



India: Infrastructure Finance in Global Perspective

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Outline

- Cross-country study: what are the lessons?
- Case studies
- Implications for India

Based on James P. Walsh, Chanho Park & Jiangyan Yu, “Financing Infrastructure in India: Macroeconomic Lessons and Emerging Market Case Studies,” IMF Working Paper WP/11/181 (August 2011), <http://goo.gl/jdG3D>

Cross country results

- **Data: for 105 advanced & emerging economies, 1980-2009 (power & roads)**
 - Investment booms: what was the impact on macroeconomic variables: growth, fiscal deficit, CAD, financial sector variables?
- **Growth is higher during investment booms**
 - But what causes what?



Cross country results, continued

➤ Fiscal variables

- Revenue improves, and spending is often reallocated, during investment booms. Deficits do not deteriorate significantly.

➤ Current Account Deficit (CAD)

- Electricity: no major change to CAD
- Roads: not financed by domestic savings



Cross country results, concluded

➤ Financial sector variables

- Bond markets tend to grow, and/or bank lending expand, during investment booms:
- But again, what causes what?



➔ **Implication:** infrastructure investment can be accommodated in a growing financial system; it need not crowd out other sources of finance



Brazil: Private finance with public development bank

Energy

- Elétrabras globally integrated, but private companies reliant on BNDES (public development bank).

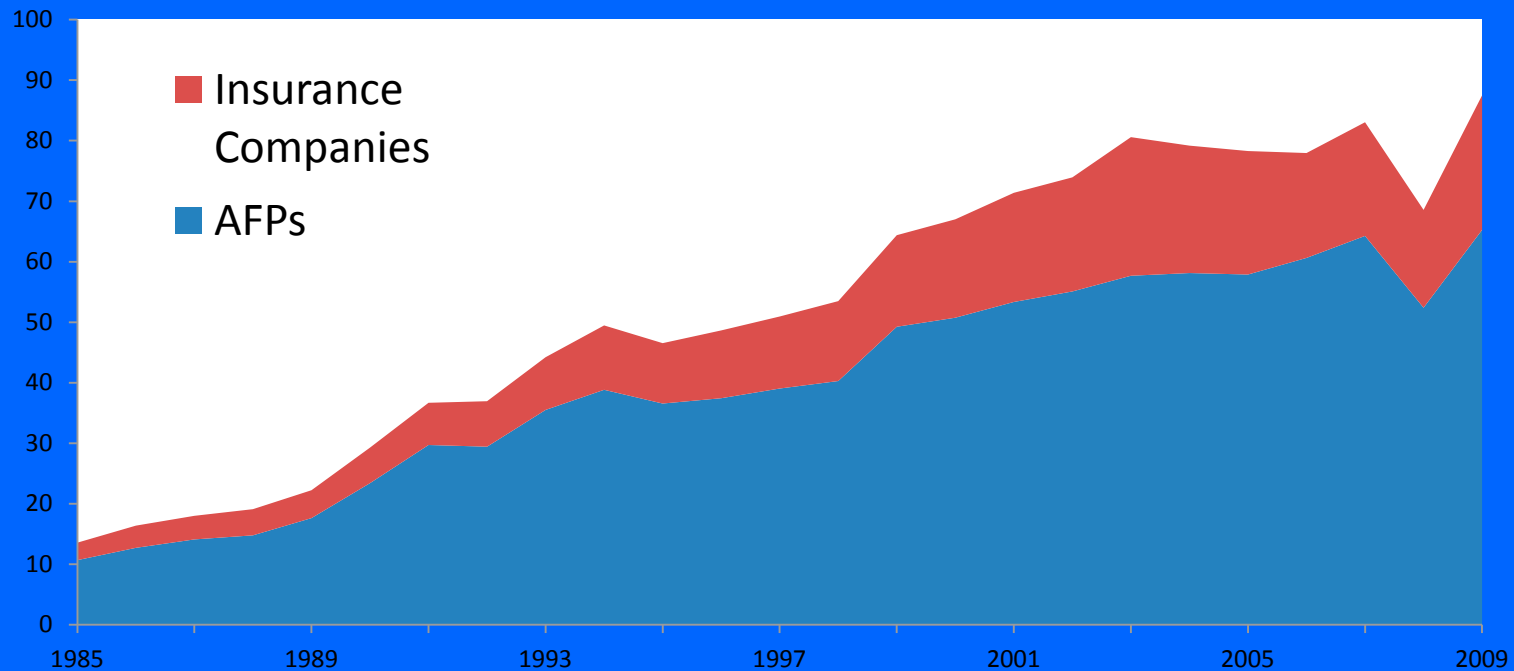
Roads

- Concessions, then PPPs. Bond issuance, MDB finance, even FDI, but BNDES still important.



