How to Jumpstart Industrialization and Structural Transformation in Africa

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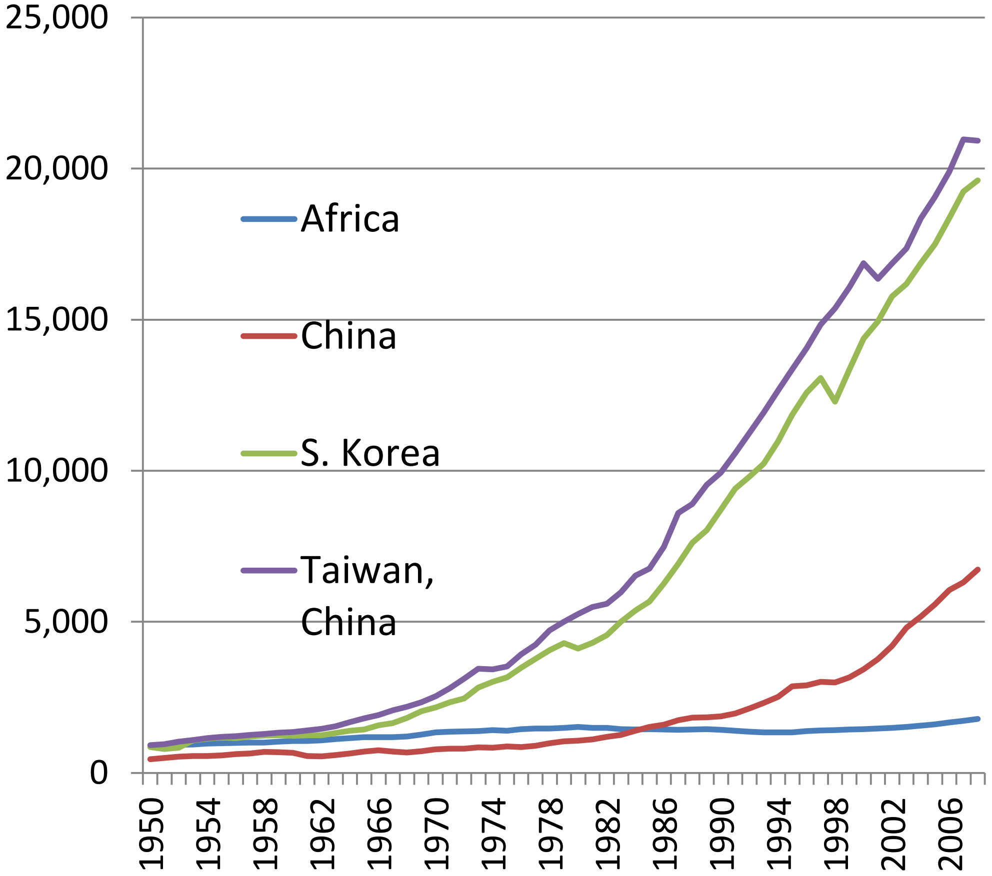
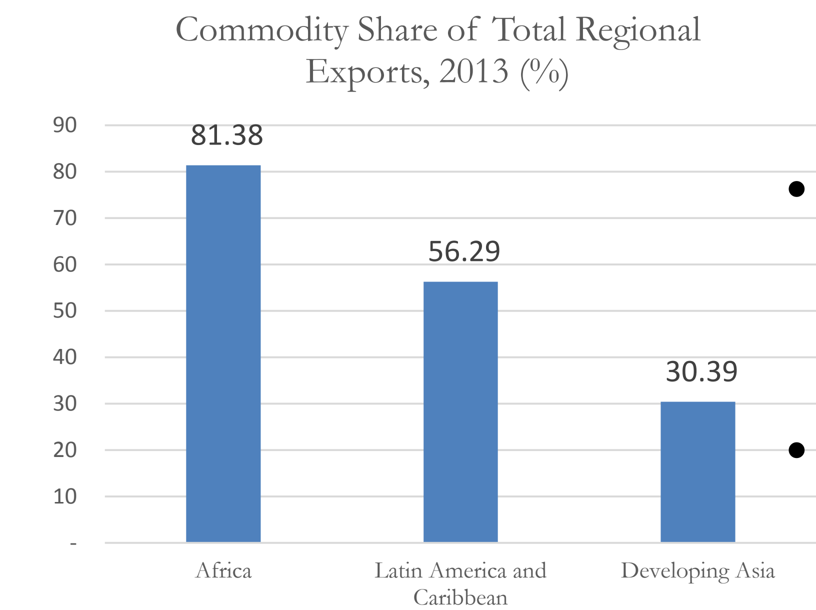
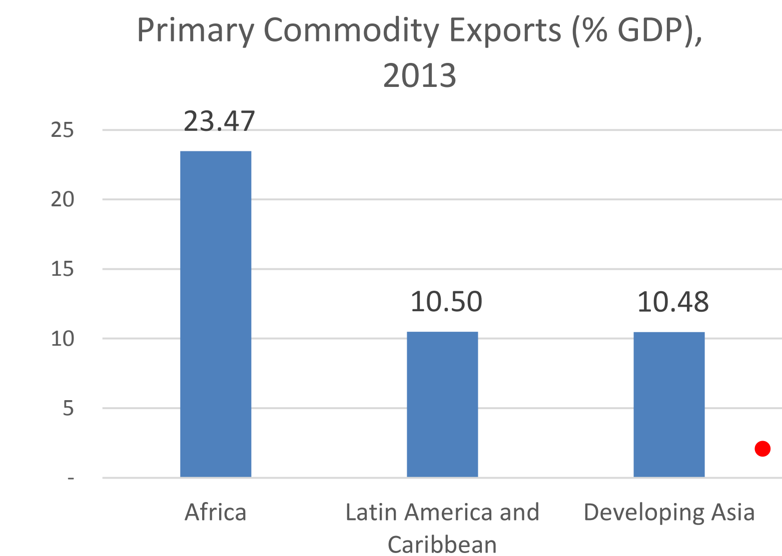
Per Capita GDP in 1990 International Dollar



