

# **Financing Asia's infrastructure gap: New ideas for the public and private sectors**

*Dr. Kevin Lu*

*Regional Director, Asia Pacific  
Multilateral Investment Guarantee Agency – World Bank Group*

*Distinguished Fellow  
INSEAD Global Private Equity Initiative*

**ASIA INC** *FORUM* Luncheon Address  
Brunei  
November 26, 2013

# Road Map

## The Basics:

Why Infrastructure? Who pays? What's the gap globally?

## Role of Multilaterals

Closing Viability Gap. De-risking Projects

## Impact of Crisis

Supply and Cost of Capital. De-leveraging

## Asia

Role of PFI. Country Cases

## New Global Regional Initiatives

GIF. BRICS Bank. Asian Inf I-Bank.

# **Why Infrastructure?**

# Transforming Infrastructure

*Infrastructure alleviates poverty, creates jobs, enables growth and is central to the Climate Change agenda*

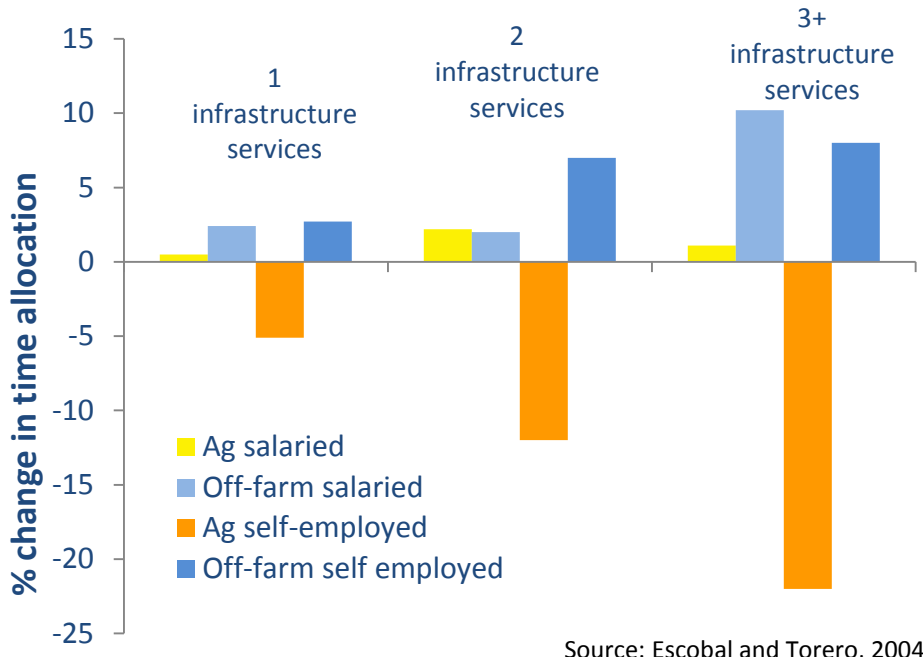
## Constraints

1. Insufficient investment to meet growth targets: \$1 – \$1.5 trillion/year gap
2. Avoiding a 4<sup>o</sup> world requires *additional* funding: \$500 billion
3. Investment is key, but is not enough. Challenges on the ground are complex: Service efficiency, Consumer behaviors, Institutional capacity

## Focus on Holistic Responses

- Across sectors & levels of government
- Between Climate Change & Investment
- Infrastructure + Services, Behaviors, Institutions
- Instruments and Facilities

# Infrastructure Creates Employment

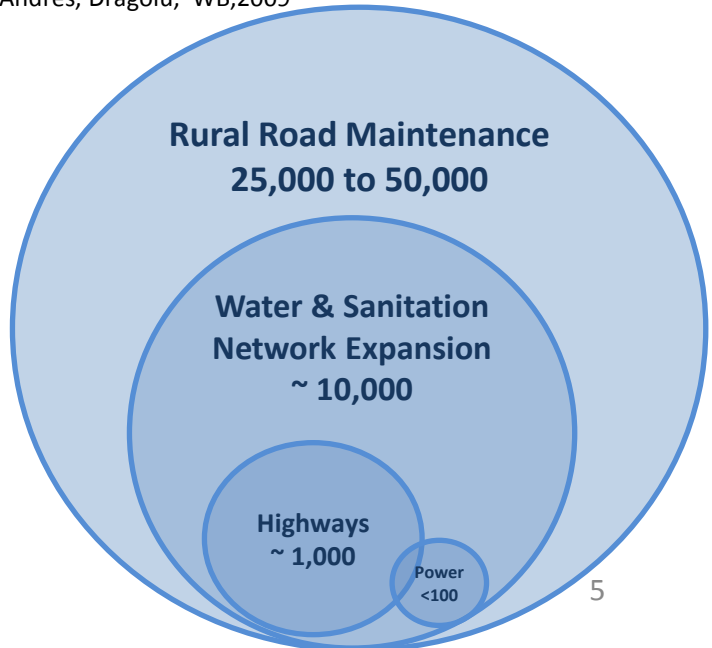


Source: Escobal and Torero, 2004

*Long-term Employment Impacts:*  
 More infrastructure services mean greater options for employment, e.g. shifting from subsistence agriculture to the market economy

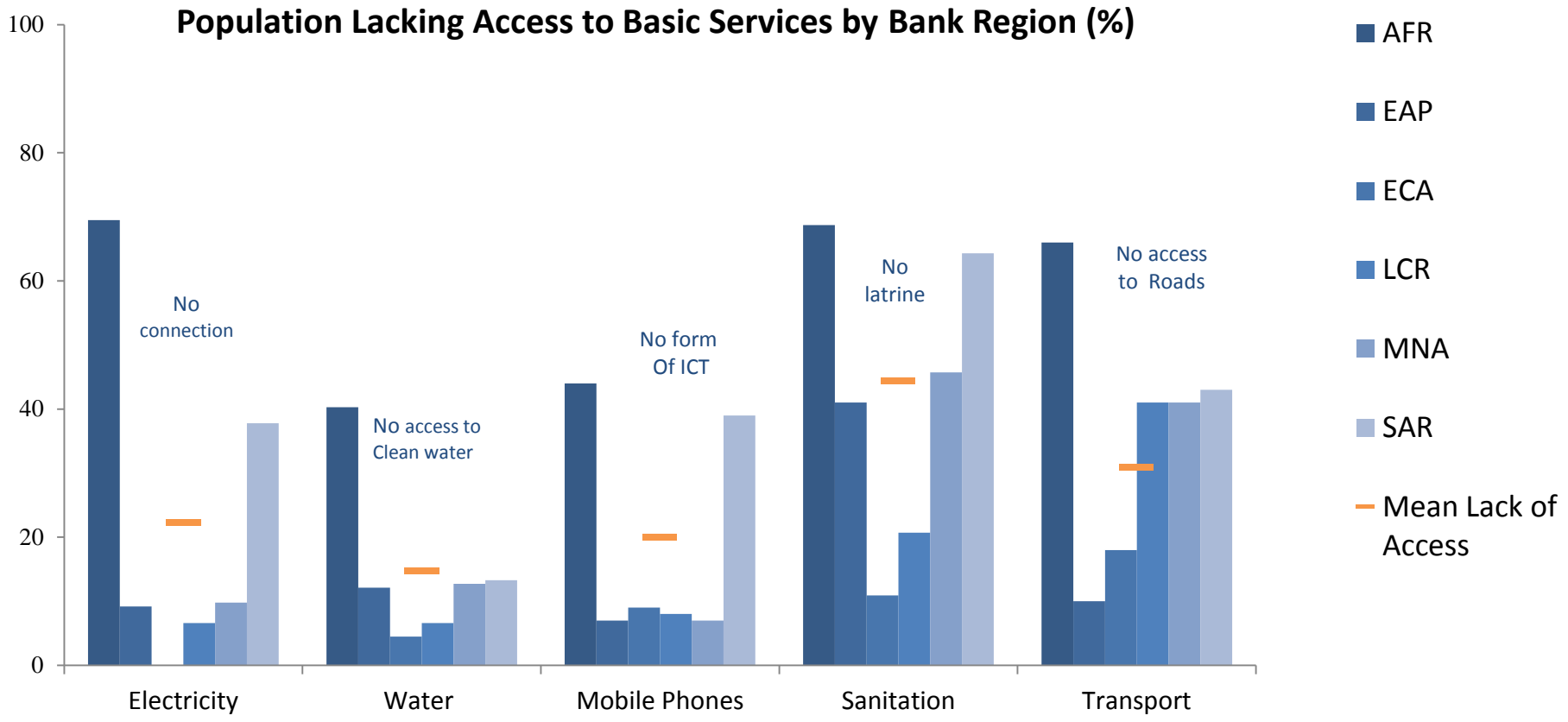
## Annual jobs per \$100 million investment

Source: Schwartz, Andres, Dragoiu, WB, 2009



*Short-term Employment Impacts:*  
 Infrastructure is a pillar of job creation and stimulus...though not all investments are created equal.

