

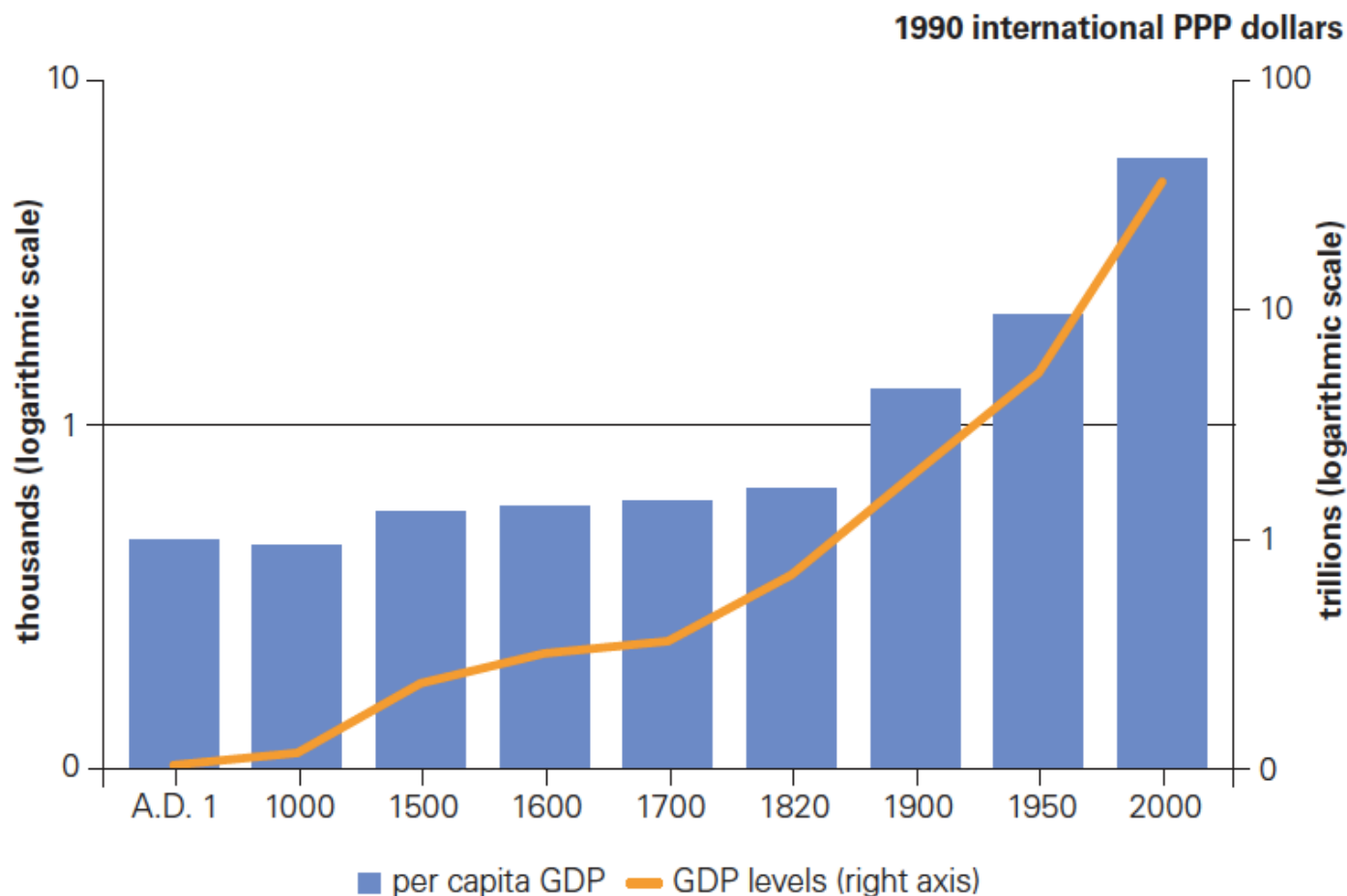


Development Economics

EE551&561

Chayanee Chawanote

Evolution of global and per capita GDP in the last 2,000 years



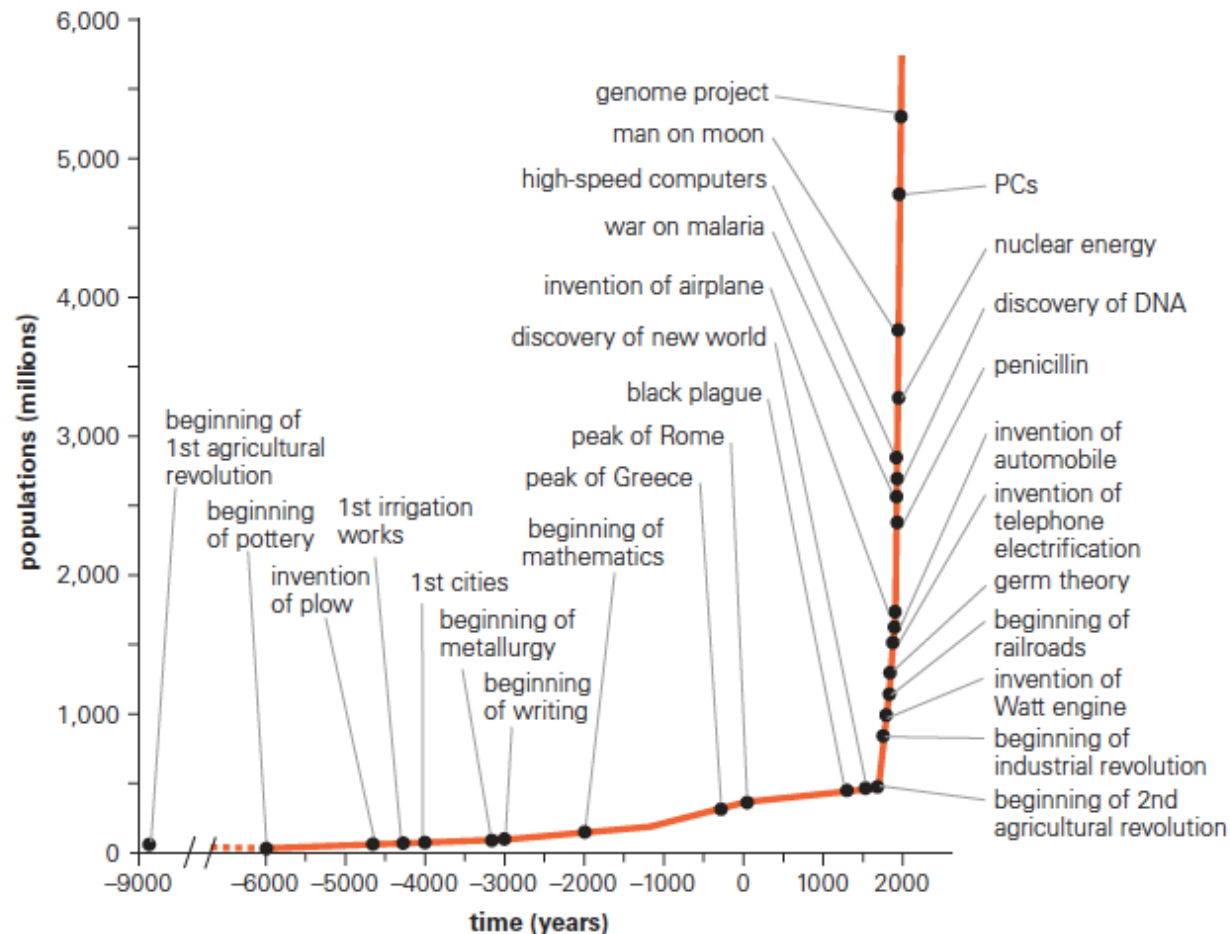
Source: Maddison, Angus. 2007. *Contours of the World Economy, 1–2030 AD*. Oxford, UK: Oxford University Press.

Note: PPP = purchasing power parity.

Source: the Commission on Growth and Development, WB 2008

Population growth and major events in the history of technology

Growth in incomes was accompanied by unprecedented increases in population and exponential increases in the rate of scientific discoveries.

