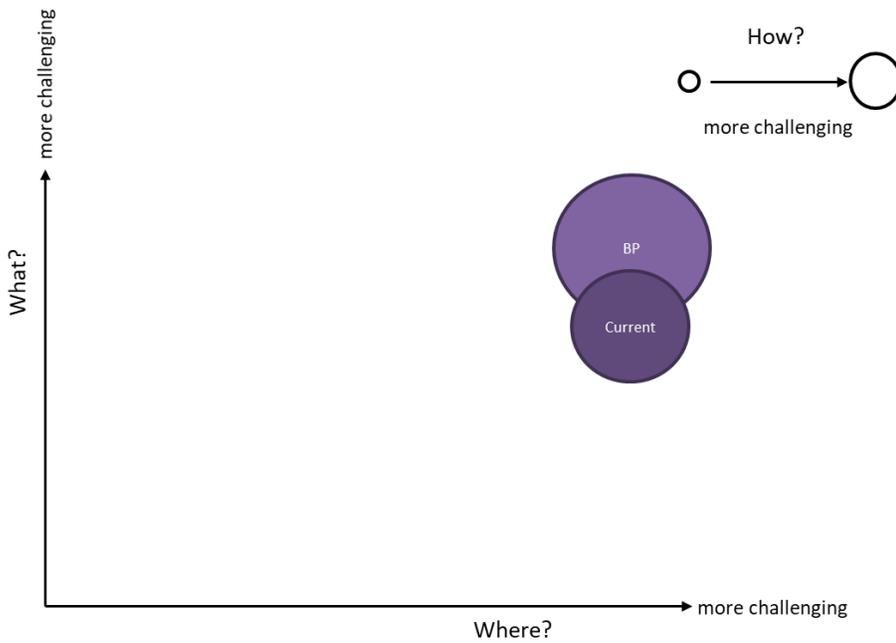
- *Internal Communication on Development Plan Progress*: through regular meetings and updates.
- *Governance and Staffing*: new reporting structures, a third TAF Panel of Experts reviewers, and increase in TAF staffing.

We also note that the CEPA’s evaluation of TAF¹⁷⁴, from April 2016, proposed two options for TAF donors to consider in the medium to long-term: (i) supplementing guarantee reserves for PRGs to help catalyse private sector investment through PIDG projects; and (ii) allowing third parties to apply for funds for particularly developmental or transformational transactions. These proposals were not taken up in light of the already high demand from the PIDG facilities for the limited TAF funding available. The PRG scale-up may also now be superseded by IDA18 plans.

In addition to these changes, TAF expects to receive a request for funding from GuarantCo for returnable grants that will help establish future InfraCredit facilities, as well as to support GuarantCo’s plans to create a bond platform in the LSE.

Based on the changes outlined above, Figure I.3 plots how TAF’s recent change in strategy compares with how it has been operating prior to this.

Figure I.3: Comparison of current and potential future position of TAF on the frontier



Source: CEPA analysis.

As shown, TAF’s changes will result in changes in *what* support it provides and *how* it does this. For example, TAF plans to increase its support to earlier stages of the project development (*what*), while, in line with potential plans to provide funds to GuarantCo, facilitate greater involvement of local currency financing and sponsorship of infrastructure (*how*).

¹⁷⁴ CEPA (2016), Evaluation of the Technical Assistance Facility (TAF)

I.2.2. TAF comparators

In CEPA's 2016 evaluation, a number of facilities or schemes that operated in a similar space to TAF were identified. The two most relevant facilities - PPIAF and the EU's regional 'blending facilities'- are discussed below.

TAF is often compared and contrasted with PPIAF. PPIAF provides TA to support the enabling environment (e.g. upstream legal, regulatory and policy PPP support) and to develop infrastructure projects with private sector participation, although it now focuses more on the former. PPIAF has historically targeted its support to public sector entities. While PPIAF has supported some downstream activities in recent years, such support has not always been present in country or available for private sector-originated projects.

The EU has established several "blending facilities" for each region of EU external cooperation. These facilities aim to catalyse investment in line with EU partner interests by providing (i) investment grants / interest rate subsidies; (ii) TA grants; and (iii) risk capital or other risk-sharing instruments (e.g. guarantees).