# Lack of Infrastructure Reduces Quality of Life



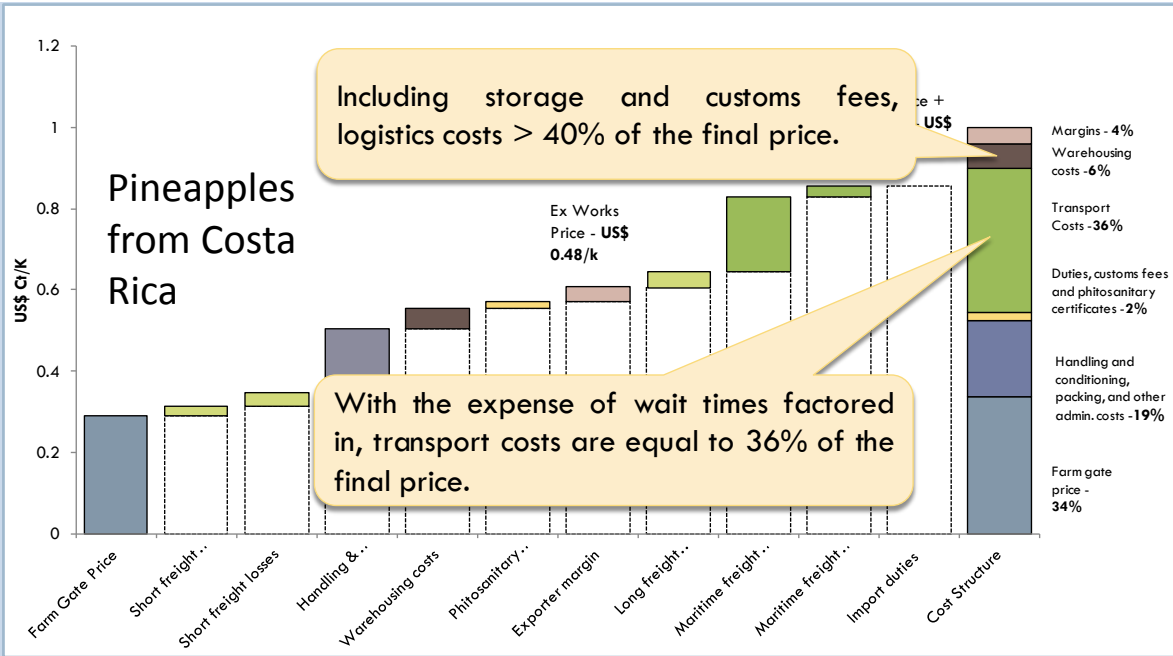
Transport Data: Rural Access Index, 2007  
 Remaining Data: Regional Action Plans, Infrastructure Strategy Update 2012

*“Those who are here now are truly desperate...we are on a boat with many problems, but if we abandon it, we will drown. If somebody would offer me money, I would take it and leave everything here. There is no light, no water, no basic services.”*

-Resident of Villa Belen, El Salvador

# Transport Generates Trade and Provides Access to Markets

- Transport and logistics bottlenecks restrict trade more than trade policies



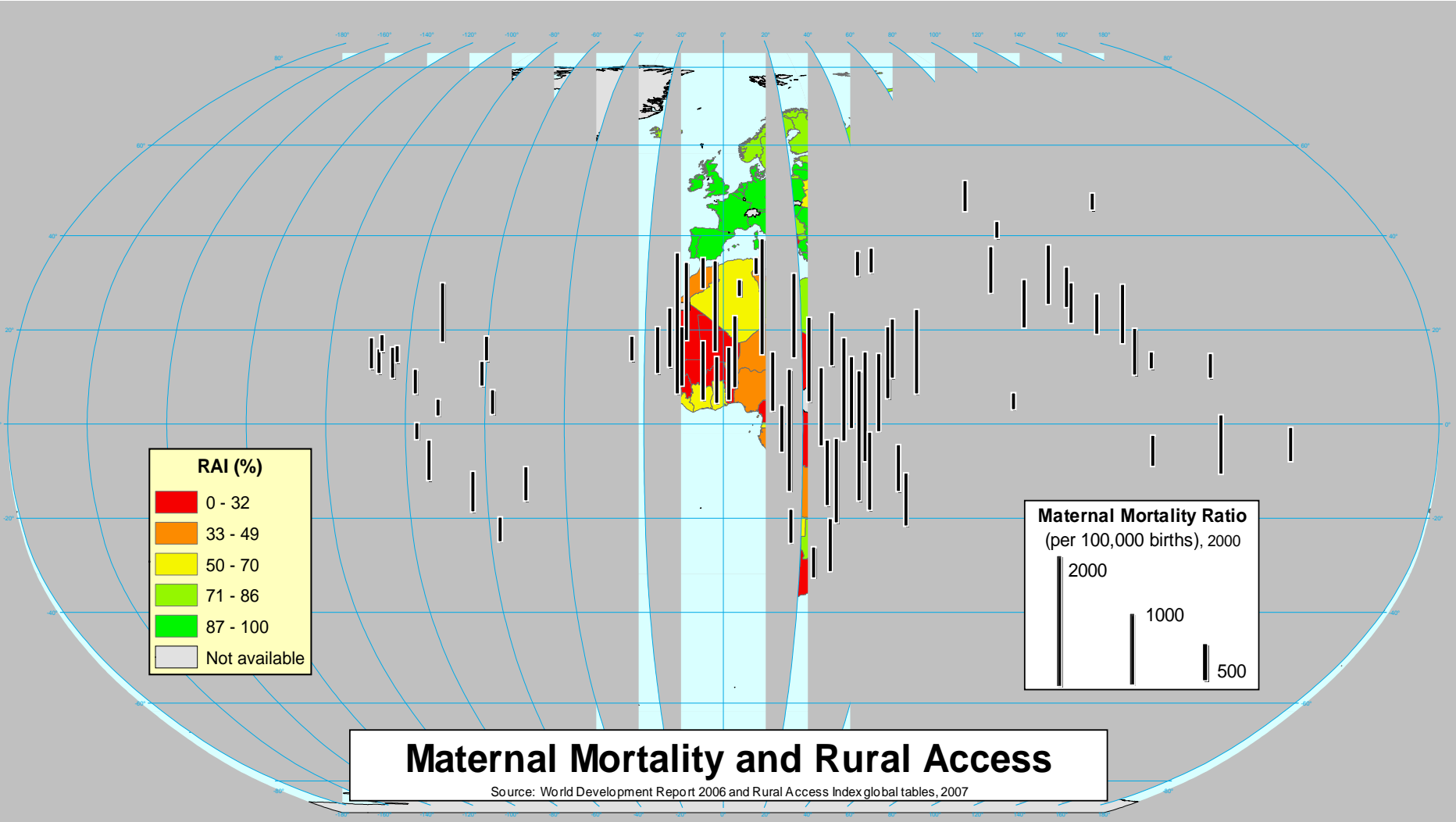
*Delivered price of food is 20 to 60 percent logistics and transport costs*  
 Source: LCSSD Economics Unit, 2012