- Poverty is not a destiny
- However, Africa countries are trapped in poverty





- All countries were poor and relied on agriculture and resources for living at the beginning
- The path for prosperity is diversification and continuous industrial upgrading so as to increase labor productivity and income
- Africa is poor as it has not diversified from agriculture and nature resources
  - Africa's exports of primary commodities is more than 80 percent of its total export– the highest in the world.
  - Primary commodity exports represents greater share of GDP of Africa compared to other regions. Especially, in almost all oil exporting countries, crude oil exports alone account for at least 50 percent of GDP and more than 70 percent of national budget
- How to achieve diversification and continuous industrial upgrading?

The Industrial Policy and A Facilitating State

- The structural transformation will not happen spontaneously because
  - The externality issue confronting the first movers
  - A new industry often needs sector-specific hard and soft infrastructure
- The industrial upgrading and diversification requires the government to play a facilitating role to overcome the externality and coordination issues
- The industrial policy is an essential measure for a facilitating state.
  - Contents of coordination may be different, depending on industries.
  - The government's resources and capacity are limited. The government needs to use them strategically

Latent Comparative Advantage and Picking Winners

- For an industrial policy to be successful, it should target sectors that confirm to the economy's latent comparative advantage:
  - The latent comparative advantage refers to an industry that the economy has low factor costs of production but the transaction costs are too high to be competitive in domestic and international markets
  - Firms will be viable and the sectors will be competitive once the government helps the firms overcome coordination and externality issues to reduce the risk and transaction costs.
- In the past most industrial policies failed because they targeted sectors which defied the economy's comparative advantages
- But how can the government pick the sectors that are in line with the economy's latent comparative advantages?

What Can Be Learned From History?

- Historical evidences show that successful countries in their catching-up stage all used industrial policies to facilitate their industrial upgrading and their industrial policies targeted industries existing in dynamically growing countries with a similar endowment structure and moderately higher per capita income:
  - Britain targeted the Netherlands' wool textile industries in the 16th and 17th centuries; its per capita GDP was about 70% of the Netherlands'.
  - Germany, France, and the USA targeted Britain's industries in the late 19th century; their per capita incomes were about 60% to 75% of Britain's.
  - In Meiji restoration, Japan targeted Prussia's industries; its per capita GDP was about 40% of Prussia's. In the 1960s, Japan targeted the USA's industries; its per capita GDP was about 40% of the USA's.
  - In the 1960s-80s, Korea, Taiwan, Hong Kong, and Singapore targeted Japan's industries; their per capita incomes were about 30% of Japan's.
  - In the 1970s, Mauritius targeted Hong Kong's textile and garment industries; its per capita income was about 50% of Hong Kong's.
  - In the 1980s, Ireland targeted information, electronic, chemical and pharmaceutical industries in the USA; its per capita income was about 45% of the USA's.
  - In the 1990s, Costa Rica targeted the memory chip packaging and testing industry; its per capita GDP was about 40% of Taiwan's, which was the main economy in this sector.
- Unsuccessful industrial policies, in general, targeted industries in countries where their per capita GDPs were less than 20% of the targeted countries

Why should successful industrial policies target industries in dynamically growing countries with a similar endowment structure and somewhat higher income?

