



THEMATIC EVALUATION

Infrastructure Project Preparation Facility

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Abbreviations

ADB	Asian Development Bank
ABI	Annual Bank Investment
AET	Almaty KGP Electrotrans
AiIB	Asian Infrastructure Investment Bank
AP	Availability Payment
AP3F	Asian Pacific Project Preparation Facility
CAS	Central Asia
CEB	Central Europe and the Baltics
CEE	Central and Eastern Europe
CG	Cyprus and Greece
CIF	Climate Investment Funds
COO	Country of Operation
CRR	Capital Resources Review
CSF	Construction Support Facility
EAP	East Asia Pacific
EBRD	European Bank for Reconstruction and Development
ECA	Europe/Central Asia
E2C2	Energy Efficiency and Climate Change
EEC	Eastern Europe and Caucasus
EFSI	European Fund for Strategic Investment
EIAH	European Investment Advisory Hub
EIB	European Investment Bank
EIF	European Investment Fund
EIU	Economist Intelligence Unit
ENR	Energy and Natural Resources
EPEC	European PPP Expertise Centre
EPG	Economic, Policy and Government
E&S	Environmental and Social
ETC	Early Transition Countries
EU	European Union
EvD	Evaluation Department
FCY	Foreign Currency
FX	Foreign Exchange
GALDP	General Authority for land and Dry Ports
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GET	Green Economy Transition
GFC	Global Financial Crisis
GIF	Global Infrastructure Facility
GIH	Global Infrastructure Hub
IA	Integrated Approach
IADB	Inter-American Development Bank
IBG	Infrastructure Business Group
ICA	Industry, Commerce and Agriculture
ICGI	Investment Climate and Governance Initiative
ICT	information communication technology
IEG	Independent Evaluation Group
IFC	International Finance Corporation
IFI	International Financial Institution
IPPF	Infrastructure Project Preparation Facility
IMF	International Monetary Fund
LAC	Latin America/Caribbean
LC2	Local Currency and Capital Market
LCM	Local capital market
LCY	Local currency
LTT	Legal Transition Team
MDB	Multilateral Development Bank
MEAT	Most Economically Advantageous Tender

MEI	Municipal and Environmental Infrastructure
MENA	Middle east/North Africa
MIGA	Multilateral Investment Guarantee Agency
MOH	Ministry of Health
MOF	Ministry of Finance
MOTC	Ministry of Transport and Communications
MOU	Memorandum of Understanding
MSA	Municipal Service Agreement
MTD	Medium Term Directions
NCBI	Net Cumulative Bank Investment
NEPAD	New Partnership for Africa's Development
NIP	National Infrastructure Plan
OCE	Office of the Chief Economist
OGC	Office of the General Counsel
O&M	Operations and Maintenance
PDP	Policy Dialogue Plan
P&E	Power and Energy
PF2	Private Finance 2
PFI	Private Finance Initiative
PIM	Project Information Memorandum
PMF	Performance Monitoring Frameworks
PPF	Project Preparation Facility
PPI	Private Participation in Infrastructure
PPIAF	Public-Private Infrastructure Advisory Facility
PPP	Public Private Partnership
PPR	Procurement Policies and Rules
PPW	Project Preparation Window
PSC	Public Sector Contract
PRI	Political Risk Insurance
PSP	Private Sector Participation
PSU	Public Sector Utility
RO	Resident Office
RSF	Revenue Support Facility
SA	South Asia
SCF	Strategic and Capital Framework
SDG	Sustainable Development Goal
SDIP	Sustainable Development Investment Partnership
SEE	South Eastern Europe
SEI	Sustainable Energy Initiative
SEMED	Southern & Eastern Mediterranean
SIF	Sustainable Infrastructure Foundation
SIP	Strategy and Implementation Plan
SSW	Sustainable Public Sector Infrastructure Window
SOE	State Owned Enterprise
SP	Service Payment
SPV	Special Purpose Vehicle
SRI	Sustainable Resource Initiative
SSA	Sub Saharan Africa
SSF	Special Shareholders' Funds
TC	Technical Cooperation
TEU	Twenty Foot Equivalent Unit
TOR	Terms of Reference
TI	Transition Impact
VFM	Value for Money
VP3	Vice President Policy and Partnerships
WBG	World Bank Group
WLC	Whole of Life Costs

Executive summary

Large infrastructure financing gaps in EBRD countries of operation have long been identified as a key challenge and opportunity for the Bank. EBRD estimates COOs annual infrastructure investment need of close to \$500bn, well in excess of current levels. The World Bank Group estimates that only about half of an annual global investment need of \$2000bn is now being met. At a global level the international financial institutions have committed to greater support for infrastructure under the Sustainable Development Goals and other initiatives related to global public goods. There is increasing recognition that traditional government funding and methods are not sufficient to close growing gaps, and increased private sector engagement is now widely understood to be essential.

Many IFI initiatives thus seek to scale up private finance mobilisation by improving enabling environments, strengthening project preparation facilities to build bankable pipelines, and designing new financial instruments to help bridge project risks and financier risk appetite. The ability of PPPs to rapidly mobilise large amounts for infrastructure has meant their use has grown dramatically over the last 20 years. PPPs are now used in more than 134 developing countries, contributing about 15–20% of total infrastructure investment.

The EBRD Infrastructure Project Preparation Facility (IPPF) was a high profile initiative approved by the Board in October 2014 to scale up infrastructure support, especially for private investment. As a “delivery mechanism to improve the efficiency, quality and replicability of infrastructure projects,” the IPPF is meant to help governments build an infrastructure project pipeline using additional and improved project preparation support along with policy dialogue. An additional 30 projects were expected to be prepared over 2015-17, including both public and privately financed infrastructure using PPPs, and across all countries of operation. The IPPF was allocated EUR40mn from the Shareholders Special Fund (SSF) for the period.

The IPPF’s structure included several distinctive features directly shaping its focus and performance. It was established as a dedicated unit within the Municipal and Environmental Infrastructure (MEI) Division of the Infrastructure Business Group (IBG), and thus not available to support other departments. It used a framework approach to form two pre-qualified consultant teams that could be rapidly mobilised for project preparation – one to develop public sector projects (sovereign investment window – SSW) and the second to develop PPPs (Private Preparation Window – PPW). This was intended to help IBG be more client-responsive and, more importantly, develop more PPPs which have historically featured little in EBRD operations aside from in Turkey. Finally, SSF funding would enable the IPPF to conduct policy dialogue targeted on obstacles to increasing infrastructure investment.

On approval of the IPPF the Board requested a stock taking after 3 years. This interim review by the Evaluation Department is intended to assess IPPF’s performance against its wider objectives, identifying any early results and difficulties, and its potential to be a co-investment multi donor fund for specific countries and sectors. The evaluation provides brief analysis of infrastructure preparation facilities more broadly and new instruments to mobilise private finance using Value for Money (VFM) principles; this is intended to provide a larger context against which to view IPPF design and performance.

Key Facts and Main Findings

Performance has differed substantially between the sovereign and private windows. Sovereign support is well in excess of private, although initial allocations anticipated a 50/50 split.

- The SSW has 27 projects as of July 2017 against its current target of 15. The SSW is working well at mobilizing consultant teams; consultant mobilization times have been reduced from 9 to

2 months and the average time from initiating project preparation to expected signing is 1.1 years although virtually all projects use traditional public sector foreign currency loans.

- On the other hand demand for PPPs and use of the PPW has been much less than expected. Only 2 PPW projects were under preparation as of end 2017 compared to 7-10 forecast in the business plan. Disbursements reflect this. Three new PPW projects have been signed but execution is doubtful in the envisioned timeframe.

Different cost-sharing arrangements used by the two windows drive different results. Under the SSW clients contribute in kind at 3% of the total TC but the TC itself is non-reimbursable. Under the PPW clients pay 10% of IPPF's costs.

- Public sector clients are unwilling to pay project preparation costs when they have ready access to non-reimbursable TC from other donors.
- However the PPW also faces direct competition from the SSW as governments can access this window for free. PPW contracts present additional risk because early termination means all consulting costs must be reimbursed.
- Because PPW contracts are time bound (3 years) the only way IPPF can recover its money is by reaching financial close within this timeframe, irrespective of the readiness of the project.

IPPF project preparation unit costs are well below benchmarks (5-10% of total costs) due mainly to limiting expenditure narrowly to late-stage transaction costs, just before financing, rather than upstream preparation. As a consequence projects receive low levels of value addition and PPP projects carry higher risk for both governments and EBRD.

Locating the IPPF inside MEI reduces its potential benefits and effectiveness. Access to streamlined project preparation is not open to other departments such as ICT, P&E and E2C2 that would benefit. Embedding a PPP advisory function in a business unit primarily focused on sovereign lending is clearly sub-optimal; MEI does traditional foreign currency public sector lending, with limited private external finance. Perceived conflicts of interest due MEI's operational status undermine its ability to contribute to policy formulation and engage with its clients.

IPPF funding has opportunity costs that merit closer consideration. SSF resources are not additional to EBRD in the same way as external grant funds but instead are sourced from equity; the amount is significant overall and per project. Available data do not link TC funding to expected investments accruing to EBRD, thus it is not possible to estimate the net return from IPPF funds relative to loan volumes and other objectives.

IPPF's policy dialogue element has supported a variety of activities but does not appear overall to make an appreciable contribution, for several reasons.

- Policy dialogue has been mainly conference/seminar attendance, which perhaps raises awareness but does little to build capacity - a key need; IPPF support may substitute for capacity development within governments.
- Conferences covering both commercialization and investment related topics, but without apparent linkage to downstream project outputs and outcomes.
- EBRD has very little leverage over municipalities to effectively manage the assets or collect data on output performance; Public Service Contracts (PSCs) are meant to mitigate risks, but in practice these contracts cannot be enforced by EBRD.
- IPPF policy dialogue does not appear to have resulted in any new commercial or regulatory structures.

IPPF's focus on infrastructure should make it directly relevant to corporate and country strategies, but there is little cross-connection. IPPF outputs do not seem to contribute to country strategies, and project selection is driven by IBG business priorities.

IPPF transition indicators include skills transfer and changes to market structure to increase the delivery and replicability of priority infrastructure. However they assume a base of 3 separate projects within a single country; this has not been accomplished for PPPs but rather for sovereign projects likely to add little that is new.

While IPPF's demonstration effects may have some impact, there are in fact a wide range of hard constraints preventing government agencies from contracting with the private sector that are a much more important issue.

As structured IPPF cannot assess institutional gaps and or develop institutional capacity. Consultant terms of reference (TORs) are narrowly focused on individual projects rather than developing upstream institutional capacity and project pipelines within countries. Outsourcing of all advisory services substitutes directly but imperfectly for essential internal capacity.

Issues for Consideration

Developing upstream PPP units, transactions advisory services and priority project pipelines is a real challenge. Analysis of efforts in other IFIs confirms some similar difficulties to those identified here. Wider experience confirms the central importance of developing risk mitigation instruments and other forms of government support needed to make PPP projects bankable.

This analysis of early experience with the IPPF identifies a core set of issues to consider for improved IPPF performance. These include: more upstream focus on enabling environment constraints; a Bank-wide mandate including all infrastructure sectors; a single consultant panel; and advisory services provided outside of lending units.

The paper identifies practices likely to improve EBRD's infrastructure performance, including some in common use elsewhere. These include: using a consistent diagnostic framework at country level based on value for money principles and assessing readiness of countries to utilise different forms of procurement and financing instruments; a centralised PPP unit with a bank-wide sector focus using standardised project preparation methodologies; upstream capacity building in government PPP and Risk Management Units; new financing instruments to catalyse private finance with risk mitigation and credit enhancement; and reduced institutional constraints to contracting with government agencies.

Recommendations

The Bank should:

Develop standard methodologies to assess country-level readiness to support various forms of procurement and project delivery, and include these in its country strategies and updates.

Develop and apply a Value for Money approach to support infrastructure funding proposals presented to the Board for large infrastructure projects in excess of EUR50mn that maybe suitable for development as PPPs.

Revise the current structure of the IPPF by transferring the PPP preparation function and associated funding to a new unit independent of banking operations where its services are available to all infrastructure banking operations within EBRD and establish the following sub-functions within it:

- a centralized PPP Policy Unit;
- a PPP Advisory Unit to provide upstream services to government on a fee for service and through the provision of a range of grant, loan and guarantee instruments;
- PPP transaction advisory on a fee for service and grant basis,
- a PPP consultant management unit,.

Prepare an end of term Business Case report on IPPF for the Board that identifies the VFM generated by SSF funds allocated to each of its projects, which is set in the context of all TC funds

available to IBG, with a view to determining the amount and sources of funds required for future IBG project preparation support for traditional public sector projects; and

Prepare a Business Case for the Board providing details on the organization structure, staff, resources and sources of funding required for the establishment and operation of a new PPP Unit with a bank wide remit.

1. Introduction

1.1 Rationale

The European Bank for Reconstruction and Development (the Bank or EBRD) approved the Infrastructure Project Preparation Facility (IPPF) in October 2014. The IPPF was allocated EUR40 million from the Special Shareholders' Fund (SSF) for the period 2015-2017, and it covers all of EBRD's countries of operation (COO). The IPPF provides technical cooperation (TC) funds that are used to support policy dialogue and mobilise specialist pre-qualified consultants to prepare infrastructure projects. It was envisaged these projects would then be developed using financing modalities such as sovereign loans, private sector participation (PSP), and Public Private Partnerships (PPP). The IPPF was established by EBRD in its Infrastructure Business Group (IBG) as a dedicated unit within Municipal and Environmental Infrastructure (MEI) Division.

The IPPF was a high profile initiative and it was approved by EBRD's Board of Governors in May 2015. While EBRD has used framework contracts for recruiting consultants to prepare projects for many years, they tended to be limited to individuals and were focused on traditional lending products. **The IPPF offered IBG the potential to both become more responsive to client requests, and much more importantly, develop capacity to prepare PPPs to mobilize private finance.** While PPPs are a policy priority for EBRD, previous EVD studies have shown the number of PPPs financed by EBRD was low as a proportion of its financing¹, and they were no longer a priority in departments such as MEI, to a large extent because of the lack of projects.²

At the same time, there had been some notable exceptions, such as Turkey, where the government had launched a PPP Health Program consisting of 50 projects with an estimated value of EUR 20bn.³ In September 2014, just before the IPPF was approved, the Board approved a EUR600mn facility, with a total facility exposure of EUR800mn, for the Turkish PPP hospitals and there were plans for EBRD to replicate this model in countries such as Croatia, Egypt, Morocco and Romania.⁴ Similarly, EBRD, in association with International Finance Corporation (IFC) was developing the Almaty Ring Road Concession project in Kazakhstan, BAKAD, a US\$680 million PPP, and the tender was about to be launched at EBRD Headquarters in December 2014.

Evaluation Department (EVD) included an Interim Review of the IPPF in its 2017 work program as the Board approval for the facility indicated that following a 3 year implementation period there would be a stock taking. The review would assess performance and inter alia, potential to establish the IPPF as a co-investment multi donor fund for specific countries and sectors. This evaluation is an interim report, rather than a final analysis of the overall performance of the IPPF facility as operations are on-going and the achievement of tangible results takes time. The evaluation reviews the IPPF operations at national and municipal levels across traditional infrastructure sectors such as energy, transport, and water; and emerging sectors such as health and education.

1.2 Objectives

The evaluation is designed to contribute to a better understanding of the larger objectives of the IPPF program. The analysis identifies which policy dialogue activities and TC funded projects were most effective and efficient in meeting IPPF and EBRD objectives and the critical constraints and risks impacting on its operations. In line with this analytical framework, the evaluation provides answers to the following questions:

- (i) Was the IPPF strategy and its objectives relevant and well-suited to the requirements of the COOs and the institutional context of EBRD?
- (ii) Was the IPPF strategy implemented effectively?
- (iii) What have been the early results of the IPPF projects?

- (iv) Does experience suggest ways the relevance, effectiveness, efficiency and sustainability of the IPPF can be improved?

On the basis of this analysis, the evaluation identifies opportunities to improve the performance of EBRD's future operations to support the selection, preparation and implementation of infrastructure projects.

1.3 Evaluation Approach and Limitations

Initially, the evaluation sets out the context of the facility by providing an overview of the reasons why infrastructure, PPPs and project preparation facilities have becoming increasingly important initiatives for international financial institutions (IFIs) in recent years. The IPPF is then evaluated to identify the objectives and the degree of achievement of the planned outputs, outcomes, and to the extent data is available, the broader project impacts. The evaluation draws upon desk research, previous evaluations, case studies, and meetings with management. Field visits were made to Egypt, Kazakhstan and Turkey to interview stakeholders such as client governments, project sponsors, and other IFIs involved in the preparation of infrastructure projects.

The main limitation of this evaluation arises from the recent establishment of the IPPF program and most of the projects that have received assistance are still in the preparation or construction phase. As a result, a full evaluation of the results of these projects was not possible. Nevertheless, the review provides timely and useful information that identifies the main drivers of IPPF's performance. The case studies illustrate the structure, process and likely results of the projects, which is largely time-neutral. Many of the IPPF dimensions related to relevance, organizational arrangements, and operations are sufficiently advanced for the evaluation to draw conclusions on key drivers of the performance and identify opportunities for improvements within the IPPF and EBRD.

1.4 Structure of the Report

The balance of this report is structured as follows:

- Section 2: Review of Infrastructure Preparation Facilities;
- Section 3: Evaluation of the IPPF; and
- Section 4: Implications of Findings for IPPF.

The following appendices provide additional information:

- Annex 1: Value for Money Analysis
- Annex 2: Private Sector Participation in Infrastructure;
- Annex 3: Review of PPF and PPP Programs of Other IFIs;
- Annex 4: EBRD's Infrastructure Portfolio;
- Annex 5: Review of EBRD's Infrastructure Evaluations;
- Annex 6: IPPF Project Structure and Preparation Process
- Annex 7: Project Case Studies;
- Annex 8: IPPF Results Framework; and
- Annex 9: Sources of Information

2. Review of Infrastructure Preparation Facilities

Key Facts and Findings:

- There is a large and growing infrastructure financing gap in EBRD's COOs and the IPPF was initiated to help address this problem by catalysing the development of infrastructure with finance from both public and private sources;
- Governments are the traditional sources of finance for infrastructure, but they are subject to borrowing restrictions, and increasingly they are looking at using PPP structures;
- IFIs have received strong support to catalyse infrastructure investment under the United Nation's (UN) Sustainable Development Goals (SDG) and PPPs are seen as a key instrument to mobilise private finance to develop Global Public Goods (GPGs), particularly in the area of climate change;
- There are many IFI initiatives currently being implemented that are designed to scale up the amount of private finance mobilised by allocating more resources to improve the enabling environment for private investment, and develop project preparation facilities and innovative new financing instruments.

2.1 Overview

There is a large infrastructure deficit in COOs due to persistent problems mobilising finance for this asset class. The IPPF program is part of a wide range of IFI initiatives that have been implemented in recent years to scale up infrastructure development, particularly using private finance. These initiatives have continued to increase in importance, and **in April 2017 G-20 finance ministers established an Eminent Persons Group on Global Financial Governance that is reviewing how IFIs can become more effective at mobilizing private finance for infrastructure.**⁵ The coming decades will see the largest urban expansion in history, concentrated in emerging markets and developing countries. **More infrastructure needs to be built in the next 15 years than the existing stock of infrastructure in the world. IFIs are starting to recognize that they need to be far more effective in unlocking private investment.** The G-20 Hamburg principles for IFI financing based on “reform, investment, and catalyzation” as laid out in the World Bank Group's (WBG) “Maximizing Finance for Development” approach are representative of these changes.

Most of these initiatives, including the IPPF, are based on PPP project structures. PPPs are prepared using a Value for Money (VFM) methodology for designing, constructing and maintaining infrastructure that is profoundly different to traditional public-sector procurement. **The VFM methodology is highly relevant to EBRD's operations as it provides critical information on how it can prepare projects and scale up infrastructure development using public and private sources of finance.** In the light these developments, this section sets the context for the evaluation of the IPPF in Section 3 by: (i) identifying why infrastructure finance is important; (ii) briefly sets out the conceptual underpinnings of PPPs and how they differ from public sector procurement; and (iii) reviews how governments and IFI infrastructure programs have responded to these developments.

2.2 Why is Infrastructure Finance Important?

While demand for infrastructure has been growing rapidly, **supply has been constrained by an inability to mobilise finance.** WBG has estimated the annual demand for infrastructure in emerging economies is about US\$2.0tn per annum and current financing for infrastructure mobilised is about US\$1.0tn, **50% of the amount required to meet investment needs.**⁶ These estimates relate to traditional sectors such as energy, transport and water. If social infrastructure was included, the investment amounts required could be much higher. Spending in the health sector presently exceeds \$4 trillion worldwide (9% of GDP globally).⁷

Governments are the traditional source of finance for developing infrastructure, usually by raising sovereign debt from local and international markets that is serviced through tax financed budget allocations and retained earnings from state owned enterprises (SOEs). There are limits to the amount of funding that can be mobilised through taxation and SOEs, and there has been an increasing recognition that government sources of funding and methods of developing infrastructure are not sufficient to meet the demands for infrastructure. To meet this infrastructure gap, **it will be necessary to increase the productivity of infrastructure investment and tap into new (private) sources of funding**. PPPs are seen as a critical mechanism by many governments and development agencies to achieve these objectives.

2.3 How Can Private Sector Participation in Infrastructure be accelerated?

2.3.1 Overview

Governments have been looking at ways to increase PSP in infrastructure at scale since the 1980s when countries such as the United Kingdom (UK) initiated a widespread commercialization, corporatization and privatization program. The fundamental premise underpinning this program was the need to break up government owned monopolies that had control of public funds and were responsible for supplying services to the general public. A necessary condition for these PSP programs was the delivery of outputs that had no externalities, or they could be supplied, subject to regulations in areas such as monopoly pricing, health and safety. In sectors such as infrastructure, where **monopoly assets could not be broken up without losing economies of scale, or public goods** were required by the public sector (or the general public), the government sought to separate demand and supply. The government would then focus public sector operations on the demand side specifying outcomes and **purchasing outputs**, allowing the private sector to competitively bid for and supply the outputs. Initially, the government focused on outsourcing non-core support services, and then **scaled up and replicated these models** to procure infrastructure in sectors such as energy, roads and social sectors using PPPs.

2.3.2 Public versus Private Sector Procurement

Public sector provision of infrastructure is subject to a wide range of problems. Government's ability to fund (repay) financiers is limited to its tax base. Under traditional public sector methods of procurement using construction contracts, **the delivery of assets or outputs is not linked to the government's obligations to service the loan, and there few ways to transfer risk to third parties.** In many cases, outputs are never specified, and if they are, they are not capable of being achieved due to construction delays, and cost overruns, coupled with hard public sector budget constraints that result in a reduction in project capacity. These cost overruns and delays are the norm for public sector projects, and typically the costs are large.⁸ Project designs are typically based on availability of funds rather than expected demand, and do not take into account the costs of retrofitting existing infrastructure when demand exceeds available capacity. Traditional project appraisal methodologies such as net present value do not take into account the negative impact on governments' affordability to finance future projects due to requirements to service legacy loans on projects that did not achieve assumed levels of performance.

These problems are compounded by governments' focus on least cost competitive bidding that creates strong incentives for suppliers to under invest in construction and transfer additional operating and maintenance costs to the operating phase, increasing whole of life costs (WLCs). Further problems arise as maintenance is based on availability of public sector funding rather than the objective of optimising the asset capacity on a WLC basis. Public sector agencies have limited

access to variable and hard to forecast cash flows needed for asset management and few incentives as the assets are not regularly valued and reported in public sector cash management systems.⁹

These types of issues have prompted governments to explore ways to mobilise private finance for infrastructure using PPPs. These instruments fall along a continuum between full public sector and full private sector ownership and provision, as illustrated in **Figure 1**: This continuum reflects an **increasing level of risk transfer to the private sector** as shown in **Figure 2**.

Figure 1: Infrastructure Financing Continuum

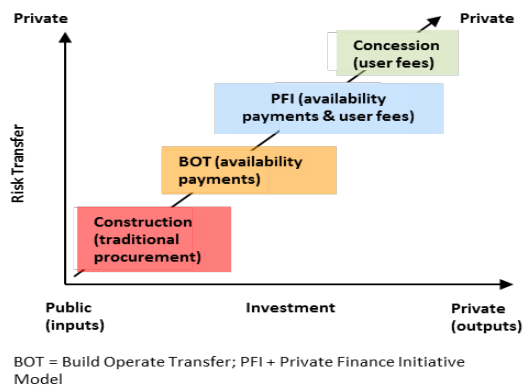
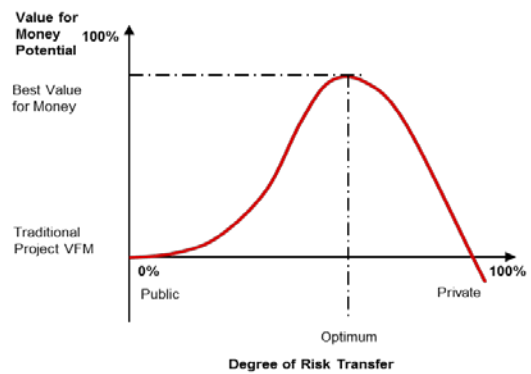


Figure 2: Risk Transfer Continuum



Source: EVD

Within this continuum, projects shift from **input based construction contracts** where performance targets are based on budgeted costs and project milestones; to project financed **output based contracts** that rely upon availability payments from the government or clearly identified revenue streams from private users. As PPPs do not transfer ownership rights of the land to the project, PPPs need to be collateralised by project cash flows, supported by government undertakings that provide lenders with “step in rights” to take control of the assets in the event of financial problems, and a government guarantee to repay any outstanding finance in the event of early termination.

The main disadvantage with **Concessions** is the incentives they create for the concessionaires to under invest in the initial stages when demand is uncertain and towards the end of the concession life as they typically exit with no compensation for non-depreciated assets. **Build Operate Transfer (BOT)** structures can resolve these problems as payments from the government are linked to available capacity, but they are unresponsive to changes in demand and don’t address the government’s funding constraint. The **Private Finance Initiative (PFI) model** was created by the UK Government, and they are a hybrid of availability and concession contracts, where funding is derived from variable third party (private) users and fixed and variable payments for available capacity and services from the government. The PFI model has proved to be an extremely flexible and robust method of both meeting user demands and mobilising private finance and it has a lower rate of project default than other forms of project finance.¹⁰

The PFI model has **provided governments with a mechanism to link output payments to debt servicing for the whole life of the facility so that if outputs or assets are not delivered or maintained, then there will not be an output payment and this will lead to a default on the financing**. This mechanism creates powerful incentives in the form of significant costs for both the government and the PPP operator if they do not comply with the terms of the contract and deliver the agreed outputs. On the private sector side, the PFI model enabled the project sponsor to sub contract risks to specialist parties that increased their capacity to absorb and manage those risks and incentivised banks to closely monitor the projects.

2.3.3 Value for Money Analysis

Following the shift from financing inputs to outputs, a new methodology for **designing, monitoring and evaluating infrastructure projects was developed based on the concept of VFM.**¹¹ The VFM methodology compares the cost of public versus private sector provision of outputs, and identifies the least cost provider. The VFM methodology **focuses attention on what the government is primarily interested in from a user perspective – the project outputs, the benefits and expected costs, and any residual risks.**

The VFM methodology identifies all project risks, ways of mitigating those risks, and allocates them to the party best able to manage them. Under traditional procurement, the government retains almost all of the risks. In comparison, under a PPP, all of the risks are transferred to the private sector, and then those risks that cannot be managed by the private sector efficiently are rolled back to the public sector. A formal qualitative and quantitative method of appraising alternative risk allocation arrangements using a financial model is used to test assumptions comparing the cost of traditional procurement (a Public Sector Comparator) versus a PPP option.

Various forms of **risk allocation** and **risk mitigation** structures can then be assessed, with the objective of minimizing the WLCs. As part of this VFM analysis, **bankability** is evaluated by reviewing alternative risk allocation and government support arrangements that can be applied to attract private finance. The level bankability is determined by the extent project risks can be mitigated through **effective project preparation**, the availability of risk mitigation instruments in the market such as insurance, and the level of government support. Government support can range from 100% government guaranteed availability payments and viability gap payments, sourced from the public budget, through to contingent minimum third party revenue guarantees and early termination payments.

The higher the level of project preparation and the greater the level of government support, the easier it is to mobilise private sector finance, but the more expensive it becomes for the government. If the cost of private procurement exceeds the public sector comparator then there is no VFM from a PPP option and it is not selected as the preferred method of procurement. As part of this analysis, the government needs to assess the **fiscal affordability** of different public sector comparator and PPP options. An important innovation in this regard, was the development of **PFI Credits**, which were paid by the UK government to local authorities in recognition of the additional national tax revenues generated by PFI projects, relative to traditional public sector procurement.

If the government decides to develop the project as a PPP it needs to prepare a lease and an offtake agreement that specifies **required outputs (and in some cases outcomes), a payment mechanism** that includes an adjustment mechanism for inflation and penalties for non-performance on the part of the government and the Project Company. The government then needs to provide undertakings to pay out financiers in the event of **early termination**.

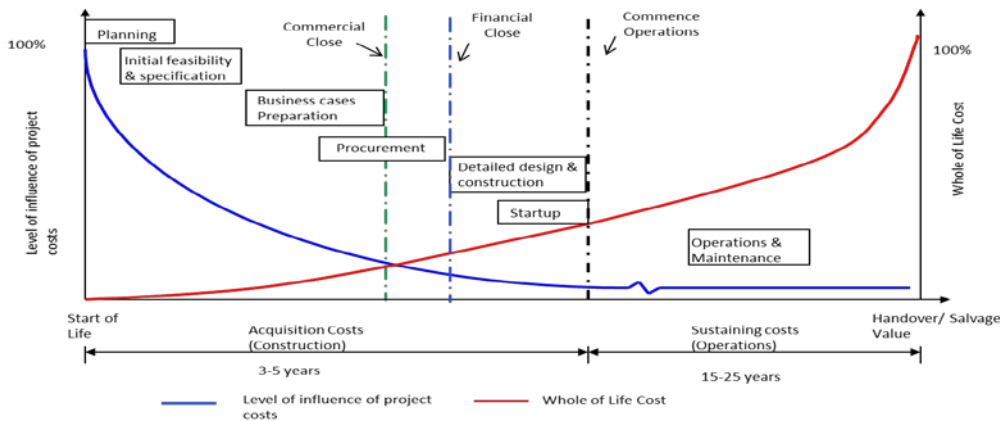
2.3.4 Project Preparation and Procurement

The shift from inputs to outputs means that feasibility studies no longer need to be extremely detailed and prescriptive as the government is primarily interested in the outputs. The critical issues for the government are an accurate assessment of the type and scale of outputs that it requires and **the preparatory actions** it needs to take to minimise project risks in areas such as land acquisition, regulatory permissions, and availability at the project site of public utility services such as road access, power and water, to enable the project to proceed rapidly to financial close and commence sustainable operations.

Project preparation is critical as most project decisions are taken long before finance is committed to a project, and time spent on careful upfront preparation at little cost to the government, yields large

dividends on a WLC basis. Data is collected throughout the project preparation phase to determine the causes of project risks and identify possible ways they can be mitigated. Estimates of the project risks and associated VFM are documented in a series of **outline and full business cases** that provide the government with decision points on how the project will be structured and procured, before moving to the tender, construction and operating phases, as illustrated in **Figure 3**:

Figure 3: PPP Project Lifecycle



Source: EVD

The development of complex infrastructure using VFM principles requires a shift from a traditional single stage bid process using a least-cost criterion to a multistage bidding process (sometimes referred to as a competitive dialogue) to **maximize the potential to attract best practice technology and tender a design that is “fit for purpose”**. The bid criterion of the “most economically advantageous tender” (MEAT) is used to evaluate complex bids that have different output quality, quantity, cost and risk characteristics over the project life. Following the completion of the bid process, the government needs to establish project and contract monitoring units to ensure all the parties comply with their obligations under the terms of the contracts.

2.3.5 Application of PPPs

Governments continue to be the primary catalyst and owner of infrastructure in most countries, but increasingly they are looking to the private sector, particularly through PPP contracts, to transfer risk and attract the private sector to finance and maintain critical infrastructure. PPPs have proved to be an effective means of reducing construction cost and time overlays and ensuring funds are available to maintain assets and they have been used extensively in countries such as Australia, Canada, UK, and most recently Turkey.¹² At the same time, the scope of PPPs has evolved, and it is now recognized they are not well suited to infrastructure such as information systems where the technology is changing rapidly. In the UK, following the PF2 review¹³, the scope of PPPs was narrowed to focus on hard infrastructure, and the government manages soft services such as catering and cleaning through separate short term outsourcing contracts that are more flexible than the PFI contracts for the facilities.

There are many cases where projects have been renegotiated due to inadequate project preparation that has led to risk misallocation problems, and led to a loss of VFM.¹⁴ There have also been some high profile problems with PFI projects, mainly due to governments that have ignored the fiscal risks and affordability constraints of servicing output payments, rather than issues with the underlying projects. The PFI model transforms infrastructure loan payments under traditional procurement arrangements that are outside budget and Parliamentary approval system to PPP output payments that come out of the budget. This characteristic of PFIs enabled governments in countries such as

Portugal to bypass compliance of Maastricht criteria designed to ensure EU members maintained prudent public sector borrowing limits. Following the Global Financial Crisis (GFC) in 2007, Portugal was forced to cancel several PPP projects and renegotiate existing contracts. Most recently, the collapse of the PPP service provider in the UK, Carillion, highlights the risks attached to procuring large infrastructure projects, although in this case the alternative would have been the government bearing these risks.

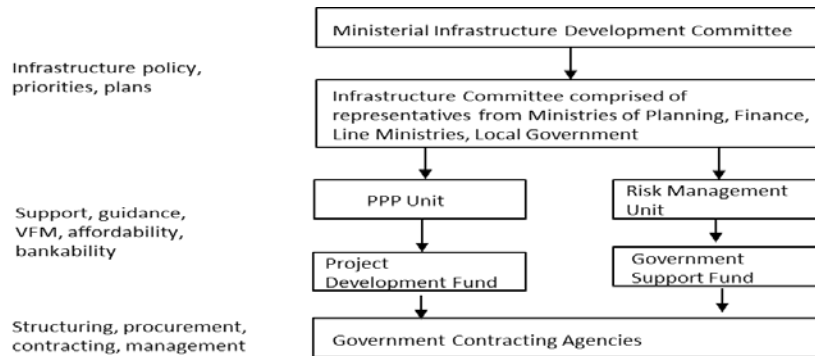
These experiences have contributed to a growing body of knowledge on how to structure and manage PPPs. In transition and developing countries, the ability of PPPs to mobilise large amounts of capital for infrastructure has meant their use has grown dramatically over the last 20 years. PPPs are now used in more than 134 developing countries, contributing about 15–20% of total infrastructure investment.¹⁵ PPPs have been used extensively in Latin America, Asia, and increasingly in Africa.¹⁶ At the same time, they have proved to be susceptible to foreign currency shocks due to a reliance on foreign currency financing and offtake arrangements, and both the Asian Crisis in 1998 and to a lesser extent, the GFC had a negative impact on PPP approvals.

In transition and developing economies, where traditional public sector procurement methodologies continue to prevail, the motivation for using PPPs has been different to countries such as Australia, Canada or Turkey. In developing countries, PPPs are typically used when governments cannot afford to develop the projects directly, and they are usually structured as Concessions without any fiscal obligations, and in most cases there is no public sector alternative.¹⁷ In effect, PPPs are used as a financing instrument of last resort, as the government cannot afford to develop the facility, rather than the preferred method of procurement. This is now starting to change and there is an increasing recognition of how VFM principles and project preparation capabilities can enhance infrastructure programs.

2.4 Infrastructure Development – International Best Practices

The VFM methodology and its focus on risk mitigation and upfront preparation of projects to minimize WLCs has important implications for the way infrastructure projects are designed and implemented. Recognition of the need for adequate project preparation, irrespective of the source of finance, has prompted many countries to develop transparent governance arrangements and institutional capacity to resolve risks and constraints that lead to poor project designs and management over the life of the facilities. Effective governance is critical to resolve issues such as coherent infrastructure policies inter-governmental coordination, and effective stakeholder consultation. The most important constraints on the development of infrastructure projects are the lack of: (i) an enabling environment that supports both public and private sector sources of delivery (policies, laws, regulations); (ii) institutions, funding and expertise within government to identify and **prepare a pipeline of suitable projects that reflect government priorities**; (iii) revenue streams, government support mechanisms, and project structures that meet the needs of different categories of financiers; and (iv) effective fiscal risk management capabilities. The necessary institutional arrangements within government are illustrated in **Figure 4**.

Figure 4: Institutional Requirements for Infrastructure



Source: EVD

Due to rigid and unresponsive budget allocation procedures, governments at national and local level lack liquidity and they are highly restricted in their ability to contract with the private sector and manage contingent liabilities. Large amounts of time are required to introduce new laws, institutions and financial funds to address these issues. A key requirement for a successful PPP program is a pipeline of credible priority projects to encourage private sector participants to invest and participate in the PPP program. The identification of these projects requires the preparation of clear infrastructure development plans at an early stage, as issues such as land procurement and stakeholder consultation can take extended periods of time to resolve, and this activity should occur prior to offering projects to the market. Land acquisition can be procured most efficiently through sovereign financing. The cost of public sector borrowing is much less than the private sector, and there are no opportunities for VFM as land is not a wasting asset that requires extensive maintenance.