*“Thick borders” correlate with poverty*  
 Source: WDR 2009



*Some borders have remained thick: Africa, South Asia, Central Asia*

# Lack of Rural Roads Correlates with Maternal Mortality



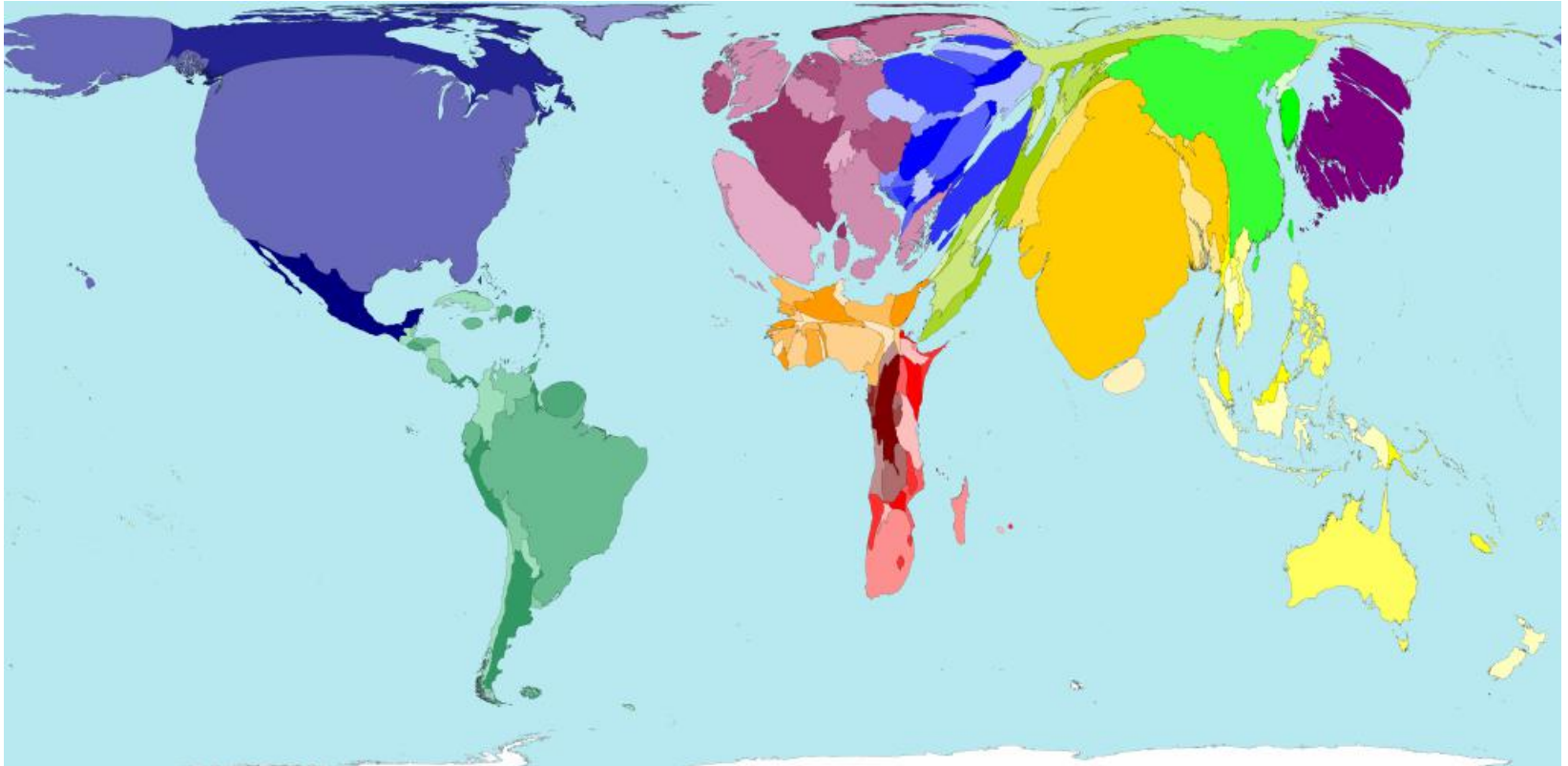


# “Without roads, there is no democracy”

Ethiopia’s Transport Minister, 2004

---

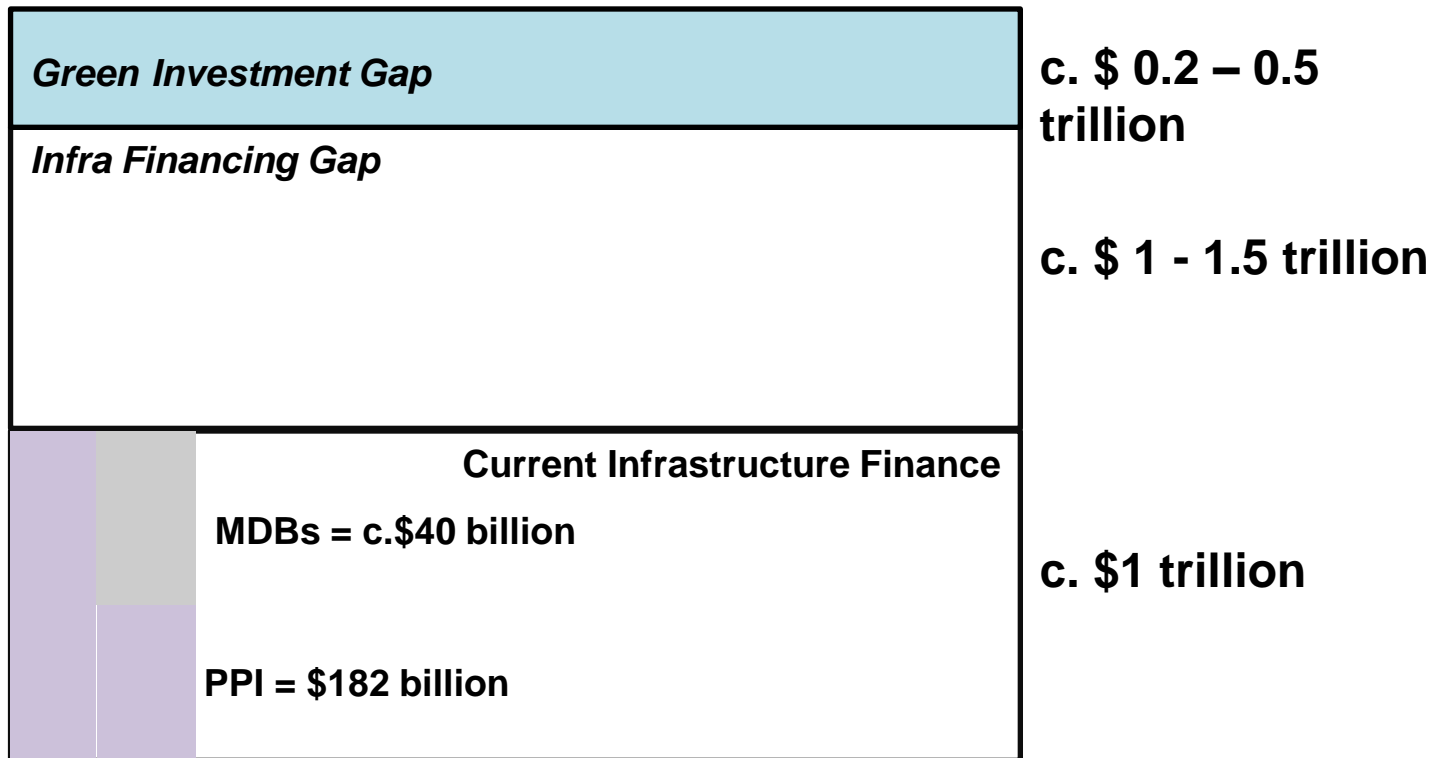
Availability of Paved Roads, by Country  
Roads translated into Geographic Size