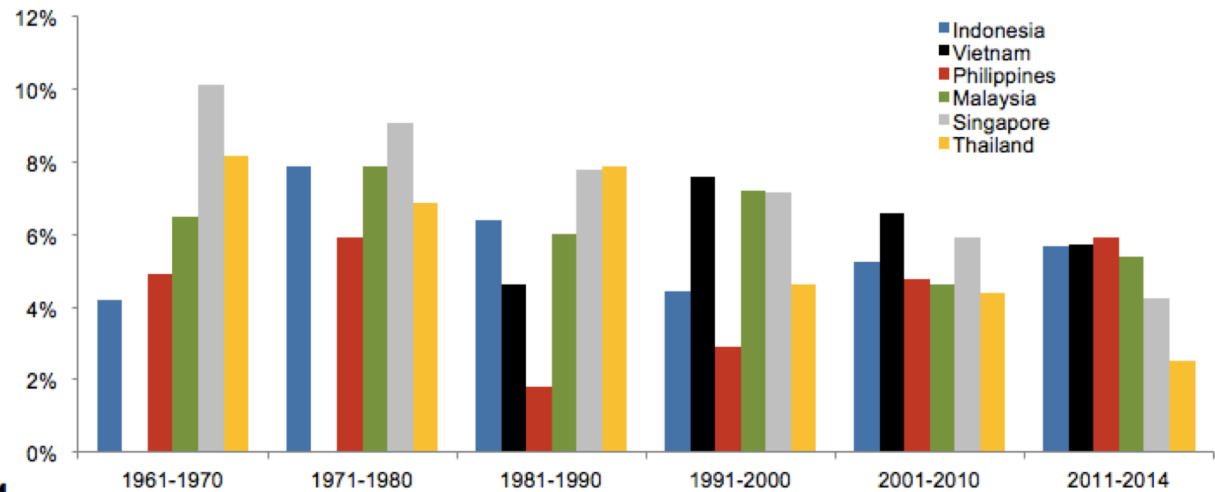


Source: Fogel, Robert. 1999. "Catching Up with the Economy." *American Economic Review* 89(1) (March): 1-21.

Note: There is usually a lag between the invention of a process or a machine and its general application to production. "Beginning" means the earliest stage of this diffusion process.