There is a need for PPP Units to guide early work on project preparation using VFM principles. The costs of project preparation typically account for about 5-10% of capital expenditure.¹⁸ Governments can establish funds to finance the preparation of projects and develop new forms of support to mitigate risks. Governments support can take a wide range of forms including land acquisition funds, viability gap payments, minimum revenue and availability payments, early termination guarantees, loan guarantees, foreign exchange liquidity facilities, and standby liquidity facilities (overdraft). In many cases the government can recover the costs of project support for PPPs by levying fees on the project companies that benefit from these support services. Project preparation funding facilities and other forms of support can be established as revolving funds where expenditure on these services can be recovered from project developers and ultimate end users, and recycled for use in follow on projects.

Capacity to manage residual government risks is a critical issue, and special purpose institutions attached to the Ministry of Finance have been developed in countries such as Columbia, Indonesia and Turkey to manage **contingent liabilities**.¹⁹ Foreign exchange risks are a critical risk due to the widespread use of foreign currency to finance infrastructure and governments' inability to absorb this risk. Similarly, it has been necessary to put in place special arrangements to **credit enhance municipal infrastructure** such as the fiscal intercept mechanism pioneered in Mexico.²⁰ Under this arrangement, administrative trusts were established under professional financial managers who received tax-sharing grants (similar to PFI credits) and made debt service payments before the grant funds flowed to local officials. This mechanism was effective at mobilising local currency bonds.

2.5 IFI Involvement in Infrastructure Development

2.5.1 Overview

The GFC provided an incentive for IFIs to scale up infrastructure programs to stimulate macroeconomic demand. In 2015 infrastructure development gained further prominence when the UN adopted the SDGs, and highlighted the importance of IFIs to finance infrastructure, and in particular, mobilise private finance to support the development of GPGs such as reductions in carbon emissions. IFI responses to these developments have primarily taken 2 inter-related forms: **(i) establishment of project preparation facilities; and (ii) designing new financial instruments to bridge the gap between project risks and minimum financier risk requirements.**²¹ Knowledge products are a further area where there has been a significant increase in IFI activity.

2.5.2 Project Preparation Facilities

The establishment of in-house project preparation facilities (PPF) has been an important mechanism to streamline infrastructure procurement within IFIs and borrower countries. Details on the PPFs are presented in **Table 1**.

Table 1: Overview of IFI project preparation facilities

	NEPAD-IPPF	InfraFund	AP3F	MED SP	GIF	IPPF	Africa 50
Year Operations started	2005	2009	2014	2014	2015	2015	2016
IFI	AfDB	IDBG	AsDB	EIB, EBRD, KfW, AfDB	World Bank Group	EBRD	AfDB
Other funding partners	Canada, Denmark, Germany, Norway, Spain	N/A	Australia, Canada, Japan	EU, EC, Union for the Mediterranean	Australia, Canada, China, Singapore	N/A	20 African Countries and 2 central banks
Amount	US\$75 mn	More than US\$80 million disbursed to date	US\$75 mn	EUR15 mn	US\$100 mn	EUR40 mn	US\$830 million raised to date, target of US\$1 bn
Sources of Funds	Donor funds: AfDB reserves	IADB ordinary capital	Donor funds, AfDB reserves	Grant contributions	Donor funds, WBG capital reserves	EBRD net reserves	20 African sovereigns, AfDB
Scope of Projects	Public; PPP	Public, Private, PPP	PPPs	PPPs	PPPs	PPPs, commercial Public	PPPs
Reimbursable funds	No	No	PPPs – Yes; some non-reimbursable grants	No	Yes	PPP yes; Public no	Yes

Source: IADB Evaluation of Public Private Partnerships in Infrastructure, 2017

The WBG's Global Infrastructure Facility (GIF) provides an example of how these facilities are being structured and are evolving over time. GIF is a partnership that is funded by governments, and projects are prepared by IFIs, in consultation with a panel of advisors drawn from private sector

financiers. The GIF operates under a governing council that has representatives from its partners, it is administered by staff from WBG, but it is independent of its financing operations. GIF's support activities consist of: (i) Program definition/enabling environment; (ii) project preparation/investment feasibility; (iii) transaction design/implementation; and (iv) post transaction financing. These activities provide a sequential process to create and manage infrastructure, although assistance can be partial, depending on the needs of the project. The GIF is a funding mechanism and it relies on other IFIs to perform this work and it recovers its costs from successful bidders at financial close. The GIF is now considering a downstream window of US\$200mn for credit enhancement in phase 2. The backstop financing facility is expected to be comprised of 4 components: (i) counterparty risk cover; (ii) contingent refinancing; (iii) foreign exchange liquidity; and (iv) capital market catalytic facility.

2.5.3 Infrastructure Finance

In addition to establishing the PPFs, IFIs are scaling up support for project preparation and risk management through the use of sovereign loans and grants, and the development of new instruments to mobilise private finance using VFM principles. European Investment Bank (EIB) has been active in this area and following the GFC it introduced the Project Bond Initiative where it provided project sponsors with contingent credit lines and invested in subordinated debt under an EU guarantee. These instruments provide a buffer for senior lenders sufficient to make the project bonds investment grade and eligible for institutional investment. This program has now been scaled up under the European Fund for Strategic Investments (EFSI) initiative.

The shift to private financing using VFM principles continues to increase in prominence as an IFI priority following the Global Infrastructure Forum in April 2017 and the announcement of the Hamburg Principles to crowd in private investment.²² In line with these principles WBG announced it intends to introduce a "Maximizing Finance for Development" approach to financing that is based on standardized and replicable models for PSP that will reduce risks and transaction costs. When preparing projects, the WBG will consider the following sequence of modalities of support:

- (i) **Private solutions**, and if they are not feasible for commercial reasons; then
- (ii) **Upstream reforms to policies, regulations and institutions**, and if these measures are not sufficient;
- (iii) **Risk mitigation and credit enhancement**, and if these measures are not sufficient, and the project is technically feasible; then
- (iv) **Recourse to public sector options** will be considered.

2.5.4 Infrastructure Knowledge Products

In line with the call for more collaboration between IFIs by the G20 there has been an increase in the level of knowledge products developed collectively by these institutions. Examples include the PPP Knowledge Lab, and PPP Certification programs, which provide information on project pipelines and international best practices in the design and implementation of projects. Demand for these products has been rising rapidly over the last 2 years as evidenced by the number of site visits and people becoming accredited.

2.5.5 Reviews of PPF and PPP Programs of Other IFIs

WBG and Inter-American Development Bank (IADB) have both prepared evaluations of PPF and PPP programs in recent years.²³ The WBG study found that while it had capacity to provide project preparation advice and financing there was little clarity about how PPP objectives were translated into country strategies. Capacity building for PPPs and development of institutional frameworks had

been relatively successful, but there was a lack of effort developing capacity for governments to manage contingent liabilities. About 66% of PPP projects were successful at achieving development outcomes, and this result was attributed to the high standard of upfront preparatory work. **IFC's Advisory services were less successful, and while 96% of projects delivered the required advice, only 50% of these projects proceeded to financial close.** Overall, the WBG's intention to intensify support for PPPs by establishing a Global Themes department to perform this role was endorsed. It was recommended that IFC strengthen its business model, WBG should prepare country diagnostics to support PSP, and monitoring of PPPs post loan closure (disbursement) should be strengthened.

The IADB Evaluation highlighted the increasing importance of PPPs as a mechanism to finance infrastructure in the Latin American Region. The report noted that PPPs had not been used to their full potential, and there was a need within countries to strengthen capacity to manage fiscal risks, and improve access to local capital markets. IADB country strategies needed to be strengthened to identify PPP priorities, and staff should be provided with guidance on how to design PPP strategies, and projects using VFM principles. **It was recommended that similar to WBG, a centralized PPP unit be established in a non-lending area (Vice Presidency for Countries) to coordinate IDB support for PPPs across sectors. A specific PPP strategy should be prepared, and projects be made subject to a VFM assessment by the new PPP Unit. Results frameworks should reflect factors such as output specifications, VFM, and affordability.** The IADB Board of Directors approved the evaluation recommendations in 2017.

3. Evaluation of the IPPF

3.1 Overview

In this section, the IPPF is evaluated under the headings: (i) Infrastructure Markets; (ii) EBRD’s Strategic Objectives and Infrastructure Portfolio; (iii) IPPF’s Objectives, Structure and Operations; and (iv) IPPF’s Performance.

3.2 Infrastructure Markets

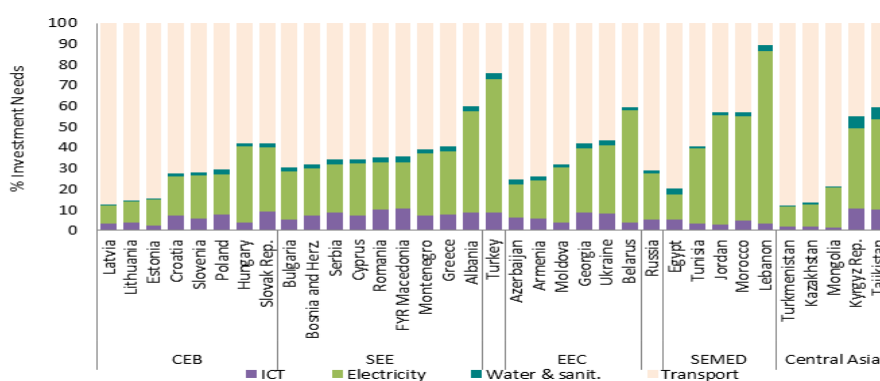
Key Facts and Findings:

- EBRD estimated in 2017 that within COOs the investment need for infrastructure was USD2.2 tn (2011 terms) over the next 5 years, which is substantially in excess of current levels of investment;
- EBRD estimates that the main investment needs in COOs are in: roads (50%), followed by energy (32%) and railroads (10%);
- Investment needs vary, with demand in regions such as CEB and EEC being driven by maintenance requirements, whereas demand in SEMED and CAS reflects the need to expand the infrastructure stock;
- There have been extensive reforms to PPP laws and institutional capacity development in COOs in recent years, primarily to support PFI projects, but project support in areas such offtake and early termination is weak, project support facilities are absent, and most COOs lack capacity to manage fiscal risks.

3.2.1 Demand for Infrastructure in COOs

In 2017, EBRD estimated that within COOs the investment need for infrastructure was USD2.2 tn (2011 terms) over the next 5 years, mainly in roads (50%), followed by energy (32%), railroads (10%), mobile (5%), and water and sanitation (2%). These findings are presented in more detail in Figure 5.

Figure 5: COO Infrastructure Investment by Country, Region²⁴ and Sector

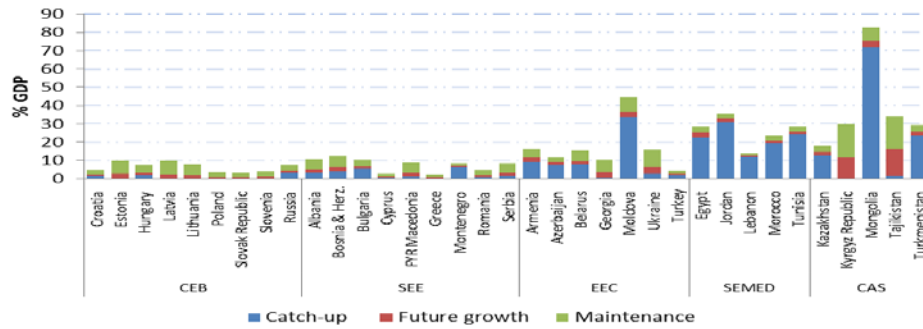


Source: Transition Report 2017-18, EBRD

The greatest investment needs by value are arising in Poland, Morocco, Kazakhstan, Turkey, Egypt, and Russia. Investment needs vary across countries in terms of the requirements for expansion, versus maintenance. It can be seen in Figure 6 that in Central Europe and Baltics (CEB), South Eastern Europe (SEE) and Eastern Europe and Caucasus (EEC) regions, infrastructure demand is

mainly for maintenance, whereas in the Southern and Eastern Mediterranean (SEMED) and Central Asia (CAS) regions most of the demand is to expand the infrastructure stock.

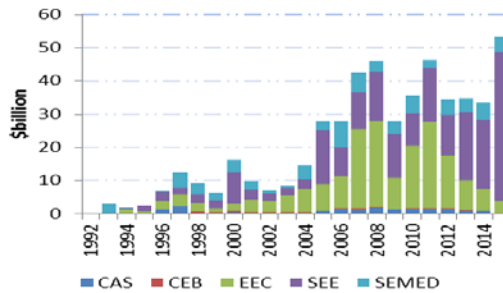
Figure 6: COO Infrastructure Investment by Country, Region and Purpose (%)



Source: Transition Report 2017-18, EBRD

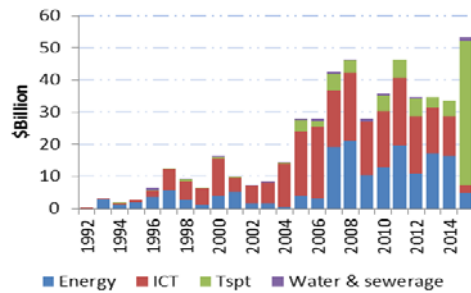
As shown in **Figure 7**, the use of PPP in infrastructure in COOs increased after the GFC, but it then plateaued in most countries. PPP investments outside Turkey and Russia were limited, with the lowest levels occurring in the CEB countries, which would normally be expected to have the highest levels of investment given their upper middle income status. **Figure 8** shows how PPP investments were dominated by energy until 2014, when several projects in the Turkish transport PPP program were completed.²⁵

Figure 7: PPP Investment in EBRD Regions



Source: PPI Database

Figure 8: PPP Investment in EBRD Sectors



Source: PPI Database

3.2.2 Institutional Capacity for Infrastructure Development in COOs

EBRD has supported several reviews of institutional capacity of COOs to prepare concessions (funded with user revenues) and PPPs (funded primarily with government budget revenues using the PFI model). In 2012 EBRD's Legal Transition Team (LTT) noted that from 2008-2012 there had been significant improvements in the policy and legislative frameworks for concessions and PPPs due to the introduction of the PFI model, and the creation of PPP Units.²⁶ Almost 50% of COOs had introduced new PPP legislation during that period, including the SEMED countries, which provided for both concessions and PPPs, and PPP Units. The 2012 assessment rated the average status of COOs with best international practice²⁷ for all relevant countries was between "high compliance" and "medium compliance". The LTT assessment **found that security and support issues were the most problematic areas in the region.** These issues related to the availability of reliable contracts to secure the assets and cash flow of the private party in favour of lenders, including "step-in" rights and the possibility of government financial support, or guarantee of the contracting authority's to ensure proper fulfilment of its obligations.

3.3 EBRD’s Strategic Objectives and Infrastructure Portfolio

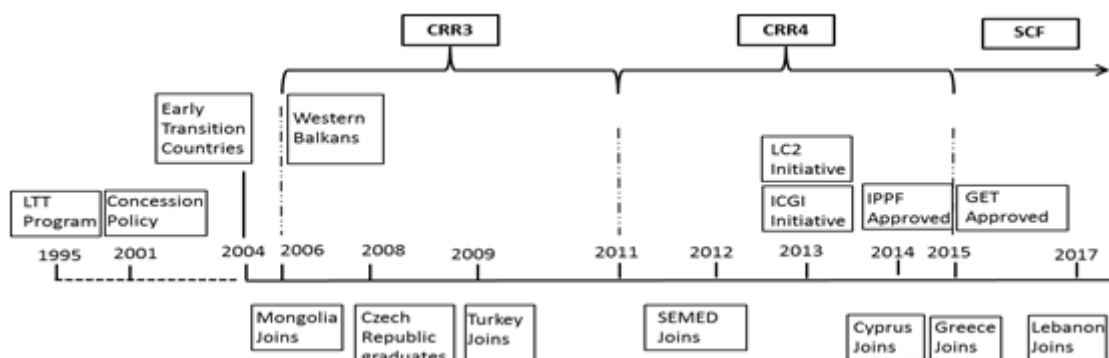
Key Facts and Findings:

- EBRD’s strategies strongly support infrastructure development in areas such as climate change, and expansion into the SEMED region, particularly through PPPs and use of local currency (LCY) finance;
- Grants and concessional finance are playing an increasingly important role in project preparation, and recent moves to untie donor funding have allowed specialised funds to be established in EBRD;
- EBRD has introduced a wide range of initiatives in areas such as LTT, Early Transition, Local Currency and Capital Markets (LC2), Investment Climate and Governance (ICGI); and Green Economy Transition (GET) that are supportive of infrastructure development;
- Sector and country strategies reflect these themes and they are becoming increasingly oriented towards prioritising country needs on a top down basis in partnership with governments, and in cases such as Kazakhstan and Turkey, some project preparation can be conducted on a cost sharing partnership basis;
- EBRD’s infrastructure financing almost doubled after 2009, and fluctuates around EUR2.8bn pa;
- Transport had the highest financing volumes, but its importance has been declining in recent years relative to Power and Energy (P&E), which has been expanding, mainly through the use of PPP instruments;
- Historically, infrastructure (MEI and Transport) performance in terms of achieving objectives has been low, but financial returns have been satisfactory.

3.3.1 EBRD’s Strategies²⁸

The development of privately financed infrastructure is a high priority for EBRD. EBRD is structured as a “private sector” IFI and in the Articles Establishing the Bank, Article 11, it was stated that not more than 40% of EBRD’s total committed funds could be provided to the state sector. The primary EBRD strategy documents relevant to infrastructure and the IPPF are: (i) Bank Capital Frameworks; (ii) Strategic Initiatives; and (iii) Country Strategies. **Figure 9** illustrates the timeline of these initiatives and sets them in the context of the changing mix of EBRD’s COOs, highlighting how EBRD’s operations are increasingly moving “East and South” over time into non-traditional markets where government capacity is often limited compared to traditional transition COOs.

Figure 9: Strategic Timeline for Infrastructure Related Policies and Initiatives



Source: EvD

Corporate Strategies: From 1995 - 2014, EBRD's strategic planning process was governed by Capital Resource Reviews (CRRs) approved at its annual meetings, usually in 5 year intervals that provided the basis for annual business plans and budgets. In 2014, these documents were replaced by the 5 year Strategic and Capital Framework (SCF) and rolling Strategy Implementation Plans. The IPPF was prepared under CRR4: 2011-2015 in the context of the fragile recovery from the GFC. The CRR4 identified accelerating transition in infrastructure as a medium term objective. During the CRR4 and SCF periods EBRD saw a growing number of new strategic initiatives related to the geographic shift "East and South", with new countries in the SEMED region joining EBRD in 2012 that have not shared the same transition trajectory as countries such as Russia and this has created a new set of development challenges for EBRD.

LC2 development and the ICGI were implemented in 2013 to strengthen the enabling environment. Climate change has become increasingly important and under the GET initiative and EBRD is aiming to increase the volume of green financing to 40% of annual business investment by 2020 under the SCF 2016-2020. EBRD's use of grants to support its financing operations increased from about EUR100mn in 2009 to almost EUR500mn in 2016, mainly being sourced from the EU and global climate funds, with a significant amount of these funds being allocated to infrastructure. EBRD undertook a review of its grants in 2015, and signalled its intention to untie and pool TC funds from various donors and focus their use on the achievement its objectives. There was a review of the potential to mobilise funds on a cost sharing basis with COOs in 2014.

Country strategy formulation was subject to a substantial change following the findings of EBRD's "Stuck in Transition" analysis prepared in 2013²⁹, which found that government capacity remains weak, markets were not being liberalised, many SOEs were not moving to privatization as expected, and local capital markets remained shallow and illiquid. In response to these findings, EBRD initiated an Operational Effectiveness and Efficiency Review in 2016 that concluded **a well-functioning market economy should be more than just competitive. Transition should be about improving the quality of both state and private institutions and ensuring they work well together.** It was noted that greater emphasis was required to identify government concerns and address GPG issues such as environment, and inclusion.

In line with this new approach, the new country strategy documents shifted from a supply driven bottom up project based approach led by Banking that identified financing opportunities to a top down approach based on country diagnostics and agreement with the government on sector priorities. The draft country strategy is then validated through consultation with governments and the banking departments before being finalized. In line with this new approach EBRD introduced a new definition of transition impact (TI) in 2017 based on 6 qualities: (i) competitiveness; (ii) governance; (iii) greenness; (iv) inclusion; (v) resilience; and (vi) integration. These new qualities provide the basis for a new results framework for measuring TI.

3.3.2 EBRD's Infrastructure Portfolio

EBRD's infrastructure banking operations are organised through a combination of sector, and in some cases regional departments. The main departments are: (i) Information and Communication Technologies (ICT), which sits within Industry, Commerce and Agribusiness (ICA), (ii) P&E, which sits within Energy and Natural Resources (ENR); and (iii) MEI, Transport, and Infrastructure, Russia and Central Asia (covering both MEI and Transport in those regions) which sits within Infrastructure (INF). Apart from the energy sector, PPPs have not been a significant part of EBRD's operations, with MEI and Transport typically financing about 1 project per year.³⁰

MEI aims to improve efficiency and raise standards of municipal services in sectors such as urban transport, water supply and wastewater treatment, solid waste management, and district heating. MEI's main objectives are promoting decentralisation, commercialisation and environmental improvement. Within this framework, MEI focuses on financing municipal public sector utilities

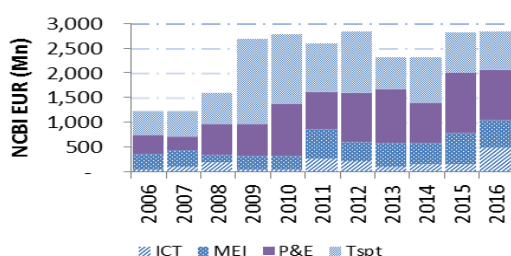
(PSUs), primarily with revenue generating projects in areas such as local transport. Technical Cooperation (TC) grants is a critical part of MEI's operations, with a typical project requiring around EUR400,000 in pre-signing TC support and up to EUR900,000 post-signing, almost irrespective of the size of the underlying investment. TC activities encompass technical studies, financial and environmental audits, and financial and operational performance improvement programmes. In recent years, MEI has broadened its scope of operations to include the healthcare PPP projects being implemented in Turkey.

Transport: Projects are designed to foster regional integration, promote competitive markets, and enhance the environment. The Transport Division's sub-sectors include roads, railways, aviation, ports; and environmental infrastructure; and it does not include urban transport and natural resource projects such as oil and gas pipelines. Roads have accounted for about 50% of the total transport financing volume, followed by rail. Typically, the projects are led by Ministries of Transport, often in the context of EU sponsored operations such as the Western Balkan's Initiative, and they are primarily financed with sovereign guaranteed debt. PPPs have not featured prominently in the Transport department's operations, mainly because these projects have not been common in COOs.

P&E: The core priorities of the P&E policy are reform of energy markets by improving the investment climate, promoting regional and cross border trade, strengthening corporate governance, promoting energy security, renewable energy, and environmentally sustainable development. Sector unbundling has been implemented in most COOs, but traditionally there was limited PSP due to the presence of dominant SOEs. P&E operations have been experiencing strong growth in recent years from renewable energy generating capacity. Most of these projects are structured in a similar manner to PPPs where the offtaker is a state owned single buyer and private supplier costs are fully passed onto end users through a "feeder tariff" or tradeable green certificates, with little or no fiscal support being required from the government.

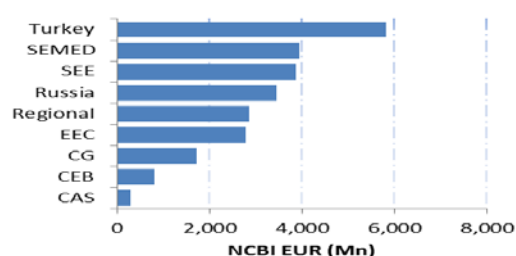
In terms of financing volumes, EBRD's infrastructure portfolio almost doubled in size in 2009 following the GFC and it reflected governments' fiscal stimulus efforts and climate change related investments, particularly for renewable power generation. The Net Cumulative Bank Investment (NCBI) allocated to infrastructure has fluctuated around EUR2.8bn pa. As illustrated in **Figure 10** transport received the greatest amount of funding over the last 10 years, although its importance relative to P&E has been declining. Funding for MEI and ICT has remained at fairly low levels relative to other departments. It can be seen in **Figure 11** that Turkey has been the largest borrower, with much of this demand being driven by large transport projects and the hospital PPP program led by MEI.

Figure 10: Annual Infrastructure Finance by Sector



Source: EBRD Records

Figure 11: Cummulative Infrastructure Finance by Region



Source: EBRD Records

EVD has conducted many evaluations of infrastructure in the past and found performance has been mixed.³¹ EVD's 2015 Annual Review provides a summary over the period 1991-2013, which indicated that performance of the Infrastructure (MEI and Transport) portfolio has generally been the weakest part of EBRD's banking operations. These results are summarised in **Figures 12 and 13**:

Figure 12: Overall performance by sector: projects approved 2008-13

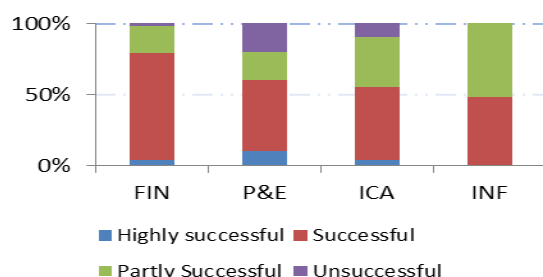


Figure 13: Financial performance by sector: projects approved 2008-13



Source: 2015 Annual Evaluation Review

Infrastructure achieved its overall objectives about 48% of the time, and 52% of projects were partly successful. Infrastructure financial returns derived a satisfactory or better rating 67% of the time, and 17% was unsatisfactory or highly unsatisfactory. P&E performed slightly better, with 60% of projects achieving their overall objectives, but almost 20% were completely unsuccessful. P&E's financial performance showed a similar pattern to Infrastructure with 71% achieving satisfactory or better returns, but 23% was unsatisfactory or highly unsatisfactory.

3.4 IPPF's Objectives, Structure and Operations

Key Facts and Findings:

- The IPPF was approved by the Board of Directors in October 2014, and the Board of Governors in May 2015;
- IPPF closes in August 2018, and following a review that assesses potential demand, it may be restructured as a Revolving Multi-donor Special Fund;
- The Board approved an initial allocation of EUR15mn in July 2015, a further EUR15mn in November 2016 and the final EUR10mn was approved by the Board in November 2017;
- IPPF's operational focus is limited to IBG (ICT, P&E and E2C2 cannot access the IPPF);
- The IPPF was established in IBG as a dedicated unit within MEI, initially with 5 core staff and 1 consultant;
- IPPF operations are focused on the delivery of policy dialogue and project preparation outputs;
- Policy dialogue consists of 3 sub-outputs: (i) country strategies, (ii) conferences/seminars; and (iii) knowledge products;
- Project preparation is focused on public sector projects, and PPPs;
- IPPF has been able to enter into cost sharing arrangements with GIF and IFC Advisory Services and it is exploring a co-financing arrangement with Asian Infrastructure Investment Bank (AIIB).

3.4.1 IPPF Objectives and Structure

(i) Objectives

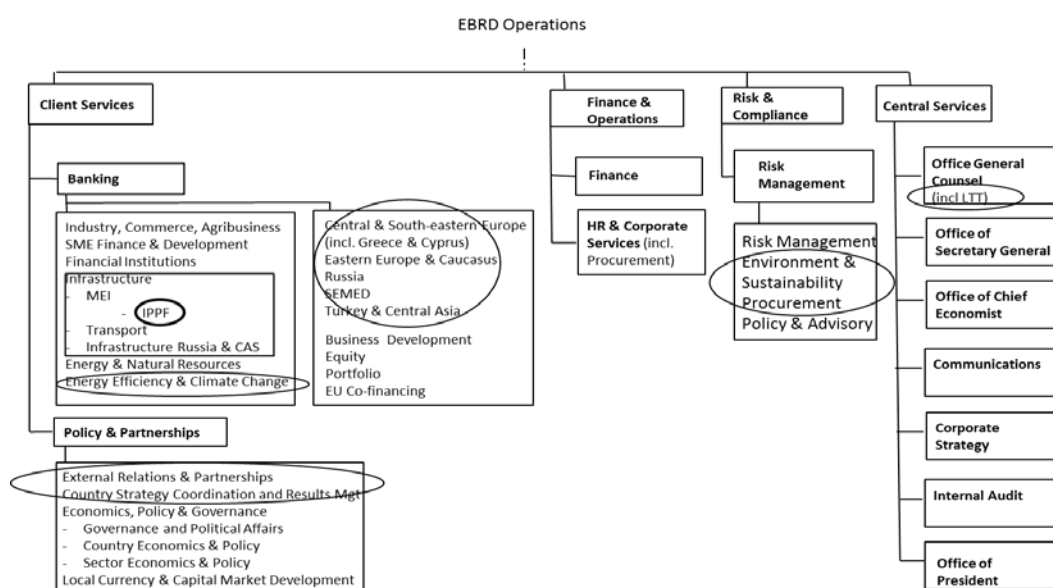
In October 2014 the Board of Directors approved the IPPF for a period of 3 years, starting from August 2014, allocating EUR40mn from the SSF.³² This decision was endorsed by the Board of Governors at the Annual Meeting in May 2015. The IPPF was presented to the Board "as a delivery mechanism to improve efficiency, quality and replicability of infrastructure projects for the benefit of the Bank's clients". IPPF would support governments develop infrastructure, and its incremental

output consists of the provision of policy dialogue, plus the preparation of 30 projects over the implementation period. The IPPF operations are focused on: (i) providing sustainable public sector financed infrastructure; and (ii) developing privately financed infrastructure using PPPs.

(ii) Organization Structure and Funding

The IPPF was established in IBG as a dedicated unit within MEI and it administers 2 panels of pre-qualified consultants: (i) Sustainable Public Sector Infrastructure Window (SSW); and (ii) PPP Preparation Window (PPW). The Framework Consultants' contracts for the SSW and PPW panels became effective in August 2015 for a period of 3 years, ending in August 2018. **Figure 14** shows the main departments IPPF Unit works with in EBRD.

Figure 14: EBRD Organization Structure – Operations, 2017



Source: EvD

IPPF is engaged in country strategy formulation and liaises with the Policy and Strategy Coordination Team, the Civil Society Engagement Unit in External Relations and Partnerships, and the Country Teams in Banking. IPPF staff takes part in the annual process of developing and updating Country Strategies, alongside the sector teams and economists. IPPF works closely with Energy Efficiency and Climate Change (E2C2) department to ensure IPPF-prepared projects in the transport and the municipal sectors result in net CO2 reductions.³³ IPPF engagement with the IBG's banking teams is limited to project identification **as conflicts of interest arise once it moves to project preparation and starts to design the financing structure and assist governments with the selection of financiers.** Departments such as ENR, ICT, EPG, and LC2 Unit do not fall within the IPPF's area of operations.

Initially, the IPPF Unit was staffed through a reallocation of current positions in EBRD: (i) the existing Head of the IBG Transition Unit; (ii) 1 SSW Project Manager; (iii) 1 PPW Project Manager; and (iv) 2 supporting Project Managers.³⁴ In addition, 1 PPP Policy Expert was recruited for the period 2014-2016 under a short term contract using TC funds. The IPPF Unit Head is responsible for coordinating information flows with other IFIs, and works closely with them in international working groups. EBRD's Donor Co-financing Unit is responsible for the management of the IPPF fund, including relationship management with the Board and coordination with bilateral donors. TC Unit was responsible for recruitment administration of IPPF consultants. IPPF staff liaises with public sector clients to identify support requirements, supervises the IPPF Framework Consultants, and coordinates their work with public sector decision and monitoring processes. IPPF staff consults with prospective private sector bidders to ensure viability of structuring and tendering approaches and organizes road shows for PPP projects.

IPPF funding is sourced exclusively from the SSF, it is allocated based on annual reports prepared for SPCom and the Board of Directors on progress, and approval is sought on a no objections basis. The Board approval noted that a review of operations would be provided at the end of year 3 to assess the potential inter alia to establish a co-investment multi donor fund for specific countries and sectors. The Board approved an initial allocation of EUR15mn in July 2015, a further EUR15mn in November 2016 and the final EUR10mn was approved in November 2017 following several revisions. Initially, the IPPF funds of EUR40mn were split equally between the SPW and the PPW, with the expectation they would be rebalanced annually based on demand for support. In management's original version of the 2017 funding application for IPPF they sought to reallocate EUR25mn to the SSW and EUR15mn to the PPW as demand for PPPs had been less than expected. Following discussions with Board members it was decided to delay a decision on the allocation of funding until the completion of this evaluation.

3.4.2 IPPF Operations

IPPF operations are focused on the delivery of policy dialogue and project preparation outputs and it has been successful at entering into cost sharing arrangements with other IFIs.

(i) Policy Dialogue

Policy dialogue activities consist of: (i) supporting the preparation of country strategies; (ii) implementing and participating in conferences; and (iii) promoting the use of joint IFI knowledge platforms.

Country Strategies: IPPF is engaged in the identification of investment and policy dialogue priorities established within each Country Strategy. As these documents are now prepared on a top down basis IPPF engagement is primarily limited to verification of objectives identified by Policy and Strategy Coordination Team.

Policy dialogue and knowledge products: This output is delivered through Policy Conferences/Seminars, and documented in Infrastructure Policy Notes and EBRD Infrastructure Project Profiles. Events are typically one-day meetings in a capital city in the country or sub-region IBG is interested in reaching through policy dialogue.

(ii) Project Preparation Facilities

a. Overview:

IPPF's TC funds are allocated to government agencies to prepare infrastructure projects to **deliver outcomes through the demonstration of commercialised approaches, PSP, strong environmental and social standards, and energy efficiency improvements across the sector.** One of the main expected gains of the IPPF was the opportunity to **streamline the time taken to mobilise consultants for project preparation** through delegated authority and use of Framework Agreements. The IPPF, in collaboration with the TC Team, procured consultants using EBRD's Procurement Policies and Rules. A total of 8 firms were recruited under Framework Agreements, with 4 Framework Consultant Teams in each of the SSW and PPP panels. These teams are comprised of multi-disciplinary consortia that provide support to prepare infrastructure projects. The Framework Consultants are supplemented by a separate roster of individual experts who are contracted by IPPF on an "as needed" basis for short term, and more specific forms of analysis for policy dialogue, although in practice these individual consultants have not been used extensively.

As part of the recruitment process, the consultant teams bid on generic Terms of Reference (TOR), and once selected they can be mobilised to carry out specific call-offs without further approval from TC Com.³⁵ Each call-off consultant is a multi-disciplinary team of experts who can manage assignments across a range of subsectors and countries. A complete team of experts is defined as part of each Framework Agreement. All call-offs are based on project-

specific TORs prepared by EBRD staff working in coordination with the IPPF to avoid potential conflicts of interest defining down-stream financing requirements. To ensure transparency, competition and VFM for each call-off, assignments above EUR75,000 are awarded through a simplified secondary competition amongst the call-off consultants, based on a 2 week process. Initially, it was expected this process would allow for mobilisation of the call-off consultants within 3 to 4 weeks. In practice, it takes 8 weeks, which is still a substantial improvement on the old process that would take 6-9 months. IPPF reviews and monitors the call-off consultant's performance and utilisation under each Framework Agreement to avoid a concentration of work with any 1 firm.

b. SSW Panel

The SSW consultant teams are required to operate across sub-sectors (urban transport, roads, rail, water and wastewater, solid waste management, district heating and cooling) and countries. The consultant teams are comprised of the following staff: (i) Project Manager; (ii) Roads expert; (iii) Rail expert; (iv) Water, wastewater expert; (v) District heating, cooling expert; (vi) Urban transport expert; (vii) Environment and Social (E&S) expert; (viii) Financial expert; (ix) Institutional/ legal expert; and (x) Procurement expert. These consultant teams provide baseline technical and financial studies; E&S due diligence; and regulatory and institutional strengthening to ensure infrastructure operations and maintenance (O&M) are addressed in accordance with principles defined in public service contracts (PSC).

c. PPW Panel

The PPW consultants are required to operate across sub-sectors (roads, ports, airports, water, wastewater, and facilities management for hospitals and schools) and countries. The consultant teams are comprised of the following staff; (i) Project Manager; (ii) Public transport/ civil engineering expert; (iii) E&S expert; (iv) PPP financial specialist; (v) Banking /project finance expert; (vi) PPP legal specialist; (vii) PPP procurement specialist; and (viii) Transaction advisors. These consultant teams provide technical, E&S, financial and legal due diligence to enable project sponsors to develop bankable transactions with clearly identified revenues and appropriate allocation of risks. The PPW provides procurement support in line with EBRD's Concession Policy, and they may be required to provide post procurement, contract management advisory services such as the establishment of project monitoring units (PMUs).

d. Resource Allocation and Cost Recovery:

The IPPF allocates funds to projects, following monthly meetings between the IPPF, the head of IBG, and the 3 IBG directors. If the project is high priority, TC cannot be secured from other sources, and the amount required ranges from EUR100,000-350,000³⁶, then funding is approved. EBRD's clients can be national or municipal government agencies and in most cases a pre-feasibility study will already exist. EBRD secures mandate letters from all clients providing a waiver of conflict of interest, and indemnity provisions on the liability of EBRD prior to the mobilisation of consultants. Clients are required to "buy in" to the project preparation by establishing Project Implementation Units (PIUs) committing staff to help manage the projects.

Under the **SSW**, the EBRD's current cost sharing policy is applied where the TC is non-reimbursable, and the clients are expected to contribute in kind support amounting to 3% of the total TC budget for each project, net of taxes.

Under the **PPW**, EBRD requires an estimate of IPPF's project preparation cost, including an "IPPF Transaction Fee" that is charged to the client. On average, the clients are expected to pay 10% of IPPF's project preparation cost. Contracts are limited to 3 years and they set out the scope of work, the project milestones for payment by the government to the consultants, and early termination provisions. Once a Contribution Agreement with the public sector client

is signed, IPPF requests **full technical, legal and financial/transaction advisory services from the selected Framework Consultant**. The milestone payments for consultants vary by project, and typically they cover 3 stages through to commercial close: (i) preparation of a work plan; (ii) definition of a project structure; and (iii) implementation of the tender.

