



**WORLD BANK GROUP**

**Assessing and Managing Fiscal Risks from PPPs  
Implications for Surveillance**

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**Meeting of the IMF GFS Advisory Committee**

**Washington DC, March 14—16, 2017**



# Rising infrastructure needs

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## Fiscal policy options

### Traditional public investment

- Fiscal sustainability concerns
- Fiscal rules

### More efficient public investment

- Better public investment management (PIM) framework
- Requires long maturing period

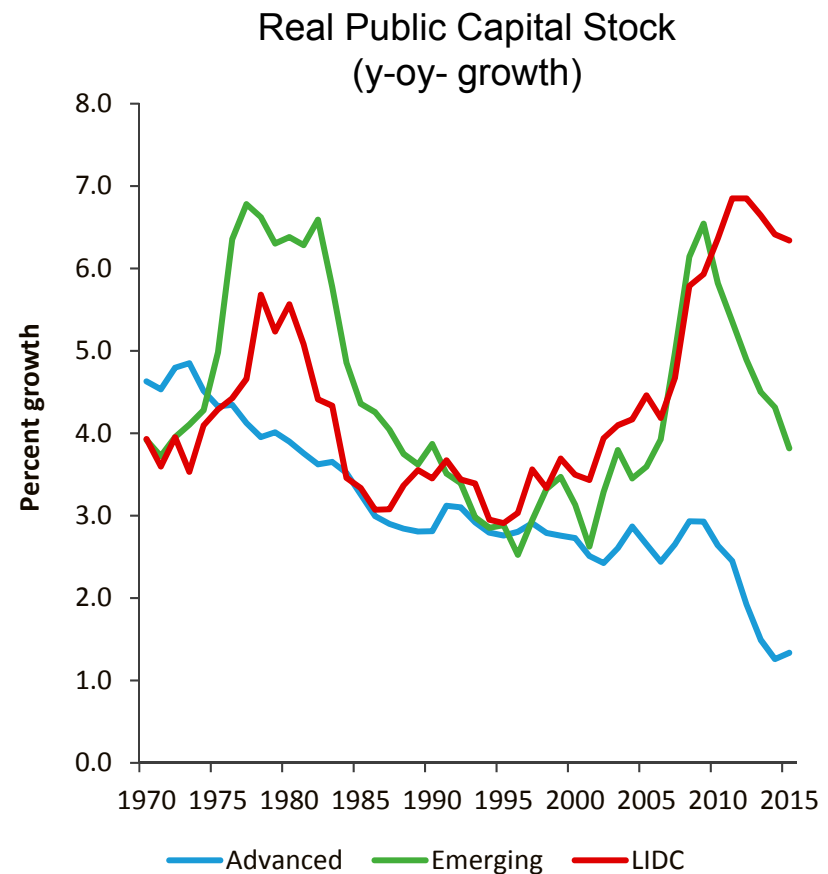
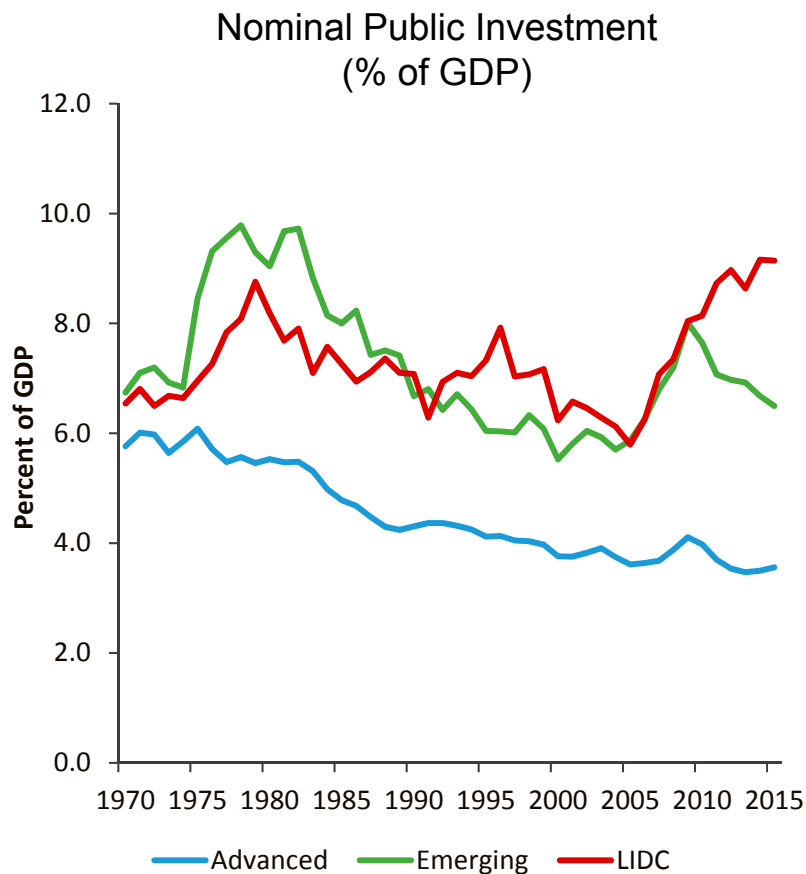
### More reliance on private sector participation