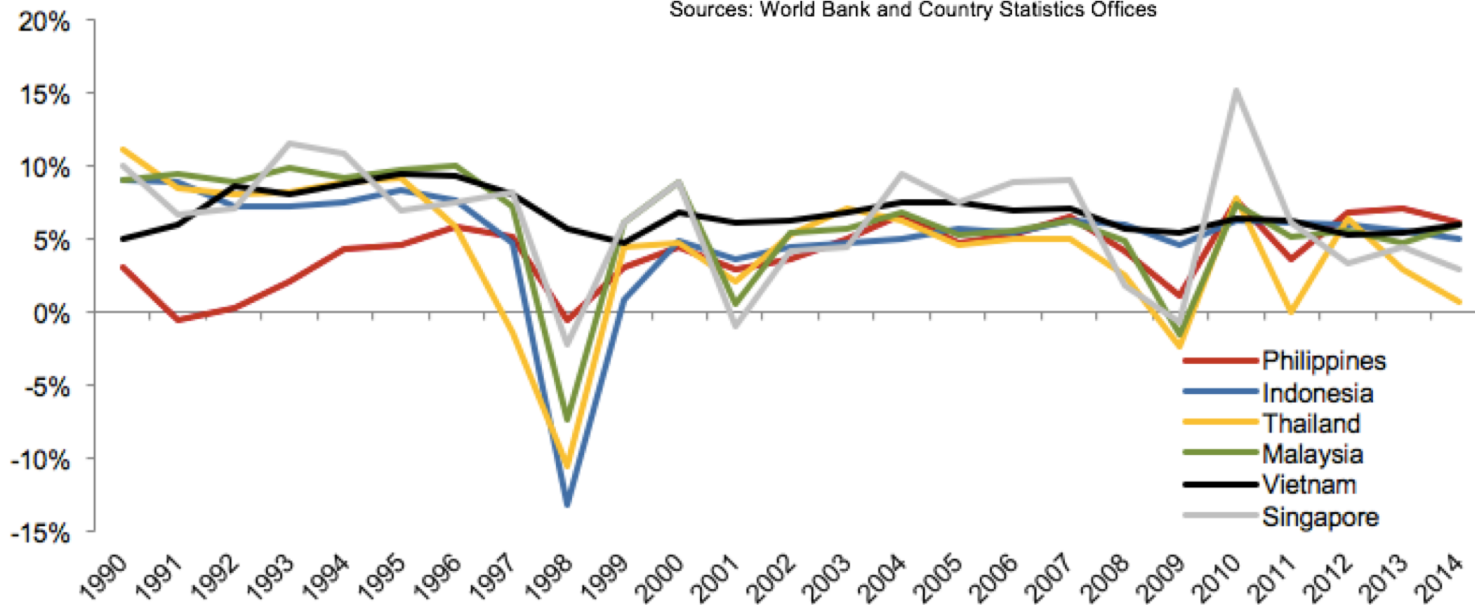
Economic growth in SEA

Average real GDP growth rates, ASEAN-6, 1961-2014



Sources: World Bank and Country Statistics Offices

Real GDP growth rates, ASEAN-6, 1990-2014



Source: World Bank and Country Statistics Offices

Figure: <http://www.investphilippines.info/arangkada/growth/the-philippine-economic-landscape-in-2010-faster-growth-is-essential/>

The Asian Miracle

- 1960s – 1990s: Thailand, South Korea, Hong Kong, Singapore, Taiwan, Malaysia, Indonesia
 - Maintained very high growth rates (8-12%)
 - Main reasons:
 - High interest rates to attract foreign investments
 - Rapid industrialization
 - Industrial policies supporting exports
 - High exports – driving rapid economic growth
- Krugman's view: East Asia's economic growth had been the result of increasing capital investment. However, **total factor productivity** had increased only marginally or not at all. Only growth in total factor productivity, not capital investment (lead to bubble), could lead to long-term prosperity.

Economic development

- What are the policy ingredients of sustained growth?
- Is (high) growth the end goal?
- Does everyone benefit from GDP growth?
- What is inclusive growth?
 - <https://youtu.be/puw7T-dt9I>
- Measurements of economic development
 - GDP growth
 - Income per capita: WB's country classification >> low, lower-middle, upper-middle, and high
 - HDI (Human Development Index by UNDP): life expectancy, education, income per capita
 - Inclusive Development Index ([by Weforum](#))

Development thinking path

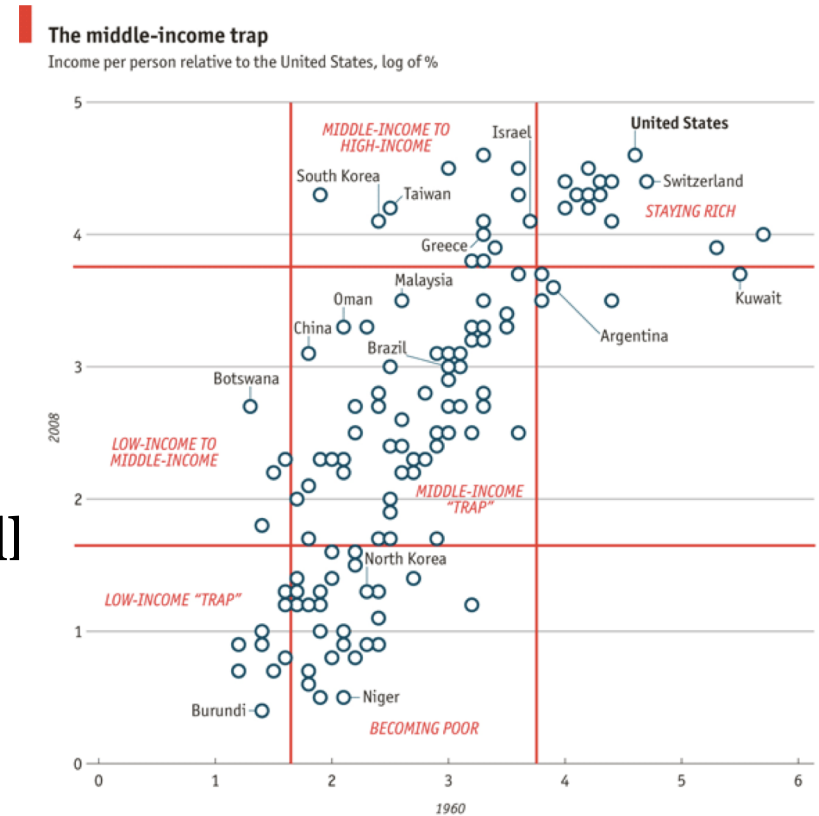
- The first wave of development thinking was structuralism, which emphasized market failures and proposed to build up modern industries similar to those in high-income countries by direct government interventions through import substitution
- The second wave of development thinking was neoliberalism, which emphasized government failures and proposed to build up well-functioning market institutions like those in high-income countries through the shock therapy encapsulated in Washington Consensus. Also, the supporting of free trade (market driven) by WTO leads to export-oriented industrialization

