China’s Role in International Development Financing: Past, Present and Prospect

Dr. Yan WANG
GWU, and Peking University
based on a joint paper with Justin Yifu Lin on “Beyond the Marshall Plan: A Global Structural Transformation Fund (GST Fund)” for the “Post 2015 HLP on Development Goals”
“Amongst three people walking together, there must be a teacher who I can learn from. Select and follow what he did rightly, change and improve upon what he did wrongly.”

《论语·述而》:“子曰:‘三人行, 必有我师焉, 择其善者而从之, 其不善者而改之。”

Confucius
Analects -Lunyu
Circa 475-221 B.C.
Outline and Focus

- Development is a process of learning and upgrading (Lin and Wang 2008, 2013)

- The world needs a growth-lifting strategy and infrastructure investment holds the key

- A Global Structural Transformation Fund

- China’s key role in providing bottleneck-releasing infrastructure

- Optimism is based on learning & reforming

- Questions remain: “to include or not to include”
I. The world needs a growth-lifting strategy:

- Any growth lifting strategy must go beyond the Keynesianism, which focus on stimulating domestic economy by fiscal/monetary policy.
- Not to “dig a hole and fill in the hole”, as they did in Japan.
- But to have a global initiative to invest in bottle-neck releasing infrastructure in developing countries where the rates of return is higher. Aiming to increase supply and long term growth. (Lin 2009, 2010, 2012, 2013).
Five years on, “not out of the woods yet”

Source: IMF, World Economic Outlook, October 2013
Five years on, we are still in a “new normal”. How to propel growth?

- We are in a “low growth, high unemployment and high volatility” “new normal” stage (see two charts above). EMs face downturns….
- OECD countries need fiscal consolidation…
- We proposed to (Lin and Wang, 2013)
  - “Go beyond Keynesianism,
  - Go beyond infrastructure and
  - Go beyond the Marshall Plan”.
- Combining infrastructure with structural transformation & industrial upgrading…
What do we mean by going beyond...

- Beyond the Keynesianism: from domestic stimuli
- Beyond infrastructure
- Beyond Marshall Plan

- To “globally coordinated infrastructure investment” to expand aggregate supply
- Combine infrastructure with SEZ, industrial upgrading in developing countries;
- GSTF - Fund size must be larger than the Marshall plan
II. Infrastructural Shortfalls: US$500 billion in developing countries (World Bank, 8/13/2013)

- S.S. Africa is hungry for electricity and water…
- 124kw per person = 6hrs per day per person
- Figure A2. Electricity Generation Capacity Compared, Medians by Group (megawatts per 1,000 workers)

Bottleneck releasing => higher ROR

<table>
<thead>
<tr>
<th>Yields from 10-year bonds</th>
<th>Annual Rate</th>
<th>Source: studies</th>
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<tbody>
<tr>
<td>Japan 2013</td>
<td>0.9%</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>U.K. 2013</td>
<td>2.0%</td>
<td>Bloomberg</td>
</tr>
<tr>
<td>U.S. 10-year bond</td>
<td>1.95%</td>
<td>Bloomberg (May 2013)</td>
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<table>
<thead>
<tr>
<th>Rates of Return from investing in Infrastructure</th>
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<tr>
<td>Ave. ROR Electricity projects</td>
<td>11%</td>
<td>World Bank 1983-92</td>
</tr>
<tr>
<td>Ave. ROR Road Building</td>
<td>29%</td>
<td>World Bank 1983-92</td>
</tr>
<tr>
<td>Estimated ROR Brazil</td>
<td>10%–57%</td>
<td>Canning 2000</td>
</tr>
<tr>
<td>Estimated ROR China</td>
<td>20%–41%</td>
<td>Bai 2008, Canning 2000</td>
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<tr>
<td>Estimated ROR India</td>
<td>24%–78%</td>
<td>Canning 2000</td>
</tr>
<tr>
<td>Estimated ROR Kenya</td>
<td>50%–125%</td>
<td>Canning 2000</td>
</tr>
<tr>
<td>Estimated ROR Mozambique</td>
<td>-7%–17%</td>
<td>Canning 2000</td>
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<tr>
<th>Estimate Long Run Elasticity of output with respect to the synthetic infrastructure index</th>
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<tbody>
<tr>
<td>Elasticity 88 countries (1960-2000)</td>
<td>0.07–0.10</td>
<td>Calderon, Benito and Serven 2011</td>
</tr>
</tbody>
</table>
III. Set up a Global Structural Transformation Fund (GSTFund)

