Avoiding Middle-income Trap:
A New Structural Economics Perspective

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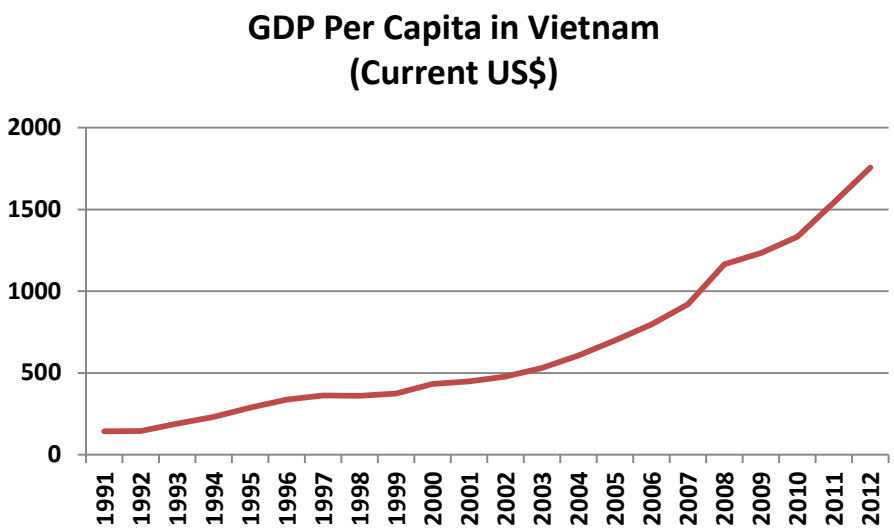
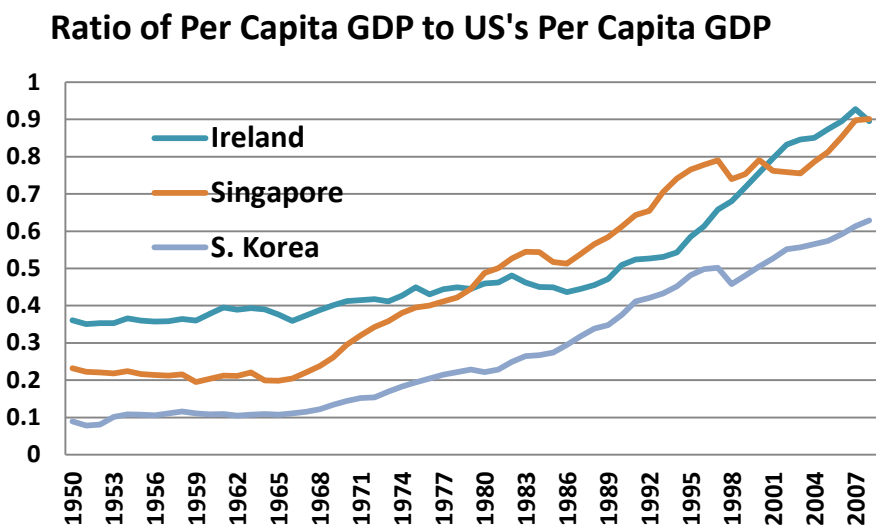
Middle-income Trap？





