Sharing the road
16th World Meeting
International Road Federation

Road Finances and Management

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Main messages

1. Demand for infrastructure as a contributor to economic development remains high.
2. How road infrastructure is financed depends on financial cycles.
3. The share of private finance depends on how the road sector is regulated and political credibility.
4. High infrastructure demands call for new financing solutions.

Global demand for road infrastructure investment

Example of IIED and Grantham Institute for Climate Change estimate

Region	Total costs (US$ billion) of:			Annual costs over 20 years (US$ billion) of	
	Removing the infrastructure deficit	Adapting to climate change (5%)	Adapting to climate change (20%)	Adapting to climate change (5%)	Adapting to climate change (20%)
Africa	1232	61.6	246.4	3.1	12.3
Low- and middle-income nations in Asia	4350	217.5	870	10.9	43.5
Latin America and the Caribbean	744	37.2	148.8	1.9	7.4
All low- and middle-income nations	6326	316.3	1265.2	15.9	63.2






Global demand for road infrastructure investment

- Wide range of estimates depending on
  - expected economic growth,
  - which shares of GDP are invested in infrastructure at which level of development
  - assumptions on what is the endowment norm, definition of the gap
  - assumptions on additional infrastructure costs to adapt to climate change.

Structure of finances is highly cyclical

- In general, most roads are financed by general tax revenues.
- Sometimes special taxes are earmarked for road construction (fuel taxes).






Structure of finances is highly cyclical

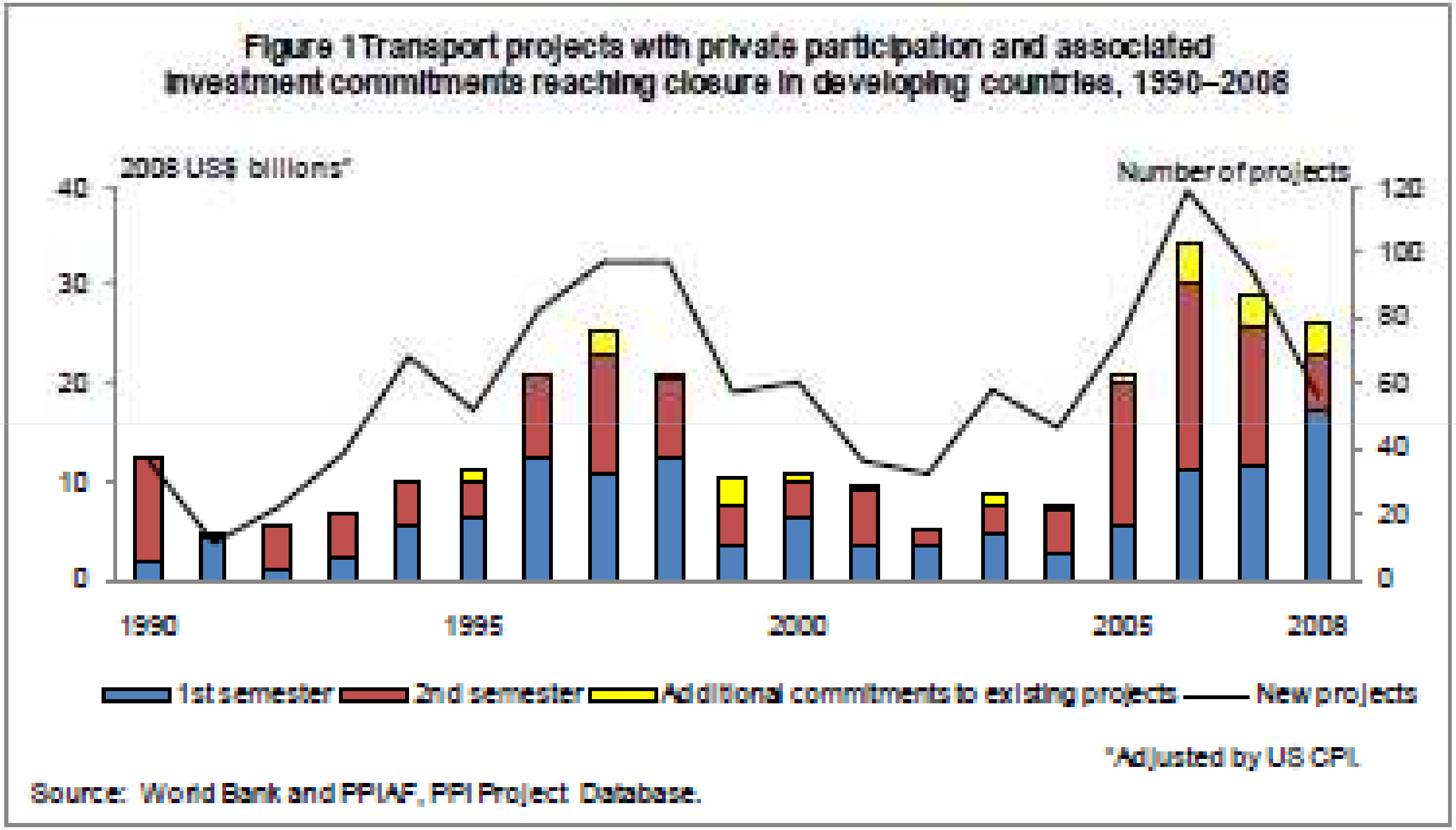
A relatively small share of all road investment is private investment