If the PPP project reaches Financial Close, the winning bidder(s) are required to reimburse the public sector the cost of the IPPF transaction fee, and IPPF/EBRD is reimbursed for the full cost of the PPP preparation. Any reflows from these PPP projects are credited back to the IPPF for use on future projects. In the event the tender is launched and the project does not reach financial close, EBRD will write-off the outstanding PPP preparation costs. **If the government decides to terminate the contract early, it is obliged to reimburse IPPF for all consulting costs incurred to date.** The contribution agreements have provisions that allow the PPW to finance the establishment of public sector PMUs post financial close.

Further details on the structure and process for the preparation of individual projects by the IPPF are presented in **Annex 6**. Case studies of representative IBG/IPPF projects are presented in **Annex 7**.

e. Cost sharing with other IFIs

The IPPF works closely with other IFIs such as WBG, IFC Advisory Services, GIF, EIB, and ADB.³⁷ These activities include the funding of internet sites that provide training and support to government officials on project preparation. The GIF is particularly important for the IPPF as it has an ‘Upstream Window’ of USD100mn for project preparation and policy support and it has been able to access these funds for preliminary feasibility studies for 3 possible PPP projects (Egypt, Jordan and Ukraine), and 1 PPP transaction (Bulgaria).

In April 2016, the IPPF signed a Memorandum of Understanding (MOU) with IFC Advisory Services. The MOU explains how the cost of project preparation for PPPs will be shared between the 2 institutions, enabling a spreading of risk and extension of each institution’s resources. Under the MOU, IPPF staff and its Framework Consultants have agreed to work with IFC Advisory Service staff to prepare PPPs by signing a single “Project Preparation and Advisory Services Agreement” with the public sector clients.

Kazakhstan’s Baiterek Fund (a state fund) has converted its existing PPP Advisory Centre into a US\$20mn PPF modelled after the IPPF, and it is discussing a cost-sharing approach with IPPF and IFC Advisory Services. IPPF is holding discussions with AIIB to enter into a cost sharing arrangement to develop regional projects under China’s One Belt One Road initiative. IPPF is working informally with ADB’s AP3F, and EIB through MED5P and its European PPP Expertise Centre’s (EPEC) Project Advisory Hub.

3.5 IPPF’s Performance

In this section the evaluation assesses the extent the planned outputs from the IPPF investments were implemented, and the outcomes and TIs achieved. Most of the data presented in the analysis is based on the IPPF’s 2018 business plan that was submitted to the Board in October 2017. This data has been updated to reflect 3 PPP transaction advisory contracts signed with IFC in late 2017-early 2018. Conclusions are drawn on the magnitude and sustainability of IPPF’s achievements over time.

Key Facts and Findings:

- IPPF's policy dialogue outputs do not make a significant contribution to country strategies, project selection is based on IBG lending priorities, and it is difficult to discern improvements in institutional capacity within governments arising from conference events and knowledge products;
- 27 projects are being prepared under the SSW, which exceeds its target, but only 2 projects are under preparation through the PPW compared to a target of 8-10 projects by the end 2017;
- The policy dialogue outputs are not linked to downstream projects, the SSW projects largely reflect IPPF sector and country objectives, but the PPW projects are not targeting countries such as Turkey and Kazakhstan as originally signalled, and they are located in countries such as Belarus, Egypt and Ukraine which may be prone to high project risks;
- The SSW is working well at mobilizing consultant teams, and the average time from project preparation to expected loan signing for projects that receive SSW funding is 1.1 years, although they are all traditional public sector foreign currency (FCY) loans, with no private external financing;
- The 2 PPP transport projects appear to be well designed from a technical perspective, but they will be financed in FCY, are subject to high levels of political and macroeconomic risks, and limited government capacity, which will limit IPPF's ability to mobilize private finance and replicate these projects without further IFI support;
- IPPF disbursements against budget at June 2017 were 40%, with SSW at 53%, and the PPW at 17%, and project unit costs are about 50% of budget estimates; and
- The IPPF's TI indicators have limited relevance to its objective of accelerating the delivery of infrastructure and the achievement of most of the specified targets seems unlikely.

3.5.1 Outputs

The IPPF outputs are evaluated under the headings of Policy Dialogue and Project Preparation. A summary of IPPF's Results Framework and the evaluation findings is presented in **Annex 8, Table A8.1**.

(i) Policy Dialogue

The IPPF Unit was initially engaged in policy dialogue and developing knowledge products in the areas of: (i) commercializing SOEs, (ii) PSP and PPPs for public utilities, and (iii) market oriented use of EU funds in EU states. In the 2016 business plan, the third policy activity was replaced with "Green Logistics and Sustainable Transport", in-line with the GET initiative. Policy dialogue is comprised of 3 sub-outputs, consisting of country strategies, conferences/seminars and knowledge products.

a. Country Strategies

In 2015 the IPPF Business Plan referenced the Country Strategies of Serbia (2014) and Turkey (2015) as examples of how PPPs could be prioritised in EBRD strategies, although it did not contribute to those strategies. In 2017 IPPF noted it had participated in the country strategies for Kazakhstan (2016) and Egypt (2017). There were no targets in the Serbia document, and in Turkey and Kazakhstan the target for PPPs was limited to reflecting a change from a baseline of zero. In Egypt, PPPs were flagged as an objective for MEI, but there were no targets. Overall, IPPF has limited engagement with country strategies, and IPPF allocations are based on IBG's project lending priorities.

b. Conference/Seminar Events

The IPPF Unit indicated it would present regularly at major infrastructure conferences, seminars and IFI-wide collaboration events. It would establish itself in the infrastructure industry marketplace as an active contributor to policy discussions and knowledge generation

within the Bank's COOs. At October 2017, 13 policy dialogue events had been implemented or were scheduled for completion by IPPF in 2017 (individual events are listed in **Annex 8, Table A8.2**). The subjects were very diverse, covering both commercialization and investment related topics, and there is no apparent linkage with downstream project outputs and outcomes. The initial Board approval paper indicated IPPF would prepare 2 policy dialogue activities each year and this target has been achieved. IPPF implemented a PPP training day for EBRD staff in December 2017 and it is proposing a further 8 events in 2017-2019 (see **Annex 8, Table A8.3**).

c. Knowledge Products

The IPPF indicated in the Board approval document it would participate in the internet based International Infrastructure Support System (IISS) (re-branded as 'SOURCE' in April 2017) and Global ViP Project Platforms. All PPP projects prepared by the IPPF are uploaded to SOURCE and the license costs are EUR100,000 pa. Under the Global ViP Project Platform both public and private IPPF projects are loaded onto the system at a cost of EUR125,000 pa. These annual licenses enable officials and IPPF project sponsors to access technical and financial information for developing infrastructure on these internet platforms. IPPF supports the PPP Knowledge Lab³⁸ and the Sustainable Development Investment Partnership (SDIP)³⁹ platforms developed and maintained with IFI support. IPPF has contributed funds to the EIU Infrascopes Series, alongside other IFIs, to develop standardised reviews of PPP capacity across 15 countries. IPPF took the lead on the preparation of the Infrascopes regional update for COOs. The IPPF supports the PPP Certification program for COO officials and EBRD staff, training in Project Management for IPPF staff, and the G20's Global Infrastructure Hub (GIH) initiative at a cost of about EUR25,000 pa.

(ii) Project Preparation

The Board approval document defined targets for outputs for project preparation of an increase in EBRD lending of EUR100mn by 31 December 2017; and EUR200mn by 31 December 2018. The contributions of the SSW and the PPW to these targets are reviewed separately.

a. SSW Panel

As of 30 June 2017, the SSW had a budget allocation of EUR19mn, and it had committed EUR10.2mn, a disbursement ratio of 53%. These funds have been allocated to 28 projects (of which 1 was cancelled), compared to the 15 projects forecast in the business plan. The budget and actual figures reported in the IPPF business plans changed in each year of reporting (2015, 2016, and 2017), and they are difficult to reconcile. The budget versus actual figures represents EvD's best estimates and they are presented in **Annex 8, Table A8.4**. In accordance with the terms set out in the Board document, SSW activities and projects are primarily located in non-EU countries, as illustrated in **Figure 15 and Figure 16**. As shown in **Annex 8, Table A8.6**, out of a total of 28 projects, 4 were sourced from Transport Department, and the balance from MEI. As a proportion of expected EBRD lending, 24% of projects are at Concept Review, 5% at Final Review, 1% at Board Approval, 69% at Loan Signing, and 1% was cancelled. About EUR1.8bn of EBRD loans is currently under preparation or has been approved under the SSW. The average sized loan is EUR67.5mn and EBRD financing to total project costs is about 34%.

Figure 15: Allocation SSW Project Preparation Costs

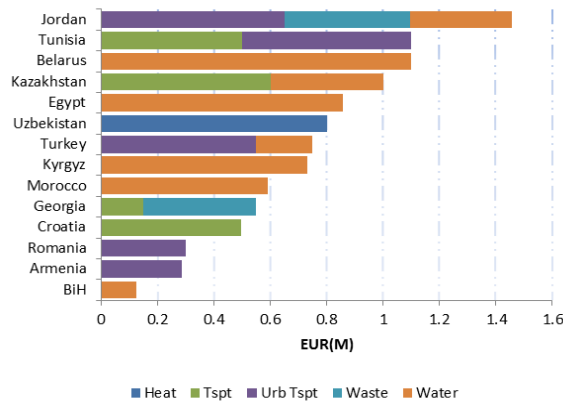
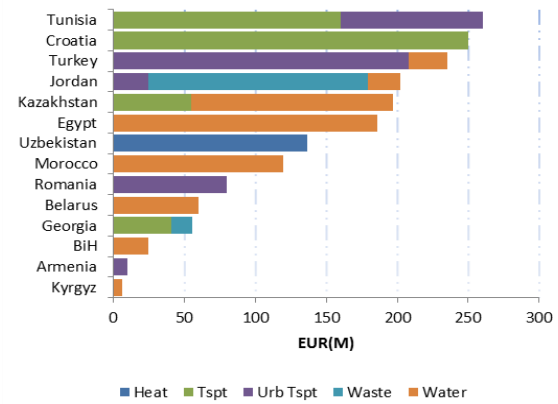


Figure 16; Expected EBRD loans SSW Assistance



Source: IPPF

All of these projects are classified as state (public sector) loans, with the exception of 1 private (municipal) urban transport project, which has now been cancelled. About 78% of the state projects by number were sovereign guaranteed, and the balance relied on municipal guarantees. Only 4% of the EBRD loans utilised local currency financing (for 4 municipal urban transport projects in Romania). All of the external finance was sourced from the government and other donor agencies, and 11 out of the 27 projects benefited from grant finance, indicating they were non-commercial. The average time from concept clearance through to loan signing is 1.1 years.

The SSW contributed to these projects through the provision of studies to identify **priority sub-projects, conduct technical due diligence, assess E&S requirements and gender issues, and prepare economic and financial analyses**. As these projects are public sector, where most of the detailed design is financed through the loan proceeds and developed as part of the construction contract. Borrowers are typically PSUs and funds are borrowed for construction purposes. As these entities do not have profit incentives and project revenue streams are not linked to loan performance, EBRD has very little leverage over municipalities to effectively manage the assets or collect data on output performance during the operating phase. PSCs are meant to mitigate these risks, but in practice these contracts cannot be enforced by EBRD. The case study on the Almaty Transport Project in **Annex 7** highlights these types of problems. As a result, EBRD's recorded PSD actions under the SSW tend to refer to activities (inputs) such as improvements in E&S standards and corporate governance, or efforts to establish commercial contracts, rather than project outputs. EBRD does not maintain statistics on cost and time overruns, but based on international experience, these excess costs and consequent losses in capacity for traditional public sector financings are likely to be substantial.

b. PPW Panel

As of 30 June 2017, the PPW had a budget allocation of EUR18.4mn and EUR3.2mn of PPW funds were committed, indicating disbursements of 17%, which falls far short of the target disbursement of EUR15mn. The details of the budget versus actual figures are presented in **Annex 8, Table A8.5** and the status of the projects is presented in **Table A8.7**. These funds are primarily being used to prepare 2 projects, consisting of: (i) Egypt 6th October Dry Port Project; and (ii) Belarus M10 Road Project. Case studies on both projects are presented in **Annex 7**. In addition, IPPF recently signed agreements to partner with IFC Advisory Services on

the development of the Ports of Olvia and Kherson, which are adjacent to the Crimea in Ukraine, and the Sofia Airport in Bulgaria. Even with these new projects, the number of PPW projects is significantly less than the 7-10 projects forecast in the business plan and it is not clear how these projects can be implemented as the IPPF consultants' contracts end in August 2018.

The Egypt project is structured as a concession that relies on third party revenues. The level of demand and investment in capacity for the Egypt project outputs is highly uncertain as it is greenfield, and it is contingent upon the expected timing of the development of the West Cairo Railway project. About 60 km of land will need to be acquired by the government for the railway, and the alignment has not yet been determined. The Belarus project is based on availability payments that will be funded by the government under a PFI model, and there will not be any third party revenues. This project has reasonably clear outputs, and there is data on traffic flows, but extensive legal and institutional reforms are needed to allow the project to move forward.

Both of these projects have extended timelines. Opscom approved the concept clearance for a EUR125mn loan to support the 6th October port on 29 May 2015 and the contribution agreement was signed 1 August, 2015. The project tender process commenced in January 2018, indicating the project preparation phase has taken **2.5 years** to date. The Belarus project was initiated through a request from the government that was reported in EBRD's country strategy (2016) and a contribution agreement was signed on 10 May 2016. This timeline indicates project preparation to date is **1.7 years**, and it has not yet reached the tender stage. The expected EBRD lending volumes for these 2 projects is EUR158mn, the expected external financing is about 70%, and they will both be financed with foreign currency. As IPPF is using a similar model to IFC's Advisory Services, the probability of reaching financial close is no more than 50%, and it is not known whether EBRD will be selected as a financier for either of these projects, as the projects will be competitively bid. Both projects are subject to very high levels of political and macro-economic risks that add further uncertainty about the expected level and timing of financing and outputs that will be achieved.

3.5.2 Outcomes

Progress on the achievement of IPPF outcomes by June 2017 reported in the Results Framework Board documents is presented in **Annex 8, Table A8.8** and mapped onto the 2 output headings and summarised below.

(i) Policy Dialogue

Country Strategies: IPPF's participation in country strategies did not result in any specific outcomes, although infrastructure development and PPPs were acknowledged as important objectives in several country strategies. As EBRD's willingness to prepare PPPs is commonly signalled in country strategies, IPPF's efforts have not achieved significant outcomes for strategy preparation at this point.

Policy Dialogue: IPPF has participated in a large number of international conferences, organized 12 conferences/seminars, provided support to the international online knowledge platforms SOURCE and Global ViP, and collaborated with IFIs such as the GIF and IFC Advisory Services. The IPPF identified several specific outcomes from these activities that were formulated as lending opportunities and they are summarised in **Annex 8, Table A8.9**. These outcomes indicate the conferences have generated interest in infrastructure development, but there are only 2 prospective financings (in Romania and Ukraine) that may have been catalysed following these events. Neither of these projects is being developed under the IPPF, and the outcomes are unknown at this stage.

Knowledge outputs: It is difficult to attribute outcomes to the IPPF contributions to knowledge platforms such as PPP Knowledge Lab, SOURCE, EIU Infrascopes Series, PPP Certification program, SDIP, or the GViP. In many cases IPPF input was limited to participation in meetings, and funds spent by IPPF were small as a proportion of overall contributions from a large number of other IFIs. IPPF indicated in its 2017 report it had decided to allocate funding to cover the training of up to 10 countries (for 20+ public sector staff/country) in 2018 but there are no details on the content of the program. The IPPF supported 20 public sector officials each in Serbia and Belarus that have received the 'Level 1' Certification training after taking the exam. During 2H 2017 and H1 2018, IPPF planned to provide training to officials in Ukraine, Jordan, Turkey and Romania. These countries are preparing, or intend to prepare PPP projects, so this training may have some positive outcomes. The IPPF is supporting a similar training program for EBRD's PPP Community of Practice staff, which may have some positive outcomes in the medium term.

(ii) Project Preparation

SSW Panel: The IPPF has invested most of its funding to date in the SSW and it has primarily been utilised by MEI where its ability to rapidly mobilise high quality consultants has value and management indicated it had helped improve its competitive position and contribution to infrastructure development in COOs. IPPF's new procurement arrangements have enabled consultants to be mobilised and loan due diligence to be conducted more quickly, and it may well have contributed to an increase in lending volumes. At the same time, the type of projects being developed has not changed, as they are public sector, with minimal project preparation. The projects are financed with FCY, and there is no PSP. As a result, the SSW has not addressed the underlying problems that have resulted in historical low levels of MEI performance achieving project objectives due to factors such as lack of information on project outputs and capacity, under investment in construction, time and cost overruns, and inadequate maintenance.

PPW Panel: The 2 projects being prepared under the PPW in Egypt and Belarus are pioneering. As the projects are structured as PPPs, they are much less likely to be subject to risks of cost and time overruns and inadequate maintenance. At the same time, both these projects are subject to very high levels of political and macro-economic risk, and even after these projects are completed there will continue to be a lack of institutional capacity to prepare and replicate PPP projects within these countries. These projects are similar to PPPs prepared by EBRD in the past, where the government is seeking private financing as a last resort, and it appears IPPF is supporting the projects simply to meet its disbursement targets independent of VFM considerations.

As discussed in the case study for the M10 project in Belarus in **Annex 7**, EBRD's Country Strategy was only prepared for the first time in 2016 after many years of no engagement. Belarus approached EBRD following a major economic crisis in the country linked to problems in Ukraine. In the country strategy it was envisaged that **infrastructure projects would be financed predominantly on a sovereign basis and [over time] EBRD would examine opportunities to structure creditworthy public sector projects without sovereign guarantee**. In other words, private sector projects would not be considered by EBRD as they were too risky. Similarly, in the Egypt country strategy it was noted that a number of projects had been developed as PPPs and then abandoned. The strategy indicated that recently, **the government had shown a preference for direct awards for public sector works which were perceived to be faster in execution and lacked the complexities of PPP procurement processes**. Based on data acquired during EVD's mission to Egypt, more than 20 projects have been initiated over the last 10 years and only about 2 have closed, with virtually no projects since the Arab Spring in December 2010.

The proposed development of 2 new projects in Ukraine, in partnership with IFC, would appear to give rise to risks. In Ukraine, the last country strategy was prepared by EBRD for the period 2011-2014 and it noted it had been one of the worst affected countries by the GFC. The country strategy has not yet been updated. Furthermore, it is not clear how the IPPF can make a contribution, as the IPPF consultant contracts close in August 2018. The IPPF may be able to provide resources for some of the front end work, but it will be dependent on IFC to close the projects.

This approach to selection of PPP projects is unlikely to result in significant amounts of private investment and sustainable or replicable outcomes.

3.5.3 Analysis of Transition Impacts from IPPF Projects

The TIs and their targets are detailed in **Annex 8, Table A8.10**. Data on these impacts is not scheduled for collection by EBRD until 2019. While the TIMs process is not due to start until after the original completion date of the IPPF, and no data has been collected, it is possible to draw some conclusions on likely TIs:

- **Skills Transfer:** At this point the only countries where IPPF has provided support to 3 separate projects (a target) are Jordan, Kyrgyzstan Republic, Romania and Turkey. Given the delays providing this training until 2018, it seems unlikely it will lead to the preparation of 2 similarly structured projects (a second target), and even if it occurs, it will probably be for sovereign projects under the SSW, where officials are already preparing these types of projects using traditional public sector procurement methodologies;
- **Market Structure - Financing:** IPPF has not prepared more than 3 PPP projects in any one country under the PPW (a target), and it is unlikely this goal can be achieved given the long time lines involved in preparing PPPs, the lack of capacity in the countries where it is pursuing PPPs, and management's proposed scaling back of the PPW panel;
- **Market institutions – Policy Dialogue:** there do not appear to have been any new commercial and regulatory structures put in place by the IPPF through its policy dialogue efforts, although the Belarus PPP project will probably have some effect through a Presidential Decree that is being prepared to support the project; and
- **Market structure – Financial Sustainability:** It is likely that some IPPF clients will move from a position of generating losses to full cost recovery (the defined target), but the lack of incentives and capacity for government agencies to sustain these type of reforms is low. Even if the IPPF was successful in achieving this goal, it would have little impact on accelerating the development of additional infrastructure.
- None of these indicators map onto to the IPPF objective of **increasing the delivery and replicability of priority infrastructure** in a very convincing manner. While it can be argued the reduction in procurement time created a significant benefit for MEI by increasing its lending activities there is no evidence the quality of overall business, as defined by reference to the IPPF objectives, changed as a consequence of the introduction of the IPPF. An increase in the number of new PPPs would be genuinely additional, but the successful development of the IPPF PPP projects is very uncertain at this point.

3.5.4 Analysis of Financial Performance of IPPF Investments

Disbursements at 30 June 2017 were approximately EUR16.0mn, or 40% of the original allocation, which is less than forecast. The reasons for this low level of disbursements are reviewed under the headings of demand for funds, PPW reflows, project preparation unit costs and management's proposed response.

(i) Demand for Funds

There has been a **lack of demand from the Transport Department for SSW funds**. The Transport Department indicated it mainly deals with large national public sector agencies and SOEs that can readily obtain project preparation funds and projects through programs such as the Western Balkans Initiative that are financed by multiple IFIs. Management indicated their clients' project pipelines are planned years in advance, they already have in-house preparation capacity, and the main determinant for EBRD selection is the cost of loan funds, relative to other IFIs such as EIB. As a result, rapid mobilization of consultants is not a critical requirement for clients.

Similarly, there is a low level of demand for funds from the PPW. Management noted in the original IPPF Business Plan for 2018 that public sector clients were unwilling to pay the PPW Transaction Support Fee of 10% of project preparation costs, due to the ready availability of non-reimbursable TC from other donors for project preparation. While this view maybe correct, it is important to note that there is also **competition from the SSW as the governments can get money from this facility for free whereas they would have to pay 10% of project costs under the PPW**. The **PPW contracts are very risky for the government, as they would also have to pay a 100% of the preparation costs incurred by the IPPF to date if they terminate the contract early**. As a PPP consultancy costs on average about EUR2.0 million this amount represents a significant risk, particularly if the advice has less than a 50% chance of resulting in a financed project.

Given these substantial risks, which also apply to IPPF, it has sought to share them with GIF and now IFC, further diminishing the demand for PPW funds. This model is not sustainable, as GIF funds are finite, and IFC is normally a competitor of EBRD. In Ukraine, IFC has decided to collaborate with EBRD as it does not benefit from an IFI exemption from government competitive selection requirements for advisory services, whereas EBRD does have this exemption. This unusual set of circumstances is unlikely to be replicated in many other countries.

A further problem for the PPW cost recovery requirement identified during EVD field visits was the inability of government line agencies to enter into contracts with third parties such as EBRD. **The contingent element of the PPW cost recovery requirements adds further difficulties given inflexible public sector budget allocation procedures**. None of these conditions apply to SSW grants, which are treated by government departments as "gifts". Perhaps most importantly, **the perceptions of government agencies of IPPF's conflict of interest between its advisory role to government, and its objective of promoting EBRD financing, must be significant**, and this issue was raised by several officials during EVD field missions.

(ii) PPW Reflows

PPW receipts have not met expectations. As of June 30, 2017, the IPPF's PPP mandates had generated EUR 90,000 from the Egyptian and the Belarussian Governments. By the end 2017, a total of EUR 228,800 was expected to be collected from the 2 PPP in the form of Transaction Fees. These figures indicate a cost recovery level of 5.7% of PPW consultant costs, which is significantly less than the target of 10%.

(iii) Project Preparation Unit Costs

The IPPF project preparation unit costs are substantially lower than commonly cited estimates of project preparation needs of about 5-10% of total project costs.⁴⁰ The SSW TC for project preparation as a proportion of expected project cost is only 0.2%. Similarly, the project preparation costs for the PPW as a proportion of project costs average 0.6%. The average project preparation costs for SSW projects are about EUR364,000, which is 50% of original IPPF budget estimates. In regard to the PPW, IPPF has been successful accessing GIF funds for 4 projects, although the amounts are relatively small, and they have not reduced the cost of actual project preparation, only the amount of the cost borne by the IPPF. As a result of partnering with GIF and IFC's Advisory Services, IPPF expects the typical IPPF funding requirement per PPP project will be reduced from about EUR2.0mn to EUR1.0mn.

There are a number of reasons why IPPF's unit costs maybe so low. As discussed previously, IBG management had an explicit policy of confirming the absence of funds from alternative sources before committing IPPF funds. There are many different sources of funds available to EBRD clients to prepare projects. In most cases, governments have already prepared a pre-feasibility study before approaching EBRD for finance and under a sovereign facility; **and detailed project design and land acquisition is typically funded by the loan.** EBRD can also access grant funds for project preparation from a wide range of sources, and the amounts available from external sources have grown rapidly in recent years. A review of the SSW projects on Boldnet indicates some of the IPPF projects benefited from EBRD grant money independent of the IPPF, and some these projects such as the Egyptian Rail project, followed on from previous loans that would have already done some of the preparatory work.

Overall, it seems the main reason why these costs are so low is that the IPPF is limiting expenditure on project preparation to transaction costs, just before financing, rather than working on upstream preparation. It is extremely difficult to find projects at advanced stages of preparation as governments do not normally have the funds to deal with issues such as upfront land acquisition independent of a project. As a consequence of **this narrow focus and late stage participation, the projects which IPPF is supporting, are receiving low levels of value addition and the PPP projects are extremely high risk for both the governments and EBRD.**

(iv) Management Response

As a result of the low disbursements, management proposed in November 2017 to extend IPPF's operational period by 2 years to the end August 2019, with no requirement for additional SSF resources. There would be a reallocation of IPPF resources from the original 50:50 split for the EUR 40mn between the SSW and the PPW, by increasing the allocation to SSW to EUR25mn, and holding the PPW allocation at EUR15mn. Under this new arrangement, the total number of projects completed under the SSW was projected to increase from 15 to 50-60 projects, with average cost per project of about EUR416,000. Management proposed a shift from mobilising teams of consultants to individuals that can be used to address specific issues rather than prepare projects, and an increase in the number of framework consultants included in the SSW panel. In regard to the PPW, management proposed the cost recovery target be lowered to an average of 5% of project preparation costs to help stimulate demand for the PPP advisory services

(v) Conclusion

EBRD's databases, financing proposals and reports do not link the amount of TC funds expended on a project to the expected loans and investments accruing to EBRD. The IPPF's annual reports only discuss the amount of IPPF funds that have been used, and how it intends to spend the balance. As a result, **it is not possible to derive any meaningful estimate of the net return from the IPPF funds relative to loan volumes and EBRD's other objectives.** It could

be argued that an average cost per loan under the SSW of 1.7% is a small price to pay, but it is a significant proportion of EBRD's lending margin. It is not clear whether this cost is necessary, given IBG's access to other grant funds, and the practice of preparing sovereign projects with loan funds. In regard to the PPW, the project preparation costs are about 2.5% of expected loan value, although this amount falls to 1.3% when GIF resources are included. Assuming that moving forward most PPW projects are financed without third party support, and only 50% of projects reach financial close, the cost increases to 5% of the margin derived from loans for projects that are closed. Even when GIF funds are deducted from the cost to EBRD, the returns do not seem very high, and the PPW projects are probably loss making.

Furthermore, the opportunity cost of investing EUR40mn in public sector FCY loans and high risk PPP projects, compared to **developing upstream capacity to mobilise private finance, and minimize project risks**, could be very large, as evidenced by the Turkish Hospital Facilities program case study in **Annex 7**. Under this program the government was able to develop institutional capacity to mobilise about EUR20bn with limited external support to develop the necessary institutional capacity and create a project pipeline. At the same time, it took the Turkish government 7 years to prepare this program, and there were opportunities to dramatically improve the performance of the program if well-structured advice had been provided at an early stage. Similar levels of success have been achieved in other countries such as the Philippines where an initial outlay by ADB of third party grant funds of \$17.7mn in 2011 on project preparation has led to the award of 11 PPP projects worth close to \$4.0bn, and a pipeline of 40 bankable projects.⁴¹ On the basis of the success of this program, ADB has been able to mobilise commitments for external grant funds over 5 years for the AP3F of USD150 million to develop more PPP projects.

4. Implications of Findings for the IPPF

Results and Key Findings:

- IPPF needs to move upstream to address enabling environment constraints and focus on creating project pipelines and fiscal support and risk management capacity;
- PPW's transaction advisory services should not be dependent on the volume of EBRD loan financings, and this function needs to be transferred to a non-lending operation where fees/grant funding are primarily based on cost of service provision;
- The SSW and PPW components and associated funding of the IPPF should be separated into a public sector unit that remains in IBG and a new PPP Unit be established with a bank wide remit independent of direct lending operations;
- All infrastructure projects over a minimum size (eg EUR50mn) within EBRD could be made subject to a detailed risk and VFM analysis early in the project loan cycle to determine whether the project should be developed as a public sector project or PPP;
- The scope of the PPP Unit panel of advisors should encompass all infrastructure sectors, such as E2C2, P&E and ICT;
- The IPPF should prepare a business case for each of the IPPF projects when it reports to the Board in August 2018;
- EBRD would benefit from applying a diagnostic framework at the country level that identifies gaps, and assesses readiness of countries to utilise different forms of procurement and financing instruments.

4.1 Overview

In this section, conclusions on the main drivers of the demand for the IPPF outputs are identified, and the opportunities for improving its performance are reviewed, based on experience in EBRD and other IFIs. This analysis sets the context for the recommendations presented in the executive summary.

4.2 Demand for Infrastructure Project Preparation Services

The IPPF is highly relevant to EBRD's corporate and country strategies where infrastructure is a priority, particularly in the SEMED and CAS regions where there is substantial unmet need for greenfield investment. Increasingly, EBRD is moving into new markets such as Lebanon and Gaza where institutional capacity is not as developed as in countries such as Poland or Russia, and project dynamics are very different. Project fundamentals are becoming much more important than ready availability of sovereign guarantees and access to EU funds. Under these conditions, projects will need to be better prepared, and the ability to access private finance will become increasingly important.

PPPs are flagged in EBRD strategy documents as a priority, although in practice private finance has not been commonly used in COOs outside Turkey. Regional surveys show there has been rapid development of PPP legislation and establishment of PPP units in COOs in recent years, but institutional frameworks continue to be weak. Increasingly, IFIs are making greater use of private finance using VFM principles, and there has been a proliferation of PPFs, primarily to develop PPPs. These initiatives have been supported by the recent agreement between the IFIs on the Hamburg Principles.

These findings indicate there is a substantial opportunity for the IPPF to accelerate the provision of infrastructure, particularly through PPPs. In practice, despite notable improvements in the quality of

consultants and mobilization times, the IPPF has continued to focus support on traditional foreign currency public sector lending in MEI, with no private external finance. SSW support is not particularly valued by Transport Department, and it has been difficult to realize the potential for preparing PPPs. IPPF has limited engagement in upstream country strategy activities and other departments such as P&E would benefit from gaining access to IPPF consultants, but are precluded as its resources are limited to IBG.

Perhaps the most significant surprise coming out of the evaluation has been the IPPF's focus on developing PPPs in conflict zones, rather than countries such as Kazakhstan, Turkey, Romania, and Croatia. EVD fielded missions to Kazakhstan and Turkey to gain a better understanding of why these countries had not been targeted by IPPF. In Kazakhstan, progress has been stalled by the collapse of the PPP negotiations of the Almaty Ring Road in 2015, following a substantial depreciation of the Tenge, just before contract close, resulting in a reported doubling of the tariff. There are further issues with this project as it is understood that land acquisition has not even started, as this activity was part of the original private concession. Land acquisition is a time consuming activity with complex stakeholder issues which the private sector is not capable of resolving, creating the potential for large construction cost and time overruns. EBRD and IFC have not yet been paid for this advisory work which was initiated pre-IPPF, precluding IPPF from being engaged in the government's ambitious PPP program. In Turkey, the PPP health program has been very successful, but EBRD has not been able to provide follow on advice for a health PMU, or a waste water project as it is unable to contract with the government agencies. In discussions with various government agencies it was indicated that EBRD requires a framework agreement to provide these services to line ministries.

EVD also had discussions with other PPFs and PPP advisors such as GIF and EPEC, which both indicated they had been experiencing difficulties sourcing and advising on projects. **These discussions reinforced the view that the problems experienced by the IPPF are not unique, and are being incurred by other PPFs.** As the PPW is based on the IFC Advisory model, this result is not surprising, and confirms the view that advisory services have limited value in countries where upstream institutional capacity has not been developed. More importantly, this finding implies that **the sequencing of IPPF support is in the wrong order. In addition to developing upstream PPP Units and priority project pipelines, it should be developing risk mitigation instruments and forms of government support that can make PPP projects bankable, before investing heavily in transaction advisory services.**

4.3 Opportunities to Enhance IPPF's Performance

4.3.1 Move Upstream

IPPF does not contribute in a meaningful way to EBRD's country strategies. The IPPF supported the preparation of the EIU Infrascopes Study which generated important information on the structure and capacity of governments in COOs to develop PPP pipelines, but it has proven difficult to translate this information into clear infrastructure/PPP strategies and targets at the country level. There is no sense of IPPF partnerships with Ministries of Finance and Economic Development, and PPP Units within countries at a programmatic level. EVD missions found that IPPF engagements tended to be targeted at traditional line agencies such as Transport or Environment, rather than Ministry of Finance.

In part this result is due to IPPF's location within an operational unit, and its consequent inability to become involved in policy formulation due to perceived conflicts of interest due its operational status, and a lack of IPPF staff capacity to participate in these activities. As a result, IPPF has relied upon a program of policy dialogue events, and concept notes. This activity is labour intensive and the impact is questionable, as there is already a high level of awareness of the potential of PPP within governments, but there is a chronic lack of institutional capacity to identify and prepare

projects and manage fiscal risks. The SSW and PPW teams are meant to support the development of this capacity, but in many respects they seem to be acting as a substitute for institutional development within governments.

While IPPF's demonstration effects may have some impact, there are in fact a wide range of hard constraints preventing government agencies from contracting with the private sector that are a much more important issue. Most government agencies do not have authority to enter into contracts, they cannot handle contingent obligations, and they cannot authorise multi-year budget appropriations. While government agencies often have well developed technical expertise, they have little or no knowledge of financial and legal issues, and cannot afford to pay market rates to attract staff with these skills. Similarly, these agencies do not have budgets to prepare large scale projects such as PPPs, and municipalities do not have the ability to offer guarantees or raise debt without specific approvals from the Ministry of Finance, which are not often forthcoming. Given these constraints, a more focused and sustained form of engagement with governments is required, particularly at the national level, if more complex forms of procurement are to be introduced into COOs.

If IPPF did more work on upstream enabling activities, particularly in the area up government support instruments and fiscal risk management arrangements, the risks attached to project preparation and transaction advisory services could be substantially reduced. As currently structured, IPPF is not in a position to accurately identify institutional gaps and develop institutional capacity. The TORs for the IPPF consultants are too narrowly focused on the preparation of individual projects rather than developing upstream institutional capacity and project pipelines within countries.

4.3.2 Target High Potential Countries and Sectors and Broaden Scope of Assistance

The IPPF could focus its initial efforts on partnering with PPP Units in a relatively small number of countries that already have some experience working with PPPs and a demonstrated political commitment to develop infrastructure in a relatively stable environment. These early efforts could focus on the creation of project pipelines, and preparation of projects in sectors such as renewable energy. These types of projects have relatively lower institutional capacity development requirements compared to PFI models. Institutional capacity building efforts could be balanced between both project preparation and risk management capacity. Once a track record of success and a proven PPP development model had been formulated it could then be reasonably easily scaled up and diversified across countries, sectors and procurement methods.

The scope of assistance provided by EBRD to develop PPPs could be broadened. To establish a PPP program, there is a need to address a wide range of issues that extend beyond the scope of traditional banking operations to create bankable PPP projects. Skills are required to address fiscal management arrangements, identify ways to credit enhance local governments, and develop effective funded and unfunded risk management instruments, project appraisal methodologies based on VFM, and reporting arrangements on fiscal benefits and liabilities attached to PPPs. PPP policies and guidelines need to be developed for government agencies. It may be necessary to address issues associated with government agencies ability to enter into contracts, foreign ownership restrictions, right of way and land acquisition, repatriating foreign capital, access to local currency, and arbitration mechanisms.

4.3.3 Eliminate Conflicts of Interest

Transaction advisory services can play a vital role and complement a top down approach to project preparation. While IFC's advisory Service's projects only achieve financial close about 50% of the time, its operations are profitable as governments' are willing to pay for advice up to commercial

close. In general, it would be valuable for EBRD to continue to be engaged in transaction advisory services, as it provides a bottom up means of identifying problems and issues that can complement a top down approach, but it is a very distinct business to sovereign lending, and it is imperative that conflicts of interest with financing are addressed in a convincing manner with clients.

It is not clear how the PPP advisory function can be embedded in MEI, which is primarily focused on sovereign lending, which is a low cost, quick disbursing, and profitable business. In comparison, the preparation of PPPs is an expensive time consuming advisory process that is often drawn into complex stakeholder management issues that can delay project implementation for many years. Conflict of interest is a critical concern, and comparable agencies such as the GIF have been separated from lending under the guidance of an independent governing body. Similarly, IFC's Advisory Services is subject to clear Chinese walls and their operations are located outside Washington in cities such as Belgrade, or Hong Kong, independent of financing activities.

