From Global Savings Glut to Financing Infrastructure: The Advent of Investment Platforms
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Discussion – Nicolas COEURDACIER (SciencesPo & CEPR)

Economic Policy Panel
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Two crucial policy questions

• Macro --- Should we increase infrastructure investments?
  – Answer: YES

• Micro --- How to finance infrastructure investments?
  – Answer: Through PPPs involving multilateral/regional development banks
Should we increase infrastructure investments?

• Large pool of long-term savings --- Savings Glut
  – Low long-term interest rates

• Large needs for infrastructure
  – High returns on infrastructure investments.
  – *Social or private* returns?
Why is it not happening?

• Governments cannot do it alone (or do not want to do it).
  – Many governments face tighter budget constraints.
  – Lack of tax capacity in emerging countries.

• Private banks cannot do it, or not enough. Why?
  – Maturity is ‘too’ long.
  – Regulation?

• Returns are not that high (or risk is too high) --- at least private returns.
High returns?
What is special about infrastructure investment?

• Social returns likely to exceed private returns.

• (Very) long-term and illiquid investments.

• Highly risky investment.
  – On the top of standard country-specific aggregate risks (exchange rate risk, demand risk,...) and standard credit risk.
  – *Large idiosyncratic risk* (construction risk, technological risk...).
  – *Political risk* --- Expropriation and regulatory risk.
High social returns?

- Fernald (1999). Incredibly large rate of return of the construction of the interstate highway system in the 50s-60s.
- Leduc and Wilson (2012). Similar findings but find also large shorter term multipliers.
- Donaldson (AER, forth.) for roads in colonial India, Bloningen and Cristea (2015) for air transports in the U.S., ... and many many more.
High social returns?

<table>
<thead>
<tr>
<th>Public Investment Variation</th>
<th>Marginal Productivity</th>
<th>Rate of Return</th>
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<tbody>
<tr>
<td>pinv: aggregate public investment</td>
<td></td>
<td></td>
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<tr>
<td>central case</td>
<td>$ 4.46</td>
<td>7.8%</td>
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<td>pinv1: core infrastructure (highways and streets)</td>
<td></td>
<td></td>
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<tr>
<td>central case</td>
<td>$ 1.97</td>
<td>3.4%</td>
</tr>
<tr>
<td>pinv2: core infrastructure (electric and gas facilities, transit systems, airfields, etc.)</td>
<td>$19.79</td>
<td>16.1%</td>
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<tr>
<td>central case</td>
<td></td>
<td></td>
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<tr>
<td>pinv3: core infrastructure (sewage and water supply systems)</td>
<td></td>
<td></td>
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<tr>
<td>central case</td>
<td>$ 6.35</td>
<td>9.7%</td>
</tr>
<tr>
<td>pinv4: education buildings, hospital buildings, and other buildings (industrial, general office, police and fire stations, etc.)</td>
<td>$ 5.53</td>
<td>8.9%</td>
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<tr>
<td>central case</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pinv5: conservation structures, development structures, and civilian equipment</td>
<td>$ 4.06</td>
<td>7.2%</td>
</tr>
</tbody>
</table>

Source: Pereira (Restat, 2000)
High social returns?

• In advanced economies, sluggish growth and low investment rates.

• Higher output (fiscal) multipliers in period of low growth and economies at the ZLB.
  – Low aggregate demand.
  – Slack in labour markets and low factor costs.
  – If public and high social returns, might actually reduce public debt.

See, among others, Auerbach and Gorodnichenko (2012) for empirical evidence, Christiano et al. (2011), Eggertsson (2001) for theory...
High social returns?

Average (state) output multiplier of an unexpected increase in Interstate Highways Grants

Large output multipliers of infrastructure investments. Particularly so in 2009-2010.

Source: Leduc and Wilson (NBER Macroeconomics Annual, 2012)
High social returns?

• Caveat of existing work
  
  – Social returns high on previous infrastructure projects.
  – Potentially strong decreasing returns on infrastructure.

• But most likely answer: YES.
Low private returns?

• Almost no evidence in economics and finance literature on infrastructure project finance.

• Some evidence in the management literature. Mostly case studies, largely in developed countries.

• Points towards low private returns and particularly high risks.
  – High cost overruns and construction delays.
  – Low equity returns and high default rates.
How to finance infrastructure investments?

- High social returns and low (risk-adjusted) private returns.

- PPPs a good idea?
  - Might ‘internalize externalities’
  - Potential efficiency gains.
  - Potential gains from risk-sharing.

Focus quickly on the latter.
How to allocate risks?

• Large idiosyncratic risk (construction risk, technological risk...)
  
  – Incentives --- in the hands of the private sector.

  – What if main reason why private sector (think private banks) not enough involved?

  – Securitization?
    
    • Monitoring seems essential for such projects.
    • Debt restructuring is highly common.
How to allocate risks?

• Credit risk allocated to the public sector.
  – Lower borrowing costs.
  – But moral hazard and risk taking.
Large literature on bank risk taking and government’s guarantees.

• PPPs has a new important layer of risk --- political risk.
  – Expropriation and regulatory risk.

• Need more to be convinced of the gains from a better allocation of risks.
Conclusion

• Thought-provoking paper.

• Might indeed be a good time for raising investment in infrastructure.

• Further empirical evidence on the costs/benefits of such investments deeply needed --- particularly so when involving private investors.