- Countries that have a similar endowment structure should have similar comparative advantages.
- A dynamically-growing country's industries should be consistent with the country's comparative advantages. Some of its industries will lose comparative advantage as the country grows and its endowment structure upgrades. Those "sunset" industries will become the latent comparative advantage of the latecomers.
- For countries with a similar endowment structure, the forerunners' successful and dynamic industrial development provides a blueprint for the latecomers' industrial policies.

Growth Identification and facilitation: A New Structural Economics approach for industrial policy

Growth Identification and Facilitation

Step 1

Find fast **growing countries** with similar endowment structures and with about 100% higher per capita income, or 20 years ago had a similar per capita income. **Identify dynamically growing, tradable industries** that have performed well in those countries over the last 20 years. Alternatively identify major imports that are produced in countries with about 100%-200% of per capita income

Avoid the government doing the wrong things or being captured by vested groups for rent seeking

Incorporate the idea of tacit knowledge

Step 2

See if some **private domestic firms** are already in those industries (existing or nascent). Identify constraints to quality upgrading or further firm entry. Take action to remove constraints

Growth Identification and Facilitation

Step 3

In industries where no domestic firms are currently present, **seek FDI** from countries examined in step 1.

Import tacit knowledge

Benefit from opportunities arising from new technologies and specific endowment

Step 4

In addition to the industries identified in step 1, the government should also pay attention to **spontaneous self discovery** by private enterprises and give support to **scale up successful private innovations** in new industries.

Growth Identification and Facilitation

Play the coordination function in a pragmatic way

Step 5

In countries with poor infrastructure and bad business environments, **special economic zones or industrial parks** may be used to overcome barriers to firm entry, attract FDI, and encourage industrial clusters.

Address the externality issue

Step 6

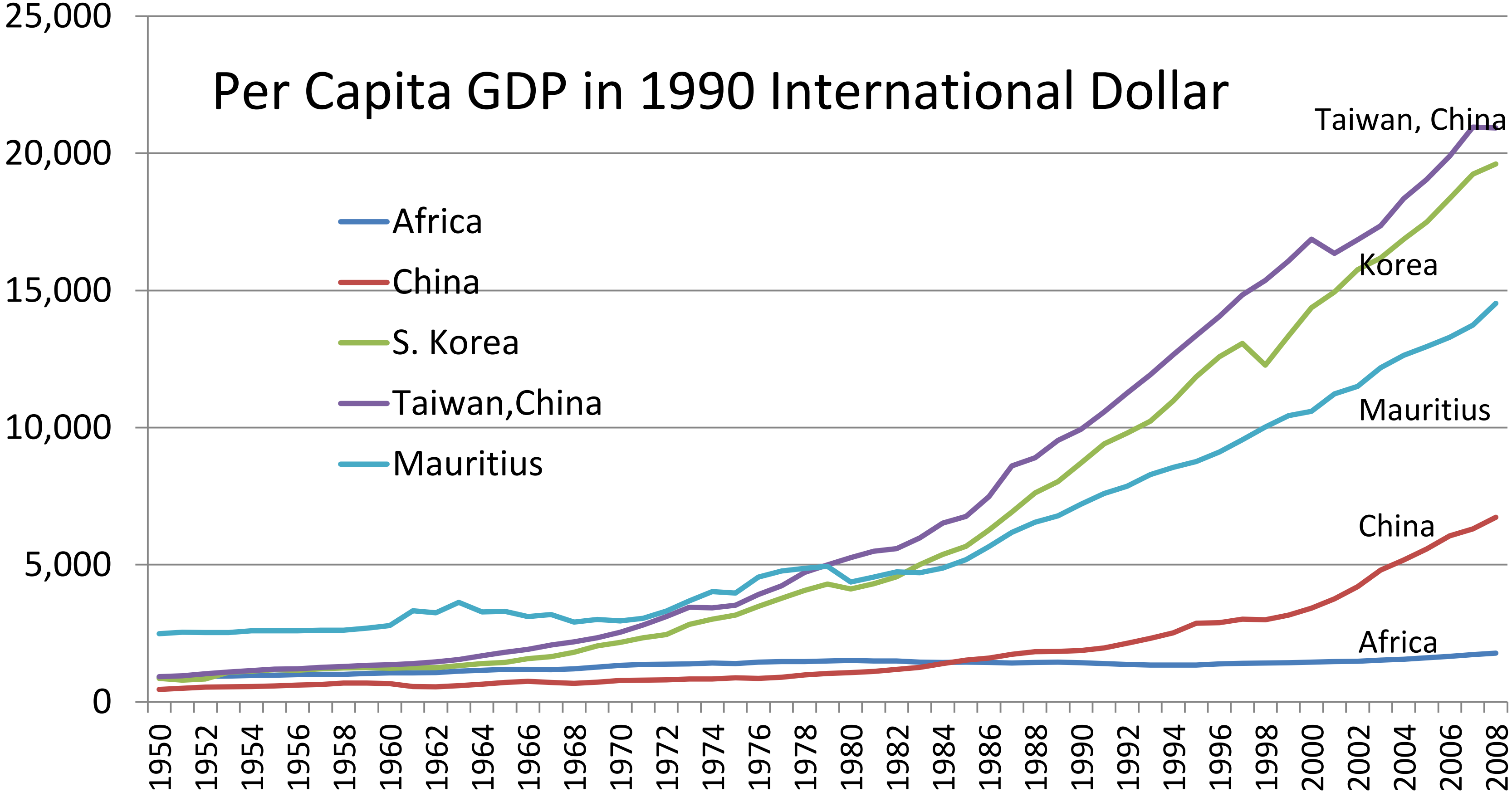
The government may **compensate pioneer firms** identified above with:

- Tax incentives for a limited period
- Direct credits for investments
- Access to foreign exchange

Golden Opportunity for Industrialization in Africa

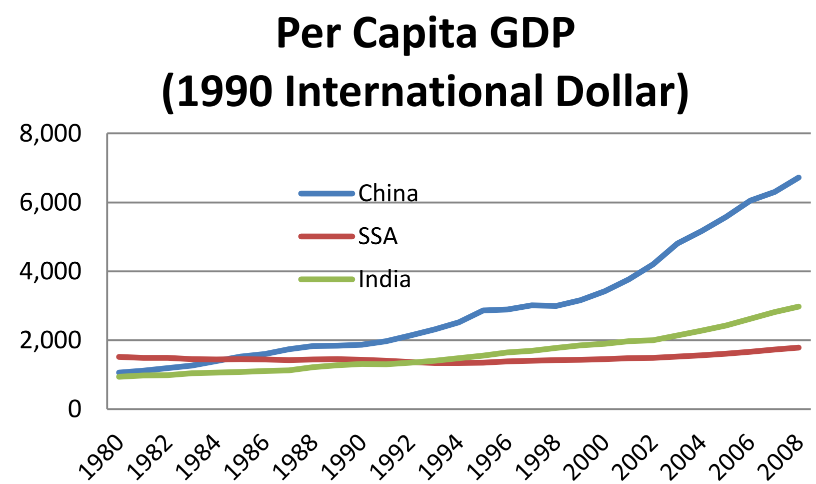
- A key for the few successful catching economies is that they captured the window of opportunities arising from the relocation of light manufacturing in the world to jumpstart their industrialization and structural transformation
  - Japan in the post WWII
  - The four East Asian Tigers in the 1960s
  - China in the 1980s

African Countries can achieve the same success by capturing the window of opportunity-the case of Mauritius



The Rise of China as well as other emerging market economies and the opportunity of Industrialization for other countries

- 30 years ago, China and African countries had about the same per capita income level. China grew dynamically in the past 30 years.
- China has absorbed the surplus labor. The wage increase in the coming years will induce China to move up the industrial ladder from the labor-intensive industries to more capital-intensive industries.
- With 85 million manufacturing jobs, China's upgrading to higher industries will leave a huge space for MANY low-income developing countries to enter a labor-intensive industrialization development phase.
- If India, Brazil, Indonesia and other large MICs continue their current pace of growth, a similar pattern will arise.
- The growth identification and facilitation will be a good framework for Africa and other developing countries to capture this opportunity



		GDP per capita, constant USD		Manufacturing		
	year	2000 USD	2005 USD, PPP	as % of Total Value Added	as % of Labor	employment in millions
China	2009	2206	6200	43%	17.7**	85
Japan	1960	5493	6976	35%	20**	9.7**
S.Korea	1982	3709	6123	25%	14.6	2.3
**In 1963						
*In 2002						

Does the idea work?