At the time of the 2016 TAF evaluation, the EU-AITF was identified as a key comparator. The EU-AITF is a fund which blends financing from a range of financiers to provide large grants to regional, predominantly publicly financed infrastructure projects in SSA.¹⁷⁵ Although PIDG was one of its financiers (meaning that it could apply for support, and support other EU-AITF projects), PIDG's focus on small-medium private national projects was far removed from the EU-AITF's regional criteria, and only four PIDG projects had received support as of early 2016. While there was some potential for overlap between the two facilities, EU-AITF is currently winding down and is being replaced by the EC's new 'Africa Investment Fund' (AfIF). AfIF has a wider scope than EU-AITF and may support national or regional projects including infrastructure, social infrastructure, and other private sectors; though we are not aware that AfIF has yet made any disbursements. Other EC blending facilities (e.g. the Asia Investment Facility) appear to mainly operate upstream of TAF, by funding scoping studies and policy engagement, for instance.

This brief discussion does not cover TA facilities with distinct sectoral or geographic remits (e.g. GET FiT or the WBG's Energy Sector Management Assistance Program; etc.).

Although these other platforms act in the same space as TAF, the design of such facilities (including the hosting arrangements they have with larger multilateral institutions which influences their strategies and processes) has meant that they are less reactive to the needs of the PIDG Facilities. In contrast, TAF's design allows it to provide an appropriate response to the demands of the PIDG Facilities – in terms of its flexibility, ability to provide targeted support and timeliness – which may not have otherwise been met without TAF being dedicated to PIDG-supported projects.

I.2.3. Summary of USP

TAF provides support that would be difficult to find from other PPFs in the market. Its closest comparators are more focused on upstream activities or on supporting the public-side of PPP projects. The 2016 TAF evaluation also found that stakeholders consider that TAF's place within PIDG allowed it to be more flexible, timely, and reactive to the facilities' needs than others in the market not dedicated to PIDG. VGF was considered highly unique, and donors appreciated the competitive nature of applications for TAF support. Overall, TAF was not seen as duplicating activities already being carried out by other PPFs, and its design placed it among the most appropriate of the PIDG facilities.

¹⁷⁵EU-AITF's eligibility criteria require that "projects must be trans-border infrastructure or national projects with a demonstrable regional impact on two or more countries or national projects in the context of the 'Sustainable Energy for All' initiative".

I.3. Review Dimension II – VFM

I.3.1. Economy

The most recent detailed analysis of TAF’s economy was part of a CEPA study in 2012 which found that TAF had a low cost base relative to its closest comparators - PPIAF and the EU-AITF - which both had particularly relatively high average annual management costs (US\$2.9m and US\$3.5m respectively).¹⁷⁶ At the time, TAF was found to have management costs averaging US\$0.3m per annum.¹⁷⁷ The large difference was to be expected given that EU-AITF and PPIAF are larger facilities which make much larger commitments on average, but TAF also compared favourably given its size. In proportion to total commitments, TAF management costs were much lower than PPIAF’s (11% versus 20%); and very close to EU-AITF’s (c.10%).

An update of this analysis was not within the scope for this report, but we can note that TAF’s most significant expense (TAF Technical Adviser) has not grown substantially, whereas the volume of grant activity has greatly increased - suggesting that cost efficiency is likely to have improved over time).

I.3.2. Efficiency

CEPA’s 2016 evaluation of TAF found that, in general, fund management arrangements were appropriate, well-functioning and efficient. While funds had not always been disbursed in a timely manner, this appeared to be driven more by challenges faced by the facilities rather than issues internal to the CMO or the PIDG Trust. None of the stakeholders consulted expressed concern with existing fund management arrangements. CEPA’s recommendation to improve fund management efficiency through use of promissory notes has since been implemented.

The CEPA evaluation also found that TAF implementation and coordination processes were well-functioning, though there was scope to improve coordination within the wider family of the PIDG facilities. Governance arrangements and processes were considered adequate.

Table I.1 below summarises TAF’s performance relative to its logframe targets in recent years.

Table I.1: TAF performance relative to logframe targets.

Logframe target	2013		2014		2015		2016*		All years
	Target	Result	Target	Result	Target	Result	Target	Result	
DFID output score	B		A		B		N/A		N/A
	Target	Result	Target	Result	Target	Result	Target	Result	Target met
# general technical support grants approved - annual	Not reported		5	6	6	2	6	10	2 of 3
# general technical support grants approved - cumulative			46	47	53	49	59	59	2 of 3
# regulatory and managerial capacity building TAF grants approved - annual			2	1	2	2	2	7	2 of 3

¹⁷⁶ ICA (2012). “ICA Assessment of Project Preparation Facilities for Africa”. Completed by CEPA and Nodalis Conseil. Accessed at: <http://www.icafrica.org/en/knowledge-publications/article/ica-assessment-of-project-preparation-facilities-for-africa-197/>

¹⁷⁷ Our analysis as part of this evaluation found that TAF’s cost basis may indeed be closer to an average annual cost of US\$0.2m. Although, we note that CMO staff spent on TAF day-to-day management is not costed for under TAF and so actual operating costs are likely to be understated.