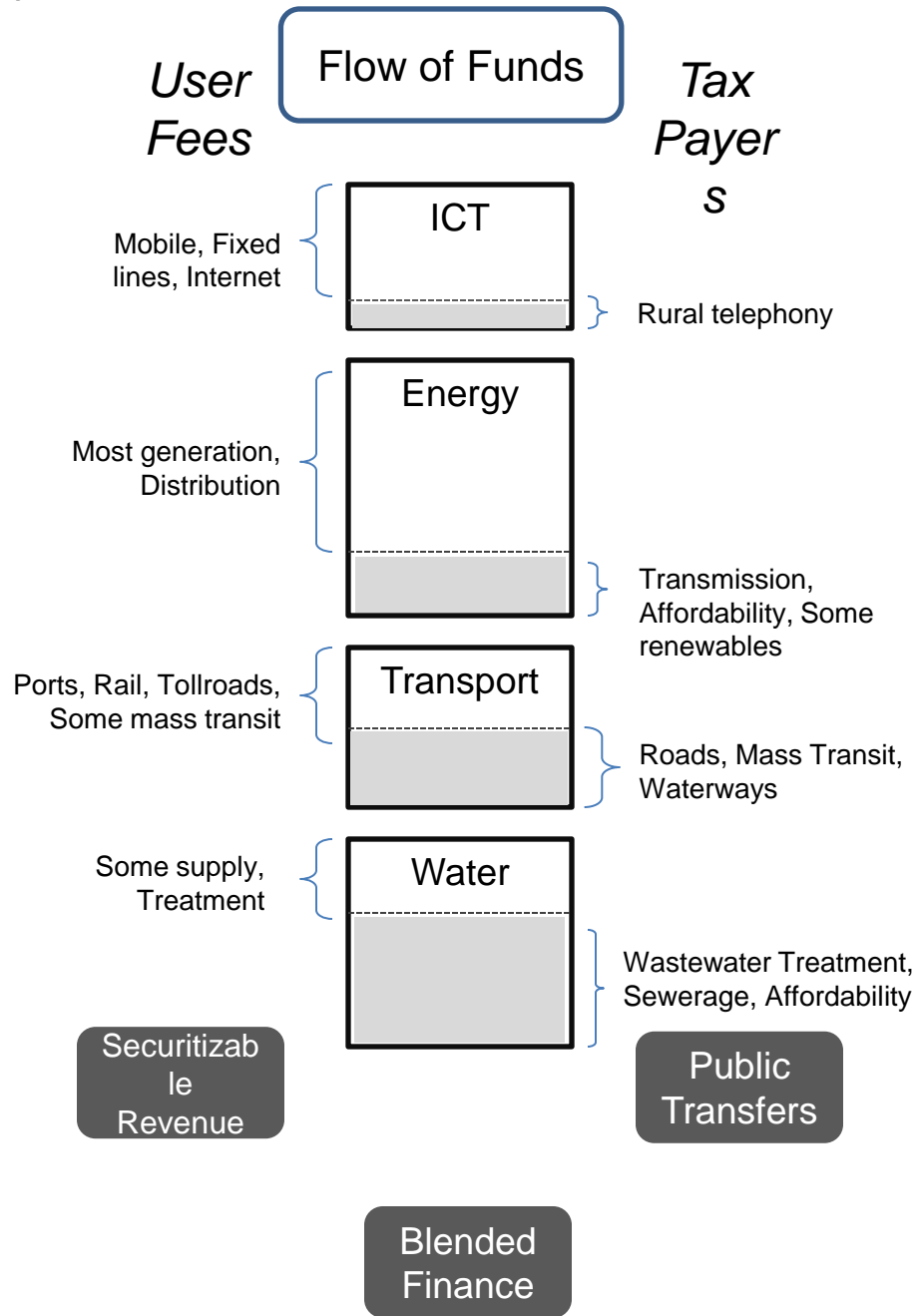
Source: Worldmapper (<http://www.worldmapper.org>)

# **Financing Gap and Sources**

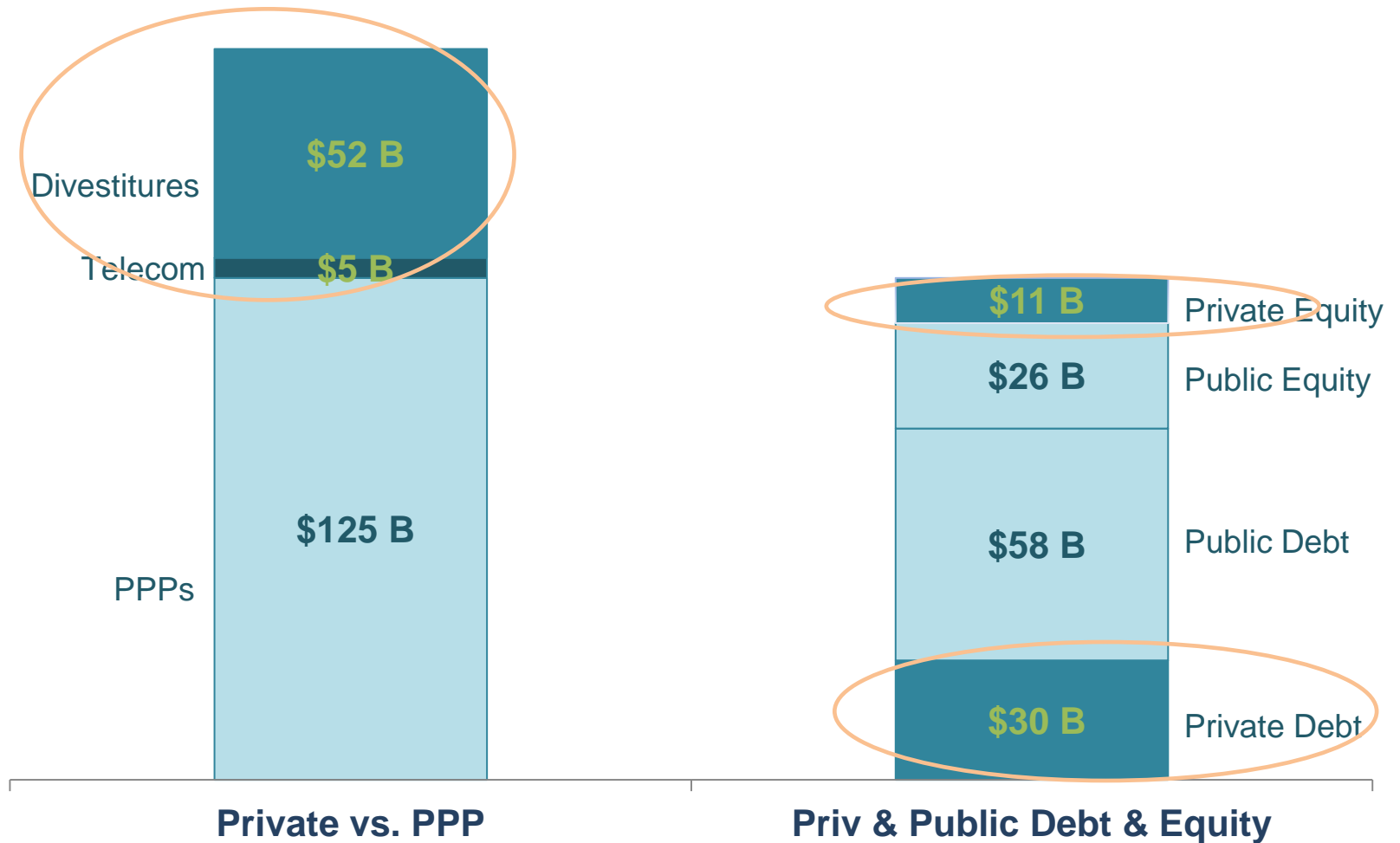
# Yearly Infra Finance Needs – Developing Countries