Chile: pension & insurance supported bonds and equity

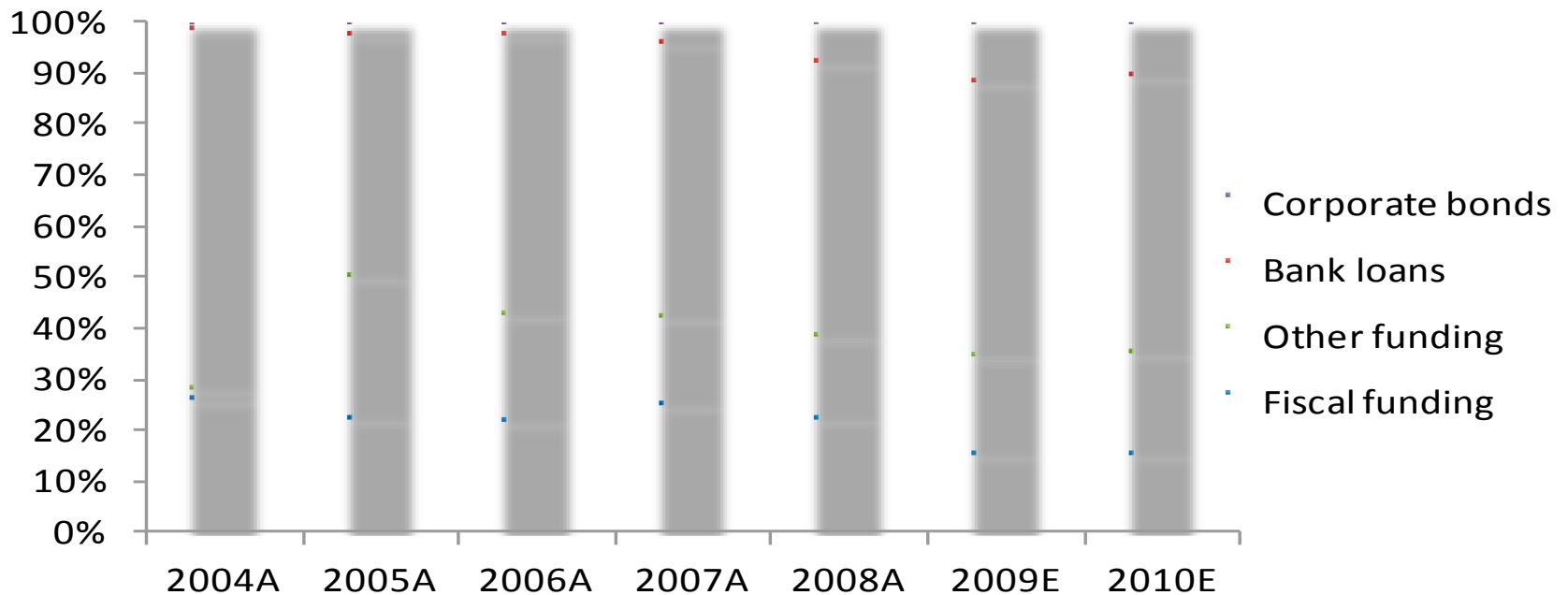
Chile: Assets of Insurance Companies and AFPs
(Percent of GDP)





China: also bank dominated

China: Infrastructure Funding (in percent of total)



- Growing bond market, but often with government guarantees



Korea: Evolution over time

Highly developed financial sector

- Corporate bonds, liquid equity markets

Infrastructure traditionally public-dominated

- PPPs only in 1994; amended in 1999
- Now private finance, including debt funds, around 20 percent of total

Policy Implications for India

- Also a bank-led model
 - But RBI right to worry about asset-liability mismatches and concentration risks
- Need to deepen bond markets
- Government must think carefully about taking on contingent liabilities, given high public debt
- Very important to develop pension scheme, given demographic dividend

Thank you



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www.imf.org/weo: on global outlook

www.imf.org/india: on India