Further problems arise with the incentive structure for the PPW contracts as they are time bound (3 years), and the only way IPPF can recover its money is by reaching financial close, irrespective of the readiness of the project. This problem is demonstrated by the lack of readiness of the West Cairo Railway Project, which is a primary determinant of the expected traffic demand of the 6th October PPP project. At the time the project was submitted for tender, the alignment of the West Cairo Railway had not been identified. Even when this activity is completed, the land acquisition program may take years to complete, as it is 60 km in length and adjacent to the densely populated urban areas of Cairo. While the project will still probably be successfully tendered, the amount of investment that will occur will be substantially less than the amount that could have been mobilised if a more considered approach had been applied to project preparation. A further concern was the lack of IPPF engagement with the PPP Unit. IPPF dealt almost exclusively with the transport regional authority and the PPP Unit only became involved late in the process. This delay resulted in the consultant spending much more time than originally budgeted on stakeholder consultation. As a result, there was insufficient budget and inadequate data needed to fully prepare the project within a reasonable timeframe.

Given these factors, **it would be advantageous to separate the PPW advisory function from IBG and place it in an independent body, possibly in an RO such as Istanbul, with its own business plan that is linked to the country readiness assessments.** In this way, **the advisory function could generate down-stream financing opportunities for EBRD, but staff would only be accountable for generating advisory fees linked to the provision of advice to governments.** Initially, this function could be supported with grant financing with a view to introducing a cost recovery element over time once a track record in the market was established.

4.3.4 Develop In-house Project Advisory Capacity

A critical issue is whether the IPPF should continue to outsource all of its advisory services, or increase the number of in house staff. Under the current IPPF structure, there are issues about lack of capacity to effectively perform tasks and inform upstream enabling environment work. IPPF has 4 staff to develop projects across 38 COOs. The current model is not only ineffective, it is inefficient, as there is a high level of duplication of project preparation methodologies, financial models, tender procedures and PPP contracts. There is a significant opportunity cost outsourcing everything as EBRD does not gain direct hands on experience and loses the ability to replicate and scale up this experience. The current arrangement also means that IPPF is making too great a use of expensive consultants, for what are often relatively simple tasks. Consultants should only be involved to address very specific issues. There are large economies of scale that can potentially be realised if EBRD develops in-house standardised contracts, financial models, and project development processes that can then be relatively easily replicated and rapidly deployed for new projects. These

factors indicate there could be large benefits and savings if a proportion of these functions were retained in-house, ideally in a special purpose PPP Unit.

4.3.5 Use VFM Principles to Design Projects

The importance of project preparation for downstream lending cannot be underestimated as it provides a low cost way of avoiding costly delays and changes in project scope while the project design is still fluid, and funds have not yet been committed to irreversible investments. At the same time, project preparation needs to follow a logical sequence where: (i) the project context is properly defined; (ii) the technical parameters and E&S requirements are clearly identified; (iii) project risks and mitigation methods structures are identified using VFM, principles; (iv) the tender process is implemented; (v) financial negotiations are concluded; (vi) construction commences; and (vii) operations are initiated.

The IPPF structure, which is based on 2 separate panels, 1 for the public sector and 1 for PPPs, does not recognize this project preparation process as the SSW projects apply steps (i)-(ii) and the PPW applies steps (iii)-(vii). In effect the project structure is determined before any detailed due diligence, and the project structure that generates the greatest level of VFM for the client is not known. In the case of the SSW, projects would benefit from a detailed risk analysis and VFM assessment that shows how the project structure best meets the needs of the client, rather than EBRD simply focusing its due diligence on technical designs and credit risk mitigation. In the case of the PPW, it has been selective in how it has applied these steps, and in its original TOR for the 6th October project it included the VFM analysis at the tender stage, rather than the options stage. By deciding on the project structure before initiating the tender, it made the VFM analysis meaningless, as there was no public sector comparator.

These findings suggest that project preparation could be significantly enhanced if the SSW and PPW were merged and the IPPF consultants given the capacity to perform all of the project preparation phases, irrespective of whether projects will be developed as a sovereign loan, or a PPP. At the same, it is recognized that many projects will continue to be prepared as public sector projects due to factors such as size, where transaction costs preclude the use of PPPs. **Given these considerations, it would be beneficial, at least in the early stages of piloting this approach, to formally separate the SSW fund from the PPW fund and establish them in separate divisions. This separation of functions and funds could be complimented with a procedure where all infrastructure projects over a certain size (eg EUR50mn) were made subject to a VFM assessment at an early stage in the project loan cycle within EBRD.**

4.3.6 Allow other Departments to Access IPPF Consultants and Resources

The location of the IPPF in MEI and the consequent contracting arrangements with its panel of consultants has precluded other departments such as ICT, P&E and E2C2 from accessing the IPPF Consultants, even though they would benefit from its expertise and ability to be rapidly mobilized to meet client needs. At present, the structure and operations of the IPPF are interlinked with the amount of SFF resources allocated to MEI for project preparation. In practice, the panel(s) of consultants do not have to be linked to a fund, and it could be made available to support any of EBRD's operations if it falls within the scope of the consultants' TORs. Given the standardized methodology of project preparation this separation of the panel(s) from the IPPF is feasible and beneficial for EBRD. All of EBRD's operations would then be able to rapidly mobilize consultant individuals and teams to respond to opportunities as they arise, irrespective of the sector.

The TORs could be prepared by bank staff, and TC procurement specialists could manage selection in the same way it manages current consultant procurements. If this model was implemented, it would be necessary to review the nature of the IPPF consultant contracts. At present the life of the contracts is limited to the life of the underlying fund. If the facility was established with responsibility for some core funds, but given access to other funds based on criteria such as VFM or relevance, it

may then be possible to simply accredit consultants, rather than use time bound contracts. This arrangement could help resolve the problems arising from the long and unpredictable consultant requirements for preparing PPP projects.

4.3.7 Review IPPF Resourcing and Funding

If the IPPF was unbundled into two separate funds, and the PPP function was transferred to a non-banking unit , the organization structure and the allocation of staff and funds would need to be revisited. Ideally, the PPP Unit would be established independent of banking and given responsibility for PPP policy advice at the country level, upstream project preparation work and transaction advisory services. These functions would need to be financed with grant funds initially, but over time they could potentially be provided to governments using reimbursable TC. WBG is successfully providing upstream PPP advice to the Turkish Government through a reimbursable TA, and once EBRD establishes a track record, this funding model maybe feasible. Even if the upstream advisory service was only funded by EBRD, its focus on developing project pipelines, rather than individual projects, would generate many additional project financing opportunities for EBRD. There are also new lending opportunities upstream in the areas of funding public sector project preparation facilities, viability gap funds and foreign exchange risk management facilities that could be developed to support this business line.

A closely related issue is the question of whether the IPPF's funding base can be broadened to attract funds from external donors. At present most projects benefiting from the IPPF are traditional public sector foreign currency financings with limited value addition in the form of compliance with E&S standards, or PPPs that have a high risk that they will not reach financial close. Given the inherent conflicts built into the current structure, the limited value addition of the sovereign operations, and the high risks of the PPW projects, it seems unlikely the IPPF under its current structure would be able to attract large amounts of external funding. In comparison, if a PPP Unit was established outside direct banking operations that moved upstream into developing institutional capacity to create project pipelines rather than individual projects, the externalities may well attract significant external funding. **A primary determinant of EBRD's ability to attract external funding for project preparation work will be its ability to demonstrate its independence from its project lending operations.**

A further issue is the amount of SSF funding that is directly allocated by EBRD to project preparation, particularly for MEI, and it would be beneficial for EBRD if the amount was determined on the basis of the expected return from its investment that it is obtaining from this activity. Project preparation is extremely important, but there are a wide range of sources where funds can be mobilised by banking operations to support this activity. The critical characteristic of the IPPF is its use of the SSF. This money is not free in the same way as external grant funds, as it is sourced from EBRD's equity. The amount of money, EUR40mn is significant, and the amount of funds allocated to PPP projects is large, being about EUR2.0mn per project.

At present, IPPF documents the use of these funds in its Annual Business Plans on an aggregate basis, and it is not possible for the Board to assess the return on this investment as funds are allocated on a gap filling basis and there are no baselines. To allow the Board to be able to make a decision on the return from its investment, there should be some form of counterfactual, such as a short form outline business case, that clearly documents the objectives, expected incremental outputs, amount of TC being allocated to project preparation, the sources of those funds, and the expected benefits in terms of project impacts, loan volumes and profitability. The amount of TC can then be justified with a clear assessment of the expected net benefit from the project preparation investment.

Going forward, if project exceeds a minimum threshold such as EUR50mn, or project preparation costs exceed a minimum threshold, such as EUR1.0 million, then these outline business cases could

be reviewed by management committees and the Board. These business cases could be prepared using VFM principles and a business case format that can be independently reviewed and verified. Similarly, if a new PPP Unit was established with a bank wide mandate, it should also be required to prepare a business case using VFM principles that can be used as a basis for justifying required resources and potential access to the SSF, and establishing baselines and targets that can be used to monitor performance.

4.4 Opportunities to Enhance EBRD's Infrastructure Performance

EBRD would benefit from a centralised PPP Policy Unit that could lead policy development at the country level and develop standardised project preparation methodologies based on VFM principles that could be replicated and scaled up within the Bank. Underpinning this approach, staff could be provided training in how to design projects using VFM principles, and mitigate project risks.

Countries strategies would benefit from being cast in output terms by clearly identifying what is required for major infrastructure corridors and cities in terms of physical parameters such as capacity and expected usage, their readiness to support PSP, and the major gaps in project preparation and risk mitigation arrangements. Underpinning this approach, EBRD could develop a diagnostic framework that assesses adequacy of country infrastructure plans and priorities, and identifies institutional gaps and their **readiness** to support different instruments along the lines of the WBG's Country Readiness Diagnostic for PPPs⁴² and the IMF's Public Investment Management Assessments (PIMA)⁴³.

EBRD could cast concept and board approval documents as business cases that reflect the WBG's cascade principles (maximizing finance for development), and provide a detailed risk analysis using VFM principles. The review and approval of these documents could be based on the criteria of VFM, bankability and affordability. Data could be presented on expected capacity of projects, levels of usage, unit costs and availability of funding for project maintenance. Projections could then be compared to actual results in monitoring reports and evaluations that reflect project cost over runs and delays, capacity, and expected asset life based on actual levels of maintenance. Staff could be incentivised through mechanisms such as bonuses for developing projects that generate high levels of VFM for clients and EBRD.

EBRD could potentially generate significant project pipelines if it became more active in the area of providing governments with public sector loans to fund project preparation and contingent liability funds. EBRD has not traditionally been involved in these types of programmatic operations, but they are critical for developing pipelines of infrastructure projects that can be financed down-stream using more traditional project linked financing instruments. Governments need to be able to take the lead on these project preparation activities and manage the necessary upstream land acquisition and stakeholder management activities, and design projects in an environment where government support and contingent liability capacity is known by consultants in advance when designing projects.

Innovative new financing instruments could be developed for private sector suppliers to catalyse private finance through credit enhancements. As demonstrated by EBRD's standby lending facility for the Turkish Elazig PPP Hospital⁴⁴, the leveraging potential of these instruments is very large, as it enabled the project to gain a credit rating higher than the Turkish government's sovereign rating. The EIB's EFSI program expects to achieve a leverage ratio of 15:1 through the use of these types of instruments. There is no reason why EBRD could not start to experiment with these types of instruments by refinancing some of its existing energy PPPs with project bonds, providing a credit wrap such as subordinated debt and standby credit and tapping into the LCY capital markets.

EvD discussions with government agencies indicated that EBRD may need to review how it provides advisory services to government agencies that have an element of cost recovery. EvD found in Turkey that line agencies cannot contract consultants and this function can only be delegated by the Ministry of Economic Development. World Bank is currently providing advice to the Turkish government on preparing PPPs under special reimbursable technical assistance framework

agreement. If EBRD wants to provide similar types of support, then it may need to negotiate a framework agreement with the government. It is likely that similar restrictions apply across governments in most COOs, and EBRD could initiate a review of these types of constraints, possibly in the context of conducting the country readiness assessments.

Annex 1: Value for Money

1. Overview

Value for Money (VFM) is a financial evaluation methodology developed to design Public Private Partnerships (PPPs). A VFM assessment follows an economic analysis of whether a public sector project is a good use of resources by preparing a cost benefit analysis (CBA). CBA is based on market studies of demand and technical due diligence and it provides a comprehensive assessment of the economic costs, risks, and social benefits of a project, including project externalities. These externalities may include increases in economic growth, improvements in public safety (e.g., reductions in accidents), and reductions in environmental impacts. External benefits in excess of external costs may justify public subsidies if revenue from charges paid by the facility's users or other beneficiaries is not sufficient to cover the financial costs. Given the presence of these public goods, a PPP is required if the government wishes to attract private finance to develop, operate and maintain the facility. PPPs are only used when projects are large, typically greater than EUR50mn.

The VFM assessment is used to determine whether a PPP is the best value proposition for the public sector from a user perspective. When conducting a VFM analysis it is necessary to consider the scope of the PPP in terms of design, construction, operations and maintenance and finance. Having defined the scope, the VFM assessment then compares the total risk-adjusted cost of the reference project borne by the public sector via a PPP to traditional public sector procurement, referred to as a public sector comparator (PSC). The VFM analysis focuses on the higher financing and transaction costs associated with transferring risks to the private sector, plus the innovation that comes from an integrated performance based approach to the operation of the project, relative to the PSC. The difference between the cost of the PPP and the PSC is referred to as the VFM. If the cost of delivery under PPP is less than the PSC, the VFM is positive, and the PPP option is the preferred method of procurement.

2. Risk Analysis

This section explains how the VFM methodology is applied. VFM is based on a detailed risk analysis of a project to identify all of the project costs over the life of the facility, referred to as whole of life costs (WLC). In the initial stages of project design, the risk analysis is generic, and it becomes more detailed and specific as the project moves towards procurement. PPPs can be expensive and they only tend to be considered when projects are large and require specialist skills and technology not commonly available in the public sector.

2.1 Identify the Risks

The risk analysis seeks to identify the critical risks that impact on a project over its life.

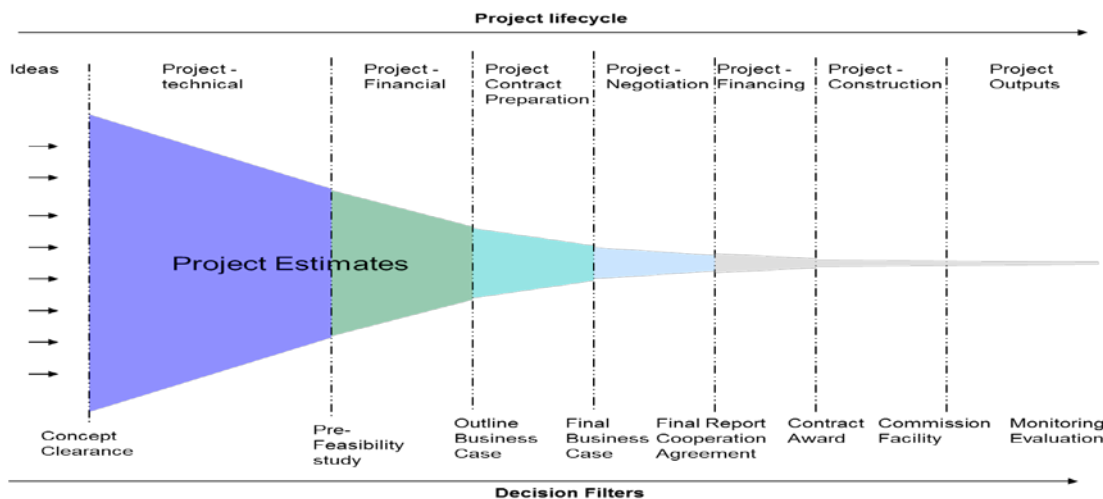
Table A1.1: Risk Identification

Typical Areas of Project Risk	Project Lifecycle						
	Project Preparation	Design	Construction	Operations	Maintenance	Refurbishment	Handback
Political Demographic Social Environment Spatial and geographic Institutional Arrangements Technology Permitting Engineering Financial and economic Legal							

Source: EVD

The analysis prioritises risks by identifying their probability and likely impact on cost, availability (time), capacity of the facility, safety and the environment. The analysis uses a structured method of analysis to identify the risks based on the inputs of experts. Data is collected to determine the causes of these risks and identify possible ways in which they can be mitigated. This process continues throughout the project preparation phase to improve estimates and identify the best way to minimize the expected costs of the project. These estimates and associated VFM are documented in a series of business cases that act as decision filters on the scope and scale of the project, the timing of delivery and the preferred method of delivery, as illustrated in **Figure A1.1**.

Figure A1.1: Project Estimates and Decision Points



Source: EVD

2.2 Prioritize the Risks

One of the most critical project risks is associated with construction, as the amounts of money involved are large, financing is committed, technology is untested, and demand is unknown. There is a substantial body of evidence globally that shows that public sector projects tend to run over budget, compared to PPP projects, which have achieved high levels of performance in terms of on-time and on-budget delivery. The following list presents examples of this evidence:

- Out of 55 PPP projects examined in Canada, none exceeded budget and of the 19 that had achieved substantial completion, 17 of these were completed either on-time or ahead of schedule.⁴⁵
- Research conducted by the University of Melbourne compared the performance of 25 PPP projects to 42 traditionally-delivered projects. The research found that PPP projects were 31.5% better than traditional projects in terms of on-budget performance and that PPP projects had an average cost escalation post-contract award of 4.3% compared to 18% for traditionally-delivered projects.⁴⁶
- In 2002, Mott MacDonald completed a study for the UK Treasury that reviewed the performance of 50 large infrastructure projects each with values exceeding £40m in 2001 dollars. Within this total, 11 projects used the PPP model and the remainder used the traditional procurement method. The study found the traditional procurement was on average 17% late relative to the planned schedule and 47% over budget. This result is compared to an average of 1% of PPP projects being delivered early with virtually zero cost overruns.⁴⁷
- In the UK, the National Audit Office issued a report in 2009 titled Performance of PFI Construction. The report indicated that 69% of PFI projects were delivered on time and 65% of projects were delivered within budget (that number increased to 94% when projects that were less than 5% over budget were included).⁴⁸
- Infrastructure Partnerships Australia produced a study “Performance of PPPs and Traditional Procurement in Australia” which compared the performance of 21 PPP projects against 33 traditionally delivered projects. The findings indicated that from the time of original approval to substantial completion, the average cost overrun of traditional projects was 35.3% compared to 11.6% for PPP projects.⁴⁹
- The report “Cost Underestimation in Public Works Projects: Error or Lie?” looked at cost estimation in traditionally delivered public sector projects and found that on average, actual project costs were 28% higher than estimated, and in 9 out of 10 transportation infrastructure projects, costs were underestimated.⁵⁰
- A study from the US Government Accountability Office (1997) called ‘Managing the costs of large-dollar highway projects’ stated that 23 of 30 highway projects with a value in excess of \$100M had costs that increased beyond initial estimates. The increases ranged from 2 to 211% with approximately half of the projects increasing by more than 25%.⁵¹

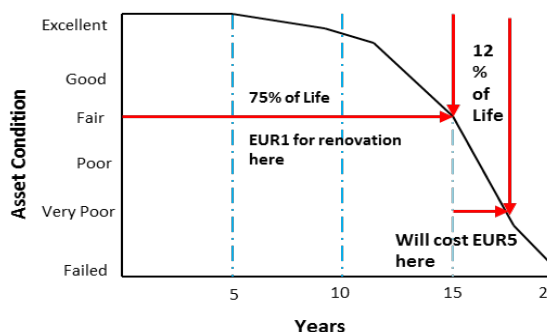
These problems are so pervasive and well documented that the UK Treasury has produced a guidance note on “Optimism Bias”⁵² for preparing public sector projects. The note recommends for nonstandard buildings that adjustments to forecast capital expenditure be revised upwards by 6 to 66%, and for developmental projects or equipment, the recommended upward adjustment is from 10 to 200%.

The other critical area of risk from the government’s perspective is maintenance, often referred to as lifecycle costs. Government agencies spend money when it is available, rather than when it is needed to optimise the infrastructure life and capacity at least cost. As maintenance priorities and the downstream consequences of deferred maintenance are largely invisible to the general public, and have low political priority relative to new construction, the impacts of deferred maintenance costs can be substantial. Many countries spend just 20–50% of what they should be spending on maintenance of assets such as road networks, and when a road fails, it costs up to 3 times the amount it would have cost if it was properly maintained.⁵³ In the context of EBRD’s countries of operation, the IPPF noted that it is not uncommon for roads to be rehabilitated only halfway through to estimated original duration.⁵⁴

These problems are compounded by the public sector practice of tendering construction independent of WLCs, creating incentives for bidders of construction contracts to transfer costs to costly maintenance requirements and operating procedures post construction. Due to a lack of data on maintenance costs and the absence of a counterfactual on what asset capacity would be if

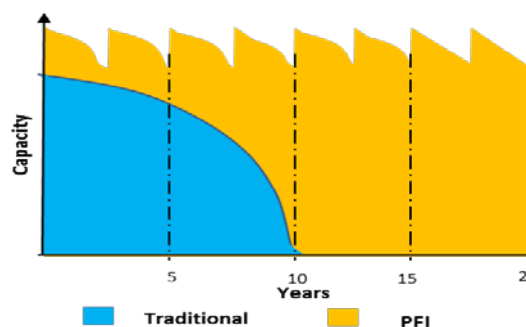
optimised maintenance procedures were pursued, it is difficult to measure their impact on WLCs, but it is likely to be much greater than capital cost over-runs over the life of long life infrastructure assets.⁵⁵ The nature of the problem and its impact on WLCs and capacity is illustrated in **Figure A1.2** and **Figure A1.3**.

Figure A1.2: Illustration of the Impact on WLC of Inadequate Maintenance



Source: EVD

Figure A1.3: Illustration of the Impact on WLC of Inadequate Maintenance



2.3 Identify Possible Mitigation Measures

Risk mitigation measures can be preventive or corrective: A preventive measure attempts to decrease the probability of a risk's occurrence whereas a corrective measure tries to minimize the damage once the risk has occurred. These 2 types of measures are often complimentary. The main ways to address risk are to avoid it by: (i) taking corrective action, (ii) adapting the design, (iii) accepting the risk if it is not significant, or (iv) transferring it to a third party such as an insurance company or a bank. **Actions (i) and (ii) can be addressed in the project preparation phase, usually at little cost, whereas actions (iii) and (iv) need to be managed by the government or the private sector under a contract.** The risks and government responses are recorded in a risk register as illustrated in **Table A1.2**.

Table A1.2: Illustration of a Risk Register

Risk	Description	Probability Loss (X)	Value of damage (% Base cost) (Y)	Allocation	Mitigation
Land acquisition	Resettlement causes delays	20%	20%	Retain	Safeguards
Tender	No qualified bidders	10%	20%	Transfer	Specialist Advisors
Construction	Cost and time overruns	10%	5%	Transfer	Liquidated damages
Demand	Traffic flows less than forecast	20%	20%	Retain	Complete link to national highway
Interest rate	Cost of funding will increase	20%	5%	Transfer	Buy SWAPS
Foreign exchange rate	Tariff and debt service increase	2%	20%	Share	Tariff Mechanism
Force majeure	Earthquake	2%	20%	Share	Insurance
Total Risk Value			Sum(X*Y)		

Source: EVD

2.4 Allocate the Risks

Under a PPP structure, **the basic principle is that risks should be allocated to the party that is best able to, and has greatest the incentive to, manage the risk at least cost.** The risk analysis will determine whether risks are retained by the government, or transferred to the private sector contractor, who in turn sub-contracts specific risks to construction and operations and maintenance (O&M) contractors, financiers and insurers. The type of contract that will be selected will be determined on the basis of the cost of the risks that the private sector contractor and their financiers are willing to accept.

Under a PPP all of the risks are transferred to the private contractor, and the areas where the government will bear some of these costs are specified in the concession agreement, which contains a finite list of “relief events” and “compensation events” in the payment mechanism that are tightly drafted and highly constrained. Everything else is allocated to the concessionaire. In contrast, under a conventional construction contract, a Design Bid Build (DBB), if an event occurs that was not been contemplated upfront, that risk (whether or not it could have been foreseen) is owned by the public sector. An illustration of the risk allocation arrangements for a road is presented in **Table A1.3**.

Table A1.3. Illustrative Risk Allocation Under Conventional and PPP Procurement Contracts

Risk	Construction -DBB	Availability Payment PFI	Toll Concession
Design errors	Public	Private	Private
Change in Scope	Public	Public	Public
Delay in Permits	Public	Shared	Shared
Delay in right-of-way acquisition	Public	Public	Public
Construction cost overruns	Private	Private	Private
Construction risks	Private	Private	Private
Archaeological findings	Public	Public	Public
Delay in relocation of cables & pipes	Public	Private	Private
Unknown ground conditions	Public	Private	Private
Hazmat	Public	Shared	Shared
Security	Public	Private	Private
Major Maintenance cost over-runs	Public	Private	Private
Snow and ice removal cost overruns	Public	Private	Private
Regular maintenance	Public	Private	Private
Traffic information systems	Public	Public	Public
Incident management	Public	Private	Private
Toll Revenue Risk	Public	Public	Private
Financing risks	Public	Private	Private
Force Majeure	Public	Shared	Shared

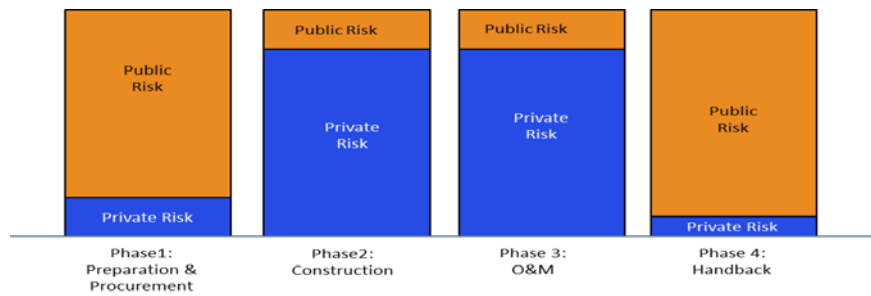
Source: Virginia DOT's PPTA Risk Analysis Guidance, September 2011

In general, the government will retain risks associated with land acquisition, stakeholder management, and identification of regulatory and permitting requirements.

3. Bankability Analysis

The focus of the analysis then shifts to the **extent a bankable structure can be created** by transferring the traffic risk to the private sector concession. Traffic risk is notoriously difficult to forecast, and if that option cannot be made bankable, the analysis shifts to an availability structure, where the government assumes traffic and toll risk. The VFM analysis assesses the benefits of transferring construction and maintenance cost risks to the private sector, which are offset by the higher private financing costs it will pay, relative to what it will pay if it retains the risks and finances the project with low cost sovereign debt. Under a PPP structure, the government's risk exposure over the project lifecycle is illustrated in **Figure A1.4**:

Figure: A1.4: Risk Allocation over the Project Lifecycle



Source: EVD

4. Quantify the VFM

The cost components in the VFM analysis only include the project costs common to the PPP options. Non PPP related project costs, such as land acquisition, that would be the same irrespective of the method of procurement are excluded from the VFM analysis. The VFM calculation requires an estimate of the costs to the government of the traditional method (the PSC) and the cost of the PPP. The cost of both these figures is based on the estimated net present value of each option.

4.1 PSC

The PSC consists of the following components:

- Base costs
- Retained risk.
- Financing Costs
- Ancillary costs
- Competitive Neutrality
- Third Party Revenues

Base cost of the project reflects the cost to the government of design, construction, O&M, overhead and refurbishment costs.

Retained risks reflect the potential for cost overruns and delays in the following areas:

- **Construction costs** - these figures need to be adjusted for optimism bias.
- **Innovation factor** - that reflects the higher cost of the PSC as it does not have the same opportunities and incentive structure as a PPP to innovate to minimise WLC, and lacks competitive pressures.
- **Lifecycle costs** - represent the investment incurred, on an ongoing and/or periodic basis during the course of the Contract Period, to maintain an asset so it remains fit for its intended purpose.
- **Residual Cost** - represents the level of investment required from the government at the end of the contract period to restore the facility or asset to the standard required to enable the delivery of specified minimum level of available capacity.

Financing costs reflects the cost to the government of financing construction, and it is calculated at the current public sector cost of borrowing.

Ancillary Costs: This item reflects the cost of preparing a traditional public sector project.

Competitive neutrality: Public sector authorities are not usually subject to the same taxes that a PPP contractor would face. The PSC is adjusted upwards to reflect the taxation revenues incurred by a PPP to allow comparability. Local governments do not need to make an adjustment for national taxes paid by the PPP. There may also need to be an adjustment for private sector insurance costs, as governments typically self-insure.

Third Party Revenues: If the government expects to generate third party revenues in the base case an estimate of this figure will need to be included in the analysis.

4.2 PPP

The cost of the PPP option can be calculated in 2 different ways, based on the stage of development of the project.

In the design phase, the cost of the PPP to the government will consist of the following components:

- Base costs
- Retained risks
- Financing costs
- Ancillary Costs
- Third Party Revenues

Base costs: This figure will reflect expected costs of private sector design, construction, O&M, overhead and refurbishment costs.

Retained risks: This figure will be reduced by the amount of risk allocated to the private sector for construction, O&M and handover costs;

Financing costs: The cost of private sector financing will be higher than the public sector.

Ancillary costs: This figure will be higher under a PPP due to extra project preparation costs and monitoring costs during the operating period. There may also be a need for investment and operating subsidies to make the projects bankable that would need to be taken into account.

Third Party Revenues: There is potential for higher revenues under a PPP as the facility will be properly maintained over the project life and there are opportunities for value capture from government investments associated with the project. In countries such as the UK, there may be a need to make adjustments for local government projects for any national tax credits for PPP projects, In the bid stage the VFM estimate can be used as a shadow bid that can be used to check the reasonableness of private sector bids and inform negotiations with the bidder. The main components of the shadow bid estimate of VFM are:

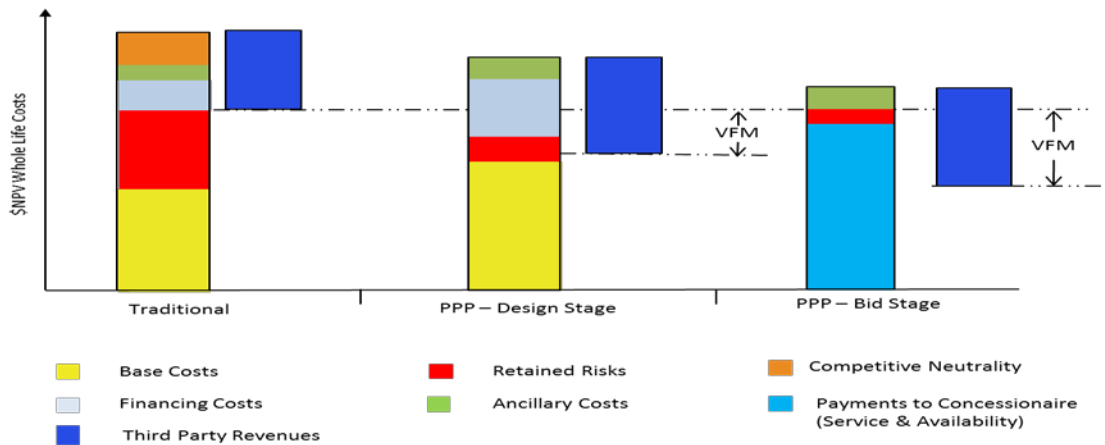
- Payments to the concessionaire;
- Retained risks
- Ancillary costs.

The calculations for VFM are illustrated in **Figure A1.5**.

5. Assess Affordability

It is then necessary to make an assessment of affordability of the preferred procurement option to the government and/or end user. This analysis is an iterative process as there are a wide range of variables that can be adjusted to improve affordability such as changes in project scope and scale, opportunities to phase development, and vary parameters such as the term of the concession to reduce annual debt service obligations. There are also a wide range of alternative sources of funding such as PFI credits, capital grants, own budgets, and viability gap funds.

Figure A1.5: VFM Calculations



Source: EVD

6. Prepare Business Case

The final stage in a VFM analysis is the preparation of the outline business case that would typically address the following issues:

- Project description;
- Output specification;
- Value for money;
- Bankability and expected sources of finance;
- Affordability and expected sources of funding;
- Risks transferred to the contractor;
- Risks retained by the government;
- Project management arrangements; and
- Contract management arrangements.

7. Application of VFM in a Transition Economy Context

The VFM methodology plays a central role in most countries PPP programs and a survey by OECD found that 19 out of 20 surveyed countries used some form of VFM analysis⁵⁶. However, even in countries with well-established PPP programs, the approach to using this method of analysis is evolving, and has been quite controversial⁵⁷, not least because of a lack of data. Key issues include the specification of the cost and revenue items, magnitude of private sector efficiencies, the extent to which adjustments should be made to base cost, the approach to valuing risk, and the discount rate that is used.

As a result, the VFM methodology is primarily used in the design stage and it plays a support role in bid evaluations and negotiations. Despite these issues it is critical for governments to develop a systematic way of making comparisons of alternative methods of procurement. The VFM framework focuses attention on identifying critical risks from the users' perspective and it can play a central role in identifying information gaps, and improving project designs in the project preparation phase before governments start to make irreversible investment decisions.

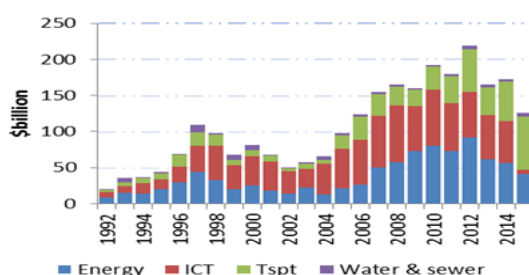
Irrespective of the methodological issues, the VFM templates have mainly been developed in a developed economy setting, and they need to be adapted to reflect conditions within transition and developing economies. The costs of public sector procurement using traditional methods are likely to be much greater than countries such as the UK and Australia. At the same time, it is more difficult to prepare projects and it is more expensive to make projects bankable. Issues such as foreign

exchange rate risk, climate change, and lack of institutional capacity introduce special challenges in developing economies. As a result, the development of PPPs in these countries typically requires new institutions and substantial institutional capacity development on a programmatic basis to resolve constraints and prepare and manage these contracts. It also requires the development of new capacity within the international financial institutions.

Annex 2: Private Sector Participation in Infrastructure

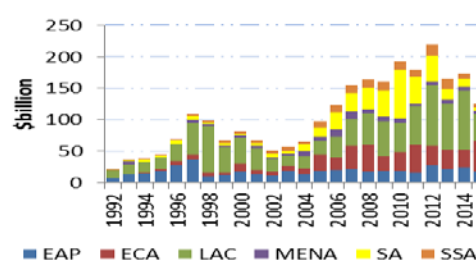
The private sector is accounting for a growing proportion of global infrastructure finance, primarily through the use of PPPs, although investment has been volatile. In the 2000s a wave of structural reforms and economic growth led to an upsurge in private financed infrastructure. **Figure A2.1** shows there were 2 large contractions, the first occurring after the Asian Financial Crisis in 1997, and the second after the Global Financial Crisis (GFC) in 2007. The impact of the GFC was delayed, as it was followed by an increase in the level of private funding invested in infrastructure. Many countries increased the public share of investment in these projects to stimulate economic activity, causing volumes to peak in 2012, and then fall in 2013 by about 30% as austerity measures came into play.

Figure A2.1: PPI Investment by Sector



Source: PPI Database

Figure A2.2: PPI Investment by Region⁵⁸

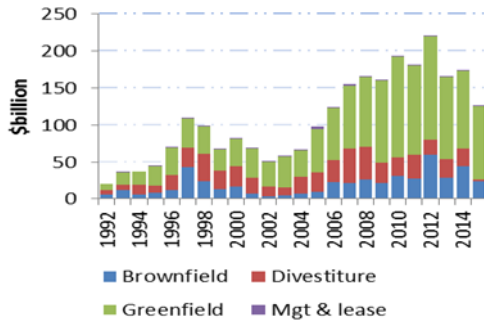


Source: PPI Database

Figure A2.1 shows private participation in infrastructure (PPI) investment was concentrated in the energy, Information Communication Technology (ICT), and transport sectors. Within the energy sector, generation accounted for more than 90% of investment, followed by transmission (5%) and distribution (2%). In 2015, about 51% of the energy generation investment was allocated to renewables, in particular, solar and wind. Transport PPI was comprised of investments in roads, followed by railways and ports. In **Figure A2.2** it can be seen the Latin America/Caribbean (LAC) region was the largest recipient of private finance using PPPs. From 2006 to 2015 the region had investments of US\$361 billion in around 1,000 PPP projects, mostly in energy and transport.⁵⁹ LAC was followed more recently by ECA where Russia accounted for 27% of PPP investment, although it has declined in recent years. Turkey accounted for 47% of PPP investment, and it has continued to grow, diversifying from transport into non-traditional sectors such as health. Cross border projects have been an important source of investment, with PPP projects across 5 of the 6 regions, mobilizing \$16.2 billion of investment from 1991 to 2015. Most of these cross border projects were in the energy and transport sectors and they all achieved financial closure before 2006.

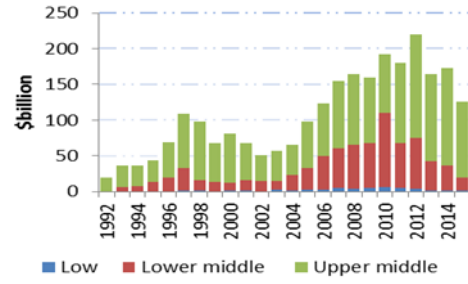
As shown in **Figure A2.3**, most PPP investments were concentrated in greenfield projects, primarily in the energy sector. There was a mix of greenfield and brownfield investments in transport and water. To date most PPP investment has been concentrated in upper and middle income countries. As illustrated in **Figure A2.4**, following the GFC, declines in PPI were greatest in poor countries, and flows to lower-middle countries fell by -37% and low-income fell by -68%.