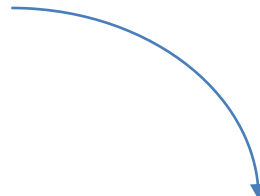
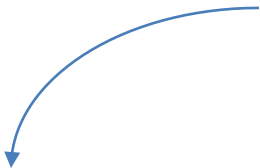
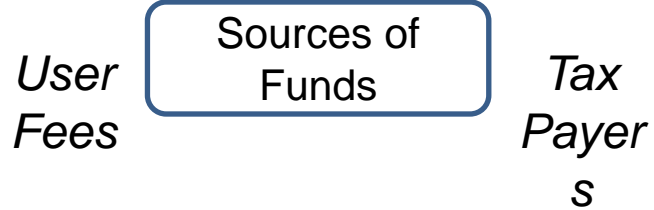
# Who Pays for What



# How much of PPI is private?



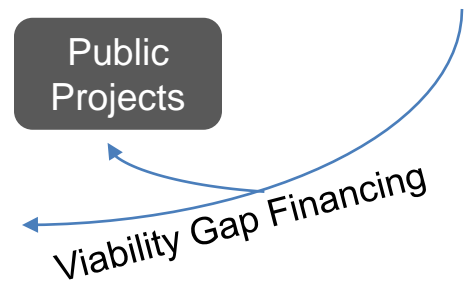
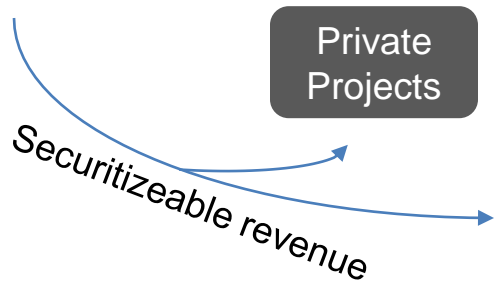
# Who Finances What



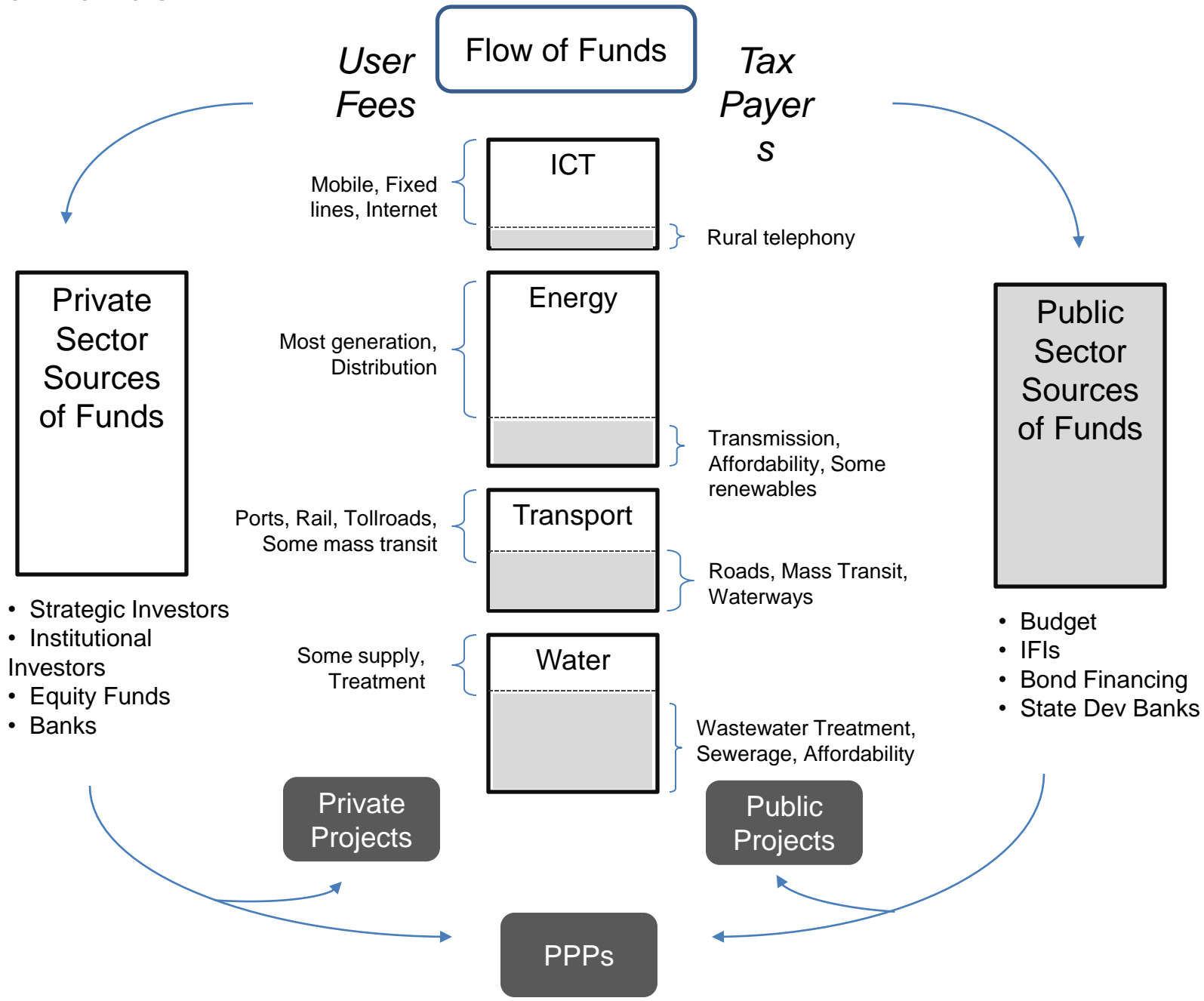
- Strategic Investors
- Institutional Investors
- Equity Funds
- Banks