Logframe target	2013	2014	2015	2016*	All years			
# regulatory and managerial capacity building TAF grants approved - cumulative		10	9	11	11	13	18	2 of 3
# pre-feasibility studies grants in difficult sectors/countries approved - annual		6	6	6	4	6	10	2 of 3
# pre-feasibility studies grants in difficult sectors/countries approved - cumulative		51	51	57	55	63	65	2 of 3
# poverty-focused development add-on TAF grants approved - annual		2	2	2	1	2	0	1 of 3
# poverty-focused development add-on TAF grants approved - cumulative		8	8	10	9	12	9	1 of 3
VGF grant funding approved (\$m) - annual		3	0	3	0	3	18.5	1 of 3
VGF grant funding approved (\$m) - cumulative		20.1	17.1	20.1	17.1	23.1	35.6	1 of 3

* Source: DFID (2013, 2014, 2015); PIDG (2016).

I.3.3. Effectiveness

CEPA's 2016 evaluation found that TAF has had an important and lasting impact in some transactions, though its wider impact in the infrastructure space had been limited by its scale.

While TAF had played a key additional role in some transactions it has supported, this can vary by transaction, with experience suggesting that additionality is most apparent for transactions that are well-structured and close to financial close. While funding for TAF activities may have been obtained elsewhere on some occasions, TAF's lean and responsive nature has meant that it was likely the best-placed PPF to support the related PIDG projects and to target TAF donors' special interests.

I.4. Review Dimension I – Transformational impact

The TAF was not designed to achieve transformational impact directly, but to support the activities of the other PIDG facilities. General TA grants are also only a small part of overall PIDG support to any given project, and attributing impact can be difficult.

Targeted TA grants can sometimes be linked to particular outputs and outcomes: such as TAF's capital market development support to GuarantCo in Nigeria - leading to development of a local currency credit enhancement facility; and funding for wind pattern and technical engineering studies for IAFD's Cabeolica Wind project - greatly improving the project's bankability. However, neither case is strictly transformational and attribution has to be shared with the other PIDG and non-PIDG facilities.

TAF's VGF, on the other hand, is arguably capable of achieving transformative impact through demonstration effects associated with projects that would not have proceeded without its support. The Coc San Hydropower Project in Vietnam is one such example.

Box I.1: TAF's transformational impact in the Coc San Hydropower Project, Vietnam

When IAsD took over the Coc San Hydropower Project as lead developer it restructured the project and significantly reduced its costs, but still struggled to find a design that would be commercially viable and able to attract commercial debt. IAsD therefore applied for a VGF grant. Multiple stakeholders attribute the overall success of the project to the VGF grant. Stakeholders stressed that, at the time of the application, no alternative concessional or grant capital was available.

The US\$50m project received a US\$5m VGF grant alongside US\$15.75m in equity from IAsD.

CEPA's discussions with project stakeholders have highlighted two channels through which TAF's intervention may have had a transformational effect:

- The Vietnam Ministry of Finance had reportedly been considering implementing a VGF programme for PPP projects. The Coc San project may have demonstrated how targeted subsidies could mobilise private investment and trigger development impacts - providing a successful example to the Government as it progresses in setting up such a fund.
- Stakeholders reported a bigger interest in the renewables sector in Vietnam as a result of the project.

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J.3.4. Documents relating to other DFIs

General

- CSIS Development Finance Institutions Come of Age, Oct 2016

ADB

- ADB Establishment of the Asia Pacific Project Preparation Facility, Oct 2014

AfDB

- AfDB Private Sector Development Strategy, 2013-17
- AfDB Annual Report 2015
- AfDB Compendium of statistics on Bank Group operations, 2016
- AfDB Market study on available financial instruments in support of Green Mini-Grids and assessment of developer needs, Sep 2016
- AfDB Investor presentation, Nov 2016
- AfDB Who we are, Jan 2017
- NEPAD-IPPF AfDB website summary, Jan 2017
- Fitch Ratings AfDB rating report, Sept 2015
- Fitch Ratings AfDB credit update, Aug 2016
- Moody's AfDB credit analysis, Sept 2014
- Moody's AfDB credit opinion, Aug 2016
- S&P Global Ratings AfDB rating report, Nov 2014
- S&P Global Ratings AfDB research update, July 2016

AIIB

- AIIB Operational policy on financing, Jan 2016

CDC

- CDC Annual Accounts 2015
- CDC Annual Review 2015
- CDC Direct Investment Information, June 2015
- CDC Investment policy for the period 2012-2016
- House of Lords Commonwealth Development Corporation Bill (HL Bill 90 of 2016-17)

EIB

- EIB in Africa, the Caribbean and Pacific: Annual Report 2015
- EIB in Africa, the Caribbean and Pacific: Business Strategy 2016-2018

FMO

- FMO Annual Report 2012
- FMO Annual Report 2015
- FMO General investment criteria, Feb 2017
- FMO Investor presentation, Dec 2016
- FMO Evaluation (internal), Dec 2016
- Fitch Ratings FMO rating report, May 2016
- S&P Global Ratings FMO rating report, Dec 2016

IFC

- IFC Annual Report 2016
- IFC and local currency financing, June 2008
- IFC Local currency and hedging solutions, Apr 2016
- IFC Infrastructure cheat sheet, Aug 2016
- IFC Management discussion and analysis and consolidated financial statements, June 2014
- Moody's IFC credit analysis, Nov 2014

OPIC

- OPIC Assorted case studies, 2012 - present

WBG

- Report from the Executive Directors of the International Development Association to the Board of Governors, Additions to IDA Resources: Eighteenth Replenishment

ANNEX K INTERVIEWEES

Table K.1 provides the list of consultations for this report that we have undertaken or scheduled. We plan on completing further interviews after the submission of the draft report.

Table K.1: List of consultees

Organisation	Name	Position
<i>PIDG Facilities</i>		
InfraCo Africa	Brian Count	Chairman
	Alex Katon	Executive Director
	Elizabeth Hipwell	Business Development and Impact Manager
InfraCo Asia	Allard Nooy	Chief Executive Officer
	Claudine Lim	Chief Operating Officer
EAIF	Emilio Cattaneo	Executive Director
	David White	Chairman
GuarantCo	John Hodges	Board Member
IEMF	Keith Palmer	Interim Chair
GAP	Peter Hutchinson	Executive Director
	Jim Cohen	Chairman
TAF	James Leighland	Technical Adviser
DevCo	Emmanuel Nyirinkindi	IFC Manager of DevCo
<i>PIDG Facilities Fund Managers</i>		
Investec	Martijn Proos	Director
EISER Infrastructure Partners	Vivian Nicoli	Managing Director
Cardano Development	Lasitha Perera	Chief Executive Officer
	Douglas Bennet	Chief Operating Officer
<i>PIDG Trust</i>		
	Philippe Valahu	Chief Executive Officer
<i>PIDG CMO</i>		
	Harry Marin	Monitoring Manager
	Alice Chapple	Director Impact Value
	Joe Shamash	Evaluation Advisor
<i>DFIs</i>		
CDC	Michael Dreyer	Investment Director, Infrastructure
	Jen Braswell	Manager, Corporate Strategy
	Cyrielle Auffray	Associate, Strategy and Planning

Organisation	Name	Position
IFC	Bernard Sheahan	Director, Infrastructure
IFC InfraVentures	Oliver Behrend	Principal Investment Officer
AFDB	Wale Shonibare	Director – Energy Financial Solutions, Policy and Regulation
Commercial Banks		
Standard Chartered	Katharine Steger	Executive Director, Public Sector & Development Organisations
	Deniz Harut	Europe Head, Public Sector & Development Organizations at Standard Chartered Bank
	Faruq Mohammed	Managing Director, Structured Export Finance
Infrastructure corporates/sponsors/developers		
Joule Africa	Paul Kunert	Chief Operating Officer
AlterEnergy AlterEnergy Hydro	Vince S. Perez	Chairman
	Eduardo Martinez-Miranda	CEO
Endeavor Energy	Ranabir Dutt	Finance Director
Seven Energy	Bruce Burrows	Chief Financial Officer
DI Frontier	Kim Gredsted	Investment Director, Partner
	Daniel Schultz	Investment Director, Partner
SA Taxi/Transaction Capital	Mark Herskovits	Capital Markets Director
	Yohan Assous	Transactor
Other		
USAID DCA	Christopher Lee	Deputy Director
Lion's Head	Gaia Debattista	Director
	Bim Hundal	Partner and Chairman
DFID	Rachel Turner	Interim Director, General Economic Development
	Tony Burdon	Head, Private Sector Department
	John Overton	Infrastructure and Energy Team Leader, PSD
	Mark Povey	Infrastructure Adviser, PSD
	Steffen Felix	Private Sector Adviser, Infrastructure and Energy
	Radhika Dil	Senior Private Sector Adviser, Infrastructure Lead, Investment Team, PSD
WBG	Laurence Carter	Senior Director of the PPP Group