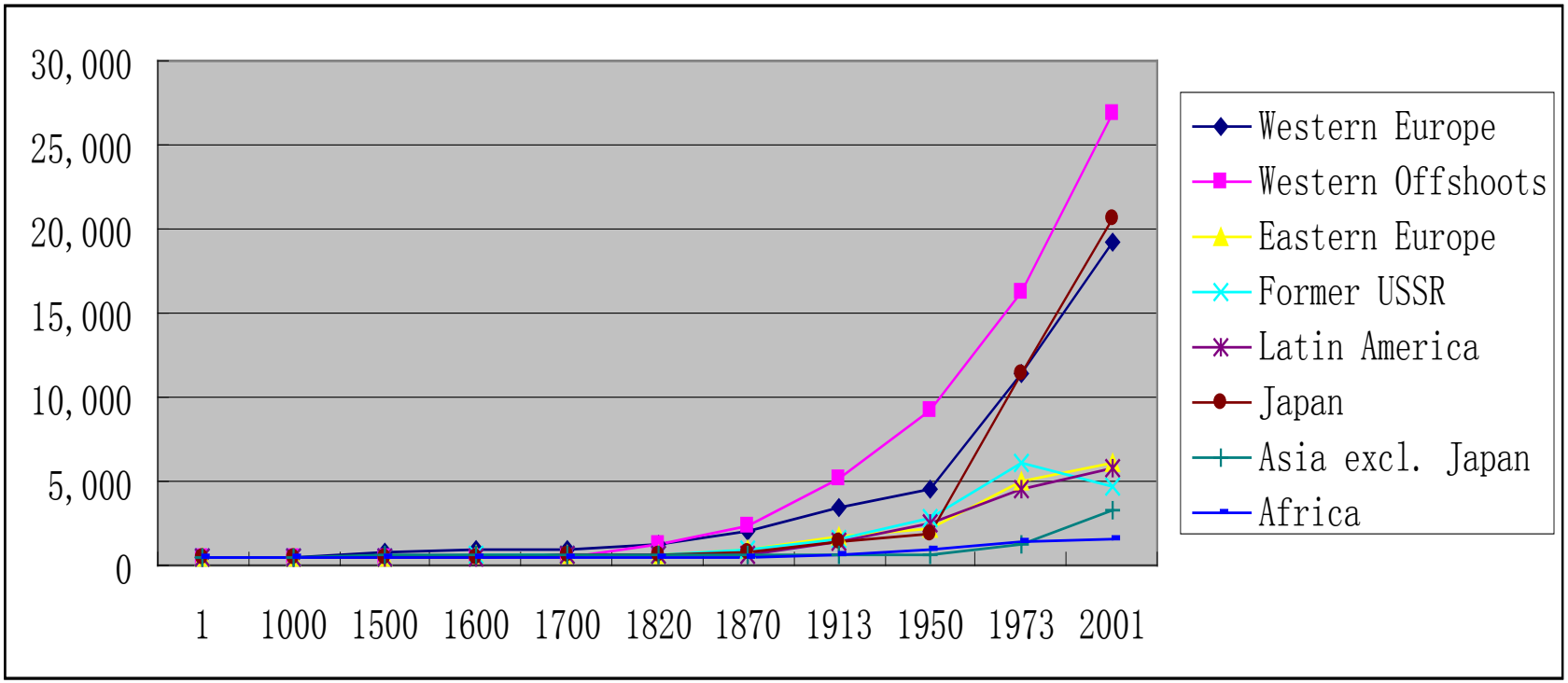
- Since the transition from a planned to a market economy started, Vietnam has performed extremely well, growing from a low-income to a middle-income country.
- Most Middle-income countries have been trapped in the same income bracket since WWII. How to avoid the middle-income trap is a challenging issue for Vietnam and other middle-income countries.
- However, the middle-income trap is not a destiny. Ireland in Europe and Singapore in East Asia are able to move from middle income to high income. Korea is able to move from low-income to middle-income and then to high-income.
- The successful catching up countries, all being trapped in low-income or middle-income for centuries and at a certain point to have turning point and started to grow dynamically.
- The talk attempts to provide a New Structural Economics perspective of the reasons for the trap and the way to avoid it.

Let’s go back to Adam Smith

- But not to ***The Wealth of Nations***, which reflects findings of Adam Smith’s research
- Let’s go back to Adam Smith’s methodology, that is, ***An Inquiry into the Nature and Causes*** *of the Wealth of Nations*

The Nature of Modern Economic Growth

- The rapid, sustained income growth is a modern phenomenon



• The nature of modern income growth is a process of continuous structural changes in technologies and industries, which increase labor productivity, and in soft and hard infrastructure in the economy, which reduce transaction costs.