- Budget
- IFIs
- Bond Financing
- State Dev Banks



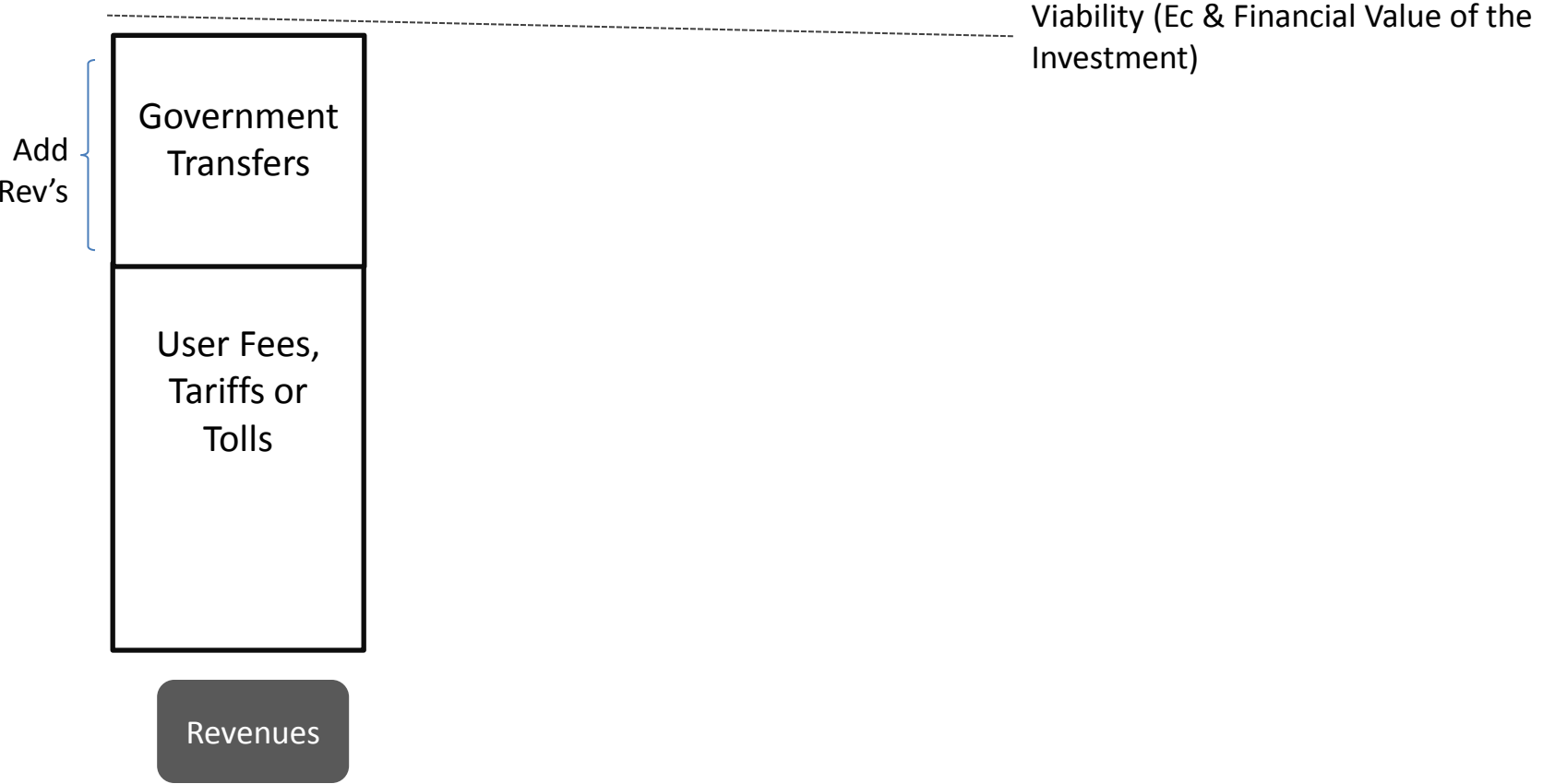
# Flow of Funds



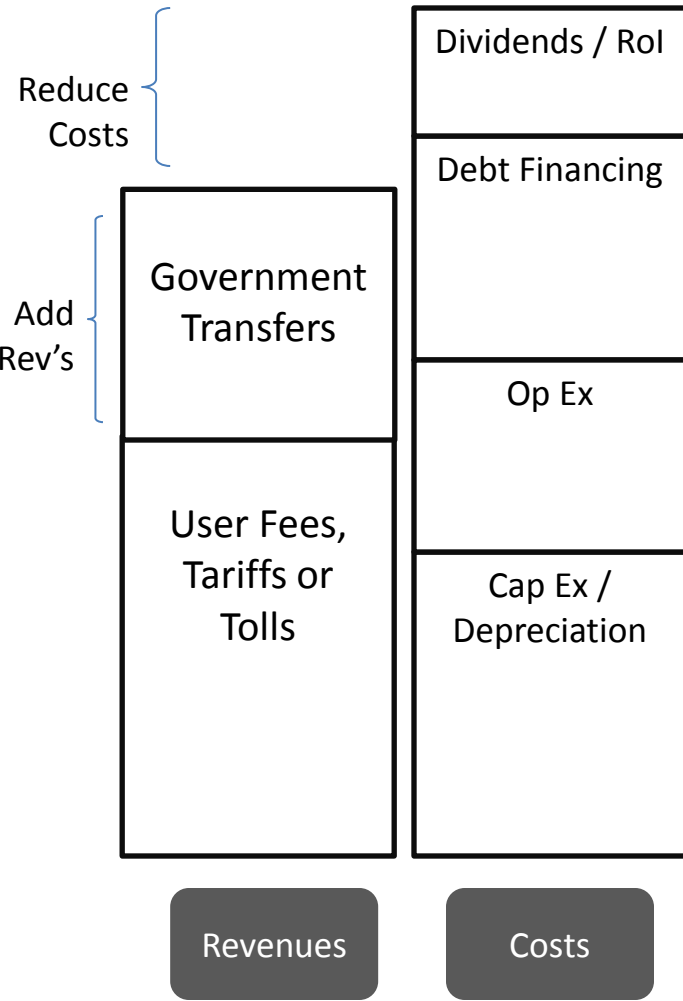
**What Could MDBs/World Bank Group Do?**