- Public-Private Partnerships (PPPs)
- “Perception” of fiscal space

# Public investment has not fully recovered from decades of steady decline, except in LICs

*Public investment in % GDP still falling in advanced economies, but rising in low income countries*

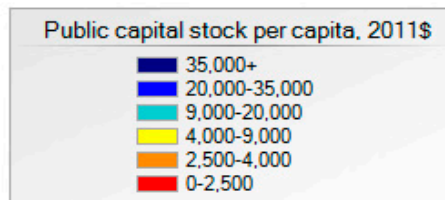
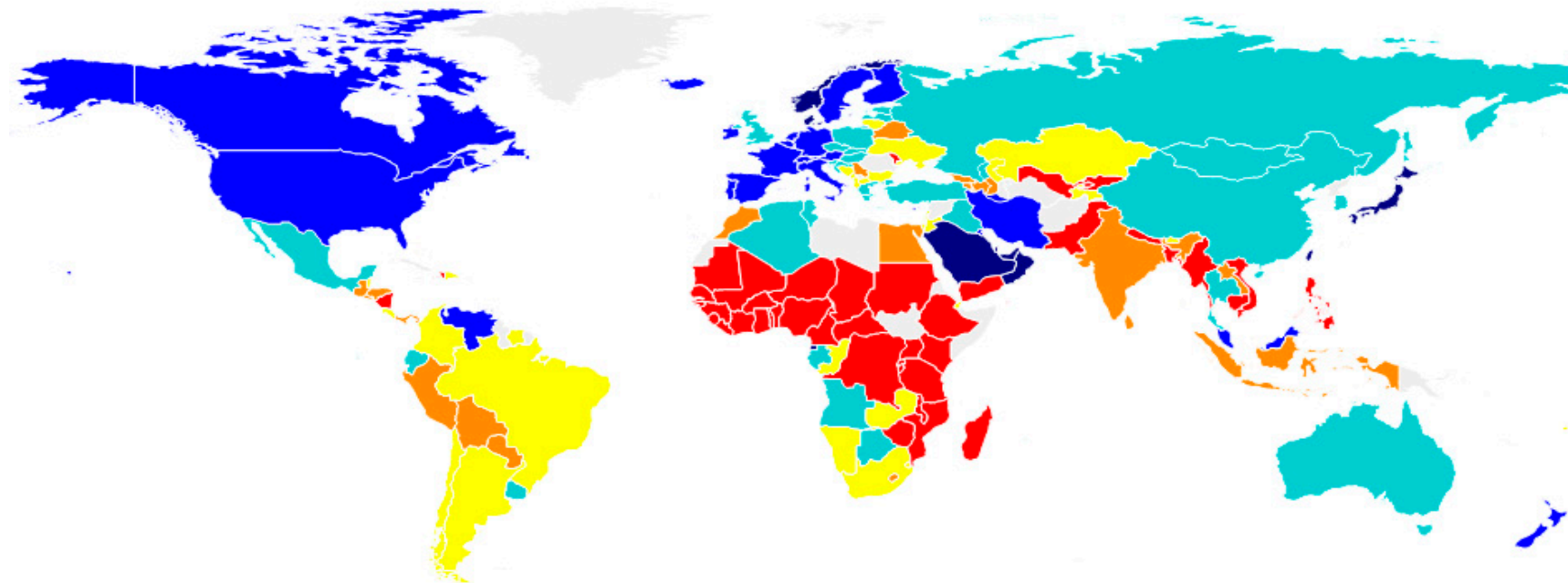
*Public capital stock real growth rate has fallen in all country groups*



# Globally, real public capital stock growth outpaced population growth, but remains highly unequal

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Public Capital Stock, 2011  
(per capita, \$2011)