Huajian Shoes: A quick win in Ethiopia

- The World Bank's Light Manufacturing in Africa project found that Ethiopia had factor cost advantages in shoe industry and the binding constraints
  - Infrastructure
  - business environment
  - international buyers' confidence about Ethiopia's ability to deliver products with consistent quality timely
- An industrial park can overcome the first two constraints. The FDI can overcome the third constraint.
- I reported the findings to PM Meles in March 2011 and suggested him to come to China to personally invite shoe manufactures to invest in Ethiopia's Eastern Industrial Park.
- Huajian visited Addis Ababa in October 2012, decided to make the investment on the spot and recruited 86 workers to be trained in China.
- Two production lines with 600 employees were set up in January 2012.
- The first shipment for export to the US was made in March 2012, by May Huajian became the largest shoe exporter in Ethiopia. Huajian became profitable in October 2012. The employment expands to 2000 by Dec. 2012. Huajian's exports consisted of 57 % of Ethiopia's total leather export in 2012.
- Huajian employed 3,500 workers by the end of 2013.
- The success of Huajian produces a snowballing effect on attracting FDIs to Ethiopia. The 22 factory units in a new industrial park were leased out in just three in 2013.

C&H Garments: A quick win in Rwanda

- Encouraged by the success of Huajian in Ethiopia, President Kagame actively attracts light manufacturing FDI to Rwanda.
- C&H Garments decided to invest in the Kigali Special Economic Zone in 2014
- Training of 300 Rwandan workers to produce protective clothing and T-shirts for export started in March 2015. The employment increased to 500 in July.
- The shipment of protective clothing for export started in August
- The C&H Garments plans to increase the employment to 1000 by May 2016.
- The success story is expected to have a snowballing effect on attracting FDI to Rwanda as well

Dongao Garments: A Quick Win in Tanzania

- Dongao is a leading Chinese garment factory, with 10000 worker in Changzhou, China and 20000 workers in Cambodia
- Dongao made an investment in the Export-processing zone in Dar es Salaam in 2013
- It employs 1400 workers now and plans to expand to 10,000 workers in 5 years

Suggestions for Tanzania to capture the window of opportunity for industrialization

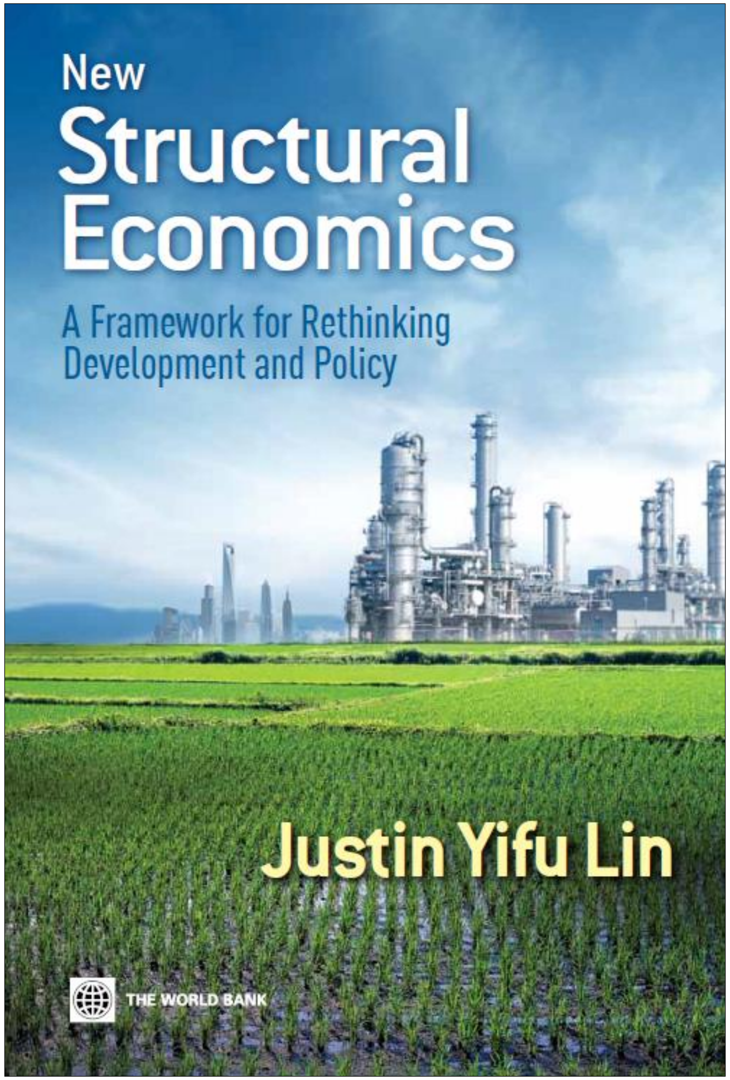
- Strengthen the Investment Promotion Board, to be headed by the President or Prime Minister
- Leverage the success of Tongao Garments to do investment promotions actively in Changzhou or other cities in China with clusters in light manufacturing
- Build industrial parks or export process zones with adequate infrastructure and one-stop services