Development thinking path

- Under the guidance of previous two development thinkings, the development performance in developing countries was disappointing. Between 1950-2008
 - Only 2 economies, Korea and Taiwan, moved up from low-income to middle-income and then to high-income status. China is likely to be the third one by 2020.
 - Only 13 economies, including Japan, four East Asian dragons, and 8 other European economies surrounding high-income Western Europe, moved from middle-income to high-income status.
 - Most other developing economies have been trapped either in low-income or middle-income status

Middle-income trap?

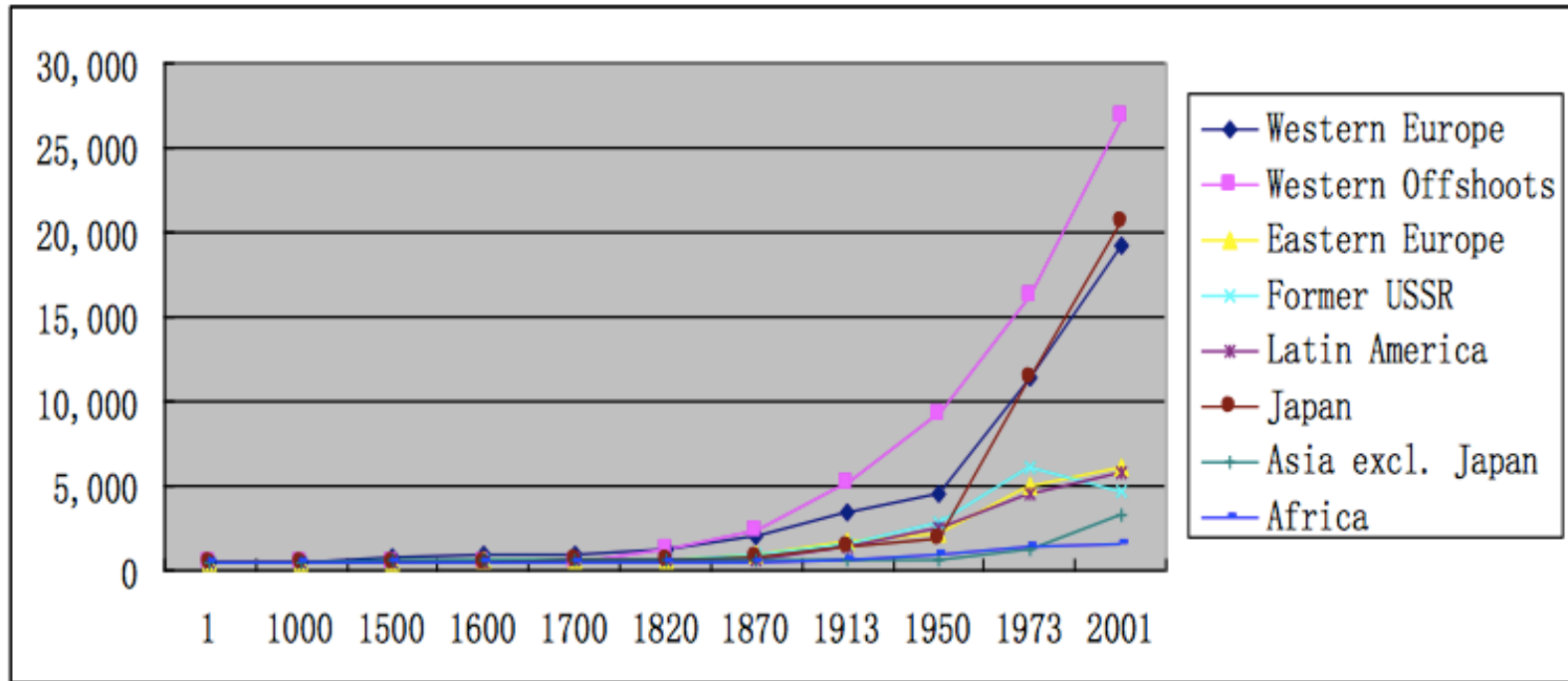
- Not enough high economic growth to move from middle income country to high income country
- Unable to compete with low-income, low-wage economies in manufactured exports and with advanced economies in high-skill innovations
- Such countries cannot make a timely transition from resource-driven growth, with low-cost labor and capital, to productivity-driven growth.