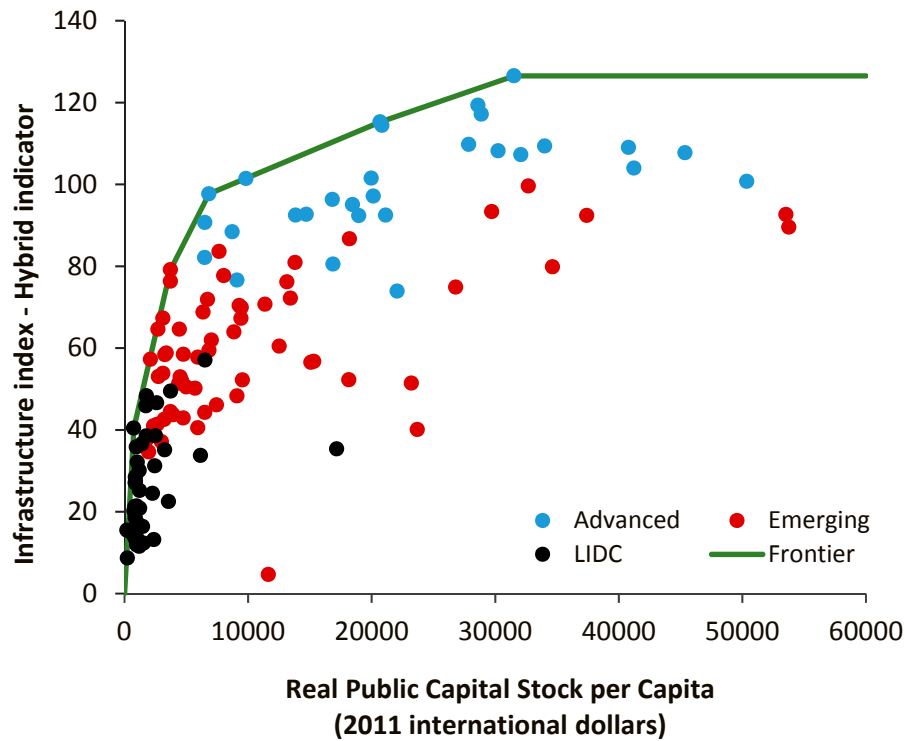


# There are sizeable gaps in public investment efficiency, but improving efficiency takes time

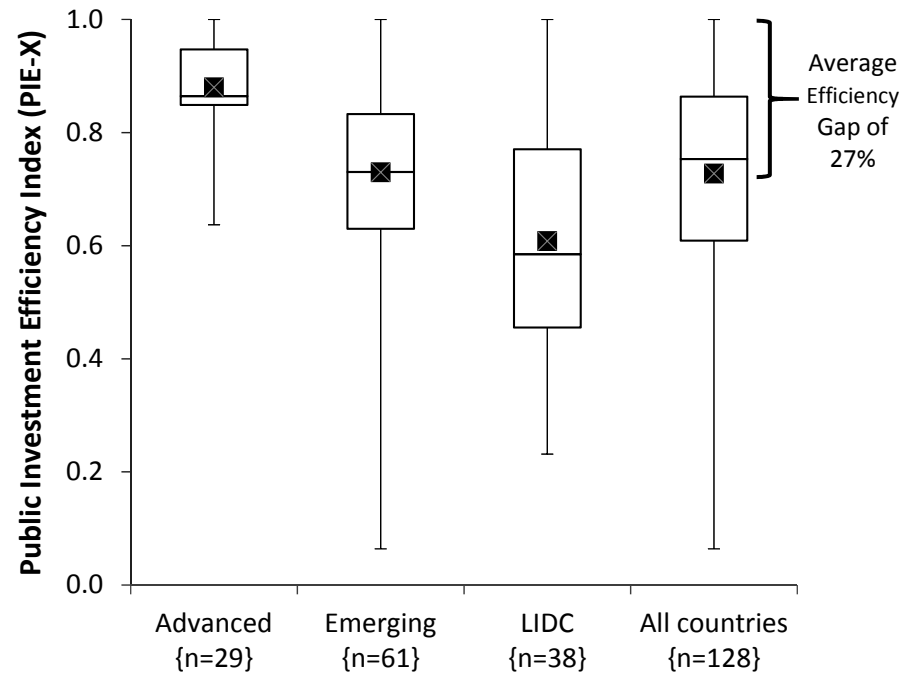
*Large public investment efficiency gaps both across and within different income groups*

*Average country is 27% below efficiency frontier with largest efficiency gaps among low-income countries.*

Public Capital Stock and Infrastructure Performance



Public Investment Efficiency Index (PIE-X)