New Structural Economics

- An application of neoclassical economic approach to study the determinates of **economic structure and its evolution** in development, which is the nature of modern economic growth
- **Why do I call this approach New Structural Economics?**
  - By convention, it should be called structural economics
  - Add “new” to distinguish it from structuralism

Causes of Structure, Structural Change, and Income Traps

- **The main hypothesis**. Industrial structure is endogenous to endowment structure, which is given at any specific time and changeable over time
- **Endowments** at any specific time determine the economy's total budgets and relative factor prices at that time, which in turn determine that specific time's:
  - Comparative advantages of the economy, i.e., industries that have the lowest factor costs of production in the world
  - Optimal industrial structure (endogenous) is endogenous to endowment structure
- **Dynamics**. Income growth depends on:
  - Upgrading industrial structure, which in turn depends on
  - Upgrading of endowments
  - Improvements in "hard" and "soft" infrastructure to reduce transaction costs
- The low-income trap and the middle-income trap are both the result of a country's inability to have a dynamic structural change, which makes a developing county to grow faster than the high-income countries
- *Following comparative advantage (determined by the endowment structure) to develop industries is the best way to avoid income traps:*
  - *It will be most competitive, produce the largest surplus, have the fastest upgrading of endowment structure, and achieve the rapidest industrial upgrading and income growth*
  - *In this process, a developing country can have the latecomer advantages and thus have a faster technological innovation and industrial upgrading*

The Market, the State and Industrial Policy

- Firms maximize profits…choice of technology and industries based on relative factor prices…

➡ ***Need for a competitive market system***

- Industrial upgrading and diversification needs to:
  - Address externalities
  - Solve coordination problems

➡ ***Need for a facilitating state***

- 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.

Comparative Advantage Defying and the Failure of Industrial Policy

The sad fact is that almost all governments in the world attempted to use industrial policies to play the facilitating role, but most failed.

The reason is that their governments targeted industries that went against their comparative advantages.

- The firms in the industrial policy's targeted sectors were **non-viable** in the competitive market.
- To support its initial investment and to ensure the firms' continuous operation, governments supported the non-viable firms through all kinds of subsidies and protections.
- Those measures led to a lack of competition and increased rent-seeking.
- As a result, the attempts to pick winners ended up picking losers.

Latent Comparative Advantage and Picking Winners

- For an industrial policy to be successful, it should target sectors that conform 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, due to inadequate hard and soft infrastructure, 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.
- 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' 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 did successful industrial policies target industries in dynamically growing countries with a similar endowment structure and somewhat higher income?

- Industrial upgrading is based on changes in comparative advantages due to changes in endowment structure.
- 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.

The existing tools and their drawbacks

- Business and Investment environment
  - The idea is based on Washington Consensus and its goal is to introduce a whole set of the first-best institutions
  - The issues are:
    - The government may not have the capacity to introduce all those changes
    - The first-best institutions may be different at different stage of development
    - No identification of industries with latent comparative advantages and no compensation for the first movers
- Growth Diagnostics
  - It focuses on binding constraints instead of the whole set of first best institutions
  - It relies on survey of existing firms. Many of them may be in industries where the country has no comparative advantages.
  - There may be no firms in the new industries that the countries have latent comparative advantages
- Product Space
  - The idea is based on the fact that firms in existing sectors own tacit knowledge that is helpful for successful upgrading/diversification to nearby sectors in the product space
  - The existing sectors may be wrong sectors due to the wrong interventions in the past.
  - Some sectors that the country has latent comparative advantage may be totally new to the country and the tacit knowledge can be brought in with FDIs

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

Import or cultivate tacit knowledge

Step 3

In industries where no domestic firms are currently present, **seek FDI** from countries examined in step 1, or **organize new firm incubation programs**.