Figure A2.3: PPI Investment by Stage of Lifecycle



Source: PPI Database

Figure A2.4: PPI by Level of Income



Source: PPI Database

Annex 3: Review of PPF and PPP Programs of Other IFIs

1. Overview

Most Project Preparation Facilities (PPFs) are developed in the context of Public Private Partnerships (PPPs) programs where International Financial Institutions (IFIs) seek to leverage their sovereign operations financing of infrastructure through the mobilization of private finance. This Annex reviews various PPP evaluations prepared by other IFIs that provide insights to the performance of their PPF facilities.

2. Other IFI Programs

2.1 World Bank Group

The World Bank Group (WBG) has made a concerted effort in recent years to strengthen its strategic focus and coordination around PPPs. Its 2013 Group strategy⁶⁰ focuses in particular on “partnerships,” including strengthening and expanding its partnerships with the private sector. Its 2014 reorganization established PPPs as a “cross-cutting solution area.” In the same year, an evaluation of the WBG experience supporting PPPs⁶¹ recommended that IFC’s investments be more focused on countries with weaker enabling environments—a recommendation that was subsequently incorporated into the IFC strategy.⁶² The WBG also supports several PPP knowledge management tools and advisory facilities in collaboration with other development partners, such as the preparation of the PPP Reference Guide, and PPP certification program.⁶³ In 2014, WBG established the Global Infrastructure Facility (GIF), with capital of US\$100 million that provides access to funds for project preparation. The GIF is a partnership among governments, MDBs, private sector investors and financiers designed to prepare, structure, and implement complex projects drawing on the combined expertise of technical and advisory partners (including commercial banks and institutional investors) to bring to market well-structured, bankable, and sustainable infrastructure projects.

WBG has recently introduced the concept of a cascade where private finance will be used to develop projects, supported by enabling environment reforms, before using sovereign finance. Underpinning this arrangement it has been revising its strategic priorities and IFC will increase its exposure to frontier economies and WB will increasingly use its funds to de-risk projects. In April 2017, WBG established a US\$2.5 billion International Finance Corporation (IFC)- Multilateral Investment Guarantee Agency (MIGA) Private Sector Window its concessional arm International Development Association. The new window will support 4 facilities:

- (i) **Risk Mitigation Facility** to provide project-based guarantees without sovereign indemnity to crowd-in private investment in large infrastructure projects;
- (ii) **MIGA Guarantee Facility** to expand the coverage of MIGA guarantees through shared first-loss and risk participation via reinsurance;
- (iii) **Local Currency Facility** to provide long-term local currency investments in countries where capital markets are not developed and market solutions are not sufficiently available; and
- (iv) **Blended Finance Facility** to blend PSW support with IFC investments to support small and medium enterprises (SMEs), agribusiness and other pioneering investments.

2.2 European Investment Bank Group

The European Investment Bank Group (EIBG) does not have an explicit PPP strategy, though it continues to be a major financier of European PPP projects.⁶⁴ EIBG is focused on the implementation of the Investment Plan for Europe, which aims at relaunching investment and restoring European Union (EU) competitiveness to enhance growth and create jobs. The plan is expected to trigger EUR315bn (about US\$330bn) in investment in 3 years. A key component of the plan is the European Fund for Strategic Investments (EFSI),⁶⁵ an initiative launched jointly by the EIBG and the European Commission (housed at EIB) to help overcome the investment gap in the EU by mobilizing private financing for strategic investments, including through PPPs.

The European Investment Advisory Hub (EIAH), another component of the Investment Plan for Europe, aims at enhancing the environment for investment by addressing financial and nonfinancial obstacles. EIAH consists of three complementary components: (i) a single point of entry to a wide range of advisory and technical assistance programs and initiatives for public and private beneficiaries, provided by high-level experts; (ii) a cooperation platform to leverage, exchange, and disseminate expertise among the EIAH partner institutions; and (iii) an instrument to assess and address new needs by reinforcing or extending existing advisory services or creating new ones as demand arises.⁶⁶ The EIBG also houses the services of the European PPP Expertise Centre (EPEC), an initiative involving the EIB, the European Commission, and EU Member States and Candidate Countries, to help strengthen the capacity of its public sector members to enter into PPP transactions.

2.3 Asian Development Bank

Asian Development Bank's (ADB) "Strategy 2020," developed in 2008, emphasizes support for PPPs, beginning with middle-income countries and then expanding to all developing member countries.⁶⁷ An evaluation of its experience with infrastructure PPPs⁶⁸ found there was still significant room for improvement, in particular by: (i) better considering key impediments, e.g. considering PPPs in conjunction with sector policy reforms; (ii) strengthening country assessments by defining sector road maps that identify opportunities for private sector engagement; (iii) systematically identifying the potential for PPPs in ADB's public sector support; and (iv) increasing partnerships with public entities that have potential for PPP operations. In response, ADB put in place an operational plan⁶⁹ to significantly scale up PPP operations in the 2012-2020 period, focusing on four pillars: (i) advocacy and capacity development, (ii) the enabling environment, (iii) project development, and (iv) project financing. In 2014 ADB established a separate PPP office,⁷⁰ providing transaction advisory services with the objectives of expanding private sector development, strengthening ADB's role as project developer, and improving project planning and preparation. Within that office, ADB put in place a large multi-donor trust fund, the AP3F, for project preparation, to increase the level and quality of infrastructure in Asia.

3. Evaluations of Other IFI Programs

3.1 World Bank Support to Public Private Partnerships, 2012

WBG's Independent Evaluation Group (IEG) prepared an evaluation of its work on PPPs in 2012. The evaluation found PPPs can help overcome inadequate infrastructure in developing economies. PPPs could reduce constraints such as lack of public funds, poor planning, or weak analysis underpinning project preparation. PPPs had increased in the last two decades and they were used in more than 134 developing countries, contributing about 15–20% of total infrastructure investment. These investments were being applied in traditional sectors such as energy and transport, and increasingly, non-traditional infrastructure sectors such as health and education. Countries needed to be relatively mature to successfully implement PPPs. Sectors needed to be open to private sector

participation (PSP) regulatory bodies needed to be competent, and protect operators from political interference when adjusting tariffs. Authorities need to have the capacity to develop pipelines of bankable projects.

WBG has the capacity to provide support to client countries along the entire PPP cycle from policy advice to transaction closure. WBG had expanded its range of instruments and services for PPPs and increased the level of support threefold over a 10 year period. Support had been provided through both public and private sector windows. On the public side capacity building assistance was provided through World Bank Institute (WBI) and Public-Private Infrastructure Advisory Facility (PPIAF). Public sector loans and partial risk guarantee (PRGs) were provided through the sovereign window. On the private sector side IFC provided advisory services and funds for investment, and MIGA had provided political risk insurance (PRI).

WBG intended to intensify support for PPPs in the future, and IEG was engaged to prepare a review of lessons learned. IEG's evaluation assessed WBG's effectiveness in supporting countries to use PPPs over the period 2002-2012. PPPs were defined as being "long-term contracts between a private party and a government agency, for providing a public asset or service, in which the private party bears significant risk and management responsibility." Typically, these arrangements were long term, usually bundling design, construction, maintenance and possibly operation, and containing performance-based elements with private capital at stake.

PPPs had been widely reflected in various sector strategies and conceptual notes. However, there was little guidance on how the WBG translated its strategic PPP objectives into country programs. A PPP Cross-Cutting Solutions Area was envisaged to perform this role and it would need to be provided with authority commensurate with its planned role. There was a need for a clear understanding of how the PPP solution area would interact with the Global Practices and the PPP Policy Unit. In general WBG had been reasonably successful targeting countries that required assistance. World Bank and PPIAF's policy reform and institutional building projects targeted countries that were at a "nascent" stage of developing an enabling environment for PPPs or were "emerging" PPP countries, as defined by the Economist Intelligence Unit. Similarly, MIGA had been able to target "nascent" and "emerging" countries when issuing guarantees. IFC advisory had a strong focus on lower-middle-income countries and Sub-Saharan Africa, where PPP frameworks were largely untested. In comparison, IFC investment tended to be allocated to PPPs in developed economies.

Country Assistance Strategy sector programs often reflected reforms to support the increased use of PPPs. The most common constraints that were systematically addressed were governance issues, regulatory failure, and inadequate sector structure. Country strategies were less successful addressing other important PPP constraints such as the capability of governments to make a strategic decision on PPPs based on value for money (VFM) assessments, or to assess fiscal implications associated with PPPs; or political economy factors such as the government's commitment to the PPP agenda. World Bank tended to take the lead on upstream policy and institutional work, particularly in energy and water, but rates of success on sovereign loans conditions were low, at 55%.

Capacity building for PPPs and building the legal and institutional framework were the next most frequently addressed enabling factors, and these projects were relatively successful. Strong government commitment and the availability of a government champion to promote the PPP agenda were the most important drivers of success for upstream work. Contingent liabilities for governments that emerge from PPPs were rarely fully quantified at the project level, although WBG projects tended to give attention to ensuring adequate risk sharing at the project structuring stage. PPIAF could be more engaged upstream in defining PPP aspects of country strategies. More work needed to be done at the sub national level to develop regulations, institutional capacity to develop pipelines of bankable PPP projects.

More than 66% of PPP projects were successful at achieving development outcomes. While these results were encouraging they needed to be interpreted with care. The projects were subject to high levels of due diligence, and there was often a lack of data on development impacts. IEG conducted a survey of 22 PPPs which indicated good results along most dimensions, although results on efficiency were mixed. Country readiness drives PPP success. Development outcome ratings of PPP projects tend to be better in countries with established frameworks for preparing and approving PPPs and a longer track record of executing actual transactions. As a general rule, strong regulatory environments tended to be more important in the water and power sectors and to a lesser extent the transport sector (ports, airports, and roads) where project-level parameters were the main determinants of project success. In addition to country maturity, PPPs needed a sound business case and a competent sponsor to be successful.

The performance of IFC's advisory services was mixed. About 96% delivered the required advice, but only about 50% proceeded to award of a successful PPP. This finding was not necessarily a weakness, and might have reflected the absence of necessary conditions such as political will, highlighting the need for more upfront capacity development, particularly in nascent economies. More upfront work could be undertaken, including more proactive dialogue with civil society stakeholders. A Bank Group-wide systematic country diagnostic for PPPs might help in determining the entry point for this upfront work.

IFC-supported PPPs tended to be less risky than other infrastructure investments, due to factors such as extensive due diligence and project designs that actively mitigated project risks. As a consequence, IFC supported PPPs consistently showed higher development outcome ratings than other infrastructure investments—and significantly higher ratings than the rest of the portfolio. Risk tended to be properly priced into IFC's PPP deals – resulting in higher-than average business success and investment outcomes. Success rates were consistently high across developed, emerging and nascent PPP economies at 86%, 88% and 83% respectively, indicating IFC could afford to take more risk. MIGA's PRI cover for specific risks and was most effective in countries with nascent PPP frameworks that were trying to establish a track record. In comparison, about 62% of World Bank's projects supporting PPP transactions were successful, in part reflecting the weaker countries where it was operating. WBG needed to stay engaged in PPP projects after financial close to help avoid or assist in the management of contract renegotiations, or support expansions. There was a need for greater coordination of the various arms of WBG to help support the progression of the PPP pipeline. Country programs based on detailed PPP diagnostics, based on detailed stakeholder consultations, could help support this process.

Other IFIs had started to implement similar approaches to facilitate the use of PPPs. ADB undertook an evaluation of PPPs that triggered a rethinking of the institution's approach to PPPs and it had moved to make the process more strategic and less opportunistic. The four pillars of its operational plan help define the PPP instruments that it will offer, and the method of implementation. African Development Bank set up an operational framework for PPPs in conjunction with its private sector development strategy, where PPPs figure prominently. Inter-American Development Bank had also developed an approach that stressed the importance of upstream and downstream support.

IEG's recommendations were clustered into 2 groups: (i) strategic and organizational and (ii) operational recommendations.

Strategic and Organizational Recommendations:

- Recommendation 1: IFC investment services should identify avenues that would allow IFC to invest increasingly in PPPs located in countries and markets that do not yet have a well-developed enabling environment
- Recommendation 2: IFC PPP Advisory Services should rethink its client engagement management with a view to ensuring broad stakeholder consultation up front and maintaining or even improving government commitment to PPP transactions

Operational Recommendations:

- Recommendation 3: Once the new PPP Cross-Cutting Solution Area has been established, it should translate the World Bank Group’s strategic intentions with regard to PPPs into an operational framework, covering aspects of organization and processes, resources, knowledge management, and monitoring and evaluation.
- Recommendation 4: The World Bank Group should systematically integrate efforts to assist governments in (i) making strategic decisions with regard to the level and nature of private sector participation in infrastructure and social service provision and (ii) assessing fiscal implications, including any fiscal liabilities associated with PPPs.
- Recommendation 5: The World Bank Group should provide authoritative guidance to its staff on how to handle unsolicited PPP proposals
- Recommendation 6: The World Bank Group should define principles for the monitoring of PPPs over the long run, that is, beyond operational maturity (IFC/MIGA) and projects closure (World Bank), to capture all vital performance aspects of PPPs, including—where relevant—user aspects.

Management comments broadly endorsed the findings of the report. It was noted the ongoing reorganization of the WBG included the creation of a Cross-Cutting Solutions Area for PPPs. This unit would create an institutional locus for the PPP agenda within WBG, and the sectoral and infrastructure economics and advisory work that underpins the solutions it delivered to client countries. Management noted the difficulties creating upstream pipelines of PPP projects and noted the possibility of developing a Global Infrastructure Facility, as a project preparation and financing vehicle to support countries develop PPPs.

3.2 Inter-American Development Bank’s Support to Public Private Partnerships, 2017

Inter-American Development Banking Group (IDBG) prepared a thematic evaluation of its work on PPPs in infrastructure in Latin America and the Caribbean (LAC) in 2017. It was noted that in recent years PPPs have become an increasingly important option to support infrastructure investment. At the third international conference on Financing for Development held in Addis Ababa in July 2015, multilateral development banks (MDBs) and the International Monetary Fund emphasized the “billions to trillions” challenge to use the (relatively few) billions of dollars of official development assistance to raise trillions of (private) capital required to achieve the Sustainable Development Goals agreed in the 2030 Development Agenda. Many of these goals rely on a substantial scale up in infrastructure investments, and there is a growing consensus this scale-up can only be achieved through increased private sector participation through the use of instruments such as PPPs.

PPPs are a mechanism used to develop and operate infrastructure using a mix of public and private resources and they are defined as: “A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.” PPPs can provide a number of benefits: (i) there is the potential to generate third party fees from users or use tax revenues to cover costs; (ii) contracts can improve asset quality and service delivery through clearly specified parameters such as quality, quantity, availability and expected life; (iii) it can make project prioritization and procurement much more transparent and competitive than traditional provision; and (iv) they provide a means of introducing fiscal discipline to timing and scope of investments that is independent of the political cycle. PPPs provide a means of explicitly identifying and managing risks which be substantial for large complex infrastructure projects.

From 2006 to 2015, the LAC region had investments of US\$361bn in around 1,000 PPP infrastructure projects, mostly in energy and transport. The PPP market in the region was

concentrated in Brazil, followed by Mexico and Colombia. PPP activity has increased in recent years, although institutional capacity and scale of project pipelines varies greatly across the region and the rate of contract renegotiations has been high. Contracts were renegotiated for almost 70% of PPP infrastructure contracts signed in the region in recent decades, and for 92% of water-related projects. Risk misallocation tended to be at the heart of renegotiation processes, pointing at poor project preparation and deficient value-for-money (VFM) assessment, together with incomplete contracts or regulatory weaknesses

The evaluation reviewed IDBG's support to infrastructure PPPs at three levels: enabling environment, project preparation, and financing of PPP projects. It focused its analysis on case studies of projects in five countries: Brazil, Dominican Republic, Guyana, Peru and Uruguay. These case studies were representative of the two most important sectors – energy and transport. During 2006-2015 IDBG approved 145 PPP projects for US\$5.8bn. These operations used a diverse set of instruments, including investment loans (83.5% of the total amount), guarantees (7.9%), programmatic Performance Based Loans (7.8%), equity (one operation), and TC grants (0.7%)

IDBG's work focused on improving the enabling environment and financing PPP projects, with little support for project preparation. Most IDBG resources for the enabling environment were directed to sector reforms, institutional strengthening, and improvement of regulatory frameworks to encourage private participation in infrastructure. IDBG was not particularly active in providing support for planning and executing PPPs at the subnational level although it had repeatedly been mentioned as a major need. The financing of PPP projects was provided mostly by the private sector windows of the IDBG. The IDBG provided 35% of total MDB project financing in the region, although its support was relatively small compared to the LAC PPP market. WBG was more active in the areas of enabling environment and project preparation.

IDBG's objectives to strengthen the enabling environment were mostly achieved, but project financing had difficulties achieving its objectives in countries with weak enabling environments. In these cases, IDBG was not successful in producing the required changes to the projects (or contracts) to make them viable. Basic conditions for making PPP projects successful were absent in half of the projects in the sample financed by IDBG. These projects did not try to ensure prerequisites were in place by providing enabling environment support, and then trying new models through pilot projects to test the environment—but only engaged in the projects at financial closure.

IDBG did not routinely conduct VFM assessments in early decision making processes, which reduced opportunities to add value. Ad hoc assistance for preparation was often provided at the financing stage when it was too late to change the project design. IDBG was able to add value by entering into long term engagements with governments that could be adapted to changing conditions. PPPs often have high levels of environmental and social (E&S) risks, and requirements for environmental impact assessments often did not correspond to IDBG's quality standards. Resettlement was one of the most sensitive issues. It is difficult to manage E&S risks during the financing phase of PPP projects if they had not been identified and addressed in the design and structuring stage. IDBG financing was sometimes subject to prepayments of foreign currency loans that were refinanced with local currency. In many LAC countries capital markets are small, and not very deep making it difficult to access long-term local currency financing, which was essential for PPP sustainability as tariffs were set in local currency. Coordination across departments was lacking.

Institutional arrangements within a country for developing PPPs were critical, and they needed to be based on: (i) clear and focused PPP strategy; (ii) critical mass of PPP skills and expertise; (iii) coordinated and collaborative approach across all parts of the institution that were involved with infrastructure PPPs, with an appropriate incentive framework; and (iv) an adequate set of PPP-related instruments (including knowledge, policy, and financing). Within IDBG, there had been a lack of an over-arching PPP strategy, and country strategies had provided little guidance. IDBG staff working on PPPs were scattered across the organization and lacked a focal point. Initiatives tended

to occur on a case by case basis in decentralised responses based on incentives at the sector level for volume lending, rather than a VFM approach that optimised infrastructure benefits for the client. There was little coordination between public and private sector operations. A more holistic and integrated approach at the country level would have improved development effectiveness. Other MDBs had all created (or consolidated) focal points⁷¹ to manage upstream and downstream PPP activities and improve internal coordination.

PPFs had not been used to their full potential. PPFs are part of a wider set of IFI knowledge platforms that have been created to support the preparation of PPPs across a wide range of IFIs including the following:

- **Public-Private Infrastructure Advisory Facility (PPIAF)** - a multi-donor technical assistance facility at the World Bank. Its objectives are to strengthen institutions, develop capacity, and increase creditworthiness. PPIAF tries to address obstacles—such as institutional weaknesses and lack of capacity in the public sector—that limit private sector participation in infrastructure. PPIAF provides technical assistance grants to governments to improve the enabling environment for the provision of infrastructure services by the private sector, including support for PPP programs.
- **European PPP Expertise Centre (EPEC)** - located at EIB, it is a membership-based network of PPP units and public policy-makers that brings together the collective expertise and experience of its members to address practical issues in implementing PPPs, provide market intelligence, and develop PPP guidance and tools. EPEC also helps with PPP policy development and, to a lesser extent, with project preparation.
- **SOURCE** - online cloud-based project preparation and management tool, which provides templates for infrastructure projects, with the aim of improving the quality, consistency, and transparency of project preparation in both PPP projects and standard public procurement projects. It is a digital platform designed to speed up the delivery of infrastructure in the public sector, especially in developing countries; and
- **Global Infrastructure Hub (GIH)** - based in Sydney, Australia, it was approved by the G20 to increase the flow and quality of opportunities for private and public infrastructure investment in G20 and non-G20 countries by facilitating knowledge sharing, highlighting reform opportunities, and connecting the public and private sectors through multiple knowledge sharing channels (e.g., best practice PPP risk allocation matrices).

IADB identified the following list of PPF issues that were drawn from previous IFI evaluations:

a. Enabling Environment:

- **Long-term political commitment.** PPPs are a fundamentally different way of delivering public infrastructure assets and services compared with standard public procurement and, as such, require governments to introduce new practices and manage internal and external opposition. It is common for governments to underestimate the political commitments and resources required to put in place and implement successful PPP programs and projects.
- **Stable legal and regulatory frameworks.** From the private investor's viewpoint key aspects include international arbitration (in particular where domestic court system is perceived to be weak); lenders' step-in rights (ability to replace a non-performing private contractor); and availability payments (in cases where demand risk cannot be transferred to the private party). A sound regulatory environment is a necessary condition for the success of a PPP, especially in sectors where are driven by regulation.
- **Communications and public acceptability.** The most successful PPP projects do more than just identify and manage stakeholders; they develop a deep understanding of stakeholders' interests and optimize the business case accordingly.

b. Project preparation (including feasibility and design):

- **Value-for money.** PPPs should be pursued where a project's underlying business case is sound and it creates value-for-money (i.e. potential effectiveness and efficiency gains from private provision exceed what a comparable public sector agency could achieve), rather than providing opportunities for the public sector to place the investment off-balance sheet, or rescue difficult projects.
 - **Risk Allocation.** The allocation of risks to a PPP needs to reflect circumstances relevant to particular project. Different types of PPP arrangements are appropriate at different times and for different sectors.
 - **Public sector capacity.** PPPs involve complexities at all stages of the project cycle (preparing, procuring, financing and managing performance-based contracts) and require a wide range of skills, some of which may be new to the public sector or difficult to attract and retain in the public sector. When the public contracting authority has little to no prior PPP experience, engaging PPP transaction advisers (legal, technical, financial) becomes a necessary condition. Having the right balance of global and local expertise is critical.
 - **Private sector capacity.** Many countries have a limited domestic market where the technical or financial capacity of contractors, service providers, investors, lenders and advisers to deliver PPPs is underdeveloped. Local private sector involvement and expertise is needed at least in the local contractors; material input providers; local lawyers and PPP advisory support; and local accountants.
 - **Procurement and approval process.** Clearly defined powers and processes in the public sector are a prerequisite for the appropriate selection and subsequent effective management of the various phases of PPP project development. Effective competition should drive costs down and incentivize private sector innovation.
- c. Project financing (and implementation)**
- **Project affordability.** Essentially there are only two sources of funding for a project - either from the public budget (through taxation) or from the users of the infrastructure asset (through direct charges). Where user charges are not feasible or can only provide limited revenues in comparison to the capital and operating costs of the project, public budget funding becomes the only source to pay-back for the costs of infrastructure. The funding of projects tends to be a significant obstacle to PPPs (possibly the biggest) since public budgets are severely limited and users' unwillingness to pay for public services is such that the long-term affordability of PPP projects is frequently challenged.
 - **PPP fiscal risks.** PPPs can provide opportunities to shift projects off balance sheet, which can create significant fiscal risks that are not transparent and difficult to manage.
 - **Local capital markets.** Better knowledge of the local market and ability to provide local currency financing (thus avoiding a currency mismatch) are two substantial advantages when local financial markets and institutions co-finance local PPP projects.
 - **Contract monitoring.** PPP partners need to have the capacity to monitor and manage their contracts, ensuring compliance and resolving disputes. They also need to contemplate the possibility of renegotiation as the circumstances change over the long lifetime of a PPP contract.

In conclusion, the IDBG evaluation made the following recommendations:

Strategic Level:

- Identify and assess the potential demand for PPPs through specific country diagnostics that looked at: (i) infrastructure needs at sector level; (ii) PPP legal, regulatory and institutional environment, and stage of maturity of the local capital markets; (iii) fiscal constraints and risks; and (iv) type of support from MDBs being sought by the government;
- Define priorities for countries and sectors and type of support that would be provided;

Organization Structure and skills:

- Establish a PPP focal point in the IDBG structure. The focal point needs to have sufficient authority and resources to foster collaboration and pull together all relevant parts of the IDBG (public and private) to deliver PPP services;
- Prepare a PPP action plan based on an inventory of the IDBG skills;
- Reform staff incentives so they are rewarded based on volumes of private funding rather than sovereign loans, which are easier to book, and encourage collaboration between public and private sector operations;

Operational Level:

- **Analyse infrastructure projects in the pipeline and advise countries on their feasibility, and if so, the most suitable delivery model for the projects through a public or private sector window using a VFM methodology, that is prepared by a department independent of the sector originating the financing and takes into account procurement capacity and E&S issues;**
- Explore the use and development of new financial and advisory products tailored to countries' specific needs. Options to explore include, local currency financing, advisory services, specific instruments to support subnational governments, and project preparation facilities.
- Strengthen the results framework for PPP operations. PPP operations should review: (i) VFM (i.e., is a PPP the best alternative); (ii) the quantity and quality of services delivered; (iii) the costs, both for taxpayers (known and contingent fiscal impacts) and for users (e.g., considering affordability for poorer households); (iv) the likely sustainability of the arrangements; and (v) E&S requirements.
- Design a specific PPP knowledge strategy, recognizing that confidentiality issues will require public and private versions of documents;
- Systematically incorporate lessons of experience from IDBG's own operations and from other MDBs in the design and implementation of new PPP operations.

Annex 4: EBRD's Infrastructure Portfolio

1. Introduction

This appendix provides a brief summary of EBRD's main strategies and policies relevant to financing infrastructure projects, and reviews the evolution of its infrastructure portfolio.

2. EBRD's Strategic Framework for Infrastructure

2.1. EBRD's Capital Frameworks

The Infrastructure Project Preparation Facility (IPPF) was prepared under Capital Resource Review 4 (CRR4). The **CRR4: 2011-2015** was driven to a large extent by the fragile recovery from the Global Financial Crisis (GFC). The CRR4 identified the following medium term objectives relevant to infrastructure: (i) accelerating transition in infrastructure, through modernization by supporting governments to alleviate fiscal constraints by promoting a mix of ownership, management and financing models; (ii) tackling energy efficiency, climate change and energy security; and (iii) scaling up policy dialogue in coordination with other international financial institutions (IFIs), and developing integrated approaches that link multiple projects with the promotion of reforms and technical cooperation (TC). These sectoral priorities would be pursued alongside EBRD's commitment to shift operations "East and South". The amount of grant funding in the Special Shareholders Fund (SFF)⁷² was increased by EUR150mn to support activities such as climate change and EBRD noted it would only accept untied TC funds by 2015. This reform was important as it enabled the pooling of funds and use of specialist consultants to better reflect strategic objectives

In 2014, EBRD issued the **Medium Term Directions** (MTD) for the Bank, which focused on Reenergising Transition. A major development that had occurred in CRR4 was the extension of EBRD's operations into the SEMED region in 2012. Offsetting this initiative, the prolonged economic down turn following the GFC led to reform stagnation and in some cases policy reversals. There was a need to reinvigorate transition through actions such as addressing bottlenecks in infrastructure and skills, and deepening local capital markets. The MTD indicated EBRD would play a supportive role, not only through finance, but by promoting an appropriate mix of public and private involvement, high-quality regulation, helping to prepare and structure projects and addressing the need for coordination across borders. The MTD noted the establishment of the SFF in 2008 had played an important supplementary role to donor grants by addressing gaps in grant availability or timeliness. Equity finance, local currency debt, and in some cases engagement in new sectors such as health were expected to play a role in EBRD's operations moving forward. The MTD indicated it was critical EBRD provide assistance to national and local governments to prepare and structure projects – including those involving privatisation or the private sector in ownership, financing or operations – and in building solid regulatory frameworks. **EBRD would develop its upstream project preparation capacity, and consider possible funding models in partnership with interested donors, as well as drawing on its own resources.**

The **Strategic Capital Framework (SCF): 2016-2020** highlighted the high level of economic uncertainty in COOs due to continued low growth, and geopolitical risks associated with events in Ukraine, North Africa and the Middle East. The SCF reinforced the continued need to reenergise transition, and enhance resilience, integration, and meet common global and regional challenges. EBRD indicated under its integration objective it would continue to build up the IPPF to provide assistance to national and local governments in preparing and structuring projects, including cross-regional and cross-border projects, and consider ways of cooperating with the European Union's European Fund for Strategic Investments (EFSI) and the World Bank's Global Infrastructure Facility (GIF). Infrastructure integration would continue to be a priority by supporting high quality regulation,

an appropriate mix of public and private involvement, and addressing the need for coordination across borders. **IPPF was expected to play an important role preparing and structuring these projects.**

2.2 Grants and Concessional Finance

The use of grants and concessional finance accelerated post financial crisis as EBRD stepped up efforts to strengthen the institutional environment and support economic recovery. There are several policy documents governing the use of donor grant funds including the Future Direction for Grant Co-Financing (BDS15-079/F) and Arrangements for Cost Sharing Between Donors and Clients – Policy Review (BDS14-024/F). The Future Directions for Grant Co-financing outlines how EBRD manages grants selectively and sustainably in line with international best practice. EBRD avoids market distortions and dependency on subsidies by targeting grants at issues such as increasing affordability, reducing market externalities, and increasing infrastructure sustainability.

Box A3.1: Donor Fund Structures at EBRD:

Donor funds can be structured as non-reimbursable grants, or concessional reimbursable loans. These funds are complimented with EBRD's net income allocated to the SSF. Grants are classified as TC that is used for policy dialogue, institutional capacity building, and project preparation and implementation. Co-investment grants are used to improve affordability, and mitigate externalities and risks of pursuing innovative activities. Co-investment grants can be structured as capital expenditure grants, risk sharing facilities and guarantees.

Source: EVD

2.3 EBRD Strategic Initiatives

EBRD's Strategic Initiatives build on the medium term strategic themes presented in the SCF. The main initiatives for infrastructure development and the IPPF were the: (i) Legal Transition Team (LTT); (ii) Early Transition Countries (ETC) and Western Balkans Initiative; (iii) Local Currencies and Capital Market Development (LC2); (iv) Investment Climate and Governance Initiative (ICGI); and (v) Green Economy Transition (GET). The main features of each of these initiatives are briefly summarised in this section.

LTT: The LTT program commenced operations in 1995 and it has been EBRD's main vehicle to develop legal environments to support markets and improve the investment climate. LTT's primary outputs are legal assessments, standard setting, outreach and legal reform. Within this framework the LTT focused on the following core legal areas: (i) concessions/PPPs; (ii) corporate governance; (iii) infrastructure regulatory reform and competition; (iv) judicial capacity building; (v) secured transactions; (vi) insolvency; (vii) public procurement; and (viii) securities markets. LTT sits within Office of the General Council (OGC) and it is financed through a mix of donor TC grants and OGC's internal budget.

ETC and Western Balkans Initiative: EBRD launched the ETC initiative in 2004 and it aimed to stimulate economic activity in the following COOs: Armenia, Azerbaijan, Belarus, Georgia, Kyrgyz Republic, Moldova, Mongolia, Tajikistan, Turkmenistan and Uzbekistan. More than 50% of the population in these countries lived below the national poverty line. The ETC initiative stimulates market activity in these countries by using a streamlined approach to facilitating economic reform, mobilising more investment, and financing more and smaller projects. In 2006, the Western Balkans Initiative was introduced, which adopted a similar format to ETC and it is designed to promote connectivity between the European Union (EU) and the Western Balkans, and it benefits from large amounts of EU funding.

LC2: The financial crisis of 2008 highlighted the risks arising from excessive reliance on foreign currency funding in COOs and the need for greater use of local sources of debt and equity from private and capital markets. In November 2013 the Board approved the LC2 Development Strategic Initiative which established a special purpose LC2 Unit in Vice President 3 (VP3). Subsequent to this approval, LC2 was identified by EBRD as 1 of 3 primary strategic priorities. Within this framework, country diagnostics were prepared, and TC programs implemented, to increase the use of local currency debt and equity.

ICGI: The ICGI was introduced 1 year after the Transition Report 2013 described in detail how many COOs had become 'stuck in transition'. While the EBRD's project delivery in recent years had been strong, the pace of transition in the region had slowed significantly and in some cases it had gone into reverse. The SCF indicated EBRD would develop more structured capacity for policy dialogue and institutional capacity development through the ICGI. The ICGI sits in VP3 and it provides a single umbrella to address issues such as project governance, business climate, dispute resolution, procurement standards, public-private dialogue, the legal framework and process transparency. EBRD indicated it would provide further support to the ICGI by strengthening areas such as the LTT Programme, regulatory and economic expertise and the policy dialogue function. ICGI country programmes are currently being implemented in Albania, Moldova, Serbia and Ukraine.

GET: This initiative was approved by the Board in 2015 and it reflected the SCF's common global and regional challenges objective. EBRD indicated it would ramp up activities under its **Sustainable Energy Initiative (SEI)**, focusing on energy efficiency as a means of addressing climate change, competitiveness and energy security. The **Sustainable Resource Initiative (SRI)** extended the SEI concept from energy to water and material waste.⁷³ Country diagnostics would be prepared and programs would draw upon both public and private sources of finance. When market barriers were too high to allow projects to go forward, EBRD would support eligible clients by obtaining donor funds from bilateral and global partners such as the Climate Investment Funds (CIF), the Global Environmental Facility (GEF), the EU, and other donors.

2.4 Sector Strategies

Sector strategies define Performance Monitoring Frameworks (PMF) that set out EBRD's objectives and track performance through output level indicators. Progress with outcome and impact level results is monitored and reported at the country level as part of the country strategy results framework. EBRD has prepared strategies for a range of sectors relevant to the IPPF, consisting of MEI, Transport, and Energy. This section provides a summary of key points of the sector strategies relevant to the IPPF.

MEI Sector Strategy for 2012-2017 was approved in the context of the ongoing impacts of the GFC, the expansion of its operations to the SEMED countries, and the increasing importance of climate change. The 2012 strategy retained the historical focus on municipalities and the strategic themes of decentralisation, commercialisation and environmental improvement. The main differences with the new strategy were the shift to ETCs and SEMED countries, and the intention to work more with smaller municipalities, and support PPPs in both large and second tier cities.

Transport Sector Strategy for 2013:2018 updated the earlier strategy for non-urban transport approved in 2005. The current transport strategy set out the following objectives: (i) promote private ownership, financing and operation of transport infrastructure, where necessary, by engaging firstly on a non-sovereign basis financing state owned enterprises (SOEs); (ii) support the creation and expansion of competitive markets for transport services; and (iii) improve the efficiency of management of public sector transport assets. Policy dialogue at the project level is important, whereas integrated approaches were not expected to play an important role. PPPs were expected to feature in policy dialogue in Turkey, EEC, Russia, Kazakhstan and SEMED. TC would be used to

support transition objectives such as developing institutional capacity for preparing PPPs. The support of capital market initiatives such as project bonds would be considered. PSP would be supported using instruments such as senior and mezzanine debt, in hard and local currency, through capital market instruments, guarantees and equity participation.

Energy Sector Strategy 2014-2018 updated a 2006 strategy. The Energy Strategy covers all EBRD's activities in electricity generation, transmission, distribution and supply and hydrocarbon extraction, processing, transportation, distribution and supply. The current strategy is built around the SEI and SRI, which together define EBRD's approach to promoting efficient and sustainable energy, water and other resources. The strategy aims to: (i) reduce energy consumption; and (ii) increase energy efficiency and promote renewable energy. Transition is core to these activities, developing markets, cost reflective tariffs and facilitating PSP.

2.5 EBRD's Country Strategies

Country strategies reflect the strategic themes presented in EBRD's Medium-Term Directions. The strategies are elaborated, based on the sector strategies and transition gaps that are translated into EBRD's strategic orientations within a country. The strategies set out EBRD's strategic directions and lending priorities for the subsequent 4 years across EBRD's 4 sector departments. Each country strategy describes the operational environment and its opportunities and constraints, identifies transition challenges, defines strategic themes, and a set of realistic transition objectives. The strategy then defines operational priorities for investment projects, advisory work and policy dialogue. Instruments are defined that support the achievement of these objectives.

EBRD currently has 37 COOs, and they each have a country strategy that is updated on a rolling basis. The large number of countries with very diverse stages of transition and development, makes it difficult to identify specific issues that relate to EBRD's development programs and how they impact on infrastructure preparation and financing. Further difficulties arise as the country strategies have tended to be more like policies than strategies as they identify possible areas of financing, rather than specific investment programs, reforms to enabling environments to promote transition impact (TI), and identifiable targets. In general the logic underpinning strategies flows from EBRD financing opportunities, to TC availability, to policy dialogue. This bottom up approach to support of country policy formulation, coupled with uncertain availability of TC, and political and economic uncertainty, has tended to result in vague statements of intent rather than an actual strategy that guides resource allocation and the definition of performance targets. These statements of intent tend to reflect EBRD's corporate and sector strategies, but they do not provide a clear assessment of the need for institutional reform or investment needs.

These circumstances are starting to change and in 2016, following an Operational Effectiveness and Efficiency Review, EBRD introduced a new country strategy framework that clearly separated country diagnostic work from EBRD's strategic priorities and activities within a country. As part of this program, EBRD conducted a review of its results framework and the definition of TI and concluded that a well-functioning market economy should be more than just competitive. **A key lesson from the review was that transition should be about improving the quality of both state and private institutions and ensuring they work well together.** It was noted that greater emphasis was required to address environmental considerations, gender and inclusion. In line with this approach, the new country strategy documents are prepared on a top down and then bottom up basis, which is designed to reflect the needs of the country. The initial strategy is validated through consultation with governments and the sector departments before being finalized. EBRD introduced a new definition of TI that is based on 6 transition qualities of: (i) competitiveness; (ii) governance; (iii) greenness; (iv) inclusion; (v) resilience; and (vi) integration. These new qualities provided the basis for developing a new results framework for measuring TI.