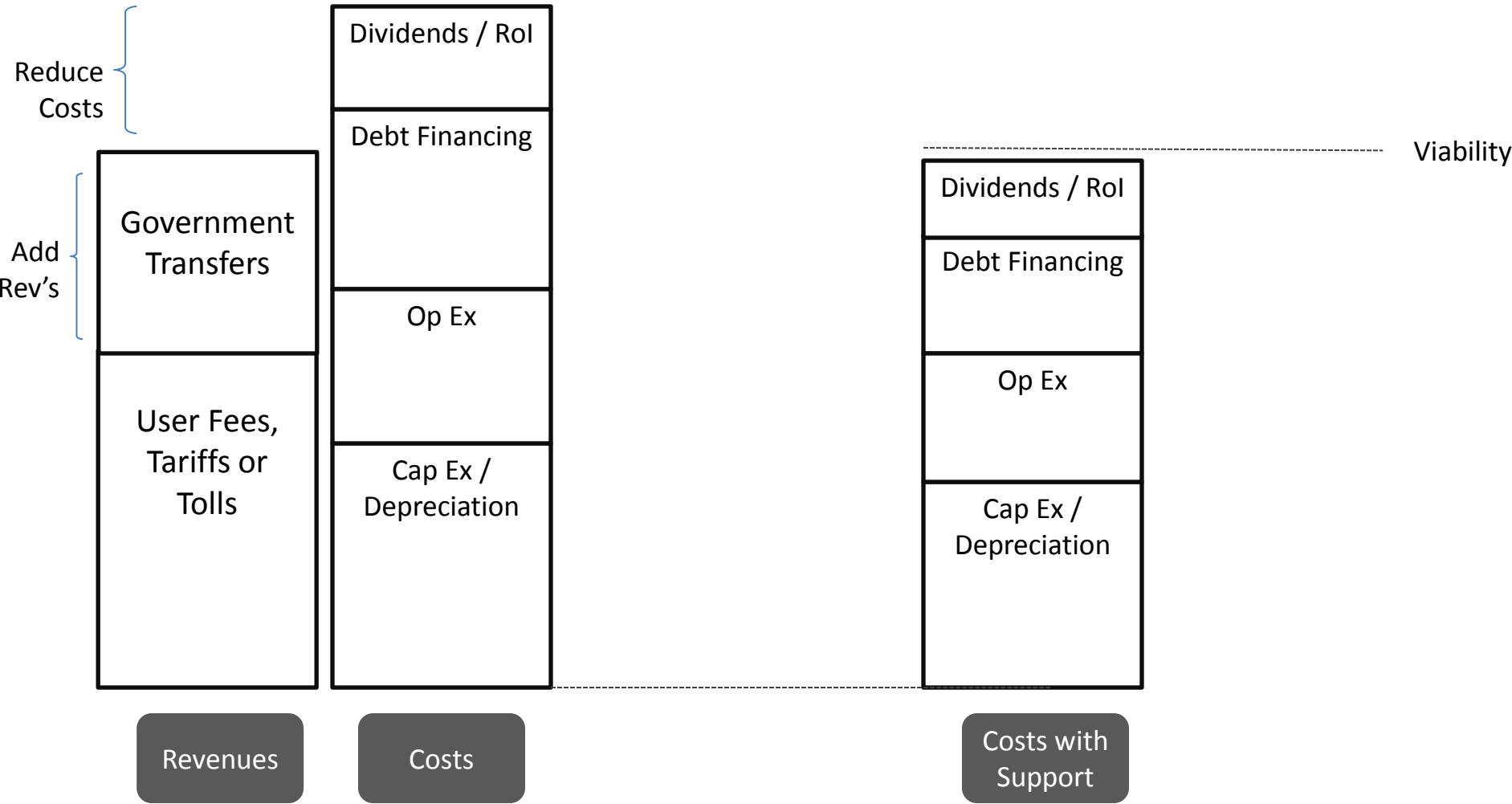
# Closing the Project Viability Gap



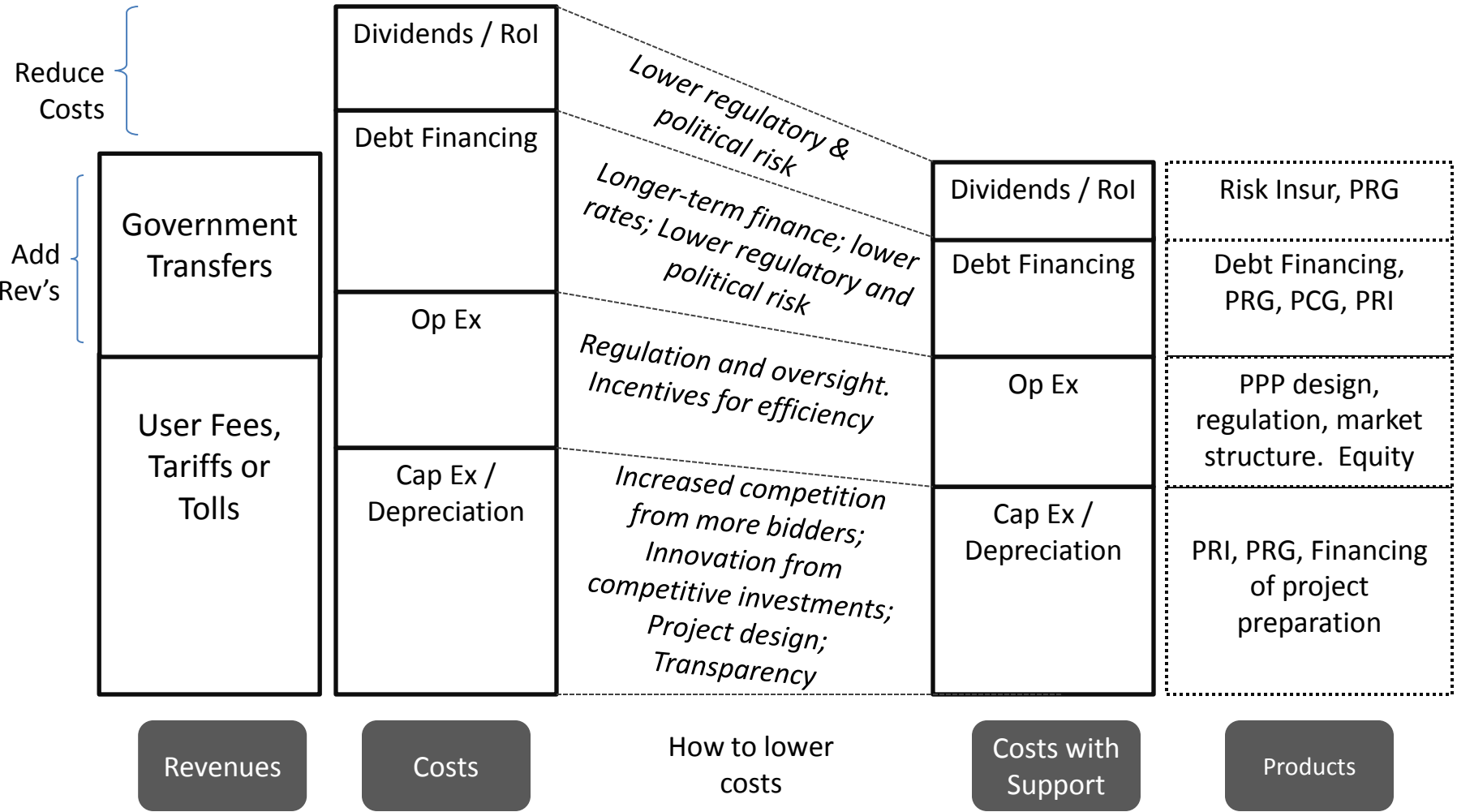
# Closing the Project Viability Gap



# Closing the Project Financing Gap



# Closing the Project Viability Gap



## ***Risk mitigation - Tools***

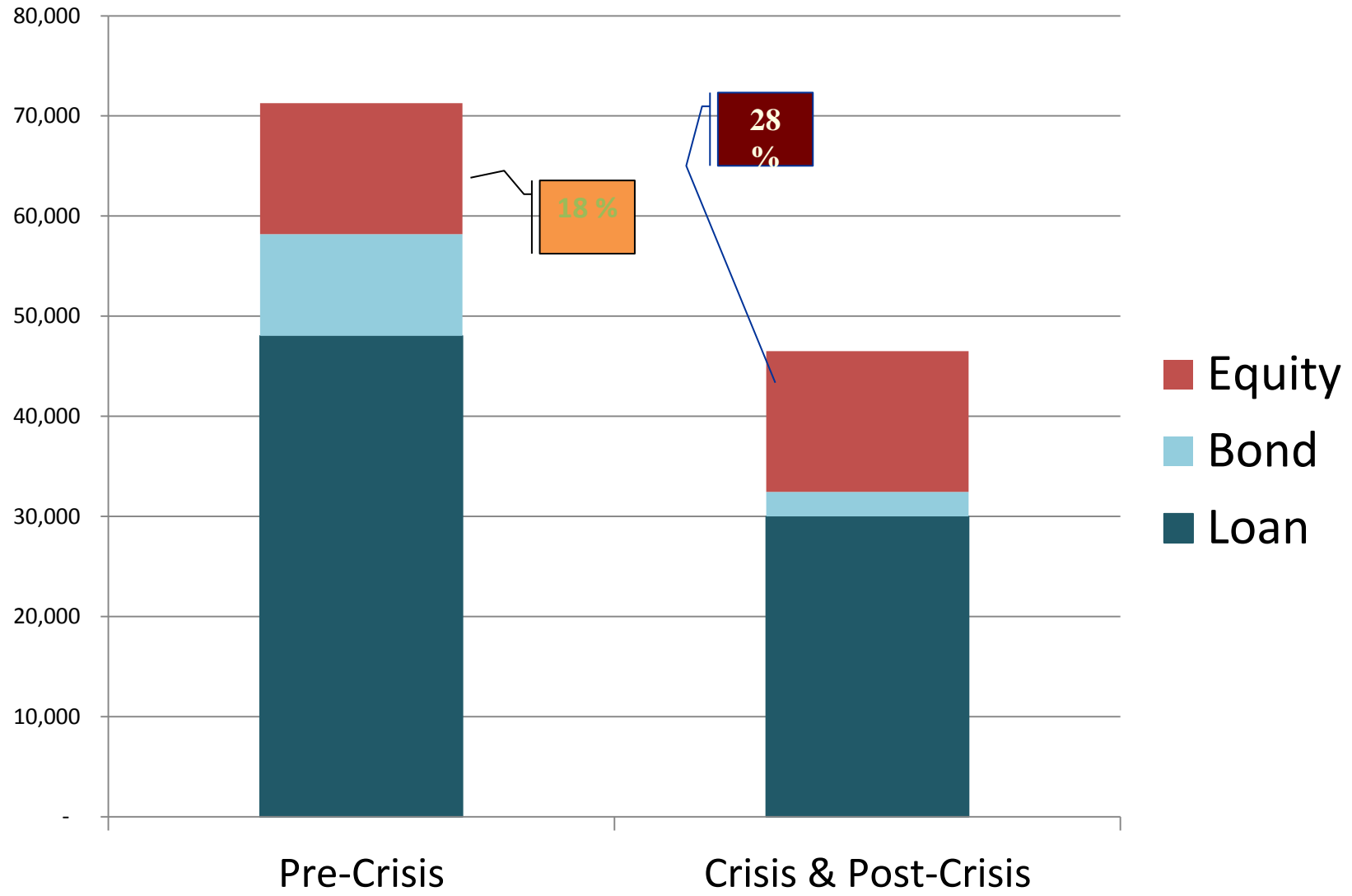
<b>Risk</b>	<b>Instrument</b>	<b>Availability</b>
Covertability, expropriation	Political Risk Insurance	High – MIGA, commercial insurers
Breach of contract, Regulatory Change Non-honoring	Contractual & Regulatory Cover Partial Risk Guarantee	Moderate but increasing WB, MIGA, some private insurers
Debt service	Partial Credit Guarantee	High – WB / IFI's, private insurers
ForEx Cover	Devaluation	Low to none
Construction Ramp-up (early demand)	Project Bonds New PPP Structures	Under design