- To crowd-in financing from emerging and developing economies, Sovereign Wealth Funds (SWF), from the public and private sectors
- To invest in transformative infrastructure including SEZs, eco-industrial zones, urban dev, to facilitate cluster development and upgrading
- The GST Fund must be large enough to diversify and reduce risks
- **Target:** the expected rate of returns from the investment should be no less than the yield for the benchmark 10 Year US Treasury Bond
IV. China’s role in infrastructure

- Southern Partners, incl BRICS and Arabs, are Leading Financiers for African Infrastructure.
- China is the largest financier of Africa’s infrastructure, accounting for over 34% of infrastructure projects being implemented in Africa, higher than other donors.
- China has focused on “bottleneck-releasing” infrastructure by meeting the “unmet” demand from African governments.
- The size of projects is large as compared to those of Western donors. See [http://china.aiddata.org](http://china.aiddata.org)
- "Donors have neglected power since the 1990s". (Foster et al 2010) China filled in this gap.
China is the Largest Financier for African Infrastructure: Chinese financing commitment in African Infrastructure, 2001-2010 (million USD)

Source: Chen Chuan, 2013 based on World Bank-PPIAF Chinese Projects Database.
China has played a key role in providing Electricity in Africa, esp hydro-power.

Box Figure 2: Confirmed Chinese infrastructure finance commitments in Sub-Saharan Africa by Sector 2001-2009

By number
- Transport: 31%
- Water: 10%
- Electricity: 30%
- ICT: 29%

By value
- Transport: 20%
- Water: 4%
- ICT: 26%
- Electricity: 50%

“Do more, say less”: China contributes to 9 gigawatts in power generation in Africa

Pipeline of Chinese-Funded Power Generation Projects

<table>
<thead>
<tr>
<th></th>
<th>Hydropower generation (MW)</th>
<th>Thermal generation (MW)</th>
<th>Total Generation (MW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreement</td>
<td>3,412</td>
<td>1,470</td>
<td>4,882</td>
</tr>
<tr>
<td>Construction</td>
<td>1,022</td>
<td>397</td>
<td>1,419</td>
</tr>
<tr>
<td>Completion</td>
<td>1,553</td>
<td>1,170</td>
<td>2,723</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,987</strong></td>
<td><strong>3,037</strong></td>
<td><strong>9,024</strong></td>
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For ease of comparison, the Hoover dam in the US generates 2 GW of electricity.

That is, China has helped /is contributing to 4 times the Hoover dam, in Africa.
V. China’s Approach in SSDC: trade, aid and investment

- “Comparative advantage still explains much, perhaps most of world trade.” – Paul Krugman 1995
- China combines trade, aid and investment in South-South Dev Cooperation (SSDC)
- “… ‘Do what they know best’, following their comparative advantage in providing South-South Dev. Cooperation (SSDC)
- “… ‘Teach fishing rather than giving fish’, following China’s own experience and building 6 Special Econ Zones in Africa.
  Example of Huajian Shoemaking company
China combines trade, aid & OFDI

Figure 1: China-Africa Trade Volume (2000-2012)
(Unit: US$100 million)


The graphic shows China-Africa trade volume from 2000 to 2012. (Xinhua/Ma Yan)
China’s Aid: small, with huge potential

The comparison of ODA as percentage of GNI and GNI per capita between China and OECD-DAC members