# Rising use of PPPs, particularly in EMEs and LICs...

## PPP Capital Stock (% of GDP)

### Advanced

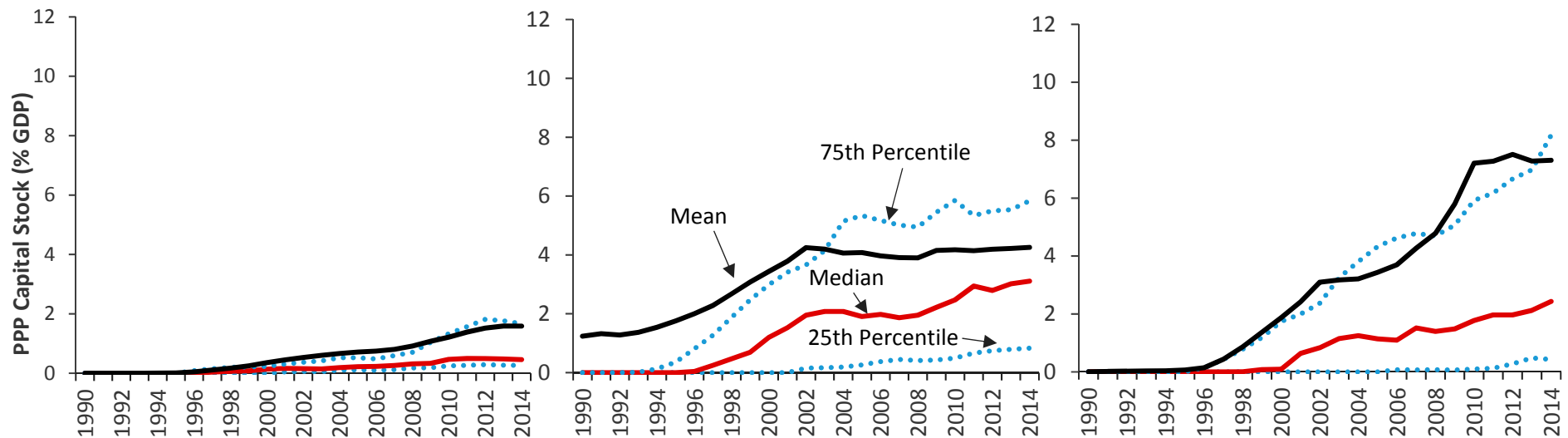
n = 21

### Emerging

n = 67

### Low Income

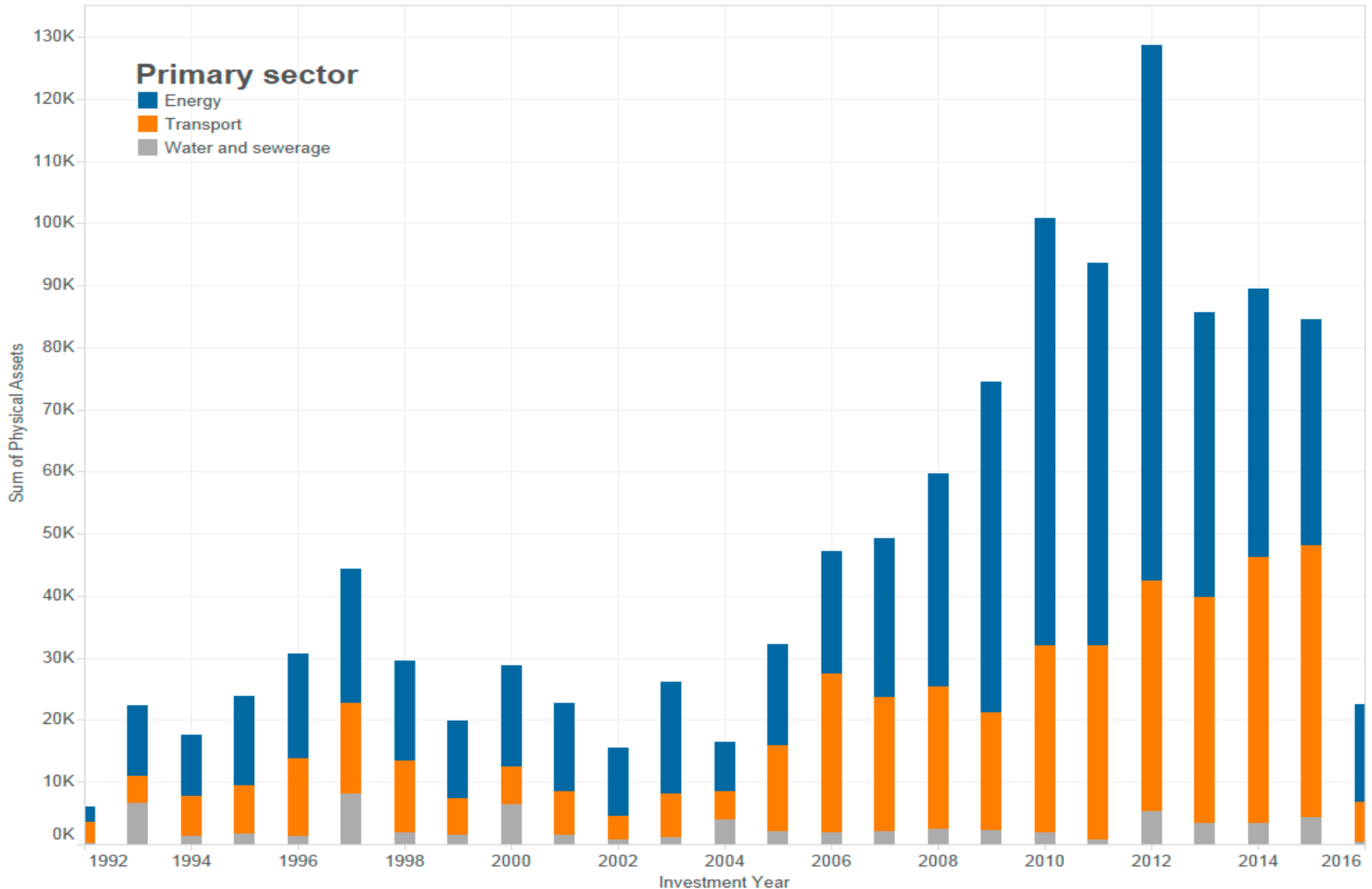
n = 51



Sources: European Investment Bank; World Bank; and IMF staff estimates.