# **New Challenges - Post Global Crisis**

***New environment – costlier and more uncertain***

<b>Before the crisis</b>	<b>Now</b>
Dominated by Banks (US & Europe)	Avoided by Commercial Banks: Increase of financing costs & restructuring balance sheets due to Basel III
Monoline Insurance for total wrap	Disappearance of Monoliners
Price (for UK): LIBOR +90bps	Price (for UK): LIBOR + 275 bps
Term (for UK): 30 years	Term (for UK): <7 years

# Gearing has decreased

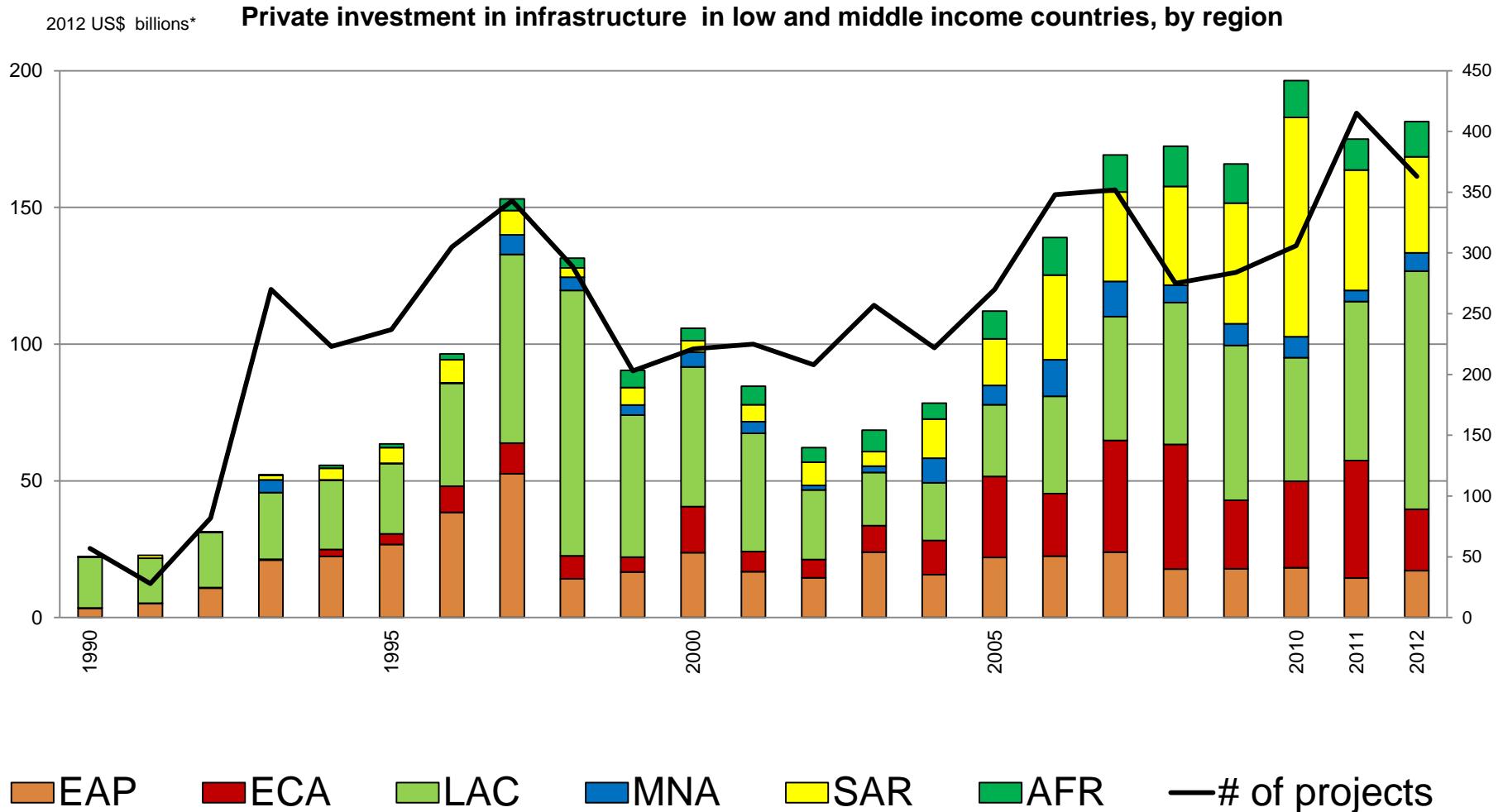


Source: World Bank Calculations from ProjectWare Database



**Asia**

# How much private infrastructure investment is going into East Asia?



Source: World Bank Infrastructure Policy, PPI Project Database.

\* Adjusted by US CPI

# Country Cases in the Region

The Philippines: PPP Center

Indonesia: IIF, IIGF

Korea: PPP Model

China: Water Sector

Singapore: Soft Infrastructure

# New Initiatives

Global Infrastructure Facility

BRICS Bank

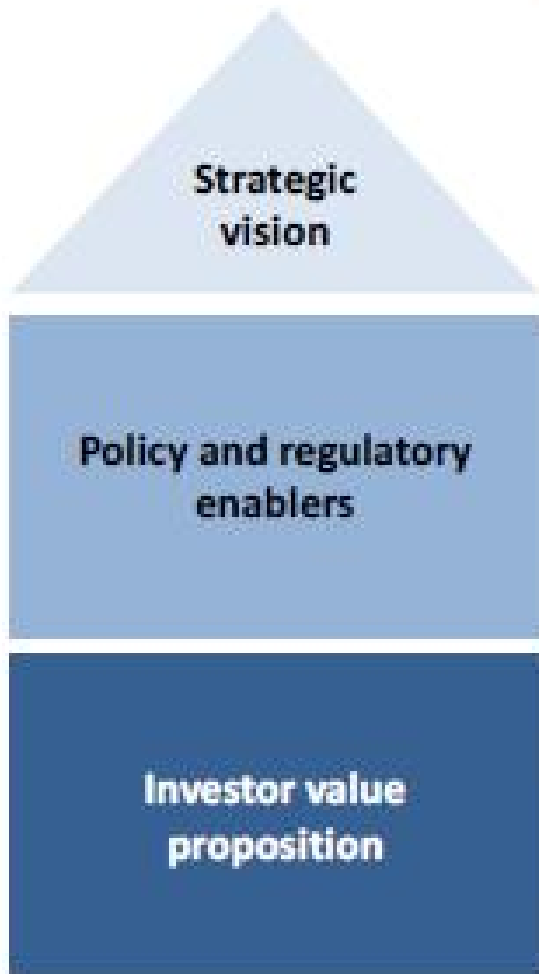
Asian Infrastructure Investment Bank

APEC PPP Center

Project Bond Market

New Monolines

# World Economic Forum Recommendations



## Key recommendations

- Create an **integrated infrastructure pipeline**
- Define a **viable role for investors**
- Develop a **communication strategy**
  
- **Limit re-negotiation risk**
- Create an **efficient, predictable and standardized procurement process**
- **Facilitate predictable project permitting processes**
- **Review and assess tax policy**
  
- **Analyse the project returns from the investors' perspective; focus on financial returns**
- Create a **robust risk allocation methodology**
- **Conduct market sounding with investors**

## Key outcomes

- **Increased investor interest with a credible pipeline of future projects, and clear role for investors**
  
- **Stable and predictable, regulatory environment; Efficient and standardized procurement process and project execution that lowers costs and reduces risks**
  
- **Bankable projects that attract investor interest and generate value for money for governments**

# Infrastructure as a New Asset Class

1. Sector economics and the role of public finance
2. Credible mechanisms to supply infrastructure assets
3. Risk/return profile
4. Multiple sources of financing for different stages
5. Technical expertise
6. Ecosystem of players including intermediaries