In line with this new approach, EBRD has entered into country agreements at the sector level such as the EBRD-supported National Renewable Energy Action Plan (NREAP) in Turkey in 2015, and this type of arrangement provides a basis for mobilising funds from third party sources such as the World Bank Group's (WBG) Clean Technology Fund (CTF). EBRD has entered into framework agreements with some countries where there are undertakings from the government to co-finance EBRD initiatives at the country level. For example, in Kazakhstan, EBRD signed an Enhanced Partnership Framework Agreement (EPFA) with the government in May 2014, which set out a program of cooperation on investment and policy dialogue. Under this agreement the Government has provided EUR15.6mn to fund the Bank's TC, and US\$33mn for Advice to Small Business (ASB) programmes. Similar agreements were signed by the government with WBG, ADB and Islamic Development Bank. One of the key areas of IFI coordination will be the improvement of the legal framework for PPP projects, and the Energy Efficiency and Climate Change (E2C2) topics, including co-operation with the CTF.

In most COOs, PPPs are becoming a much more important area of reform supporting transition in infrastructure. While there is a high degree of interest in PPPs across the COOs, in practice these instruments are largely limited to Turkey at this stage. EBRD played a key role in high profile projects such as the Eurasia Tunnel in Istanbul (Turkey's first Direct Agreement and Debt Assumption Agreement which has been used as a template for later Build-Operate-Transfer projects) and the Mersin International Port Eurobond, the first infrastructure bond in Turkey. EBRD worked closely with the Ministry of Health to help refine its approach to contracting under PPPs for the provision of public healthcare infrastructure, which successfully improved the bankability of future healthcare PPP projects and paved the way for further engagement by IFIs and other international banks. PPP is starting to emerge as a credible instrument in countries such as Croatia, Egypt, Jordan and Kazakhstan, although investment remains at very low levels, and institutional capacity remains limited.

2.6 EBRD Operational Policies

EBRD has several policies that guide the operationalization of its strategies, of which the most important for infrastructure and the IPPF relate to procurement, concessions and environmental and social safeguards.

EBRD Procurement Policies and Rules: This policy was first published in 1992, and it has been updated many times, most recently in 2017. The policy is designed to ensure economy and efficiency in public and private sector operations and transparency and accountability in public administration, by ensuring open competitive procurement. This framework is harmonised with the procurement frameworks of other IFIs such as European Investment Bank (EIB) and World Bank. EBRD requires public sector clients to obtain goods, works and services that are financed with EBRD funds through open tendering procedures in accordance with the rules outlined in the policy document. Private sector enterprises in which the EBRD holds equity or debt are encouraged, but are not obliged, to use international tenders to obtain goods or services through the use of competitive tendering methods. The new policy in 2017 introduces the concept of value for money, but it is not applied within EBRD to determine how Bank financing is allocated to projects. Competitive dialogue does not feature in the new policy, indicating that a narrow interpretation of competition still applies to all EBRD procurement.

EBRD Financing of Private Concessions: In 2001 EBRD approved its Concession Policy, which sets out how it will encourage PSP in public sector infrastructure through instruments ranging from service contracts through to concession arrangements using competitive tendering. In practice these conditions can be hard to achieve as EBRD often has limited ability to influence the procedures used by the public sector. In many cases, by the time EBRD becomes involved with the private entity, the public procurement process has already been established and it cannot be changed. As EBRD is

offering financing to the private entity rather than the public sector, it is not in a position to exert leverage on the public sector entity and change the process.

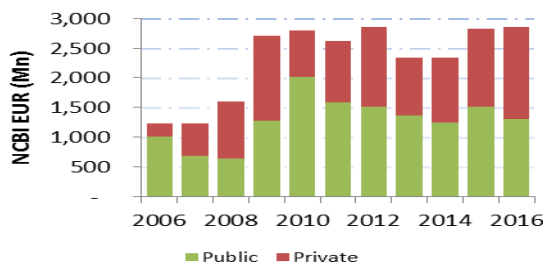
Environmental and Social (E&S) Policy: The current E&S Policy and related Performance Requirements were approved in 2014. The E&S Policy defines the roles and responsibilities of both EBRD and its clients in designing, implementing and operating projects in line with this Policy. Projects are screened at inception to determine expected E&S impacts to determine how they are processed prior to approval. Following approval of EBRD finance, it monitors compliance with the standards, with the level of monitoring being commensurate with the level of E&S impacts, and at a minimum occurring at least once per year. EBRD publishes an annual report on E&S issues and there is a Project Complaint mechanism to assess and review complaints.

3. EBRD's Infrastructure Portfolio

3.1 Infrastructure Financing Portfolio

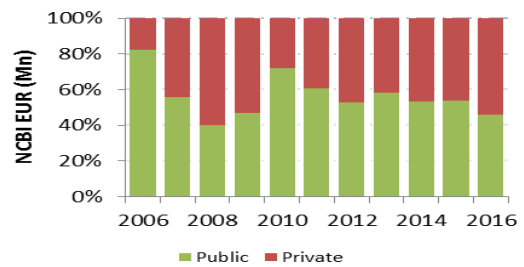
As shown in **Figure A4.1 and A4.2**, public investment as a share of the annual NCBI has fallen from 80% of annual approvals in 2006 to about 50% in 2016. The definition of private sector needs to be interpreted with care, as essentially, it is applied to all projects that do not benefit from a sovereign guarantee, and including state owned enterprises and municipal public utilities.

Figure A4.1: Public v Private Finance, Value



Source: EBRD Records

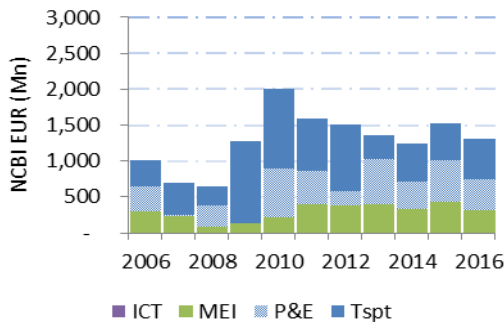
Figure A4.2: Public versus Private Finance, Proportion



Source: EBRD Records

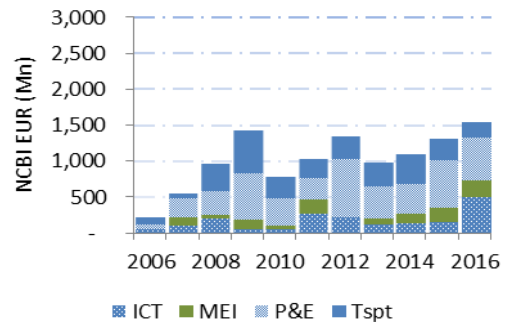
Figures A4.3 and A4.4 provide a breakdown of public and private infrastructure financing by sector, and shows the extent transport has dominated the public sector portfolio, although its share of the portfolio has been declining in value and proportional terms, following a short period of rapid growth after the global financial crisis (GFC).

Figure A4.3: Public Infrastructure Finance by Sector



Source: EBRD Records

Figure A4.4: Private Infrastructure Finance by Sector



Source: EBRD Records

Figure A4.5 shows that most public investment is being allocated to South Eastern Europe (SEE), Southern and Eastern Mediterranean (SEMED) and more recently Cyprus and Greece (CG). **Figure A4.6** shows most private investment is occurring in Turkey, followed by CEB.

Figure A4.5: Public Infrastructure Finance by Region

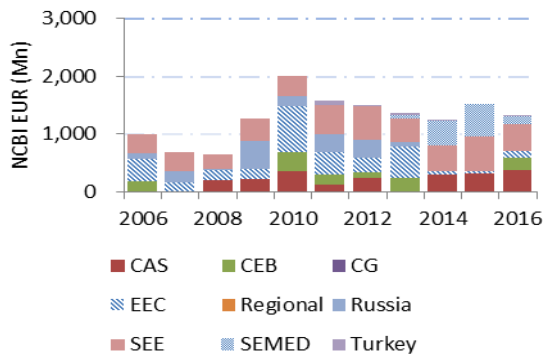
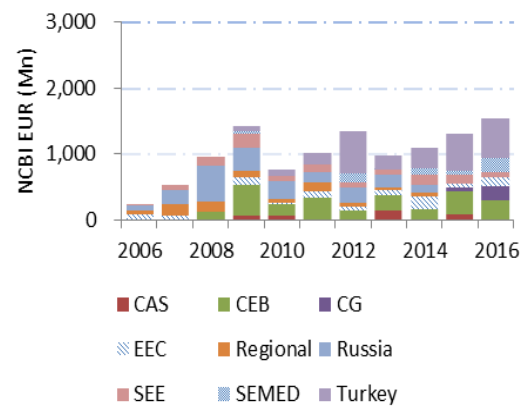


Figure A4.6: Private Infrastructure Finance by Region



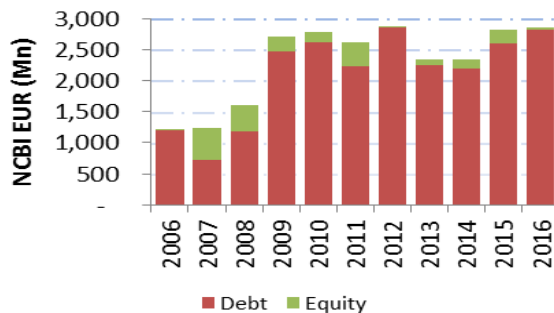
CAS = Central Asia; CEB = Central Europe & Baltics; EEC – East. Europe & Caucasus; SEE = South East. Europe; SEMED = Southern & Eastern Mediterranean

Source: EBRD Records

Source: EBRD Records

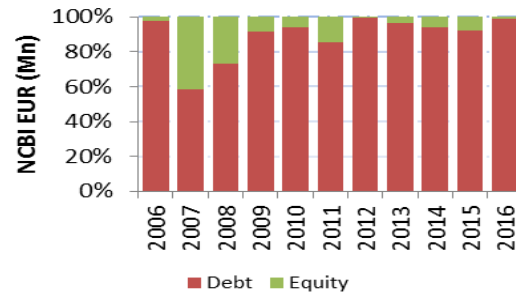
Figures A4.7 and A4.8 show equity has not played a significant role in infrastructure transactions, apart from 2007, presumably due to problems closing transactions following the GFC.

Figure A4.7: Infrastructure Financial Instruments, Value



Source: EBRD Records

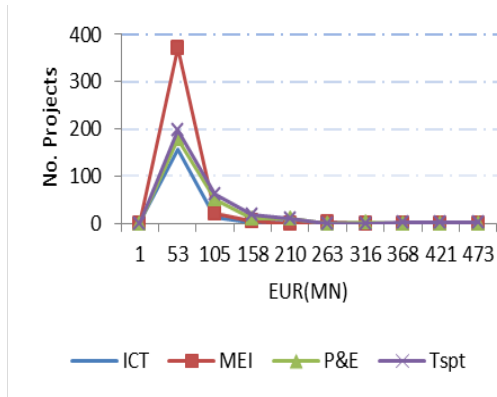
Figure A4.8: Infrastructure Financial Instruments, Proportion



Source: EBRD Records

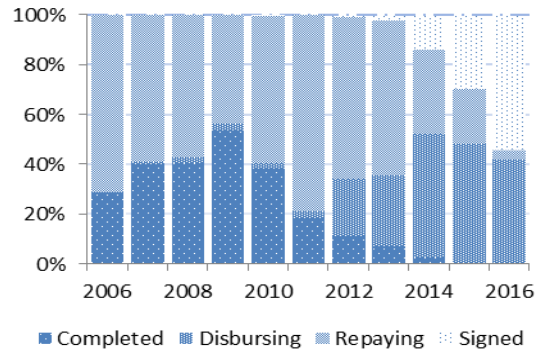
Figure A4.9 shows the size of most loans averaged about EUR50mn, although transport facilities ranged up to EUR473mn, and one P&E project was about EUR315mn. In comparison, in MEI there were a much larger number of smaller projects. Aggregated data on tenors is not readily available, although anecdotal evidence indicates a range of 10-15 years. Reflecting this result, Figure A4.10 shows that most of the infrastructure facilities at 31 December 2016 approved during the evaluation period was in the repayment phase, and relatively few projects had been completed. There is no readily available aggregated data on the difference between forecast and actual time taken for disbursements, costs for infrastructure investments, returns on those investments, or the number of infrastructure projects that were non-performing. This data would provide valuable insights into the quality of project designs.

Figure A4.9: Project Size Distribution, Sector



Source: EBRD Records

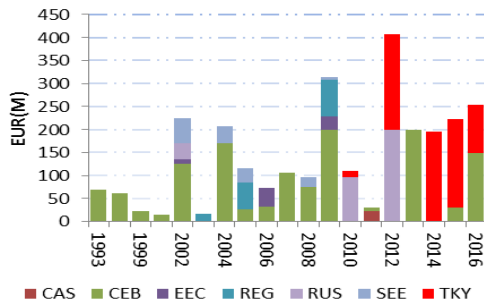
Figure A4.10: Stage Financing Lifecycle



3.2 Infrastructure PPP Portfolio

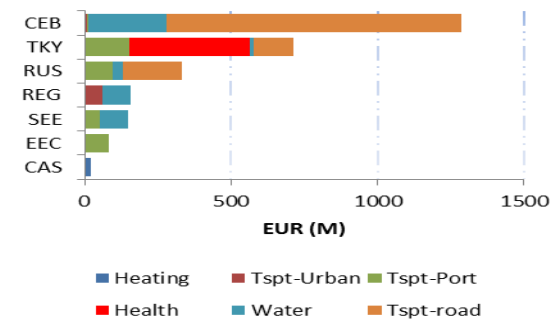
Data on individual PPPs is limited to Transport and MEI projects. Since 1992 there has been 47 projects financed, although within this total, there were 12 refinancing, indicating 35 projects in total. It can be seen in **Figure A4.11** and **Figure A4.12** that most PPP investment occurred in the CEB region in roads up to 2012, when Turkey then became the dominant source of PPPs, mainly in the health sector.

Figure A4.11: PPPs by Region, 1993:2016



Source: IPPF

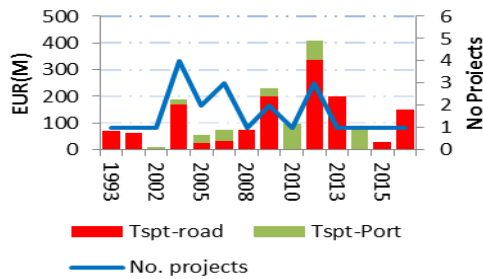
Figure A3.12: PPPs by Region and Sector, 1993:2016



Source: IPPF

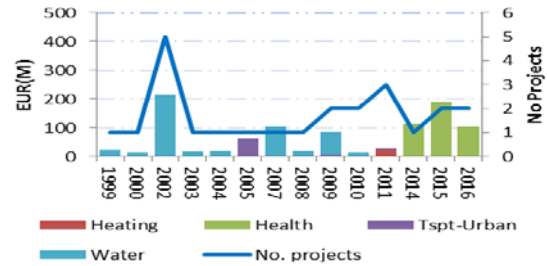
Figures A4.13 and **A4.14** provide a breakdown of the number and volume of PPP transactions in the Transport and MEI departments.

Figure A4.13: Transport Department PPPs



Source: IPPF

Figure A4.14: MEI Department PPPs



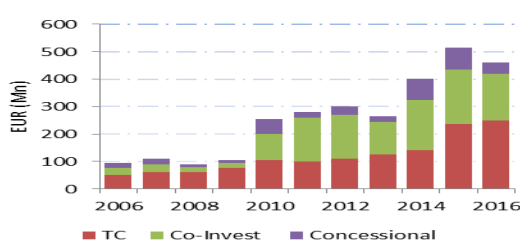
Source: IPPF

3.3 Infrastructure Grant Portfolio

As shown in **Figure A4.15**, over the period 2006-2016 there was rapid growth in the use of grant funds by EBRD, reaching EUR445mn by 2016. In line with EBRD’s objectives to shift East and South, CAS and SEMED have been allocated an increasing share of these funds, with infrastructure receiving the largest share of grants by sector. **Figure A4.16** shows that most of these grants were used to support transactions, and it increased from about 1.5% of Annual Bank Investment (ABI) in 2006 to about 5% in 2015. This growth was driven by an increase in TC and co-investment grants and a slight increase in concessional finance. In 2016 grant funds were allocated to TCs (59%), capex grants (36%), risk sharing (3%), and incentives (2%).

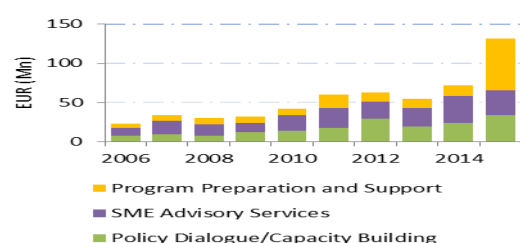
TC funds were used for activities such as project preparation (36%), particularly for MEI projects, and institutional capacity building (66%), mainly to improve the SME investment climate. Capex grants were used to improve affordability or reductions in externalities, typically for MEI projects in ETC countries. Incentives were mainly used to support energy efficiency initiatives. The LC2 initiative used grants to develop first loss facilities in SEMED, Western Balkans and Ukraine to guarantee SME local currency lending. Non transaction grants were used to support policy advice, SME advisory services and program preparation initiatives. The large increase in the latter category was due to the approval of the IPPF and an increase in the Sustainable Financing Facility that is used to provide incentives for climate change initiatives.

Figure A4.15: Evolution of Grant Finance



Source: EBRD Records

Figure A4.16: Evolution of Non Transaction TC



Source: EBRD Records

About EUR289mn of total grant funding was sourced from the EU and EUR 140mn from EBRD’s net income, of which EUR 105mn came from the SSF. Other sources of funds consisted of bilateral agencies, and climate funds. While climate funding has been declining in recent years it was expected this trend would reverse when EBRD gained access to the Green Climate Fund (GCF).

Annex 5: Review of EBRD's Infrastructure Evaluations

1. Overview

This annex provides a summary of evaluations prepared by Evaluation Department (EvD) that are relevant to infrastructure.

2. EvD Evaluations

2.1 Municipal and Environmental Infrastructure (MEI)

MEI's operations aim to improve efficiency and raise standards of municipal services in sectors such as water supply and wastewater treatment, solid waste management, district heating, urban transport and other services. A MEI Operations Policy was approved by the Board of Directors in October 2004 and it was based on the core directions of decentralisation, commercialisation and environmental improvement where appropriate, and it was in line with EBRD's overall mandate. Within this framework, MEI focused on municipal clients, primarily with revenue generating projects in areas such as local road rehabilitation. The MEI team was not encouraged to work on non-municipal sovereign projects (e.g. raw water infrastructure) or industrial wastewater with private clients.

Policy dialogue and Technical Cooperation (TC) grants were important means of supporting the MEI investments and the achievement of policy objectives. The MEI Policy stated that where commercial discipline and cost recovery were underdeveloped, EBRD would selectively engage in policy dialogue to address constraints linked to pilot transactions that illustrated the benefits of implementing the required reform. In addition to traditional areas such as moving utilities to full cost recovery, elimination of cross-subsidies, and out-sourcing, the MEI Policy indicated there were opportunities to move into activities that were not full cost recovery, but would benefit from commercial approaches in sectors such as urban transport, or had strong environmental impacts such as district heating and solid waste management. MEI used TC extensively to strengthen the institutional operational and financial capacity of utility companies and local authorities to implement these decentralization and tariff adjustment policies.

EvD evaluated the MEI Policy in 2010⁷⁴ and concluded EBRD was making progress on the achievement of the core policy objectives, and there should be no major changes in strategy. Effectiveness was highly rated in core sectors such as water and sewage, urban transport, and district heating, but marginal for solid waste and housing. There should be some changes of emphasis to the policy, in areas such as improving energy efficiency in housing and municipally-owned buildings. With EBRD's increasing focus on energy efficiency, there were opportunities for MEI to expand its work in this area and more TC would enhance these types of operations. EvD rated transition impacts as being high, particularly for integrated projects in the water sector.

In a subsequent study⁷⁵, EvD evaluated EBRD's objectives and activities supporting PSP in the MEI sector between 2001 and 2012. The main findings of this evaluation were as follows:

- Private sector participation (PSP) in MEI sectors in the countries of operation (COOs) was disappointing, being well below levels observed in other regions, and it had changed relatively little since transition began;
- The strategic importance of PSP in MEI in sector policies within EBRD was initially high, but it had declined as a priority over the past 15 years due to poor project performance;
- Unlike infrastructure sectors, countries in COOs did not have PSP strategies for municipalities, making it difficult for EBRD to develop a coherent strategy to promote and finance PSPs; and

- There were few examples of policy dialogue with cities and governments on the public private partnership (PPP) concept and the development or amendment of PPP-enabling legislation at the municipal level.

2.2 Transport

In 2011, EVD prepared a review of EBRD's Transport Operations Policy (TOP)⁷⁶ that covered three sub policy periods from 1992 to 2009. Projects were designed to foster regional integration, promote competitive markets, and enhance the environment. The scope of the Transport Division's sub-sectors included roads, railways, aviation, ports; and environmental infrastructure; and excluded urban transport and natural resource projects such as oil and gas pipelines. Roads accounted for about 50% of the total transport financing volume, followed by rail. The projects were mainly sovereign and financed with debt (94.5%), and equity (5.5%). Most loans were sovereign guaranteed, although there was some growth from 2002 onwards in the level of direct sovereign loans, mainly in South Eastern Europe (SEE), and non-sovereign transactions, mainly in Russia. Similar to the rest of the world, transport PPPs in COOs had experienced difficulties raising capital compared to energy and information and communications technology (ICT) sectors.

Policy dialogue on transport (and MEI) in Russia was actively pursued through the Bank's Resident Office (RO) in Moscow, whereas the Transport Team at EBRD's Head Quarters (HQ) led discussions with Central Asia (CAS) and Western Balkan countries. Discussions had focused on issues such as integrity and corporate governance, and lack of legal/ regulatory frameworks for PPP. IMF country borrower caps and European market integration opportunities were important drivers of financing volumes and there were some discussions with governments on these issues.

TC for transport regulation, policy and management was relatively limited. TC was mainly used to prepare or implement projects, and disbursement was often linked to achievement of transition impact (TI) targets. Overall, the transport sector was a comparatively low consumer of TC within EBRD, accounting for about 8% of TC financing provided by donors in 2009. About 65% of TC funds were targeted at CAS, the Caucasus and SEE. This result reflected the greater sector reform and project preparation needs in these regions. Almost 50% of TC originated from the EU-EBRD Cooperation Agreement, Bangkok Facility (TACIS programme). Japan and the Netherlands were the largest bi-lateral donors. In 2008, EBRD had established the Special Shareholders Fund (SSF), and it was becoming a major source of TC funds for transport.

EvD rated the previous transport strategy in 2012 as good or satisfactory. Transition impacts had significantly exceeded EBRD averages. At the same time, 11 out of 71 projects were rated unsuccessful due to implementation difficulties, particularly for large sovereign projects. The SEI was an important transport initiative due to the large volumes of CO₂ emitted by transport operations and the new strategy set out an agenda for improving the quality of fuel and infrastructure needed for cleaner transport systems. EvD's evaluation found there was a lack of alignment between sector reform expectations and individual infrastructure deliverables. The role and need for policy dialogue and TC in fostering transition processes required clearer definition in both the sector policy and in individual country strategies. Cooperation with other IFIs was critically important, accounting for about 50% of cofinancing. There were opportunities to integrate transport projects with linked investment opportunities for other EBRD sector divisions such as MEI and Energy.

2.3 Power and Energy

In 2011, EvD prepared a review of EBRD's Power and Energy (P&E) sector operations policy from 2003 to 2010⁷⁷. The evaluation covered power generation, transmission and distribution projects. The core priorities of the P&E policy were reform of energy markets by improving the investment climate, promoting regional and cross border trade, strengthening corporate governance, promoting energy security, renewable energy, and environmentally sustainable development.

The volume of P&E operations nearly tripled to EUR4.2bn over the evaluation period, driven by growth in renewable energy and electric power distribution, and electric power generation that accounted for 48% of financing. About 50% of renewable projects were in EU countries, indicating that more work was required to develop renewable investment frameworks in less advanced countries. The share of private sector projects in the total P&E portfolio over the evaluation period tripled to 62%. Nearly 25% of projects by number involved equity, and the net internal rate of return (IRR) on equity for completed and active projects was -8%.

From 2009, EBRD sought to clearly define its priorities for future cooperation and ensure they reflected national priorities. It had started to prepare and sign Memoranda of Understanding (MoUs) or Sustainable Energy Action Plans (SEAP) with the governments of the COOs on P&E objectives. A MoU signed with Ukraine was based on an integrated approach (IA) that presented a set of directions which placed EBRD's planned activities in the context of its overall development needs. EvD noted that development of an IA required thorough sector analysis and it was time-consuming, but it did provide clear benefits in areas such as more focused policy dialogue.

TC was used extensively for public sector projects on activities such as due diligence, feasibility studies, and Environmental and Social Impact Assessments (ESIA). Availability of TC for policy dialogue was limited, and there was a need to identify ways to make policy dialogue more effective through better incentives, skills mix and allocation of resources across HQ and ROs. Policy dialogue had helped several countries with unbundling, commercialisation and/or privatisation of companies active in P&E. EvD noted the limited capacity of government institutions needed to be addressed (e.g. through training, consultant support) before embarking on major reform in the energy sector, particularly where it involved complex privatisation tenders. Tariff reforms needed to be phased to make PSP feasible and sustainable.

EvD had rated the overall performance of EBRD in the P&E sector as successful, while transition impact, sustainability and effectiveness of policy implementation were rated Good to Excellent. At the same time there was a need to update the strategy to reflect developments such as the growing importance of climate change, and the energy sector's dominant role emitting greenhouse gases. Carbon markets were expected to emerge to support low carbon investments. There was a need to develop more efficient and sustainable energy systems by developing demand and supply side initiatives based on smart metering and smart grids, and renewable energy. The Global Financial Crisis (GFC) impacted the energy sector as public sector austerity measures delayed new investment, reduced incentives to reform, and increased the cost of fiscal subsidies. On the private side demand was reduced and uncertainty increased, discouraging investment. The expansion of operations into SEMED had created new challenges as energy sectors had not been liberalised.

Reflecting these developments, EvD noted that efficiency improvements at the project level were rarely effective at promoting sector wide reforms. Political risk mitigation was the primary justification for EBRD participation in non-sovereign projects, particularly in regard to tariffs, and debt was the preferred instrument. There was a lack of coordination between policy dialogue and projects, and linkages between banking, Office of the Chief Economist (OCE), Legal Transition Team (LTT), and procurement. Project delays could be significant, in many cases due to procurement related factors such as lack of capacity in the client organisation to carry out the tendering process, an initial lack of understanding of the EBRD procurement procedures, and/or technical issues

stemming from the tender specifications. Cost over-runs were an issue due to incorrect cost estimations and overly complex technical solutions. Similar problems arose under TC projects, which needed to be set up and procured as quickly as possible to maintain momentum with project preparation. EBRD had successfully used framework contracts in a number of projects to streamline this process.

2.4 Legal Transition Team

In 2012, EvD prepared an evaluation that concluded the Legal Transition Team (LTT) program⁷⁸ had made an important, although narrowly focused contribution to legal reforms in areas such as infrastructure financing. LTT was successful at developing concessions and PPP laws and telecom regulations, and partly successful developing other infrastructure (mainly energy). The evaluation noted that during the last 20 years EBRD had financed 17 PPPs in 10 countries in the water and waste water sectors and 16 PPPs in 8 countries in the transport sector. This limited outcome indicated the fundamental difficulties (primarily political) in encouraging this type of infrastructure financing and, based on evidence presented in EBRD's Transport Strategy (Draft), 2012, it possibly pointed to underlying deficiencies of the PPP legal framework in many COOs. LTT had one PPP Specialist who worked almost exclusively on the Russian PPP program. Despite an overall rating of successful, the evaluation noted that legal frameworks continued to be universally substandard in COOs, the proposed expansion of operations into SEMED would be very challenging, and the overall program lacked resources in critical areas such as PPPs and the development of local capital markets.

2.5 Local Capital Markets Initiative

EvD evaluated EBRD's efforts to develop local capital markets (LCM) under the LC2 strategy in 2017⁷⁹ and concluded EBRD invested more in corporate bonds and listed equities and there were cases of legislative and regulatory improvements. However volumes were relatively small and any observable larger market effects beyond documentation and issuance process will not emerge for some time. Infrastructure did not feature as an important area of activity for LCM operations.

2.6 Special Shareholders Fund

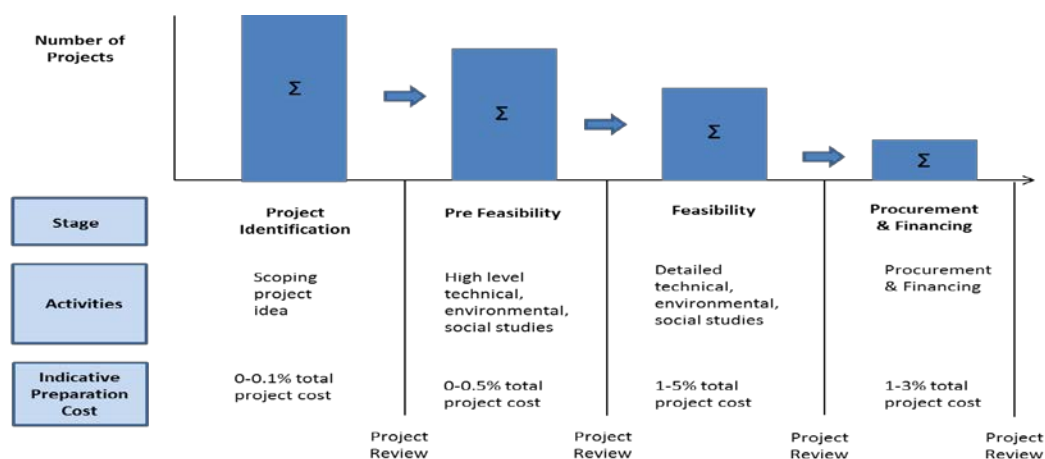
EVD prepared an evaluation of the Special Shareholder's Fund (SFF) in 2014⁸⁰. The SFF was established in 2008 by the EBRD Board of Directors to "broaden the scope and deepen the intensity of the Bank's transition impact, focussing on the most important transition challenges." Intended to focus on technical assistance and other initiatives such as investment grants, the SFF would complement donor funding, drawing its resources from allocations of EBRD net income. The SFF was in its seventh year of operations and it has received a total of EUR385mn and committed over EUR250mn. EVD found the SFF had created considerable value by providing untied resources, acting as a fund of last resort, supporting strategic initiatives, and serving as a co-financing and bridge funding tool. Offsetting this result, the SFF was used primarily for filling gaps, raising questions about the quality of spending as it was not possible to demonstrate its contribution to transition impacts.

Annex 6: IPPF Project Structure and Preparation Process

1. Overview

Project preparation follows a clearly defined process and evidence from various sources indicates that they can range from 5-10% of project costs.⁸¹ Project preparation is concerned with identifying project benefits, costs and risks. This process reflects a cascade of project review decision points where their benefits, risks and costs are subject to various pre-determined criteria. On the basis of this analysis, decisions can be made on whether to proceed with a project. The number of projects, and within those projects, alternative procurement options, will decline as they are subject to increasing levels of analysis, and preparation costs, as they move through this process. This phased approach enables project designs to be revised as early in the process as possible to avoid risks of rework and wastage, and stakeholders can be adequately informed about the likely scope and their rationale, minimizing risks of lack of project support downstream.

Figure A6.1: Project Preparation Process



Source: Principled Approach to Infrastructure Project Preparation Facilities, World Economic Forum, 2015

2. Infrastructure Project Preparation Facility

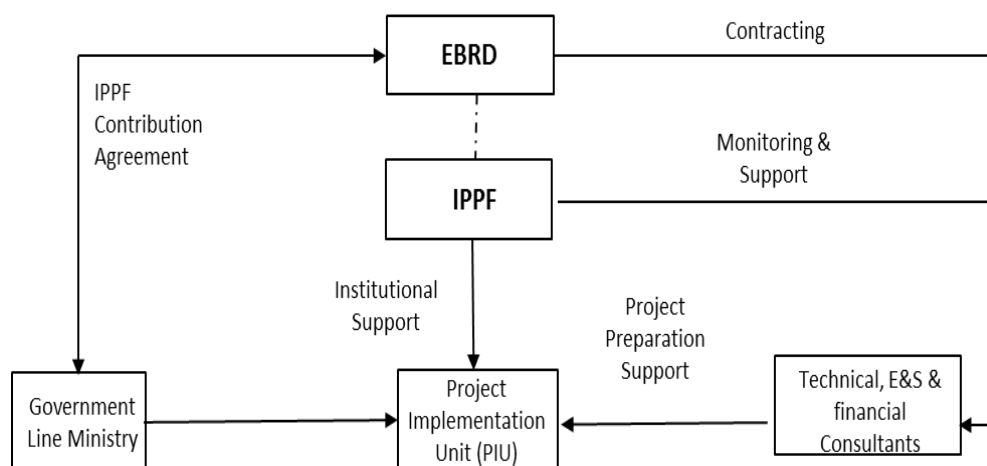
2.1 Overview

The IPPF consists of: (i) a Sustainable Public Sector Infrastructure Window (SSW), and (ii) a PPP Preparation Window (PPW). Each of the windows has a different process and scope of work, depending on the method of procurement. As SSW projects are subject to a direct, or an implicit government guarantee, the amount of funds allocated to project preparation are much less than PPPs, where project risks must be managed through relatively complex contractual structures that allocate risks to those parties best able to manage those them, and formal risk mitigation measures are put in place.

2.2 Sustainable Public Sector Infrastructure Window:

Under the SSW, project preparation is financed through a grant allocated to a line agency, and the consulting engagement ends at the time of contract tender. The institutional structure for SSW engagements is illustrated in **Figure A6.2**:

Figure A6.2: Institutional Arrangements for SSW Engagement



Source: EVD

The terms of reference (TORs) used to recruit the SSW panel consultant teams indicated that project preparation activities would include technical and financial feasibility, environmental and social due diligence (ESDD); regulatory and institutional strengthening to foster replicability and ensure that infrastructure operations and maintenance issues are sufficiently addressed; and there is good practice in terms of gender mainstreaming and social inclusion, as relevant. The feasibility assessments would ensure an appropriate baseline is established, enabling the Bank to better measure the impact of its investments.

Under the general TORs for the initial recruitment of the SSW consultants, it was indicated that the Framework Consultants may be asked to perform the following tasks:

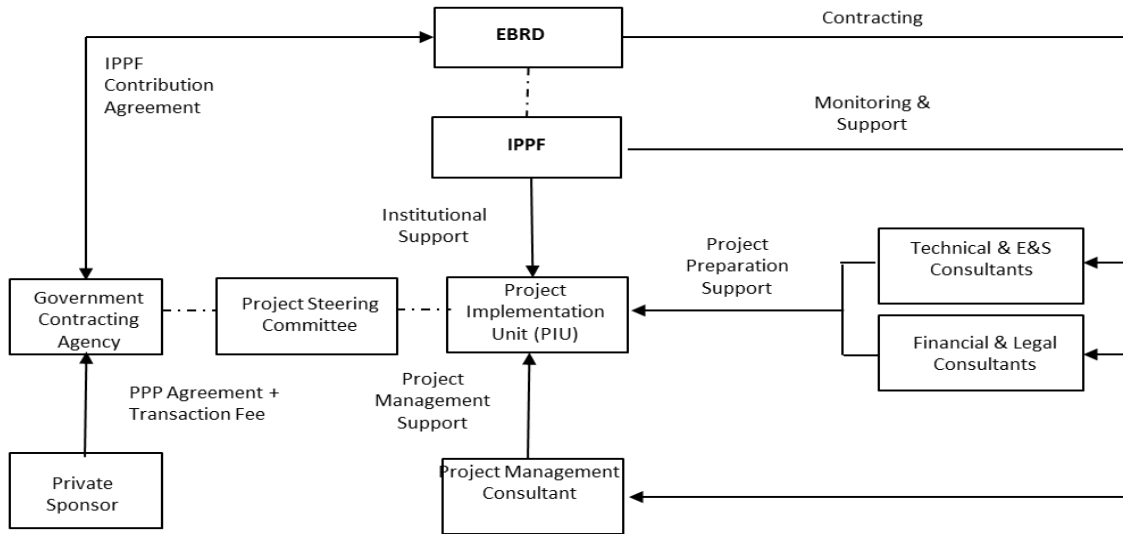
- **Project definition**, scoping and enabling environment (including support to sector planning, investment prioritisation, and project and program-level pre-feasibility analysis;
- **Project preparation and investment feasibility assessment** (including feasibility studies, full economic justification and appraisal of investments, risk analysis, and analysis of potential beneficiary groups identified and disaggregated by gender); The following information will typically be required:
 - assess the current conditions and prepare a technical, environmental and social, and operational audit of the client's current facilities and operations, establish climatic and inclusion baselines;
 - develop an affordable, cost-efficient strategic long term investment programme for the relevant infrastructure in the project area over a long-term perspective (15-20 years) according to best applicable technology and with strong environmental and social benefits;
 - identify and assess a detailed priority investment programme (PIP), taking into consideration the results of the E&S audit, suitable for priority investments to be financed by the Bank, including its technical, environmental and social feasibility and justification of its high priority in terms of internal rate of return;
 - define and outline bankable investments;

- prepare an affordability analysis of various consumer groups disaggregated by gender including the analysis of existing social support mechanisms to ensure the sustainability and affordability of the investments and adequate mitigation of adverse social impacts;
- prepare a financial analysis of the borrower and the implementing entity (such as a municipality and its municipally owned utility company) including financial projections; the projections shall be fully consistent with the strategic development plan and be based on prudent assumptions;
- prepare tariff calculations based on actual consumption forecasts and full cost recovery targets;
- outline an institutional framework for provision of the relevant services in the project area, including principles of a Public Service Contract covering service standards and responsibilities of the parties, as applicable;
- identify key cost restructuring elements (e.g. labour restructuring, energy cost savings, maintenance per unit of output targets etc.) and recommend reasonable loan covenants and implementation benchmarks;
- **Environmental and social assessment of the project/PIP** to be carried out in accordance with local, EBRD and EU standards;
- **Determine an efficient Procurement and Implementation Strategy** for the investments, taking into consideration the procurement requirements of the Bank, local procurement legislation, detailed plans for the contracting, financing and implementation of the investments and an assessment of the procurement and implementation capacity of the client;
- **Assessment of future corporate development needs** (including financial and operational improvement measures; Public Service Contracting; business planning; management information systems and training);
- **Sector reform** support (including legal, regulatory, tariff and/or institutional reforms as required to enable successful project development and/or delivery).