Benefit from opportunities arising from new technologies

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

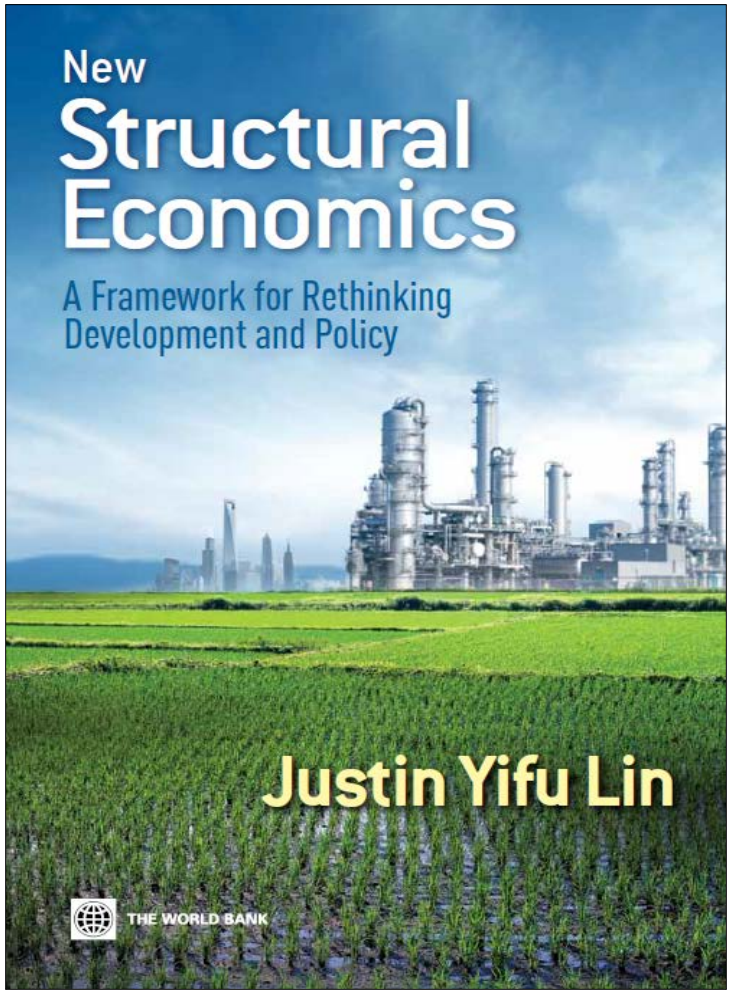
Step 6

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

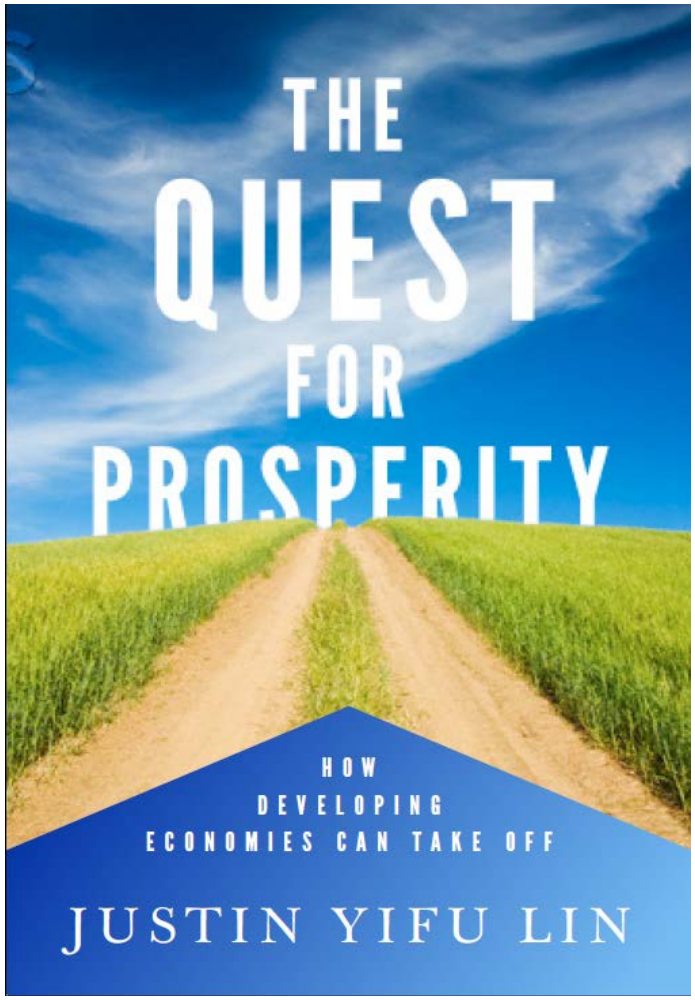
- Tax incentives for a limited period
- Direct credits for investments
- Access to foreign exchange

Concluding Remarks

- The Middle-income trap is not a destiny
- If a middle-income country follows its comparative advantages to develop its economy, it can enjoy the latecomer advantages and grow faster than high-income countries.
- An effective market and an enabling state are essential for avoiding middle-income trap



This book can be downloaded for free from the World Bank: http://go.worldbank.org/QZK6IM4GO0



The book was published by the Princeton University Press in September 2012 and is available on Amazon.com.