- $ 1000 billion private funds were committed between 1990 and 2005 to all infrastructure sectors, small share of overall investment demand
- Transport has only about 15 per cent of these commitments
- Amounts to $ 10 billion annually for all developing countries, 2/3 is road investment
- A substantial fraction of the commitments is not disbursed

Structure of finances is highly cyclical

- First increase of private finance of roads in the early '90s
  - 50-60 projects per year reach financial closure
  - amounting to $10-12 billion in 1997
- Financial crisis led to sharp decline and pessimism in private financing of roads
- In 2005-2006 private investment in roads peaked again reaching almost 1997 levels.

Structure of finances is highly cyclical



Structure of finances is highly cyclical

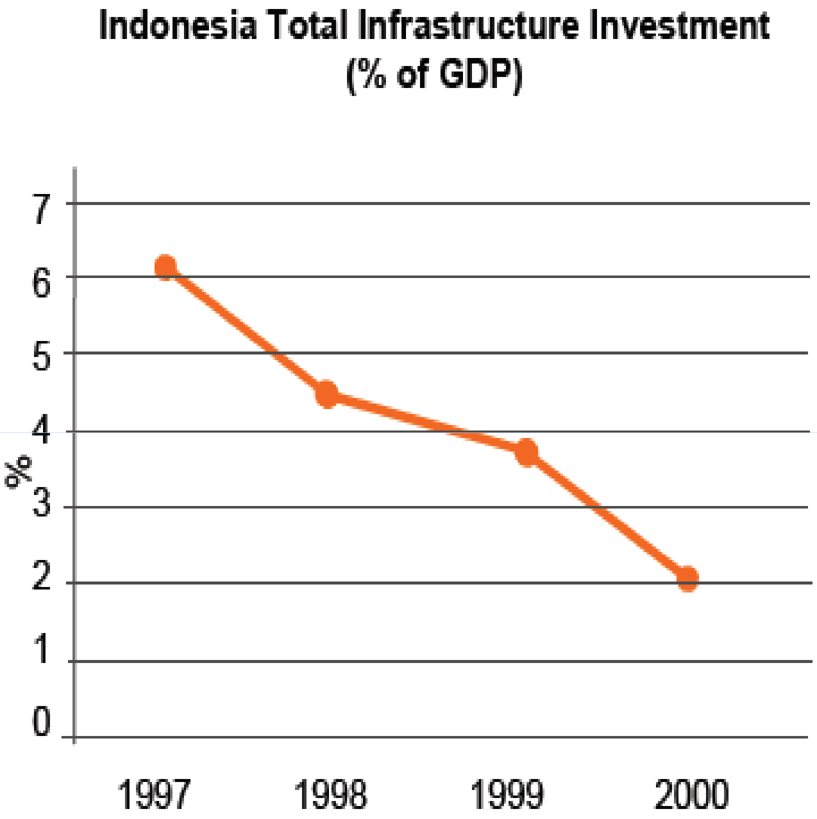
- In 2008 with onset of the financial crisis 56 PPI projects reached closure, reflecting a 40 % decline and a 53 % decline from the levels in 2007 and 2006 respectively.
- In contrast to other sectors, there was no recovery in 2009, investment in transport declined by 12 %.
- Restricted commercial bank lending is more selective not favoring road infrastructure.
- High concentration to emerging market economies