**From above: ODA small, OOF large**

- “China has become the largest single trading partners for Africa and a key investor and provider of aid”. (IMF 2013)
- China started providing aid to other developing countries at a low income level
- China’s ODA is small but above other countries at a similar income level
- China’s aid is a lot higher if OOF is included.
- China’s aid is not “altruistic” but it is complementary and **mutually beneficial** (see below)
Composition of Concessional loans

Figure 1  Sectoral Distribution of Concessional Loans from China (by the end of 2009)

- Economic infrastructure: 61.0%
- Energy and resources development: 8.9%
- Agriculture: 4.3%
- Industry: 16.1%
- Public facilities: 3.2%
- Others: 6.5%


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**Aid is a vehicle for tacit knowledge:**

- Focus on building capacity for self-development
- “The tricks of trade are acquired from experienced senior workers” (Hausmann 2013)
- SSDC is a vehicle for transferring tacit knowledge of “how to do” things: e.g.
  - China builds 24 Ag technology centers in Africa
  - Help setting up 6 Special Economic Zones
  - Send medical teams and medicines for 50 yrs
  - Build hydro-electric power stations, roads, etc,
- Bring the benefits “many years ahead of” what other form of aid could have done (World Bank).
Conclusion 1

- The world needs a growth-lifting strategy and China is contributing by investing in infrastructure.
- The GSTFund, is a win-win solution
- Developing countries can benefit by seizing the labor-intensive industries “going out”
- SSDC, even if “tied”, can facilitate learning by doing, learning by exporting.
- China continues to learn to become better dev partners: paying more attention to the “software”, intangibles, and the quality of SSDC or aid. Still need more transparency.
VI. Future Prospect in Dev Financing

- My new paper with Justin Lin:
- ODA (official development aid) will decline in relative importance in the next decades;
- But OOF and OOF-like loans will grow.
- The role of emerging donors will continue to rise, promoting learning by doing, transferring tacit knowledge through SSDC.
- Thus there is a need to expand the definitions of ODA, OOF, OOF-like loans, and OOF-like investments
- See below for illustration
Projection of Global Investment

Figure 4: Share of Global Investment - High Income countries versus Developing Countries

Expanding the definition: DF1, 2, 3, 4

- $DF1 = ODA$,
- $DF2 = DF1 + OOF$,
- $DF3 = DF2 + OOF$-like loans,
- $DF4 = DF3 + OOF$-like investment.

Source: Lin and Wang, forthcoming.
VII. “To include or not to include, that is the question”

In China,
Insiders/outsiders => Need to be more inclusive

In global
Governance?
Insiders/outsiders => More groupings?
=> More inclusive?
China continues to Learn & Reform

- We are optimistic based on learning & reform:
  - In the past: “Do more, say less”; “Make money, not trouble” – but this attitude is changing
  - China has enough at home to worry about, and has no intention to clash w/ neighbors nor the US;
  - Chinese leaders continue to learn, 77 learning sessions by the PolitBureau (in 10 years under Hu) and 10 sessions in 1 year under Xi Jinping. Most recent one, October 1, 2013 to China’s silicon valley.
- **Bold reform plans to be released, Nov9 - 12**
Multilateralism? New Groupings?

- The World becomes a multipolar world, hoping G2 will integrate and work together
- Two paths in global governance:
- China’s new attitude toward multilateralism:
  - New MOUs have been signed btw EXIM Bank and the World Bank, in September. MOUs was signed btw China Dev Bank and the World Bank; and Roles in UNSC
- New Groupings? E.g. TPP w/o China
- China has proposed BRICS Bank and more regional development banks /funds
- Xi Jinping: Shanghai Cooperative Org Bank, & Asian Infrastructural Investment Bank
“To include or not to include”? 

- The **multipolar world** is there, no matter what. BRICS will invest more in Africa and other developed and developing countries. 
- More open Investment climate is key in both China and the US => BIT negotiation 
- Will “**New groupings**” proliferate? 
- To include or not to include? E.g. 
- To be an insider or outsider? 
- How best to help shape the global rules? 
- Let’s take a learning attitude and discuss.
References: