

Responding to globally growing
infrastructure demand:
Establishing global standards to promote
quality infrastructure investment and
new finance

Fukunari Kimura

Dean, Graduate School of Economics, Keio University

Chief Economist, Economic Research Institute for ASEAN and East Asia

1. Infrastructure to support GVCs

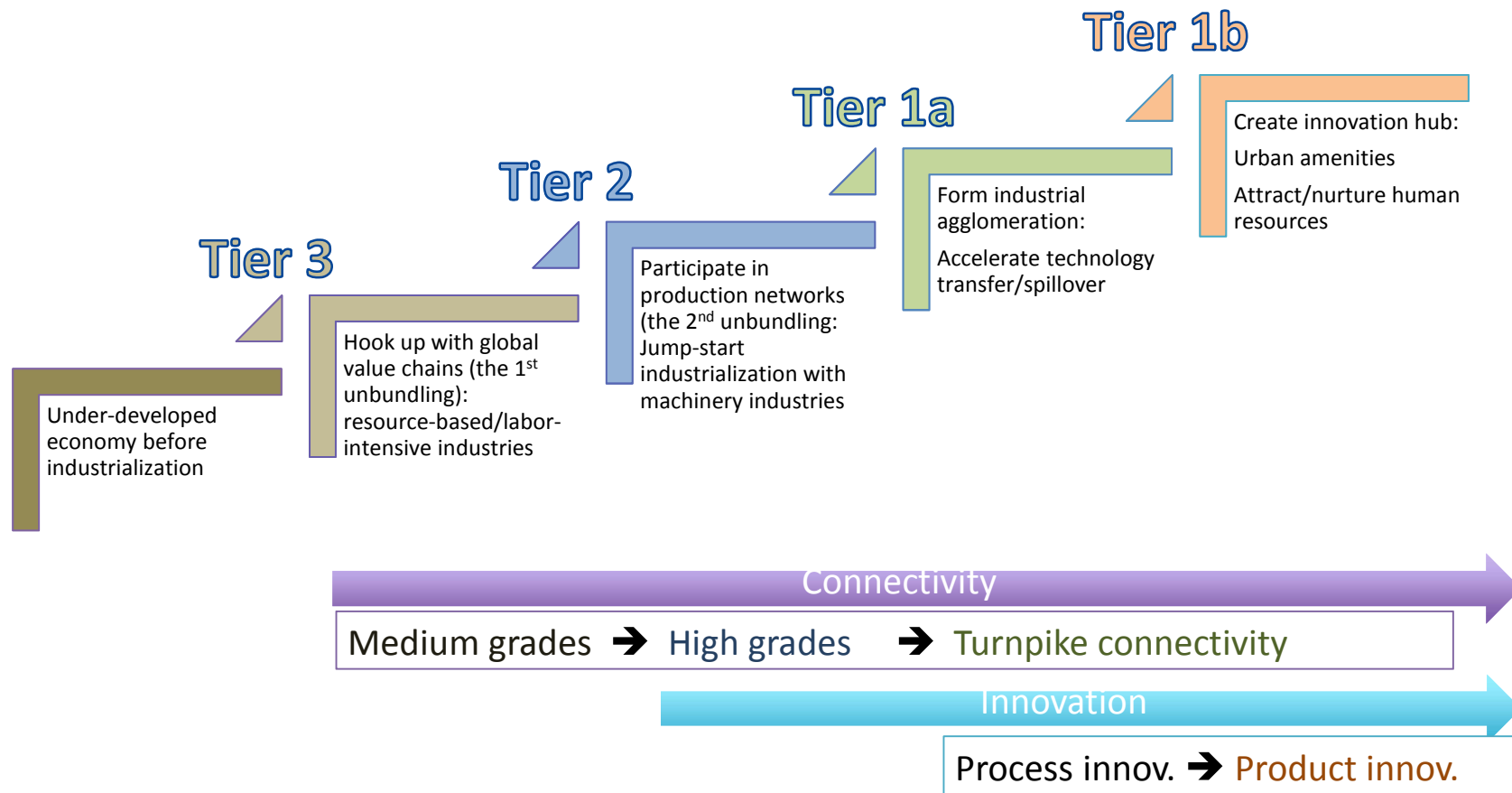
- Forerunners of ASEAN Member States (AMS) and China, effectively utilizing global value chains (GVCs) for sustained economic growth and poverty alleviation.
- Soft and hard infrastructure is essential to utilizing GVCs.
- Issues to be discussed
 - Infrastructure of appropriate quality
 - Design and implementation of projects with quality
 - Eventually required international rules

2. Quality of infrastructure

- Tradeoff between prices and quality
 - Japan's initiative for quality infrastructure
- Appropriate quality depends on what sorts of GVCs are supported.
- The life cycle cost policy, options, ...

Figure 1

The tier structure of utilizing global value chains in AMS



Source: ERIA CADP Research Team (2015) .

Table 1
Infrastructure for Connectivity and Innovation

	Tier 3: Rural development for creating business	Tier 2: Coming into production networks	Tier 1: Forming industrial agglomeration
Infrastructure for connectivity	<p>Medium-grade connectivity for various economic activities</p> <ul style="list-style-type: none"> - Agriculture/food processing, mining, labor-intensive industries, tourism, and others 	<p>High-grade connectivity to participate in production networks</p> <ul style="list-style-type: none"> - Dual-modal (cargo, passenger) - Capital city, border area, connectivity grid - Mitigate border effects - Institutional connectivity / soft infrastructure for trade facilitation 	<p>Turnpike connectivity with other industrial agglomerations</p> <ul style="list-style-type: none"> - Full-scale port with container yard/airport for regular carriers and LCC - Multi-modal (cargo, passenger) - Institutional connectivity for reducing transaction costs
Infrastructure for innovation	<p>Discovery and development of historical/cultural/natural heritage</p> <ul style="list-style-type: none"> - Premium tourism - Cultural studies 	<p>Urban/suburban development for medium-scale industrial agglomeration</p> <ul style="list-style-type: none"> - Urban/suburban development plan for a critical mass of industrial agglomeration - Economic infrastructure services (special economic zones, electricity, water, and others) 	<p>Metropolitan development for full-scale industrial agglomeration and urban amenities</p> <ul style="list-style-type: none"> - Highway system, urban transport (LRT, subway, airport access) - Mass economic infrastructure services (industrial estates, electricity, energy, water, and others) - Urban amenities to nurture/attract intellectual people

Source: ERIA CADP Research Team (2015) .

Figure 2

Infrastructure in different grades

Image of road grades



High grade



Medium grade



Low grade

Image of railway grades



Elevated, Double Track,
Electrified



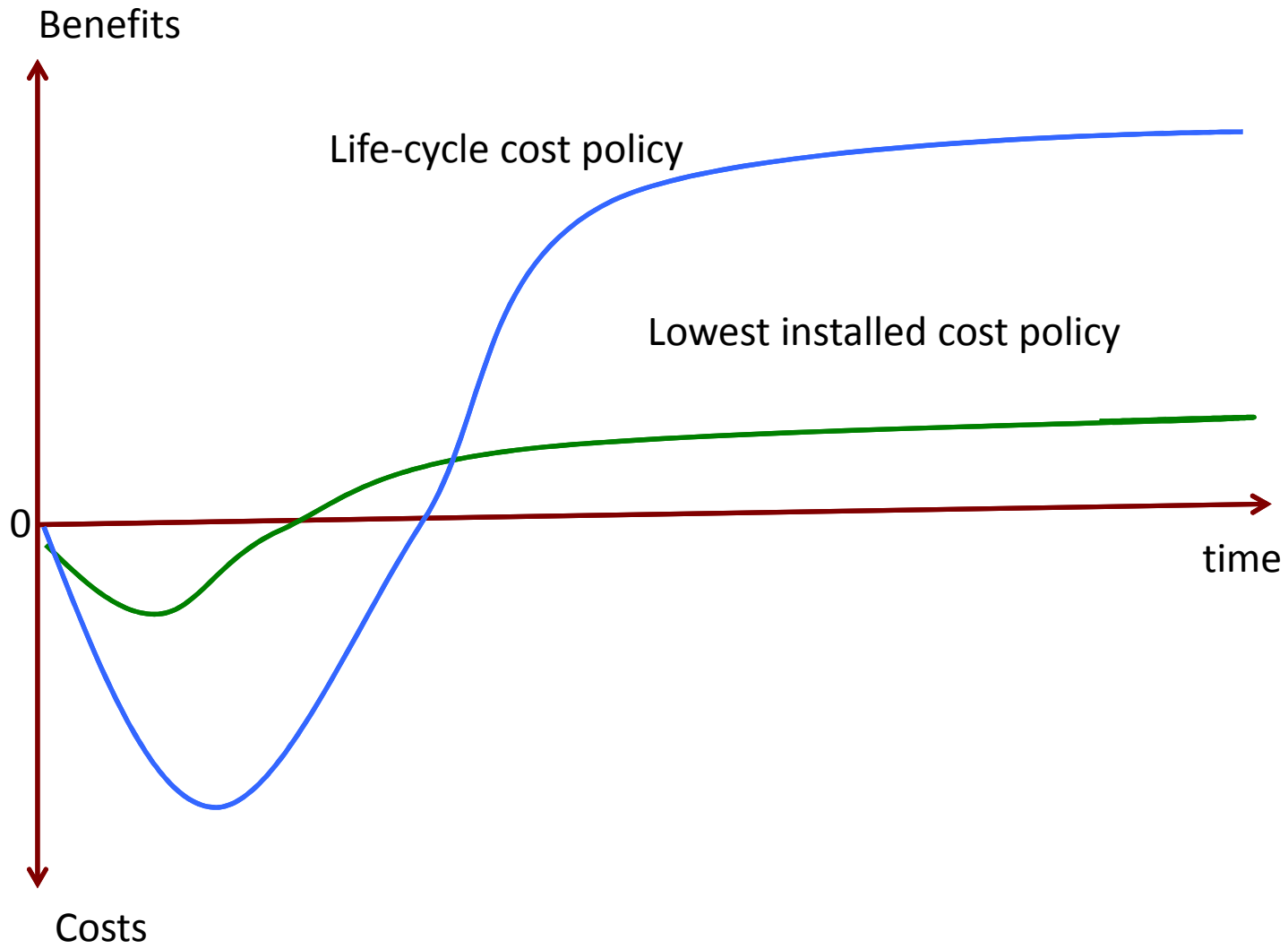
Ground, Double Track,
Electrified



Ground, Single Track, Non-
electrified

Source: ERIA CADP Research Team (2015) .

Figure 3
The Lifecycle Cost Structure

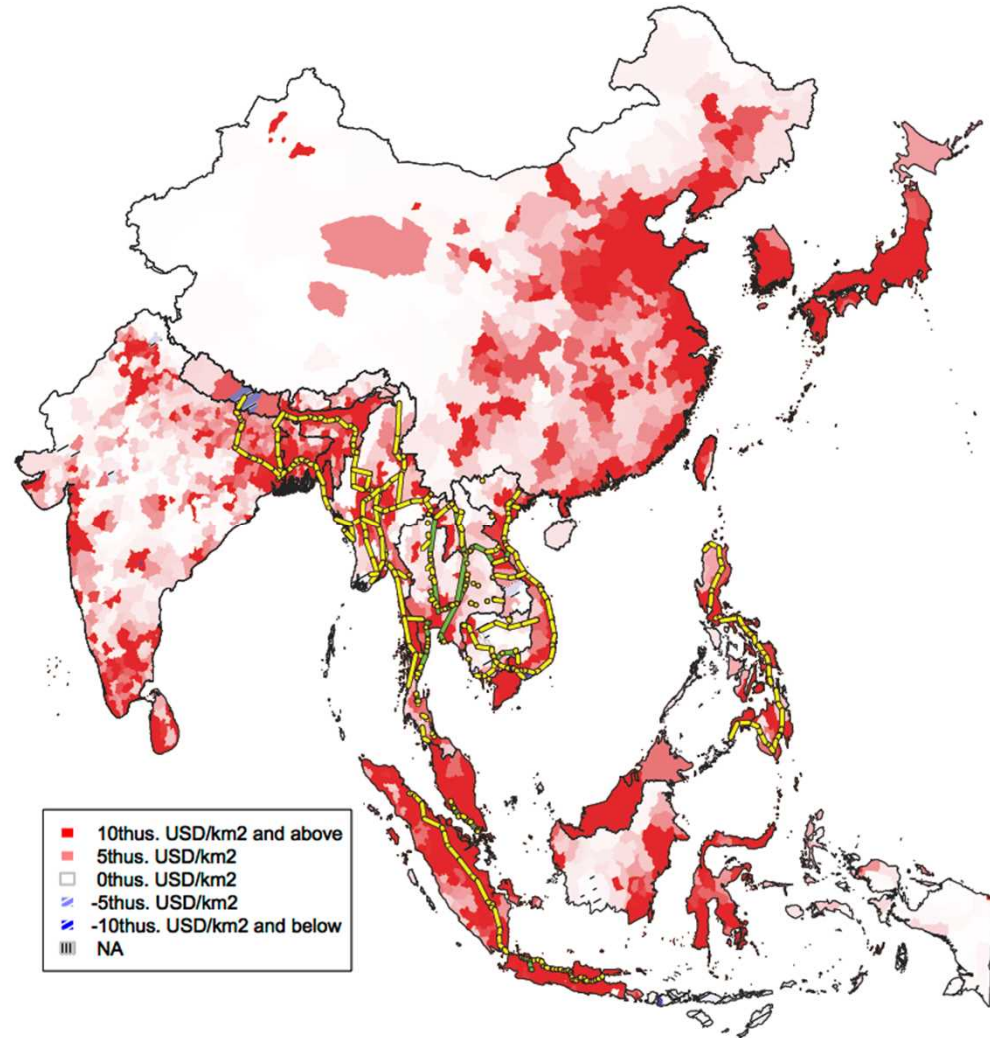


Source: the author.