# ...where PPPs are used extensively in the provision of energy, transport, and water

Expenditure in physical assets, composition by sector (Millions USD) [EMEs + LICs]



# Why we do PPPs?

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## Potential benefits from PPPs

**The private sector can offer better value for money—higher quality of services at lower cost—because:**

- its drive, motivation, and creativity
- the combination of creating assets and delivering services
- efficiency gain mostly linked to internalization of maintenance strategy
- the possibility of introducing user fees

**Yet, efficiency gains in PPPs should be high enough to offset:**

- higher cost of private capital
- fixed costs associated with managing PPPs



## Why we do PPPs?

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### “Illusion” of fiscal space

Only “good” PPP projects “may” create space “if” efficiency gains are achieved and are larger than higher financial and transaction costs compared to traditional public procurement

### The PPP bias

- Perception of **“infrastructure for free”** due to
- **Lack of integration of PPPs in budget process (off-budget),** medium-term fiscal framework and debt sustainability analysis
- Focus on PPP **fiscal impact on cash basis** (deferral of government or users payments)

# Understanding fiscal implications of PPPs

## Difference between “financing” and “funding” of PPPs

### Financing PPPs

It is expected that the private brings most of the financing of the project

3 main options:

- **Debt**
- **Equity**
- **Government support**
  - Guarantees
  - Subsidies
  - Equity injections
  - Tax amnesties
  - Others

### Funding PPPs

The private never funds the project (it expects a profit margin)

3 possibilities:

- **Government-funded PPPs**
  - Government pays during operation (fixed or variable)
- **User-funded PPPs**
  - Users of services pay fees (fixed or variable)
- **Combination**

Recognition of government’s fixed assets and related liabilities under certain conditions

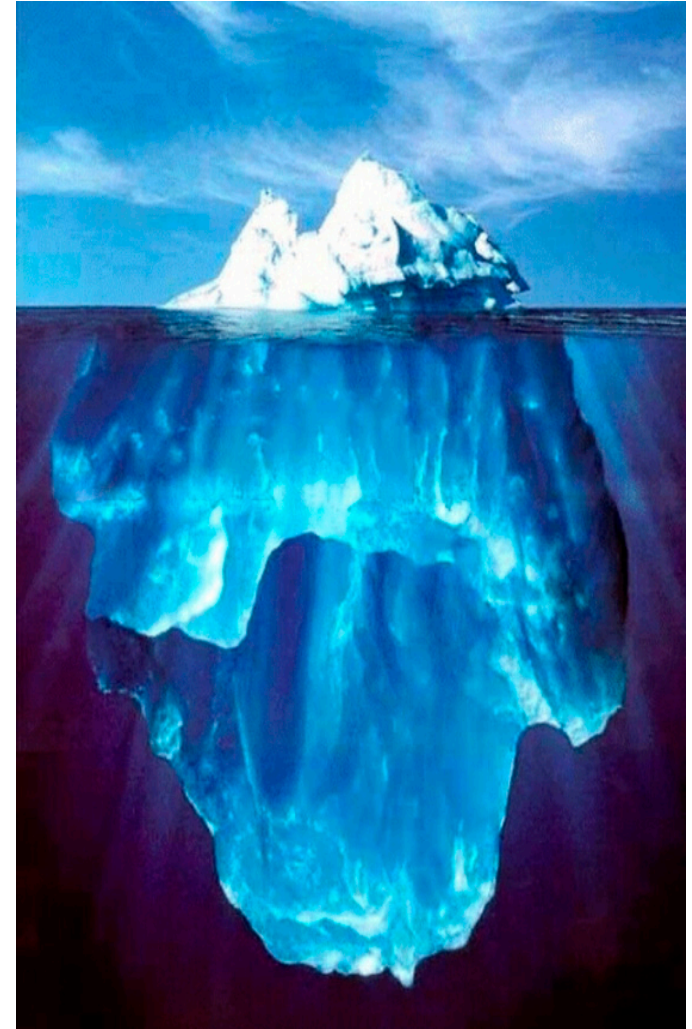
## Why worry about PPPs?

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PPPs create **firm and contingent liabilities** for the government, even if treated on-budget

**If not properly monitored and managed, PPPs**

- Reduce **budget flexibility** by committing public funds in long-term contracts
- Threaten **integrity of budget** process if treated off-budget, obscuring efforts towards **fiscal discipline**
- Might **undermine macroeconomic stability** in the event of a shock if mitigation measures are not in place



## Why worry about PPPs?

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### Even when properly managed, PPPs

- **In the short-term**

- Create fixed assets for government, but these assets are not liquid... while PPP-related liabilities are payable
- Limited data tends to underestimate liabilities

- **In the medium-term**

- They might improve public net worth...but only if fixed assets are properly maintained by private operator, which requires government capacity to monitor and manage long-term contracts

## What set of toolkits are available to the user?

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To assist countries to properly procure, monitor, and manage fiscal risks from PPPs WB developed a set of toolkits in collaboration with other international organizations:

- **Framework for Disclosure in PPP Projects (WB)** provides systematic structure for proactively disclosing information pertaining to PPP Projects (2013)
- **Recommended PPP Contractual Provisions (WB)** The initiative aims to develop recommended language on certain key provisions found in virtually every PPP contract to make drafting PPP contracts faster and less expensive (2015)
- **PPP readiness tool (WB)** Assesses a country's readiness to make informed decisions regarding private sector participation in the provision of infrastructure, identifying areas in need of improvement in line with global good practices (2016)

## What set of toolkits are available to the user?

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- **Infrastructure Prioritization Framework (WB)** This tool is an alternative approach to selecting and prioritizing PPP projects based on a multi-criteria methodology incorporating social, environmental, financial, and economic factors (2016)
- **Screening of PPP projects (WB/GIH/OECD)** Provide technical guidance and tool/s for early screening of projects for implementation as PPP, including both qualitative and quantitative variables (2017)
- **USP policy guidance (WB)** Provide guidance and recommendations for governments that are considering the development and operationalization of an unsolicited proposal policy in infrastructure projects (2017)

## What set of toolkits are available to the user?

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- **PFRAM (FAD/WB)** accounts for PPP-related assets and liabilities, and assists users in identifying and assessing fiscal risks from PPPs (2016)
- **Benchmarking PPP Procurement tool (WB)** Assessment of regulatory frameworks and institutional arrangements for PPPs in 82 countries (2017)

# PPP Fiscal Risk Assessment Model—PFRAM

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## What is it?

- Tool to assess potential fiscal costs PPP project
- Provides a structured process for collecting project information
- Framework to identify the main fiscal risks arising from PPP contract

## What is its scope?

- Project-by-project assessment tool
- Best suited to big projects
- Consistent with international standards
- Flexible accounting base (cash and accrual, flows and stock)

## How does it work?

- Decision tree to identify project type
- Input project-specific data
- Input macro-data
- Input project risk information
- Automatically generates a series of outcomes

## What does it produce?

- Cash flows of the project company
- Fiscal impacts and financial statements (IPSAS 32)
- Charts of fiscal balance and debt (GFSM 2014)
- A summary risk matrix of the project
- Sensitivity analysis to changes in parameters



# Accounting PPPs in PFRAM

## Accrual vs. Cash

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**PFRAM is based on International Public Sector Accounting Standards (IPSAS 32) and International Statistical Standards (GFSM 2014)**

- **P-FRAM is modelled based on accrual standards**
  - Fiscal commitments are recognized when the contract is signed (as the assets are built)
  - Government recognizes asset and liability if it retains control of the asset
- **But, also generates results on cash basis ...**
  - **... and compares results on accrual and cash basis**

# PFRAM

## How does it work?

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### A 5-step structured process to assess a PPP project

- **Step 1.** Who initiates the project?
- **Step 2.** Who controls the asset?
- **Step 3.** Who ultimately pays for the asset?
- **Step 4.** How is the payment done?
- **Step 5.** Does the public sector provide any additional support to the private partner?

# Additional government support

## What is it modeled?

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<b>1</b>	<b>No additional support</b>	Government does not provided any support to the private partner.
<b>2</b>	<b>Debt Guarantee</b>	Government guarantees a percentage of private partner debt. Contingent liability for government.
<b>3</b>	<b>Minimum Revenue Guarantee</b>	Government provides a minimum revenue guarantee to the private partner. Contingent liability for government.
<b>4</b>	<b>Other</b>	E.g., lump-sums, equity injections, subsidies, tax amnesties and preferential treatment, etc. Not specifically modeled in the P-FRAM

# **PFRAM**

## **5 Main Outcomes**

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**Private partner cash flow**