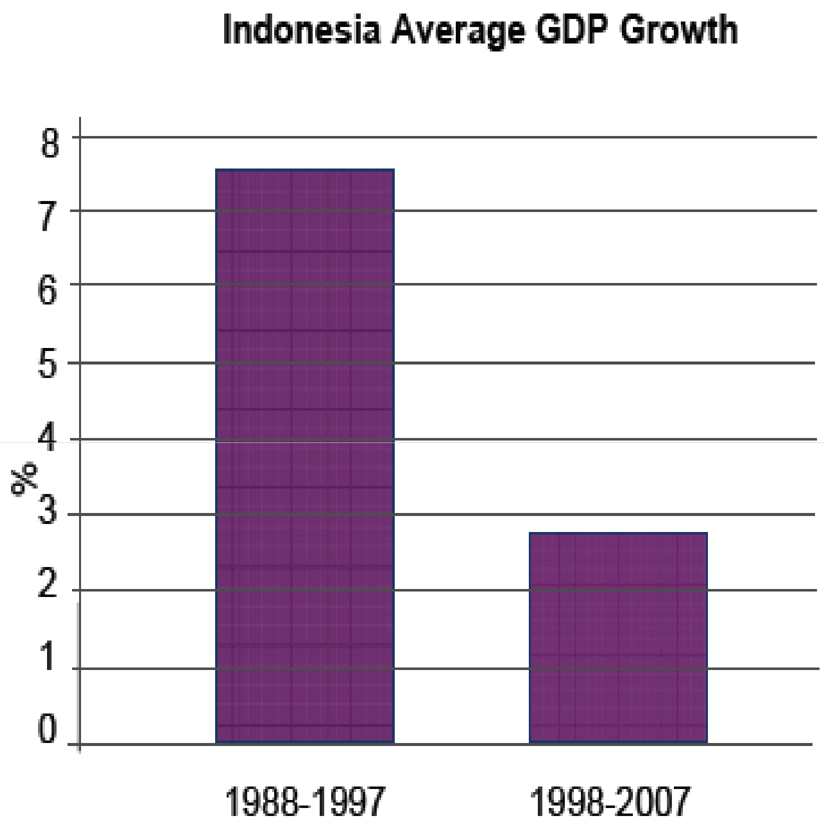





Structure of finances is highly cyclical

Cuts in infrastructure spending bear the risk of long-term growth losses





Structure of finances is highly cyclical

- Countercyclical finance by Infrastructure Recovery and Assets (INFRA) Platform
  - E.g. US $ 0.2 billion IDA to support CEMAC Transport Project has leveraged US $ 0.4 billion from AfDB, EC and AFD
  - Under IDA 15, the WBG is mobilizing about US$2 billion from its own resources for Africa INFRA






The effects of different PPI mixes depend on regulation and political credibility

- Independent of the mix improve user charges the efficiency of road service supply.
- Most road projects with private participation are concessions and most of them have toll collection as the only source of revenues.
- User charges should cover marginal infrastructure and marginal congestion costs.
- This pricing rule is self-financing with high levels of congestion.

The effects of different PPI mixes depend on regulation and political credibility

- At low levels of congestion marginal cost charges do not cover full costs.
- Higher than marginal cost charges could lead to economic and political opposition.
- Adds political uncertainty to demand uncertainty.






The effects of different PPI mixes depend on regulation and political credibility

- Ways of risk sharing, increasing private participation
  - Shadow tolls: Users are charged according to marginal costs, cost covering tolls by government transfers.
  - Availability fee, paid by governments to the concessionaire
  - Capital grants to cover part of the fixed investment
  - Minimum traffic guarantees and surplus sharing.






New financing solutions

- Near future likely to see restrained private finance and public deficit reduction.
- Will likely lead to discussion of new public revenue mechanisms with high potential for economic gains
  - value capture: taxation of increased land values due to road projects
  - charging for the bads of road transport (other than congestion): carbon use, local air pollution and safety

Summarizing remarks

- Demand for road infrastructure finance will remain high
- The composition of sources of finance of road infrastructure is substantially affected by financial cycles
- A more stable mix has economic advantages and depends on regulation and political credibility
- Efforts to reduce government deficits and changes in the financial sector will require new sources of finance.

Thank you!