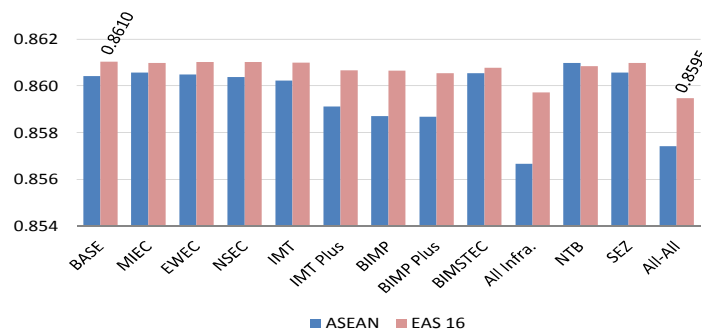
Geographical simulation model

- Economic impacts of All-All improvements (infrastructure development, NTB reduction, and SEZ development) will be huge.
- Regional disparity will be reduced.

Economic Impacts of All -All Improvements (2030, Impact Density)



Economic Impacts on GINI (2030)



Source: IDE/ERIA-GSM simulation result.

3. Quality of infrastructure projects

(1) How to finance the project

- Government 100% => privatization => PPP
- PPP separates financially viable and non-viable portions and requires the government's engagement in “creating” a market, not just saving expenditure.
 - Thoughtful design, sincere problem-solving
 - Risk allocation (esp., policy risk, exchange rate risk, ...)
- AMS, going forward but slowly.
 - Still need government projects; fiscal space needed.

(2) Project design and implementation

- Must design the project in a long time horizon.
 - Feasibility study, procurement, construction, operation/maintenance, ex-post evaluation, ...
- Competitive bidding to place proper weights on prices and quality.
- Avoid delay in construction; particularly with difficulty in land acquisition, the role of government
- Maintenance budget to build in; e.g., toll roads

(3) Externalities and the interface with various stakeholders

- Possible negative impacts on environment or local communities
 - Good communication with various stakeholders essential; specific studies, public hearing, ...
- Positive effects such as technology transfer and human resource development to build in.

4. Necessity of international rules on the involvement of governments

(1) Why are international rules needed?

- China and other newly developed economies have recently engaged themselves for infrastructure development; primarily benevolent stimulus
- China and others do not belong to OECD or DAC while its engagement is large in size.
 - Mixture of aid and investment
 - FDI by SOEs
 - Expansion of the scope of sovereign wealth funds
- Even from the viewpoint of recipient countries, international rules may eventually be needed.

(2) Information disclosure

- Communication among various stakeholders in infrastructure development is important.
- Some essential information must be disclosed.
 - e.g., the amount and term conditions of loans, consistency with each country's development strategy, ownership of recipients, ...
- AIIB vs. OBOR...

(3) Government's involvement and competition

- Two trends in int'l rule making in WTO, FTAs, and BITs
 - Liberalization or non-discrimination principle
 - trade in goods, trade in services, investment, government procurement, ...
 - Backups for liberalization to keep healthy competition
 - Competition policies, discipline or remedies for subsidies, the treatment of SOEs and other government's involvement, ...
- E.g., foreign subsidized SOE in competitive bidding in an infrastructure project
- So far,
 - Liberalization in services, investment, and government procurement is incomplete though recent FTAs, BITs, and others go forward.
 - Backups, even more incomplete; export subsidy, CVDs, ...
 - However, TPP has a chapter on SOEs and others.
 - » SOEs should prove themselves, when being requested, that they are not directly or indirectly subsidized so that the competitive environment is not distorted in sales and purchases of goods and services in the home country and abroad.

(4) Rethinking concessionality

- Foreign aid has concessionality for its reasons, which may jeopardize the market.
- Loose DAC rule, not applicable for newcomers.
- What to do? Ideas...
 - Limit countries (e.g., low-income), sectors (e.g., rural roads), or types of projects (e.g., humanitarian) for concessional foreign aid.
 - Limit concessionality to the financially unviable portion of the project, which should be covered by the government anyway.

5. Conclusion

- Infrastructure development is essential to economic development, particularly with GVCs.
- China and other new donors seem to activate infrastructure development in ASEAN.
- “Money” is not necessarily a current bottleneck; we need infrastructure of appropriate quality and projects of good quality.
- We may eventually need new international rules in order to get out of a lawless competition.