**Expected cash flow for private partner**

**Public Financial Statements**

**Government income statement, balance sheet, and cash statement (accrual and cash)**

**Project Macroeconomic impact**

**Summary charts comparing fiscal balance and DSA with/without PPP project**

**Fiscal Risk Matrix**

**Fiscal risks retained by government and mitigation measures**

**Sensitivity Analysis**

**Macro variables: GDP, exchange rate, inflation  
Project parameters: contract termination**

# PFRAM Outcomes

## Fiscal Risk Matrix: Summary Heat Map

PROJECT RISK SHARING ARRANGEMENTS								
IDENTIFICATION OF RISKS			ALLOCATION	LIKELIHOOD	FISCAL IMPACT	RISK RATING	MITIGATION STRATEGY	PRIORITY
						Likelihood*Impact		Rating*Mitigation
1	Governance risks	<a href="#">Details</a>	Public	High	Medium	High	NO	High priority
2	Construction risks	<a href="#">Details</a>	Shared	Medium	Medium	Medium	NO	High priority
3	Demand risks	<a href="#">Details</a>	Private	High	High	Critical	NO	Critical
4	Operational and performance risks	<a href="#">Details</a>	Shared	Low	Low	Irrelevant	NO	NO action required
5	Financial risks	<a href="#">Details</a>	Private	Medium	Low	Low	YES	Low priority
6	Force majeure	<a href="#">Details</a>	Shared	Low	High	Medium	NO	High priority
7	Material adverse government actions	<a href="#">Details</a>	Public	Low	Low	Irrelevant	NO	NO action required
8	Changes in law	<a href="#">Details</a>	Public	Low	Medium	Low	YES	Low priority
9	Rebalancing of financial equilibrium	<a href="#">Details</a>	Private	Low	High	Medium	NO	High priority
10	Renegotiation	<a href="#">Details</a>	Shared	Medium	High	High	YES	Medium priority
11	Contract termination	<a href="#">Details</a>	Shared	Low	Medium	Low	NO	Medium priority

## **PFRAM Outcomes**

### **Fiscal Risk Matrix: Identification of Risks**

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- **Trade-off between risks and costs**
- **Which risks are we interested in?**
  - **Contractual risks**
  - **Other risks not allocated by contract**
    - E.g., risks arising from the governance structure, legal framework, low institutional capacity

***Risks that have fiscal implications***

# PFRAM Outcomes

## Developing a Fiscal Risk Matrix

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### Identification

- 11 risk classes identified, 52 detailed risks

### Allocation

- Risks mostly allocated to private, shared, or mostly allocated to government

### Likelihood

- Low, Medium, High

### Fiscal impact

- Low, Medium, High

### Rating

- **Equal to [Likelihood \* Fiscal Impact]**
- Irrelevant, low, medium, high, critical

### Mitigation measures

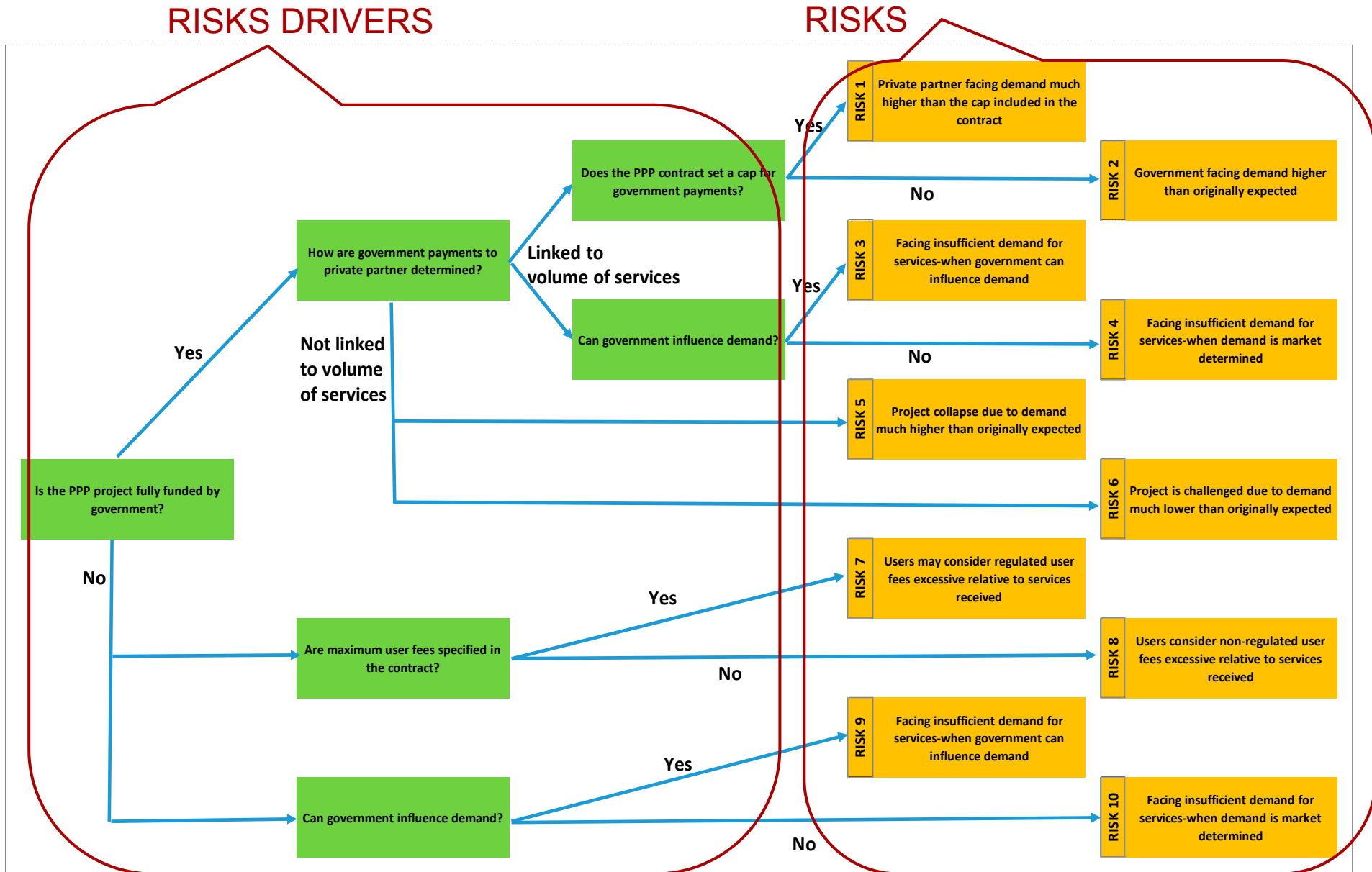
- Is mitigation in place? YES/NO

### Priority actions

- **Function of Rating and Mitigation**
- No action, low/medium/high priority, critical