2.3 PPP Preparation Window

Under the PPW, project preparation is financed through a grant, and a 10% cost recovery element from the government contracting agency, and the consulting engagement can extend into the operational phase of the project. As multiple agencies such as Ministry of Planning and Ministry of Finance, as well as the government contracting agency are engaged in the preparation of a PPP, a project steering committee is required to coordinate the Project Implementation Unit (PIU). The institutional structure for PPW engagements is illustrated in **Figure A6.3**:

Figure A6.3: Institutional Arrangements for PPW Engagement



Source: EVD

The TORs used to initially recruit the PPW consultant teams indicated the objective of the PPW is to provide the full range of technical, environmental and social, legal and financial advisory services in respect of selected PPP/Concession projects, so they can proceed through to tendering and financial close, for the entire range of Infrastructure Business Group (IBG)-financed PPP project types. The success of the PPP Framework Consultants will be measured both on the outcomes of their work, such as achieving financial close for EBRD and any co-financiers, and the extent to which the Bank's public clients gain a deeper knowledge of how robust project preparation and policy making is done, so that following work with EBRD, these clients are better able to carry out future preparation tasks on their own account.

The PPP Framework Consultants may be asked to perform part of or all of the following tasks:

1. Strategic Assessment and Recommendation Report

The Strategic Assessment is a detailed look at key project characteristics and the benefits and risks of delivery as a traditional procurement versus a PPP. This assessment also includes a gap analysis for each project preparation versus what is necessary to bring the project to the market. This assessment builds on the high-level screening assessment and any prior planning and project definition work that has been undertaken by the public sector. The Strategic Assessment examines factors such as the general business feasibility and demand for the infrastructure, the service life, the market for bidders, performance requirements objectives and indicative definitions, project risks, obstacles/constraints (including technical, environmental and social) and legal considerations. The following information will be typically reviewed:

- **Project Description** - identification of the objectives that the public sector intends to achieve with the project, definition of the project through the full life cycle (design, construction, operations and maintenance, and decommissioning if applicable) and a description of the cost components;
- **Project Preparation Gap Analysis** - review of the project preparation works/studies already undertaken/completed, identify gaps with the best practice and what would be judged necessary to bring the project to the market;

- **Legislative and Regulatory Framework Review** – a detailed review of (i) the general applicable PPP/concession legislative framework as well as (ii) the sector specific regulatory framework aimed at identifying potential impediments;
- **Environmental and Social Review** – a review of the environmental and social impact assessment works/studies already undertaken or completed, targeted at identifying gaps with EBRD E&S Policy;
- **PPP Models to be considered** – definition of a preliminary list of PPP Models allowed by the local regulatory framework to be considered for the project;
- **Qualitative Risk Assessment** – identify and assess each risk by likelihood and severity and how the project is exposed under the traditional delivery model and the PPP Models under consideration;
- **Market Assessment** – review of the market of potential investor, contractors and service providers that may be interested in the project;
- **Benchmarking and Precedents** – a review of any relevant precedent projects in active PPP markets;
- **Recommendations Report** - qualitative determination of whether the project is a candidate for further evaluation as a PPP project, preferred PPP model, project preparation plan, including legislative and regulatory changes required.

2. Detail assessment of the PPP Options

- **Technical Assessment** - a high level project definition and project global costs estimation (construction, operation and transaction costs) and the completion of the project feasibility study;
- **Affordability Assessment** - check the budgetary and fiscal sustainability of the project over the long run (ideally considering both firm and contingent liabilities). It will identify the possible project sources of funding (public sector budget, payment from end-users, grants, etc.) that may be mobilised to fund the project. Budget rules and regulation applicable to the envisaged PPP project will be reviewed to ascertain the feasibility of the envisaged funding structure;
- **Value for Money (VFM) Assessment** – compare the cost of traditional procurement to the cost of the preferred PPP model using a cash flow model under various scenarios, including expected private sector efficiencies in capital and operating costs, and the cost of private financing, and identify the cost of each of the two options to the government under various risk allocation arrangements;
- **Bankability Assessment** - perform a market analysis to make sure the envisaged legal and financial structure of the project will meet requirements of financial stakeholders (e.g. equity investors, lenders, bond markets);

3. Business Case Development

- Prepare a business case that synthesises the previous analyses that will be used to allow the project sponsor to justify the procurement of the project to the PPP Unit or Ministry of Finance using a PPP structure and the potential application for capex grant funding

4. Transaction Advisory Services

Required services may include the following:

- **Technical Advisory Services** – develop technical documents and specifications required for potential bidders to make a full technical due diligence and submit accurate and consistent technical bids, including a Reference Design if required, performance measures and Handback Provisions, service level agreements, technical bid evaluation criteria, technical bid documents, assist the government review and negotiation of the technical bids;

- **Financial and Tax Advisory Services** – update VFM study and shadow bid price, advise on taxation, insurance and financing issues, develop and recommend financial structure, level of liability and termination requirements for the government, risk transfer in payment mechanism, prepare project agreement and procurement documents, assist the government implement the bid process and negotiations through to financial close;
- **Legal Advisory Services** – assist with the preparation of the bid and project documents and implementation of the procurement process in accordance with (i) local legislation and (ii) EBRD Policy in Financing Of Private Parties To Concessions;
- **Tender Implementation Services** - Set up a data-room and assist the public sector with the evaluation of bidders submissions

5. Post Procurement, Contract Management Advisory Services

The Framework Consultants may be required to assist the public sector in establishing a PPP/concession contract monitoring unit and providing it assistance to:

- Manage the Project Agreement;
- Evaluate performance; and
- Monitor operating period performance.

6. Other requirements

In addition to the scope outlined above, other requirements for each project may include:

- Provide a work plan for review and approval by the public sector's project team;
- Stakeholder consultations and training.

The TORs in the contribution agreements broadly followed these tasks, although the sequencing and phasing of the tasks varied for each of the projects.

Annex 7: Project Case Studies

This annex provides case studies for the following projects:

- Case Study 1: Kazakhstan: Almaty Urban Transport Integrated Approach
- Case Study 2: Turkey: Hospital Facilities Management PPP Programme
- Case Study 3: Egypt: 6th of October Dry Port Project
- Case Study 4: Belarus: M-10 Highway PPP Pilot Project

Case Study 1: Almaty Urban Transport Integrated Approach: Kazakhstan

This case study provides an example of a typical public sector, non-sovereign guaranteed MEI project. This project was not prepared by IPPF, and it is presented to illustrate some of the problems that arise with traditional public sector projects.

1. Project Description:

In June 2009, the Bank approved a US\$10mn loan with Almaty's tram and trolleybus company, Almaty KGP Electrotrans (AET) to provide financing for the modernisation of new electrical substations. A few months later, EBRD submitted for approval a second bus sector reform project with AET, as part of a larger proposal for an integrated approach (IA) to public transport development in Almaty (the City) which would provide enhanced transition impact to complement a series of investments in the sector. Four priority investments were identified as forming part of the IA: (i) Almaty bus sector reform project, (ii) Almaty trolleybus project, (iii) Almaty e-ticketing system expansion and (iv) Almaty LRT PPP.

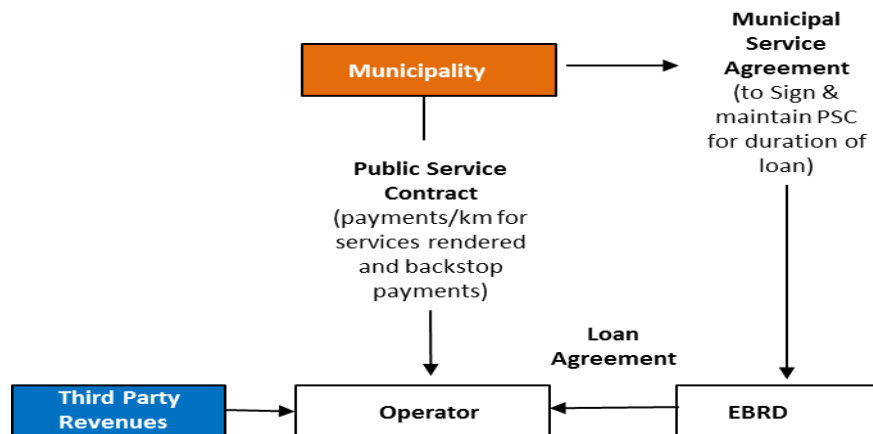
Eventually, only 2 of these proposed investments went ahead as planned, in addition to a second phase of the bus sector reform project. Together, the 4 projects under this evaluation comprised just over EUR107mn worth of EBRD financing. Financing was made with debt rather than equity – 1 of the loans was sovereign guaranteed and the other 3 non-sovereign. All 4 projects were fully disbursed and repaid. In addition, there were at least 17 TCs for around EUR3 mn implemented in connection with the 4 projects that were evaluated.

The financing structure for the non-sovereign loans was quite innovative and overcame a number of restrictions financing municipal operations. A major impediment to municipal projects in Kazakhstan was the legal restrictions on borrowing by local authorities, and they had to be structured as sovereign loans. A second obstacle was AET's status as a loss-making municipal company that lacked any independent debt service capacity. The City had the requisite debt capacity, but it was constrained by regulations from directly borrowing the money. Credit department noted at concept review that support in the form of a guarantee was required from the City. EBRD developed a project structure that overcame these restrictions that was based on the following components:

- A **municipal support agreement (MSA)** was negotiated with the City, where it undertook to provide debt service capacity to the client through equity contributions to AET;
- A **public service contract (PSC)** to enhance the long term creditworthiness of AET and the signing of a contract between AET and the City, which was covenanted to be achieved within 24 months from the signing of the loan agreement; and
- Risks were further minimised as EBRD secured a pledge over the buses procured with its finance.

EBRD recognized the uncertainty around the enforceability of the PSA as it was untested in Kazakhstan and implementation would need to be monitored closely. The PSA proved to be effective and the City provided AET financial support after it missed a payment in 2015. The project structure was subsequently replicated in other municipal transactions in Kazakhstan, and it is illustrated in **Figure A7.1**:

Figure A7.1: AET Non-sovereign Loan Financing Structure



MSA = Municipal Support Agreement; PSC = Public Service Contract

Source: EVD

2. Evaluation

2.1 Relevance

The first 3 of the 4 evaluation projects (AET, bus sector reform and development of electric transport) were all approved during the period of the 2004 MEI Operations Policy and only the bus sector reform phase 2 project was approved under the 2012 MEI sector strategy. The AET project was approved during the period of the 2006 Kazakhstan country strategy, while the other 3 of the 4 evaluation projects (bus sector reform I&II and development of electric transport) were approved under the 2010 country strategy (BDS/KA/09-01) period. The 4 projects' most evident contribution to these strategies was the commercialisation theme and other broad themes, such as environmental improvement in the area of reducing carbon emissions in Kazakhstan.

TI was based on the objectives of: (i) [establishing a] framework that supports market and economic efficiency; (ii) [increasing] Private Ownership; and (iii) Demonstration effects of new products and processes. EvD found the project and its design were relevant. Offsetting this result, the evaluability of the 4 evaluation projects indicators was not strong. EvD's review of the design logic for the loans revealed an undue amount of the 4 projects' transition objectives - in terms of impacts and outcomes - were dependent on the TCs.

2.2 Effectiveness

The projects successfully constructed the outputs. Eight electric power substations were modernised and 200 trolleybuses were procured on time and within budget. In the case of CNG buses, despite a number of technical deficiencies, 400 compressed natural gas buses (CNG buses) were delivered in the expected timeline and within budget. Offsetting this result, 4 of the TC's objectives were not achieved.

The achievement of outcomes was rated partly unsatisfactory. The 4 projects were meant to contribute to the improvement of urban transport in the city of Almaty by increasing service quality and decreasing carbon emissions. These outcomes were only partially achieved. The projects were intended to make the transport company more commercially oriented through the use of PSCs and to create a regulatory framework for the transport sector in the city. In practice, the PSCs did not function properly as the city was not making payments in accordance with the contracts, and the regulatory framework was not implemented in the form suggested by EBRD, and transparency of fare

revenues did not improve. As a result these outcomes were only partially achieved. The project was meant to lead to the implementation of a PPP, and this outcome was not achieved.

2.3 Contribution to TIs.

Overall, there was some demonstration effect from EBRD's projects and transition objectives under "framework that supports market and economic efficiency" that were partly achieved. However, projects contribution to transition impact related to private ownership cannot be proven because the e-ticketing system was set up without EBRD's funding and the PPP for the LRT project was not signed at the date of the evaluation. The overall transition rating was borderline partly satisfactory/fully satisfactory.

2.4 Efficiency

At the time of the first approval, the borrower, AET was a loss-making company. As a result, the project was only able to proceed with the signing of a "Project Support Agreement" with the City which mandated, inter alia, annual contributions by the City to the charter capital of AET in amounts at least equal to the annual debt service under the EBRD loan. The company's financial position has continued to be poor due to an inability to levy cost recovery tariffs that have led to sustained losses. By 2014 EBRD had expected turnover to reach US\$64.2mn and EBITDA US\$32.2mn, whereas actual figures were US\$29.5mn and US\$1.0mn respectively – representing actual figures 54% and 97% below projections. EvD rated the financial performance partly unsatisfactory, though the company was able to service its debt obligations through the support received from the City. Despite these payments, EvD found the return provided by the 4 operations to EBRD was substantially below the expectations at approval as almost 50% of the first loan was cancelled, and the other loans were pre-paid. As a result, EvD rated bank investment profitability partly unsatisfactory

Case Study 2: Turkey: Hospital Facilities Management PPP Programme

The Turkish Hospital PPP program was not prepared by IPPF, but it provides an example of what can be achieved by a well prepared PPP program.

1. Overview

In September 2014, just before the establishment of the IPPF, the Board approved the Turkey: Hospital Facilities Management Framework. The Framework consisted of up to EUR 600mn debt or equity financing for EBRD's own account to participate in up to 8 hospital facilities management projects, each with a different concessionaire. EBRD loans under the Framework could comprise an "A Loan" portion for the Bank's own account and a "B Loan" portion for the account of commercial bank participants, to be determined on a case by case basis.

The Framework operation supports Turkey's Ministry of Health (MOH) in preparing and delivering a large scale hospital facilities management PPP programme covering up to 60 facilities across Turkey for total investment costs of EUR1.2bn and the delivery of 50,000 beds. This programme was being tendered in phases, and in Phase 1, 16 hospitals, with a value of EUR6bn investments, had been tendered. EBRD's Framework was expected to participate in the financing of up to 8 of these projects, representing about 10% of Phase 1 capital needs (and ultimately 5% of the entire programme once it had been fully rolled out). The indicative list of sub-projects that would be financed by EBRD consisted of 5 hospitals in Anatolia. Preliminary due diligence confirmed the projects had been tendered in accordance with EBRD's procurement policy.

The main transition rationale for the Framework was the creation of critical mass demonstrating how hospital facilities management PPP projects can be commercially financed. Following the implementation of the Framework, subsequent projects within the PPP programme were expected to be financed commercially – without IFI or donor support. Non reimbursable Technical Cooperation (TC) of EUR600,000 would support the authorities to improve their institutional framework for PPP preparation. EBRD would provide assistance to: (i) develop a value for money (VFM) assessment methodology; and (ii) strengthen MOH's monitoring and implementation capacity by establishing a PPP Contract Implementation and Monitoring Unit. The funding for the TC package was expected to be provided by a bi-lateral or multi-lateral international donor. In the event donor funds were not available for the full amount, management requested the Board to note that an application might be made for financing from the Shareholder Special Fund (SFF) to meet the shortfall. In November, 2014 Management made a separate application to the Board to obtain the EUR600,000 from the SSF.

2. Project Structure

The hospital facilities management PPPs are structured as PFI contracts, with 3 years construction and 25 years operations for facilities management only (including hard and soft services). Clinical services remained the sole responsibility of MoH. Post construction, **the concessionaire would receive quarterly Availability Payments ("APs") from MoH** for the hospital building and facilities and monthly Service Payments ("SPs") for various support services such as cleaning, catering, laundry, waste, parking, imaging, laboratories and sterilisation. APs account for about 75% of the revenues used to service the debt. A market testing mechanism is included in the agreement to rebalance costs every 5 years. Foreign exchange (FX) rate risk for the APs was addressed at tender date by specifying the foreign currency rate at that time which became the minimum rate for the APs throughout the term of the concession. APs are adjusted quarterly for FX fluctuations in excess of inflation through a foreign currency adjustment mechanism

MoH is the grantor of the PPP contract and it was expected the successful sponsor would establish a special purpose vehicle (SPV) that was financed by EBRD and other commercial banks. The lenders

security package would include traditional non-recourse provisions such as pledge of shares, accounts receivable, bank accounts, insurance policies, hedging agreements, subordinated loans, mortgage over land and a negative pledge on buildings and infrastructure. In addition, **MOH would provide compensation for early termination, and Funder's Direct Agreement with the lenders providing step in rights.** MOH was seen as a good credit risk as Turkey was rated BB+/Negative by S&P, the economy was growing, and MOH had a total budget of about EUR15bn (EUR 7-8bn in direct annual budget and about EUR8.5bn in a revolving fund). The total APs and SPs for the entire hospital PPP programme (net of costs avoided on obsolete beds that would be closed by MOH once the PPP programme was rolled out in full) would represent, at its peak, no more than 6% of the public sector healthcare budget (with an average of 3.5%). In addition, PPPs were expected to generate significant savings for the government. Under Turkish law, any MOH default would be treated as a default of the Republic of Turkey.

3. Project Extension

In June 2016 the Framework was extended by EUR350mn as it was expected the original Framework would be fully utilised by the end of 2016. EBRD would limit its total allowable exposure under the Framework to EUR800mn, and in compliance with the Green Economy Transition (GET) Approach. At that time EBRD had provided A and B loans to 3 PPP hospitals. The primary purpose of the extension was to diversify funding sources, and attract institutional investors. The first sub-projects under the extension were expected to be the financing of a further 3 facilities under a green bond issued by the Elazig Hospital PPP, a standard loan to a PPP hospital and an EBRD equity investment that would mobilise infrastructure funds into a vehicle owning 3 Turkish PPP hospitals. The loans and bonds would have tenors of up to 20 years, unfunded construction loans would have tenors of 2-4 years, and the operating loans tenors of 16-18 years. EBRD expected to exit its equity investments at year 8 through IPO or exercising put options.

4. Elazig Hospital

In June 2016, at the same time as the submission of the extension, the Board considered and approved the financing of the Elazig Hospital PPP. The financing was provided to an SPV that was owned by a subsidiary of Meridiam Infrastructure Fund and several other sponsors. The SPV had been contracted by MOH to develop a PPP hospital with a capital cost of EUR400mn. The sponsors intended to finance the hospital with a EUR320mn 20 year amortising senior secured project bond under an 80:20 debt to equity ratio.

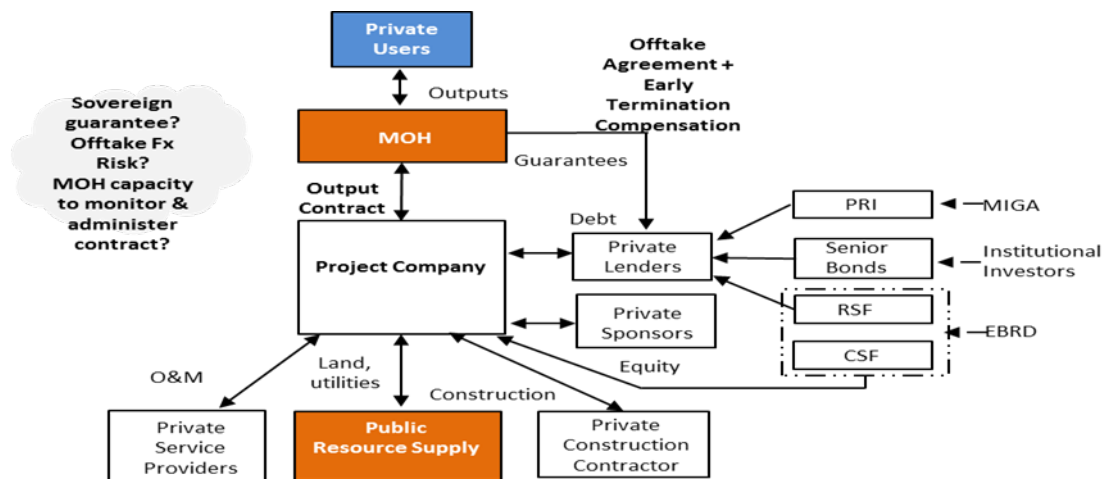
EBRD's support was designed to mobilise international institutional investors by providing credit enhancement to develop an investment grade green project bond. The transaction was very innovative as it was the first time EBRD had offered such as instrument, it was the first time that a Turkish PPP hospital would be financed by institutional investors, and it was the first time a green bond had been issued under the program

EBRD's facility was comprised of 2 sequenced and non-overlapping contingent unfunded debt facilities to support construction and operations in amounts of up to: (i) EUR49mn for a Construction Support Facility (CSF); and (ii) EUR 80mn for a Revenue Support Facility (RSF). EBRD's financing was provided together with political risk insurance (PRI) from MIGA. The CSF was designed to credit enhance the construction contractor during the Construction Period of the Project. The RSF complemented MIGA insurance by servicing debt payments to bridge MOH and MIGA obligations or prepaying bondholders in an event of default. The RSF would be available from the scheduled commercial operation date start until scheduled final repayment of senior bonds. RSF availability would only start after the CSF availability had expired and it was expected to have an approximate tenor of 17 years.

If the CSF was drawn, the funds would be used by the SPV to meet the construction company's obligations. In the event the RSF was drawn, the facility would be repaid through payments from the MOH either before or after project termination and be supported by claims under PRI cover for MOH's Breach of Contract. The RSF liquidity mechanism was needed to bridge the financing gap between when MIGA was submitted a claim for non-payment, and the arbitration process was completed and the arbitral award confirmed MOH's breach of contract. It was estimated it could take 2 - 3 years to complete the arbitration process. EBRD's Credit Enhancement Facilities enabled the project to obtain a rating the investment grade rating needed for institutional investors to invest in the green bond.

The CSF was secured by EBRD through the security documents that provided it with full recourse to the construction company under a guarantee and letter of credit. The construction company was rated BBB- (investment grade). The RSF was secured by: (i) a cure payment or compensation on termination received from MOH; (ii) the MIGA insurance payments, where coverage included failure of government to honour obligations under contractual agreements and subsequent failure to honour an arbitral award; and (iii) the normal security provided to non-recourse projects. The structure is illustrated in **Figure A7.2:**

Figure A7.2: Structure of the Elazig PPP Hospital



CSF = Construction Support Facility; O&M = Operations and maintenance; PRI = Political Risk Insurance; RSF = Revenue Support Facility

Source: EvD based on EBRD data

5. Current Situation

In February 2017, Management provided the Board with an update on Turkey's Hospital PPP Programme. The scope of the government's program had been revised slightly and consisted of 29 hospitals that would deliver 42,000 high-quality beds across 23 cities at a total investment cost of EUR14bn. Under the program 14 hospitals had achieved financial close, with a total investment cost of EUR7.2bn. Within this total, 5 hospitals had achieved financial close without any IFI involvement, including projects that closed post the attempted coup. The first 2 hospitals under the Programme were operational in time and budget. Project monitoring arrangements for the PPP projects was working well and they were in compliance with key performance indicators (KPIs) for both infrastructure and services and any disagreements were being resolved without any contract cancellations or additional costs to the public sector.

EBRD had financed 7 hospital projects (about EUR510 mn), and mobilised EUR 875mn through B loans. The Elazig project bond was successfully issued and was rated Baa2, 2 notches above Turkey's sovereign rating. The bond was issued after the failed coup attempt and a down grading in

Turkey's sovereign rating to Ba1, which is below investment grade. The bond was issued in 3 tranches and credit enhancements were applied to the first 2 tranches, and IFC invested in the unenhanced tranche.

Management viewed EBRD's risk exposure as acceptable due to a robust payment mechanism (incl. FX and inflation risk) and termination provisions. A Value for Money (VFM) TC was implemented successfully through various workshops with MOH, Ministry of Economic Development, Treasury and EBRD (Economic Policy Group, Banking). These consultations resulted in an agreed methodology and the VFM studies showed an average savings of PPPs to the public of 30-40%. The TC for project monitoring had been delayed due to a reorganization of the PPP Unit, and it was expected to start in Q2 2017. A new Turkish PPP law was being developed and similar programs were expected to be launched in education and waste water sectors. EBRD has initiated efforts to replicate the Programme in other EBRD COOs (Romania, Morocco, Kazakhstan, Croatia, Egypt)

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Case Study 3: Egypt: 6th of October Dry Port Project

This section provides a case study of the first of the 2 PPP projects currently being prepared by IPPF.

1. Project Description:

The IPPF supported the preparation of a Project Information Memorandum (PIM) in Q3 2017 at EBRD HQ to inform prospective bidders on a proposed PPP tender for the financing, design, construction, management and maintenance of the 6th of October Dry Port Project (the Project). The client government agency is the General Authority for Land and Dry Ports (GALDP). The PIM was prepared for GALDP and issued jointly by the Ministry of Transport (MOT) and the PPP Central Unit (PPPCU) at the Ministry of Finance (MOF).

The PPP Project is structured as a concession for an inland dry port based 20km south west of 6th of October City, in the Giza Governate of the Republic of Egypt. Initially the main flow of traffic will be to and from the ports of Alexandria and El-Dekheila in the northern region. The 100-Feddan (approx. 42 hectare) site has been allocated for the development of a dry port. Currently the site does not have connections to utility services such as water, electricity, sewage or communications. These facilities will be provided to the site boundaries by the New Urban Communities Authority prior to the start of construction. The Project will operate as an Inland Clearance Depot providing storage and customs clearance services. An adjacent 300 Feddan site has been set aside for a Value Added Logistics Centre that will form part of a separate project the successful project sponsor has the right to bid for.

Freight and containerised traffic in Egyptian ports has grown significantly over the last decade. However, the current port infrastructure creates bottlenecks, and limits the potential for realising further growth. The Egyptian authorities have launched several initiatives, to address this issue including this Project. The Project will be linked to the Port of Alexandria by rail via Cairo and it is seen as providing a means of relieving congestion on the road network. The Government intends to guarantee a minimum number of trains per year to the project site. In the medium term the government intends to build a railway to the west of Cairo that will provide a direct link between the ports and the Project facilities.

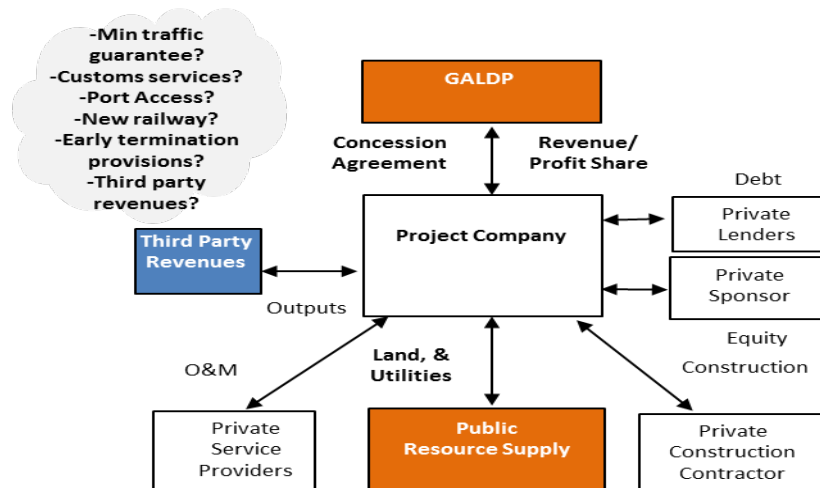
The Project operator will play the role of an integrator across road and rail modes of transport and provide an interface between parties with: (i) cargo interests (e.g. shippers and freight forwarders) and (ii) transport and logistics providers (railway operator, port terminal operators, etc.). Four generic operations have been identified within the Dry Port: (i) loading / unloading from trains; (ii) temporary short-term storage of containers before and after customs inspection; (iii) customs inspection, and (iv) dispatch / receipt of containers from locations outside the dry port.

The facility will consist of a 24-hour dry port with design capacity of 720 twenty-foot equivalent unit (TEU) containers per day. The private sector is expected to bid for both port infrastructure (utilities, yards, fencing,) and port superstructure (the fixed assets built on the port infrastructure, such as terminal cranes and equipment, storage sheds and warehouses, IT platforms and operating systems). Given current limited rolling stock availability to service the Project, a phased development is proposed. The Project will open with 360 TEU per day capacity, and expand to design capacity as the rolling stock availability is increased. Expansions of 120 TEUs are forecast for years 3, 8 and 12. The investment plan for the project is estimated at USD84.7mn for the 720 TEU design capacity. These costs will be applied for construction costs of USD55.3mn, and equipment of USD29.4mn. Construction is expected to take 2 years, commencing during 4Q 2018 and the concession will have an operational phase of 30 years. The use of the land and the facilities will revert to the government at the end of the contract period.

The Private Sector Participant will establish a special purpose vehicle (SPV), which will enter into the Concession Agreement with the Authority to design, finance, construct, equip, utilise and maintain the facility. The Concession Agreement will detail the right of the SPV to collect revenues from end-

users of the dry port in return for services rendered. As the dry port will be operating as a final bill of lading destination it can generate revenue in USD (as opposed to EGP), which will help it to mitigate currency risk. The concession will be fully financed by the private sector, and the foreign currency revenue arrangements are expected to increase the attractiveness of the Project to foreign lenders. The project is based on a traditional concession agreement structure as illustrated in **Figure A7.3:**

Figure A7.3: Dry Port Project Structure



GALDP = General Authority for Land and Dry Ports; O&M = Operations and maintenance; SPV = Special Purpose Vehicle

Source: EvD, Based on PIM Document

The project is expected to generate private end-user revenues from 6 types of outputs:

- (i) Handling revenues: for processing containers passing through the port
- (ii) Storage revenues: for basic storage of containers passing through the port
- (iii) Extra movements: for additional handling beyond the base contract scope;
- (iv) Office rental: revenues received from third party companies requiring commercial office space;
- (v) Warehousing revenues: from additional storage required by users beyond basic storage; and
- (vi) Container Freight Station revenues: charges for (de)consolidation of containers for transport to their next destination. Bidders are expected to propose the tariff levels and structures for each income stream in their bid and the structure for concession payments and revenue sharing mechanisms.

The procurement process is split into 2 stages:

- (i) The prequalification stage requests Prospective Investors who have positively responded to the Invitation to Prequalification to submit a Prequalification Application, as detailed in the Prequalification Document. Upon receipt of all Prequalification Applications, the Prequalification Committee will evaluate those applications according to the Evaluation Criteria and shortlist those which are Qualified Applicants.
- (ii) The tender stage will invite Qualified Applicants to submit their Tenders. The Tender Pack will be issued with further instructions on Tender submission.

The Authority will then evaluate all received Tenders and award the Project to a single bidder or consortium with whom it will enter into the Concession Agreement.

2. Evaluation

It is difficult to formally evaluate the project as it has not yet been implemented. Nevertheless it is possible to draw some conclusions from the project design that is being presented to potential bidders.

2.1 Relevance

EBRD started operations in Egypt in 2012, and since then it has undergone a difficult transition. The country has a young and rapidly growing population that is putting significant pressure on resources and public services. Egypt requires an average annual GDP growth rate of 4% just to absorb the new entrants. EBRD indicated in its Country Strategy (2017) that it had provided the Egyptian National Railways with a EUR126mn loan to modernize its rolling stock. The IPPF's support for preparatory work (including tender) for 6th of October Dry Port was noted. EBRD was closely engaged with the Central PPP Unit in the Ministry of Finance, and provided support for the preparation and tendering of a PPP programme to develop and operate Nile River Buses services, which would be the first major urban transport PPP transaction in Egypt. EBRD signed a tripartite MoU with the Cairo Governorate and the Ministry of Environment to assist in the development of the solid waste sector in Greater Cairo, possibly on a PPP basis.

The strategy noted that transport and municipal infrastructure tends to be state-run and service provision is characterised by the absence of market-based mechanisms for pricing and delivery of services. On a more positive note, the legislative framework regulating PPP is generally satisfactory and the current PPP framework should allow PPP projects to proceed at the national level across all sectors. The PPP legal framework is considered to be in line with international standards and best practice. Nevertheless, implementation of PPPs had not been straightforward and some well-developed infrastructure and energy projects involving the private sector had not proceeded as planned, sending a potentially confusing message to investors. The government was keen to rapidly move forward and recently it had shown a preference for direct awards for public sector works which were perceived to be faster in execution and lacked the complexities of PPP procurement processes.

EBRD indicated that the improvement of the quality and sustainability of Egypt's public sector utilities through private sector participation was 1 of 4 key priorities. To support this objective the strategy would finance modernisation and improve efficiencies of municipal infrastructure, and promote commercial practices by championing the use of public service contracts and encourage PPPs with a view to increase private sector participation in the provision of municipal services. EBRD would support railway corporatization of Egyptian National Railways including unbundling and commercialization of its freight segment and invest in the development of logistical hubs/ports.

2.2 Effectiveness

2.2.1 Outputs

The proposed outputs were plausible, and there is undoubted demand for more effective and efficient dry port facilities that also contribute to the decongestion of the road network around the port of Alexandria. The Project would contribute to this process if it can be made commercially viable. The current design is only partially complete, and there are a range of unknowns such as how GALDP will provide a minimum number of rail cars per year, or what will be the associated volumes of cargo. There is a lack of detail on the level of involvement of customs, and there are questions about the willingness of the trade unions in the port to divert traffic to the new Project facility. The most important question relates to the development of the new railway line to the west of Cairo. There is a lack of detail on key issues such as how the land will be procured, the railway financed, and how issues such as early termination will be managed. These issues are beyond the control of the private

sector company, and introduce a substantial amount of risk into the tender. A credible support agreement would mitigate these risks.

2.2.2 Outcomes

Until there is a clear and credible program of how the volume of traffic will be increased through Cairo to the dry port, it is not clear whether the project will have a significant impact on decongestion, and reduction in transaction costs for logistics.

2.3 Efficiency

It would have been better to clarify how the new rail line west of Cairo will be developed, and put in the support arrangements before issuing the PIM to prospective bidders, as it will add unnecessary transaction costs that must be borne by the GALDP and prospective bidders. Investors are likely to be risk averse given previous experiences with PPPs in the country, which would support the offering of projects with very robust revenue streams to be credible to investors. The costs to EBRD have been relatively low by PPP project preparation standards as it has committed EUR1.5mn, but a proportion of these costs have been borne by the World Bank through its Global Infrastructure Fund (GIF).

3. Conclusion

The project is relevant to the needs of the country and it was clearly signalled in the Country Strategy. The outputs will contribute to the implied transition impacts of reductions in road congestion and logistics transaction costs. Offsetting this result the project appears risky, and it is not clear why a dry port facility that was located closer to the Port of Alexandria that could rely on existing railway facilities was not selected. Weaknesses in the project design and structure indicate the outcomes envisaged maybe slow to be realised. At this stage costs to the Government and EBRD have been relatively low, but the likelihood of transaction costs being recovered through a successful financing are still low at this point given the lack of progress on the West Cairo Railway.

Case Study 4: Belarus: M-10 Highway PPP Pilot Project

This section provides a case study of the second PPP project being prepared by IPPF.

1. Description

The IPPF has assisted the Ministry of Transport and Communications of the Republic of Belarus (MOTC or the Contracting Authority) to prepare a Preliminary Information Memorandum dated March 2017. The document was prepared as basis for market sounding on the potential design of the M-10 highway PPP project (the Project). The document did not seek any form of procurement or request for proposals. The consultation document was prepared by MoTC, and the IPPF consortium of advisers, consisting of PricewaterhouseCoopers, Ove Arup, CMS Cameron Mckenna LLP and Egorov Puginsky Afanasiev & Partners.

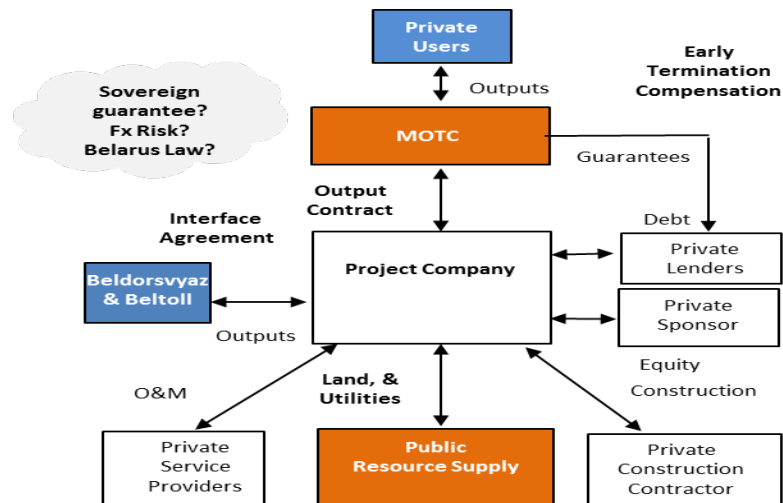
The project would be the first PPP tendered in Belarus. The Government has established a PPP Unit and passed a ministerial order in 2014 which identified the key principles to develop PPPs and a National Infrastructure Plan (NIP) for 2016-2030. The NIP identified 14 road projects with a total value of USD1.1bn. The Project, was selected as one of the 100 top priority projects. The M10 is strategically important as it connects the North Sea – Baltics core Trans European Network Transport corridor and, on the eastern side, it joins the M3 highway that connects Moscow with Ukraine via Bryansk (near Russian - Belarus borders). The M10 crosses the territory of Republic of Belarus from east to west and it is the shortest and most convenient way for goods and passengers to transfer from EU countries to Belarus and Russian Federation. Historical traffic flows have been growing rapidly at an annual rate of 10.6% between 2005-2015.

The project is structured as an availability based PPP and the private partner will be responsible for the design, construction, finance, operation and maintenance of the 5 sections of the M-10 highway with a total length of 85 km at an approximate cost USD200mn (2016 prices). The Project provides for an increase in the number of lanes from 2 to 4, an increase in the permissible axle load from 10 to 11.5 tons, and an increase in the speed limit for cars from 90 km/h to 120 km/h and for trucks from 70 to 100 km/h. The private partner will have the responsibility for a significant part of the risk related to construction, operation and maintenance (availability) and financing of the Project, whereas the public sector will bear the demand (traffic) risk, exchange rate and forex risks, specific legislative changes, and land compensation. The contract period will be 20 years including a construction period of approximately 2 years and an operation period of 18 years. The use of the land and the road will revert to the government at the end of the contract period.

The payment mechanism will provide the private partner with availability payments during the operational period subject to meeting availability and performance criteria. It is anticipated that availability payments will have 2 components: (i) Capital component, which will provide for the amortisation of debt and the return on the invested capital. It will be paid in local currency, but will be fully or partially (subject to the share of foreign currencies exposure in the funding plan) indexed to take account of fluctuations of foreign currency to local currency to mitigate currency risk on this component on the side of the private partner during operational period; and (ii) Operating component, which will provide for operating, management, overhead and maintenance expenses. It will be paid in local currency (BYN) and indexed to take account of local inflation.⁸²

It is envisaged the special purpose vehicle (private partner) will be established under the laws of Belarus. In addition to a traditional PFI contractual structure, there will be special interface agreements with Beldorsvyaz, the entity which maintains and replaces the roadside communication equipment, and the operator of the Beltoll System. The PPP contract will permit refinancing after construction and provide for compensation in the event of early termination. Documentation will be in Russian. The project structure is illustrated in **Figure A7.4:**

Figure A7.4: M10 Highway Project Structure



MOTC = Ministry of Transport and Construction

O&M = Operations and maintenance

Source: EvD, Based on PRIM Document

Prequalification was expected to occur in 3Q 2017, and financial close would occur in 3Q/4Q 2018. MoTC is contemplating a 2 stage tender process and the use of the competitive dialogue procedure to procure the Project. Net present value of availability payments will be the key evaluation criterion.

2. Evaluation:

It is difficult to formally evaluate the project as it has not yet been implemented. Nevertheless it is possible to draw some conclusions from the project design that is being presented to potential bidders.

2.1 Relevance

EBRD approved its current strategy for Belarus in September 2016. Belarus has been affected by the crisis in Ukraine, and at the same time it has started to become more open to the international community and the use of markets to allocate resources. After almost 20 years of growth, the economy contracted by about 4% in 2015, the rouble devalued by 36% and a further 8% in 1Q 2016. In 2015, the fiscal deficit was -2.9%, non-performing loans in the banking sector rose to at least 6.5%, external debt increased from about 52.7% in 2014 to 62.4% and average CPI inflation y-o-y was 13.5%. Growth was expected to continue to be negative in 2016. In the light of these developments the government introduced a World Bank structural reform policy and started to remove price controls and volume targets for state owned enterprises (SOEs) and increase prices for social services towards cost recovery levels.

Within this context EBRD's strategy sets out 2 priority areas consisting of supporting: (i) the competitiveness and growth of small and medium enterprises, and privatization of SOEs; and (ii) enhancing the quality and sustainability of public infrastructure through measures such as tariff reform to reach full cost recovery and TC and investment in municipal, transport, power and energy sectors. These themes would be underpinned by EBRD's Green Economy Transition (GET) approach to transition to a low carbon market economy. The strategy notes the government requested EBRD to provide technical assistance for the preparation of M10 highway as a pilot PPP project.

The strategy indicates that political power is highly concentrated and personalised and Belarus is unlikely to abandon its state-dominated model overnight. The growth outlook for Belarus was depressed, it was exposed to geopolitical tensions in Russia and Ukraine, and it was facing significant macro-economic risks. Low international reserves combined with debt service obligations

and limited external refinancing options left the country vulnerable to external shocks which may trigger further exchange rate devaluations.

Despite these risks, EBRD considered there was scope for it to promote incremental changes to support meaningful reform. EBRD's engagement would be contingent on the government demonstrating its reform commitment and it would build on a track record of successful projects with support that could be replicated or serve as building blocks for a larger engagement. **It was envisaged that infrastructure projects would be financed predominantly on a sovereign basis and [over time] EBRD would examine opportunities to structure creditworthy public sector projects without sovereign guarantee.**

2.2.1 Outputs

Demand for the project outputs is likely to be high and the government has indicated it will underwrite any demand and exchange rate risks. The Project is quite well structured and fairly closely follows a Private Finance Initiative (PFI) model and preparation process, which has proved to be quite robust, even in difficult environments. Land will be made available, and the government has offered to provide compensation in the event of early termination. Offsetting this result, it is not clear if the government is offering a sovereign guarantee on the availability and early termination payments. Even if this guarantee is made available, it is still uncertain how it would be interpreted or enforceable under Belarus law. The government only has a B- credit rating, which falls in the category of "Highly Speculative". The government has limited financial reserves and it is highly exposed to risks of a currency crisis. Even if a guarantee is provided, and it is honoured, it is not clear how the equity providers will earn a competitive return if it is financed with foreign currency.

2.2.2 Outcomes

Until there is a credible program of how the returns on the private sector financing fall within an acceptable risk category and investment occurs, it is not clear whether the project will have a significant impact on likely project outcomes such as traffic decongestion and increased trade.

2.3 Efficiency

EBRD has committed EUR1.7 mn to project preparation, and the recovery will be contingent on the successful financing of the facility.

3. Conclusion

The project structure is well designed, although it is not clear how the government will underwrite its obligations. It seems unlikely there will be any significant private investment in Belarus at this stage until the government has demonstrated its commitment to reform, its macro-economic environment stabilises and political environment surrounding Russia and Ukraine stabilises. Given these uncertainties, this project does not appear a good candidate as a pilot project to initiate a nascent PPP program by IPPF.

Annex 8: IPPF's Results Framework

Table A8.1: Summary of the IPPF Results Framework

Indicators	Targets	Actual	Comment
Inputs: (i) EUR 40 million (ii) IPPF Unit (iii) Pre-qualified consulting teams + individual consultants	EUR 40 million 4-5 staff 8 Teams recruited	EUR 16.0 million 4-5 staff 8 Teams recruited	Substantially below target On track On track
Outputs: 4. Policy Dialogue (i) Conferences (ii) Knowledge Products such as PPP Certification Program and Participation in international IFI events 5. Project Preparation (i) Sustainable Public Sector Infrastructure Window (SSW) (ii) PPP Preparation Window (PPW)	2 events pa Participation in IFI knowledge products 10-15 projects pa 3-6 projects pa	13 events Participation in IFI knowledge products 29 projects under preparation, 1 approved loan 2 projects under preparation	Substantially exceeded target On track Preparation timelines much longer than forecast Difficulties finding projects
Outcomes: i) Address infrastructure related strategic priorities identified within Country Strategies, through alignment of IPPF activities; (ii) Deliver high-quality policy dialogue; (iii) Improve responsiveness to clients for project preparation, - Reduce time taken to mobilise consultants to 6 weeks (iv) Achieve an "uplift" in Infrastructure facilitation by the Bank	No specific targets 2 Policy Dialogue Activities pa Times reduced to 6 weeks EUR 100 million by 31 Dec 2017; EUR 200 million by 31 Dec 2018.	IPPF participates at minor level 13 Conference events Times reduced to 8 weeks EUR25 million by Nov 2017	Less than expected Substantially exceeding target Broadly on target Substantially below target. Revenue reflows very low

Indicators	Targets	Actual	Comment
Transition Impacts:			
(i) Improve Skills Transfer: project preparation capacity	Replication of 2 IPPF projects without IFI support	Unlikely	Targets have little relevance to objective of the IPPF to accelerate infrastructure development
(ii) Market structure: Financing:	1 additional project financed on a commercial basis, where IPPF has prepared at least 3 projects	Unlikely	
(iii) Market institutions – policy dialogue	At least 4 projects receive financial support following policy dialogue	Possible	
(v) Market structure – Financial sustainability	IPPF clients demonstrate a shift from financial losses to financial sustainability and full cost recovery where feasible	Possible	

Table A8.2: Policy Events

Event	Policy Dialogue Events ⁸³	Implementation
1	Facilities Management PPPs: How Best to Incorporate the Private Sector	Completed in November, 2015; policy guideline paper published March 2016
2	Performance-Based Road (PBC) Contracting: Approaches to National Road Network Management	Completed in May, 2016; policy guideline paper published June 2016
3	Management Contracting for the Water Sector in South-East Europe	Completed in September, 2016
4	Automated Fare Collection Contractual Models – Finding the Best Level of Private Sector Participation	Completed in November, 2016; policy guideline paper published July 2017
5	Challenges and opportunities in the district heating sector: methods to achieve full cost recovery	Completed in November, 2016; policy guideline paper published July 2017
6	Inland waterway transport: Achieving Sustainable Transport	Completed in March 2017; policy guideline paper to be published September 2017
7	Improving Bus Services: Paths to Reform	Completed in July 2017; policy guideline paper to be published Q4, 2017
8	Asset Management in the Water Sector	To be delivered in September 2017
9	Achieving Competitiveness with Logistics Corridors	To be delivered in November 2017
10	Private Sector Participation in Integrated Solid Waste Management	To be completed by year end 2017
11	Morocco PPP Seminar	To be completed by year end 2017
12	MDB Sustainable Transport Annual Meeting and SLOCAT (Sustainable Low-Carbon Transport)	Annual seminars in 2018 and 2019
13	Optimising Benefits EU Structural & Cohn. Funds	Transferred to VP for Partner. & Policy

Source: IPPF

Table A8.3: Policy Dialogue and Knowledge Dissemination Window 2H 2015-1H 2017

Year project/policy activity to be launched	Number of Policy Dialogue Activities Projected	Number of Policy Dialogue Activities Actual	Budget Project (EUR m)
2015	2	1	
2016	2	4	
2017	2	1	
Original Total	6	6	2.4
2017-2019	8		2.4

Source: EvD estimates based on IPPF business plans.

Table A8.4: SSW: Budget v Actual 2H 2015 through 1H 2017

Year project/policy activity to be launched	Number of Projects Projected*	Number of Projects Actual	Budget Projected (EUR)	Budget Actual (EUR)
2015	2	2	1.3	1.3
2016	8	12	4.2	4.7
2017	5	20	2.5	4.2
Original Total	15	34	8.0	10.2
2017-2019	35		17.0	
Revised Total	60	60	25.0	

**Execution period of each IPPF support activity expected to be 18-24 months.*

Source: EvD estimates based on IPPF business plans.

Table A8.5: PPW: Budget v Actual 2H 2015 through 1H 2017

Year project/policy activity to be launched	Number of Projects Projected*	Number of Projects Actual	Budget Projected	Budget Actual
2015	2	1	1.0	1.5
2016	3	1	4.5	1.7
2017	2	0	3.5	1.0
Original Total	7	2	9.0	4.2
2017-2019				
Revised Total	7		15.0	

**Execution period of each IPPF support activity expected to be 24-30 months.*

Source: EvD estimates based on IPPF business plans.

Table A8.6: IPPF SSW: Status of Support (Source: EvD,DTM, based on IPPF data)

Country	Portfolio Class	Risk Category	Dept	Sector	CY	SSW (EUR M)	Total Project Cost(EUR M)	EBRD Finance EUR(M)	SSW/ Project Cost	SSW/ EBRD Loan	EBRD Financing %	Years to Signing	Status
Armenia	State	Sovereign	MEI	Urb Tspt	EUR	0.285	28.0	10.0	1.0%	2.9%	36%	1.7	Board Approval
Belarus	State	Sovereign	MEI	Water	EUR	1.100	60.0	60.0	1.8%	1.8%	100%	NA	FRM
BiH	State	Sovereign	MEI	Water	EUR	0.125	30.8	25.0	0.4%	0.5%	81%	0.2	Signed
Croatia	State	Sovereign	Tspt	Tspt	EUR	0.498	2,050.0	250.0	0.0%	0.2%	12%	0.8	Signed
Egypt	State	Sovereign	MEI	Water	EUR	0.857	448.0	186.0	0.2%	0.5%	42%	0.3	Signed
Georgia	State	Sovereign	Tspt	Tspt	USD	0.150	43.3	40.9	0.3%	0.4%	94%	0.9	CRM
Georgia	State	Sovereign	MEI	Waste	EUR	0.400	20.0	15.0	2.0%	2.7%	75%	1.6	CRM
Jordan	State	Sovereign	MEI	Water	USD	0.362	47.0	22.5	0.8%	1.6%	48%	0.7	Signed
Jordan	State	Sovereign	MEI	Waste	EUR	0.445	404.0	154.7	0.1%	0.3%	38%	0.8	Signed
Jordan	State	Sovereign	MEI	Urb Tspt	EUR	0.650	50.0	25.0	1.3%	2.6%	50%	1.6	CRM
Kazakhstan	State	Sovereign	MEI	Water	USD	0.400	159.2	141.8	0.3%	0.3%	89%	2.1	Signed
Kazakhstan	State	Sovereign	Tspt	Tspt	USD	0.600	75.0	55.0	0.8%	1.1%	73%	1.4	CRM
Kyrgyz	State	Sovereign	MEI	Water	EUR	0.365	8.1	4.0	4.5%	9.1%	49%	1.3	Board Approval
Kyrgyz	State	Sovereign	MEI	Water	EUR	0.365	5.0	2.0	7.3%	18.3%	40%	0.0	Board Approval
Morocco	State	Sovereign	MEI	Water	EUR	0.591	392.3	120.0	0.2%	0.5%	31%	1.3	Signed
Romania	Private	Non-Sovereign	MEI	Urb Tspt	RON	0.075	23.8	19.2	0.3%	0.4%	81%	NA	Cancelled
Romania	State	Non-Sovereign	MEI	Urb Tspt	RON	0.075	17.5	14.6	0.4%	0.5%	83%	0.8	Signed
Romania	State	Non-Sovereign	MEI	Urb Tspt	RON	0.075	26.5	21.6	0.3%	0.3%	82%	0.3	Signed
Romania	State	Non-Sovereign	MEI	Urb Tspt	RON	0.075	29.2	24.6	0.3%	0.3%	84%	NA	Signed
Tunisia	State	Sovereign	Tspt	Rail	EUR	0.500	185.0	160.0	0.3%	0.3%	86%	0.8	Signed
Tunisia	State	Sovereign	MEI	Urb Tspt	EUR	0.600	240.2	100.0	0.2%	0.6%	42%	1.2	CRM
Turkey	State	Non-Sovereign	MEI	Urb Tspt	EUR	0.150	338.3	88.3	0.0%	0.2%	26%	0.9	Signed
Turkey	State	Non-Sovereign	MEI	Urb Tspt	EUR	0.200	280.0	70.0	0.1%	0.3%	25%	0.5	Signed
Turkey	State	Sovereign	MEI	Water	EUR	0.200	39.0	27.0	0.5%	0.7%	69%	1.3	FRM
Turkey	State	Sovereign	MEI	Urb Tspt	EUR	0.200	150.0	50.0	0.1%	0.4%	33%	NA	CRM
Uzbekistan	State	Sovereign	MEI	Heat	EUR	0.600	100.0	90.9	0.6%	0.7%	91%	1.9	CRM
Uzbekistan	State	Sovereign	MEI	Heat	EUR	0.200	50.0	45.5	0.4%	0.4%	91%	2.1	CRM
Total						10.143	5,300.3	1,823.6					

Table A8.7: IPPF PPW: Status of Support

Project Names	Status	IPPF committed amount (EUR m)	Project CAPEX (EUR m)	Envisaged EBRD loan (EUR m)	IPPF Project Preparation Cost to Project CAPEX (%)
Egypt - 6th of October Dry Port Project*	Signed	1.5	100	35	1.5%
Belarus - M-10 road project	Signed	1.7	350	123	0.5%
<i>Ukraine: Port Olvia PPP*</i> <i>i) planning grant under GIF</i> <i>iii) feasibility study</i>	Advanced Discussion	1.0	240	80	0.4%
Total		4.2	690	238	0.6%

*GIF is supporting the preparation of both of these projects.

Table A8.8: IPPF Results Framework

Outcome Indicators	Output Indicators	Measurement Date	Progress by October 2017
Address infrastructure related strategic priorities identified within Country Strategies, through alignment of IPPF activities	IPPF's activities related to both project preparation and policy dialogue, are aligned with Strategic Priorities as laid out in the Country Strategies	31 December 2015, and thereafter at year end.	IPPF Unit participates in new Country Strategies updates.
Improve responsiveness to clients for project preparation	Reduction in time taken to engage consultants to prepare projects – average of 6 weeks from Mandate Letter/Contribution Agreement signing to mobilisation (baseline: 9 months on average for TCs with budgets over EUR 300,000)	31 December 2015, and thereafter at year end.	As of 30 June 2017, the average time to mobilisation was 8.4 weeks
Deliver high-quality policy dialogue	2 Policy Dialogue Activities per year are completed successfully as outlined in the Infrastructure Policy Dialogue Plan.	31 December 2016, and thereafter at year end.	By year end, 9 policy seminars will have been completed.
Achieve an 'uplift' in Infrastructure facilitation by the Bank	IBG's ABI and/or AMI are increased	EUR 50 million by 31 December 2016; EUR 100 million by 31 December 2017; EUR 200 million by 31 December 2018.	During 2017, transactions supported by the IPPF's SSW are scheduled to sign, for an ABI value of EUR 700 m.

Source IPPF Board Document, 2017

Table A8.9: Outcomes from Conference Events

Event	Policy Dialogue Events	Outcome
1	Facilities Management PPPs: How Best to Incorporate the Private Sector	Follow on discussions Croatia, Jordan and Morocco
2	Performance-Based Road (PBC) Contracting: Approaches to National Road Network Management	Follow on discussions in Morocco
3	Management Contracting for the Water Sector in South-East Europe	A new EUR 250 million Framework for the water sector is being prepared in Romania
4	Automated Fare Collection Contractual Models – Finding the Best Level of Private Sector Participation	Interest expressed by Tbilisi, Kiev, and Romanian cities under the existing SMART Framework for Urban Transport
5	Challenges and opportunities in the district heating sector: methods to achieve full cost recovery	Several project concepts in Romania, Kyrgyzstan, Kazakhstan and Bosnia
6	Inland waterway transport: Achieving Sustainable Transport	Led to 2 projects being developed in Ukraine

Source: IPPF

Table A8.10: Transition Impact Related Indicators*

Main Objectives	Indicator	Source	Frequency
Improve Skills Transfer: project preparation capacity	2 similarly structured projects are prepared by national/local entities without IFI support in sectors where IPPF has prepared projects at least 3 projects in any given country	TIMS**	2018-2020
Market structure: Financing	1 additional project is financed on a commercial basis (by banks or commercial financiers) without IFI or grant/ government financing in sectors where IPPF has prepared projects at least 3 projects in any given country	TIMS	2018-2020
Market institutions – policy dialogue	4 projects receive financial support based on commercial and/or regulatory structures that were not possible prior to policy dialogue efforts under the IPPF	TIMS	December 31, 2018
Market structure – Financial sustainability	IPPF beneficiary clients demonstrate a move from a situation of financial losses to financial sustainability, achieving full cost recovery where realistic.	TIMS	Annually from December 31, 2016

* Each IPPF engagement is expected to contribute to at least one of these TI-related objectives.

** The TI benchmarks and their progress are reported upon as part of the usual monitoring cycle by the banking teams and OCE by means of the TIMS.

Source: IPPF

Annex 9: Independent Opinion – External Peer Review

For quality control purposes, an external peer reviewer, David Bloomgarden, was contracted to provide an independent opinion in written form on the report. The independent opinion is provided below and his comments were reflected in the final report. Mr Bloomgarden has extensive background in public-private partnership (PPP) with over 30 years of global experience in policy, management, and project design and management. At the Inter-American Development Bank (IADB), Mr. Bloomgarden, as the Lead Private Sector Specialist for PPPs, led the IADB's Program to Promote PPPs in Latin America and the Caribbean, providing technical assistance to governments to improve policy, project preparation and implementation for sustainable infrastructure.

Summary: The evaluation is relevant and useful not only to the EBRD but to other multilateral institutions that are developing or implementing project development funds and to raise capital and procure infrastructure. Since the Financing for Development held in Addis Ababa in July 2015, multilateral development banks (MDBs) and countries are increasingly turning to project preparation funds to go from billions of dollars of official development assistance and public money to raising trillions of (private) capital required to achieve the Sustainable Development Goals agreed in the 2030 Development Agenda.

The description of the Infrastructure Preparation Facility (IPPF), its main findings, and recommendations are an objective and well-documented analysis to improve operational performance of the program. The assessment of the design and implementation of the program is tailored to the organizational and institutional characteristics of the EBRD and the region it serves. As noted in the document, the main limitation of the analysis arises from the recent establishment of the IPPF program and the fact that most of the projects are still in the preparation or construction phase. There is nevertheless a satisfactory evidence base to document and support the findings and recommendations of the evaluation. The evaluation questions are appropriate and the methodology for research well designed and in line with the approach paper.

The following sections provide comments and recommendations on the draft final version of the report to strengthen the soundness of the analysis and give content-related comments based on the Consultants experience at the IADB implementing an upstream PPP advisory program and at the World Bank working on PPP governance as well as global best practices.

Soundness of the Analysis

Section 2.3.2 Public versus Private Sector Procurement: This section describes the benefits or private participation through PFIs. This section should include some of the challenges that this model has faced in countries such the UK who are pioneers of the modern PPP model. The National Audit Office (NAO) of the UK, for example, released a new report in January of this year which highlights a lack of evidence that Private Finance Initiatives (PFIs) offer value for money for taxpayers. It also follows the collapse of the construction and services firm Carillion, a major provider of PPPs in the UK, has shone a bright spotlight on the shortcomings of state contracting and outsourcing. The Board in their review of the document is probably aware of these developments. PPPs are complex and addressing this issue in the analysis lends even more credence to the recommendation of the evaluation to move upstream to address enabling environment constraints and focus on creating project pipelines, fiscal support and risk management capacity.

Section 2.3.3 Value for Money Analysis: This should be presented in a more balanced manner reflecting both the benefits and risks of implementing value for money methodology. The main driver behind PPPs is that they have the potential to deliver greater value for money (VfM) than traditional public investment alone. Improper use of VfM may create major burdens for public finances despite the contribution of private capital. Indeed, PPP projects often require public resources through direct budgetary payments and contingent liabilities, and governments need to

ensure they properly account for both direct and indirect fiscal liabilities in the initial stages of determining the value for money. One of the major risks is that Governments especially in emerging and developing markets do not adequately assess and monitor contingent liabilities associated with PPPs. The paper presents data on page 60 that contracts were renegotiated for 70% of PPP infrastructure contracts signed in the region in recent decades, and for 92% of water-related projects. Risk misallocation tends to be at the heart of renegotiation processes, pointing to poor project preparation and deficient VFM assessment, together with incomplete contracts or regulatory weaknesses. Renegotiation has a negative fiscal impact raising the cost of the initial project, reducing the value for money achieved by the project.

Section 2.4 Infrastructure Development – International Best Practices: The need for good governance is not directly addressed in this section and deserves mention. This is an important part of EBRD country strategies and a major challenge for implementing PPPs especially at the sub-national level where planning and execution capacity tends to be weak. In addition to improved design of projects through value for money and better risk assessment as discussed in the evaluation, lack of governance is a reason why projects often do not meet their budgets, time frames and service delivery objectives. An enabling policy environment to support good governance includes managing integrity and corruption threats, inter-governmental coordination, coherent infrastructure policies and effective consultation with stakeholders and disclosure of relevant data about infrastructure investments by the government, (see OECD: Getting Infrastructure Right).

Section 2.5.1 Knowledge Products: The Infrastructure Business Group (IBG) within Municipal and Environmental Infrastructure (MEI) Division has developed several knowledge products and tools. The evaluation should give greater acknowledgment to the fact that the knowledge initiatives demonstrate strong and effective collaboration among MDBs to share and disseminate knowledge products and avoid duplication. This is in line with the call for more collaboration among MDBs by the G-20. There appears to be growing demand for these products among practitioners in the field. According to a recent World Bank report, over 900 people took PPP Certification Foundation Exam by the end of December 2017, and the number reached 1,000 in January 2018. There are 17 accredited training organizations are now offering Certification trainings around the world. Moreover, there were 184,510 site visits to the PPP Knowledge lab (supported by EBRD and other MDBs) compared to 62,761 visits recorded in 2016. The issue is not the knowledge products themselves; but that the IPPF has failed to maximize the benefit of these knowledge tools to address enabling environment constraints, create project pipelines and risk management capacity.

Section 4.3.3: This section proposes developing in-house project advisory capacity to have staffing levels adequate to carry out this function. While full-time staff build institutional capacity within the EBRD, the costs of consultants versus staff should be subject to a full cost benefit analysis to get the right balance between in-house staff and consultancies. The analysis should consider the fully loaded of staff salary and benefits versus the cost of expert top-level consultants who may cost more on a daily basis but less overall. The evaluation finds that the framework contract for consultants is one the most efficient aspects of the IPPF according to the evaluation.

Updates and Corrections

Section 2.1: World Bank Group: This section refers to the “cascade” approach where private finance is used to develop projects, supported by enabling environment reforms, before using sovereign finance. The evaluation should update the term “cascade” with “Maximizing Finance for Development” or MFD, which is the current name the World Bank now uses to implement this approach. MFD retains the same essential characteristics as the “cascade” approach to strengthen investment capacity and catalyze private investment (“turning billions to trillions”).

Section 2.5.4: Reviews of PPF and PPP Programs of Other IFIs: The document describes the “Cross Cutting Solutions” area of the World Bank. The World Bank has changed the name of this department to “Global Themes”. This section also refers to the IADB but does not mention that IADB

undertook an evaluation of its PPP performance and recommended establishment of a centralized PPP unit in a non-lending area (Vice Presidency for Countries) to coordinate IDB support for PPPs across sectors. Along the lines of this evaluation, the IADB evaluation also recommended that the new unit prepare value for money assessments of public and private procurement options. EvD should update the evaluation to reflect that the IADB Board of Directors approved the IADB evaluation recommendations in 2017.

Endnotes

- ¹ Special Study Legal Transition Programme, EVD, 2012
- ² Special Study: Private Sector Participation in Municipal and Environmental Infrastructure Projects, EVD, 2014
- ³ Public-Private Partnership Stories, Turkey: Turkish Healthcare PPP Program, Adana Hospital Complex, IFC
- ⁴ BDS16097 Hospital Facilities Management PPP Framework Extension, 2016
- ⁵ Time to reform the multilateral development bank system, A.Bhattacharya and H.Kharas, Brookings Institute 20 February, 2018
- ⁶ Bhattacharya and Romani, "Meeting the Infrastructure Challenge", (2013)
- ⁷ IFC Support to Health Public-Private Partnerships
- ⁸ What Causes Cost Overrun in Transport Infrastructure Projects? Bent Flyvbjerg, Mette K. Skamris Holm and Søren L. Buhl. This study analysed 258 transportation infrastructure projects from around the world and found that 9 in 10 exceeded their cost estimates. The overruns were greater on rail projects than road projects but averaged 28% across the board.
- ⁹ These problems are not limited to transition or developing economies. In 2017 the American Society of Civil Engineers gave the country a rating of D+ for the condition of US infrastructure because of poor maintenance. It reported that almost 40% of America's bridges are 50 years old or older, and 9.1% of them are structurally deficient.
- ¹⁰ Default and Recovery Rates for Project Finance Bank Loans, 1983-2015, Moody's Investor Service, 2017
- ¹¹ **Annex 1** provides a more detailed review of the VFM methodology.
- ¹² See **Annex 1** for a list of studies reviewing performance of PPP versus traditional public sector procurement.
- ¹³ A New Approach to Public Private Partnerships, UK Treasury, 2012
- ¹⁴ See **Annex 3** for further details
- ¹⁵ World Bank Support to Public Private Partnerships, Lessons from Experience in Client Countries, FY02-12, IEG,
- ¹⁶ See **Annex 2** for further information on the development of the global PPP Market.
- ¹⁷ Evaluation of PPP projects financed by the EIB, EIB, 2012
- ¹⁸ Bhattacharya and Romani, "Meeting the Infrastructure Challenge" (2013)
- ¹⁹ Contingent Liabilities Risk Management: A Credit Risk Analysis Framework for Sovereign Guarantees and On-Lending Country Experiences from Colombia, Indonesia, Sweden, and Turkey, Fritz Florian Bachmair, World Bank, 2016
- ²⁰ Enhancing the creditworthiness of municipal bonds Innovations from Mexico James Leigland and Clelan Mandri-Perrott
- ²¹ Risk Mitigation Instruments in Infrastructure: Gap Assessment, World Economic Forum, July, 2016
- ²² G20 – IFA WG, Principles of MDBs' strategy for crowding-in Private Sector Finance for growth and sustainable development, April 2017
- ²³ See **Annex 3** for further details.
- ²⁴ CAS = Central Asia; CEB = Central Europe & Baltics; EEC – East. Europe & Caucasus; SEE = South East. Europe; SEMED = Southern & Eastern Mediterranean
- ²⁵ These investments were the US\$35.6bn IGA Airport in Istanbul and the US\$6.4bn Gebze-Izmir Motorway.
- ²⁶ The legal framework for public-private partnerships (PPPs) and concessions in transition countries: evolution and trends, Law in Transition, EBRD, 2012
- ²⁷ The 2012 Assessment analysed the PPP legislation in each COO and benchmarked it to international best practice, including the UNCITRAL Legislative Guide on Privately Financed Infrastructure Projects, European Union concession acquis communautaire and other related materials.
- ²⁸ Further details on EBRD's infrastructure related policies, initiatives, and portfolio of investments and TC is included in **Annex 4**.
- ²⁹ Transition Report, EBRD, 2013
- ³⁰ See **Annex 4** for further details on the infrastructure portfolio.
- ³¹ Further details on EVD's evaluations relevant to infrastructure preparation are presented in **Annex 5**
- ³² BDS 14-246
- ³³ The converse is not possible and IPPF can support E2C2 or P&E PPP initiatives.
- ³⁴ In May 2017, the two project managers were replaced with one analyst.
- ³⁵ See **Annex 6** for details on the main tasks that are performed by each team.
- ³⁶ The amount of IPPF funding that is allocated to a project is not fixed, and this range reflects the amount that is typically allocated to a project
- ³⁷ When IPPF is working with another IFI, such as IFC or GIF, the combined costs of the IPPF and the IFI are charged jointly using their own fee structures, but based on their own internal costs, to avoid duplication of fees. IFC is paid at commercial close, whereas EBRD is paid at financial close.
- ³⁸ The PPP lab is on IFI online project preparation resource
- ³⁹ The SDIP is a collaborative initiative coordinated by the World Economic Forum with support from the OECD, comprised of public, private and philanthropic institutions to mobilize blended finance for \$100 billion of projects supporting sustainable and climate-resilient infrastructure.
- ⁴⁰ Battacharya and Romani, Meeting the Infrastructure Challenge, 2013.
- ⁴¹ Scaling Up Infrastructure Investment in the Philippines, Role of Public-Private Partnership and Issues, ADB Southeast Asia Working Paper, June 2017
- ⁴² Country Readiness Diagnostic for Public Private Partnerships, World Bank Group, June 2016
- ⁴³ <http://www.imf.org/external/np/fad/publicinvestment/>
- ⁴⁴ A case study for this project is included in **Annex 7**
- ⁴⁵ Dispelling the Myths: A Pan-Canadian Assessment of Public-Private Partnerships for Infrastructure Investments, Conference Board of Canada, 2010

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- ⁴⁶http://www.cefoppp.org/upload/pdf/Report_on_the_performance_of_PPP_projects_inAustralia_when_compared_with_a_representative_sample_of_traditionally_procured_infrastructureprojects_20120524154505.pdf
- ⁴⁷https://www.parliament.vic.gov.au/images/stories/committees/paec/2010_11_Budget_Estimates/Extra_bits/Mott_McDonald_Flyvberg_Blake_Dawson_Waldron_studies.pdf
- ⁴⁸ http://www2.vlaanderen.be/pps/documenten/2009_performance_pfi_construction%5B1%5D.pdf
- ⁴⁹ <http://www.infrastructure.org.au/content/ppp.aspx>
- ⁵⁰ <http://flyvbjerg.plan.aau.dk/JAPAASPUBLISHED.pdf>
- ⁵¹ <http://www.gao.gov/assets/160/155775.pdf>
- ⁵² Supplementary Green Book Guidance – Optimism Bias, UK Treasury, 2013
- ⁵³ Why road maintenance is important and how to get it done, Sally Burningham and Natalya Stankevich, World Bank, 2006
- ⁵⁴ Policy Challenges in the Implementation of Performance-based Contracting for Road Maintenance, EBRD, 2016
- ⁵⁵ Mott McDonald estimate operational and maintenance costs can be as much as 80% of the total life costs of a typical asset's service life (<https://www.mottmac.com/article/1086/whole-life-costing>)
- ⁵⁶ Philippe Burger and Ian Hawkesworth (2011) "How to Attain Value for Money: Comparing PPP and Traditional Infrastructure Public Procurement", OECD Journal on Budgeting Volume 2011/1
- ⁵⁷ Value for Money Analysis – Practices and Challenges, World Bank, 2013
- ⁵⁸ EAP = East Asia/Pacific; ECA = Europe/Central Asia; LAC = Latin America/Caribbean; MENA = Middle East/North Africa; SA = South Asia; SSA = Sub-Saharan Africa.
- ⁵⁹ Inter-American Development Bank's Support to Public Private Partnerships, Evaluation, 2017.
- ⁶⁰ A Stronger, Connected, Solutions World Bank Group: An Overview of the World Bank Group Strategy (2013)
- ⁶¹ Independent Evaluation Group (IEG): World Bank Group Support to Public-Private Partnerships: Lessons from Experience in Client Countries, FY02–12 (2014).
- ⁶² IFC Roadmap FY15-17 (2014), with focus on PPPs in IDA countries, Africa, South Asia, and Middle East/North Africa, as well as in middle-income countries.
- ⁶³ Examples of such tools and facilities are the Private Participation in Infrastructure (PPI) Database; the PPP Knowledge Lab; and the Public-Private Infrastructure Advisory Facility (PPIAF).
- ⁶⁴ In the period 1990-2015, EIB cofinanced 215 infrastructure PPP projects, 145 of them (67%) in the transport sector and 47 (22%) in the health and education sector (see http://www.eib.org/epec/resources/publications/ppp_financed_by_EIB_1990_2015).
- ⁶⁵ See <http://www.eib.org/efsi/>.
- ⁶⁶ See EIAH summary here: <http://www.eib.org/eiah/index.htm>.
- ⁶⁷ ADB: Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank 2008-2020 (2008)
- ⁶⁸ Special Evaluation Study on ADB Assistance for Public-Private Partnerships in Infrastructure Development – Potential for More Success (2009).
- ⁶⁹ ADB: Public-Private Partnership Operational Plan 2012–2020 (2012).
- ⁷⁰ ADB: Office of Public Private Partnership. Information Brochure (2016).
- ⁷¹ ADB - AP3F, EBRD – Infrastructure Business Group (IBG), EIB - EPEC, World Bank - PPP cross cutting practice that focuses on enabling environment, and IFC which prepares and finances projects.
- ⁷² The SFF was established in 2008, initially with €115 million from EBRD profits to complement existing donor funding operations.
- ⁷³ This initiative was similar to the IPPF in the sense EBRD established an SRI Policy Dialogue Framework, and entered into Agreements with about 5 pre-qualified firms that could be quickly and efficiently mobilized to obtain reliable services.
- ⁷⁴ Special Study Municipal and Environmental Infrastructure Operations Policy Review, EVD, 2010
- ⁷⁵ Special Study: Private Sector Participation in Municipal and Environmental Infrastructure Projects, EVD, 2014
- ⁷⁶ Special Study Transport Operations Policy Evaluation, EVD, 2011
- ⁷⁷ Special Study Power & Energy Sector Review, EVD, 2011
- ⁷⁸ PE11-537 Special Study Legal Transition Programme, EVD, 2012
- ⁷⁹ SS16-094 Bank Support for Local Capital Markets Development, EVD, 2017
- ⁸⁰ SS14-081 Special Study- EBRD Shareholder Special Fund Interim Evaluation, EVD, 2014
- ⁸¹ Principled Approach to Infrastructure Project Preparation Facilities, World Economic Forum, 2015
- ⁸² There are restrictions on the purchase and use of foreign currency such as mandatory sales of 20% of the foreign currency received from trade of goods and services. The National Bank of Belarus is in the process of implementing a program of reforms to liberalize this market, and the compulsory purchase requirement is expected to be lowered to 10%.
- ⁸³ There were 2 other events included in the original board approval relating to: (i) •The Landlord Port Model: Key Factors to Implementation Success; and (ii) Decentralisation in the SEMED region: Enabling and Structuring Sub-sovereign Investment. Both of these activities were financed under separate TCs.