Two additional points

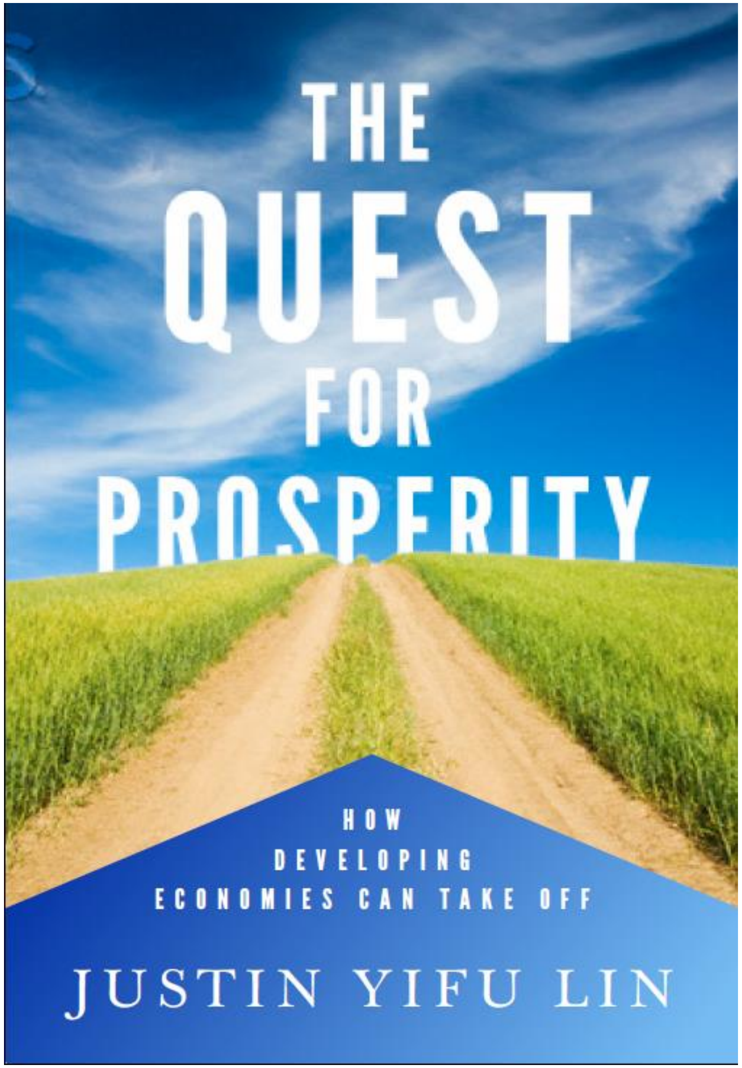
- Agricultural development is also crucial for Tanzania's inclusive and sustainable growth:
  - For poverty reduction, and
  - For providing capital and a market for industrial products.
  - Agricultural development also requires structural change in technology, from traditional agriculture to modern agriculture, and in product structure, from subsistent agriculture to commercial agriculture
  - Government's facilitation is needed for agriculture's structural transformation
- A resource-abundant country's resources will be a blessing if:
  - It has a good management of resources. (E.g., some of it must be saved for future generations, and enclave rent capture avoided.)
  - It uses (part of) the wealth generated from resources to facilitate structural transformation by investing in hard and soft infrastructure.

Concluding Remarks

- Poverty is not a destiny
- Tanzania and other African countries can grow as dynamically as any successful countries in East Asia and other parts of the world, if they have an enabling government to facilitate private firms to capture the window of opportunity of industrialization from the pending relocation of light manufacturing due to rising wages in China and other emerging market economies
- A change in mindset is key for success:
  Africa should look at what Africa can do well based on what Africa has now, instead of looking at what Africa does not have or cannot do well based on what the high-income countries have and can do well



The *New Structural Economics* can be downloaded for free from the World Bank: http://go.worldbank.org/QZK6IM4GO0



The Quest for Prosperity was published by the Princeton University Press in September, 2012.