Source: The Economist

The Nature of Modern Economics

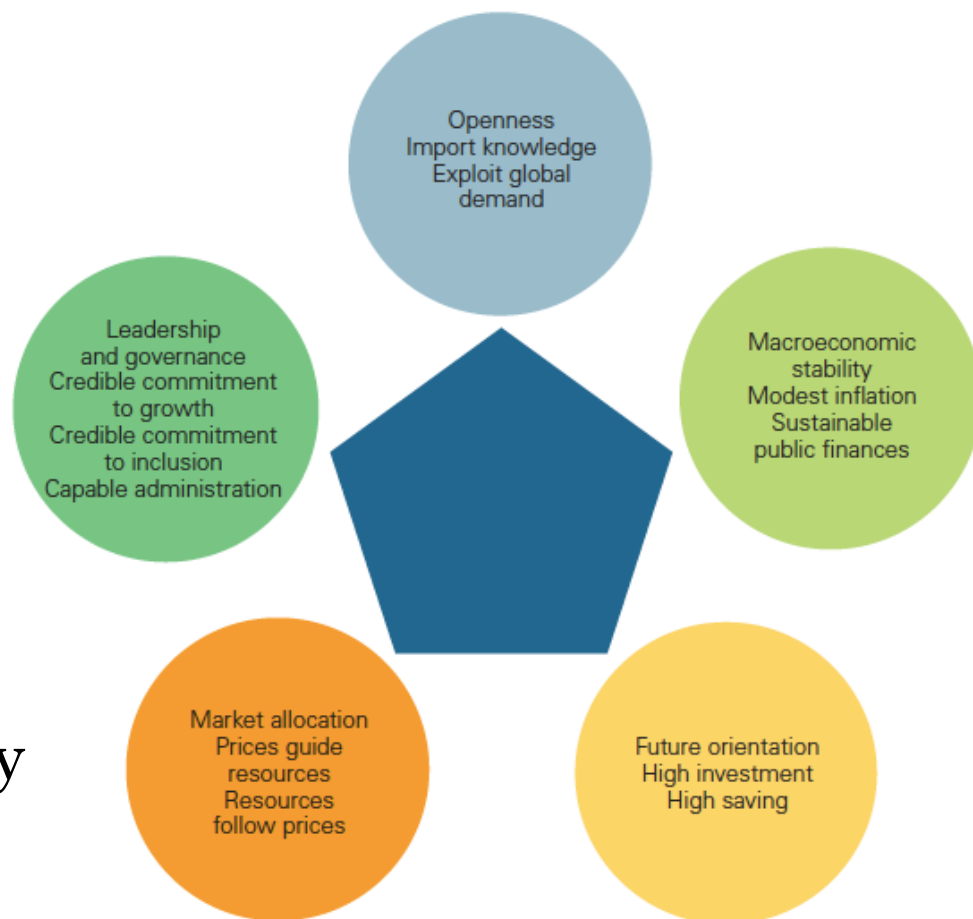
The rapid, sustained income growth is a modern phenomenon