# PFRAM Outcomes

## Identification of Risks Example: Demand Risks





# PFRAM Outcomes

## Identification of Risks Example: Demand Risks

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### RISK DRIVERS

- **PPP fully government funded**
  - Are government payments linked to volume of services?
    - Yes
      - Is a cap for government payments negotiated in the contract?
        - » Yes
          - » Is demand higher than negotiated in the contract?
            - » Yes
              - » **RISK 1:** private partner facing demand much higher than the cap negotiated in the contract
              - » **MITIGATION MEASURE:** the government manage demand by diverting it to other similar project

*Example: hospital with government payments capped number of patients/services, facing higher demand, government rerouting patients/services to other hospitals with lower demand*

# Outcomes

## Fiscal Risk Matrix: Risk Rating

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Risk Rating = Likelihood x Fiscal Impact				
Fiscal Impact	HIGH	Medium	High	<i>Critical</i>
	MEDIUM	Low	Medium	High
	LOW	Irrelevant	Low	Medium
		LOW	MEDIUM	HIGH
		Likelihood		

# Outcomes

## Fiscal Risk Matrix: Priority Actions

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Priority Actions = Risk rating x Mitigation measures						
Mitigation measures	NO	No action	Medium priority	High priority	High priority	<i>Critical</i>
	YES	No action	Low priority	Medium priority	Medium priority	High priority
		IRRELEVANT	LOW	MEDIUM	HIGH	CRITICAL
		Risk Rating				

# Outcomes

## Fiscal Risk Matrix: Summary Heat Map

PROJECT RISK SHARING ARRANGEMENTS								
IDENTIFICATION OF RISKS		ALLOCATION	LIKELIHOOD	FISCAL IMPACT	RISK RATING <small>Likelihood*Impact</small>	MITIGATION STRATEGY	PRIORITY <small>Rating*Mitigation</small>	
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## **Governments can prepare to manage fiscal risks from PPPs!**

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- **Success in PPPs = realization of efficiency gains + effective mitigation of fiscal risks**
- **Governments can take actions to manage PPPs fiscal risks**
  - **Good projects:** investment portfolio and prioritization procedures
  - **Good institutions:** strong public investment management (PIM) frameworks to handle PPPs efficiently
  - **Good laws:** comprehensive legal framework provisions that govern overall processes of project selection, implementation, and management.
  - **Good management, accounting, and fiscal reporting:** strong decision making process to mitigate and/or phase fiscal risks and achieve full and transparent disclosure of these risks

# References

- Public Investment Management Group [www.imf.org/publicinvestment](http://www.imf.org/publicinvestment)
- PPP Knowledge Lab [www.pppknowledgelab.org](http://www.pppknowledgelab.org)

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## THE IMF AND PUBLIC INVESTMENT MANAGEMENT

**News**

- New PFRAM Diagnostic Tool Now Available (April 2016) **New**
- FAD and CARTAC Host Regional Workshop on Managing the Fiscal Impact of PPPs (April 2016) **New**
- Closing Efficiency Gaps Means Big Gains for Public Investment (June 2015)
- Aiming High (June 2015)
- The Time is Right for an Infrastructure Push (Sept 2014)
- More Efficient Public Investment a Mileast, Central Asia Priority (Nov 2014)

### Why Public Investment Matters

Public investment supports the delivery of key public services through the construction of schools, hospitals, public housing, and other social infrastructure. Public investment also connects citizens and firms to economic opportunities through the provision of economic infrastructure hubs such as airport and seaports and networks which support telecommunications, transport, and electricity production and transmission.

Through the provision of both social and economic infrastructure, public investment can serve as an important catalyst for economic growth. A significant body of theoretical and empirical resource underscores the positive relationship between investment in high-quality public infrastructure and economy-wide productivity. In the **October 2014 World Economic Outlook**, the IMF found that, for a sample of advanced economies, a 1 percentage point of GDP increase in investment spending would increase the level of output by about 0.4 percent in the same year and by 1.5 percent after four years.

TRENDS IN PUBLIC INVESTMENT ▼ PUBLIC INVESTMENT MANAGEMENT ASSESSMENT (PIMA) ▼  
PUBLIC INVESTMENT EFFICIENCY ▼ PPP FISCAL RISK ASSESSMENT MODEL (P-FRAM) ▼

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