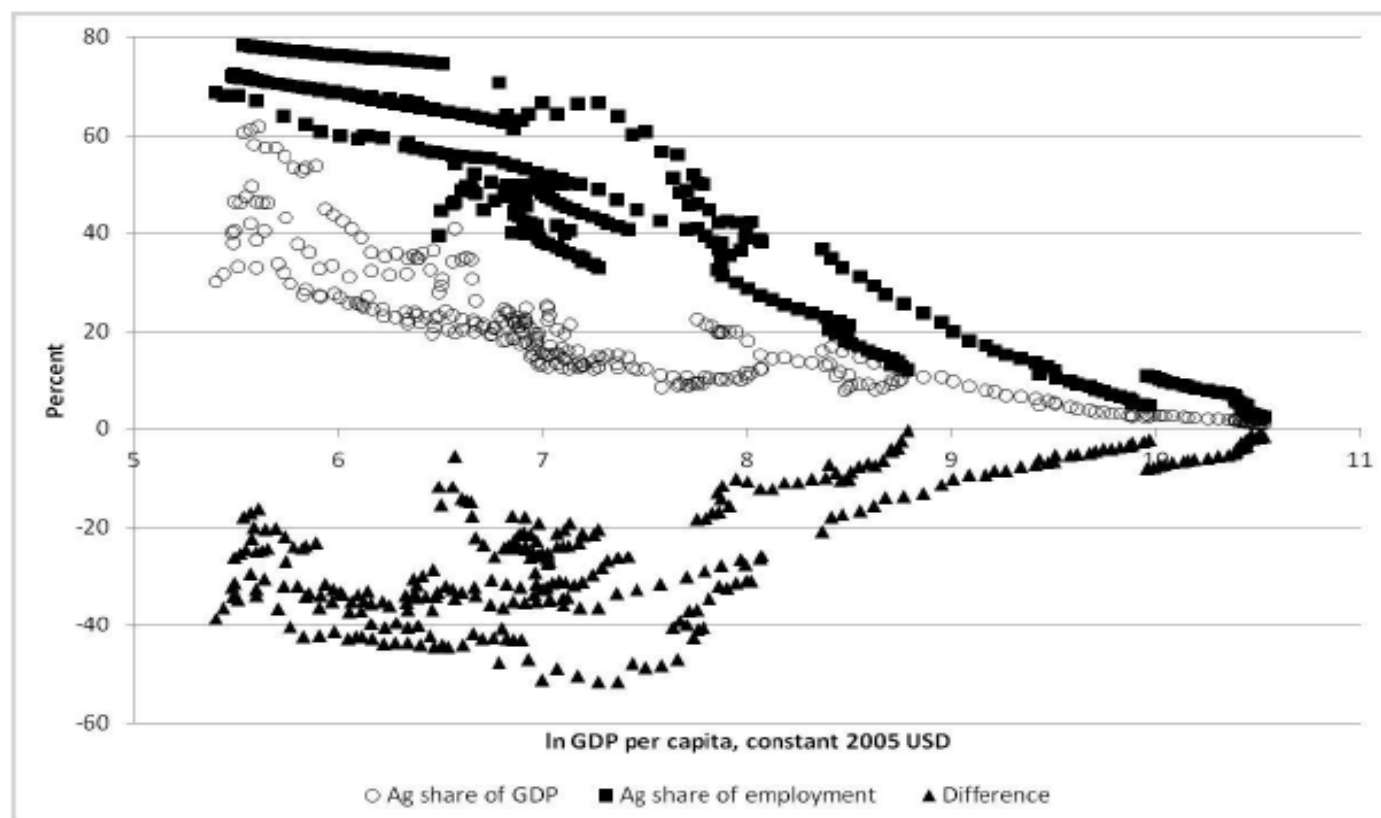
The nature of modern income growth is a process of continuous changes in the structure of technologies and industries, which increase labor productivity, and in soft and hard infrastructure in the economy, which reduce transaction costs

Common characteristics of the sustained high growth cases

- Fully engaged and exploited the opportunities that the global economy offers
- Mustered high rates of saving and investment
- Maintained macroeconomic stability
- Let markets allocate resources
- Had committed, credible and capable governments and institutions

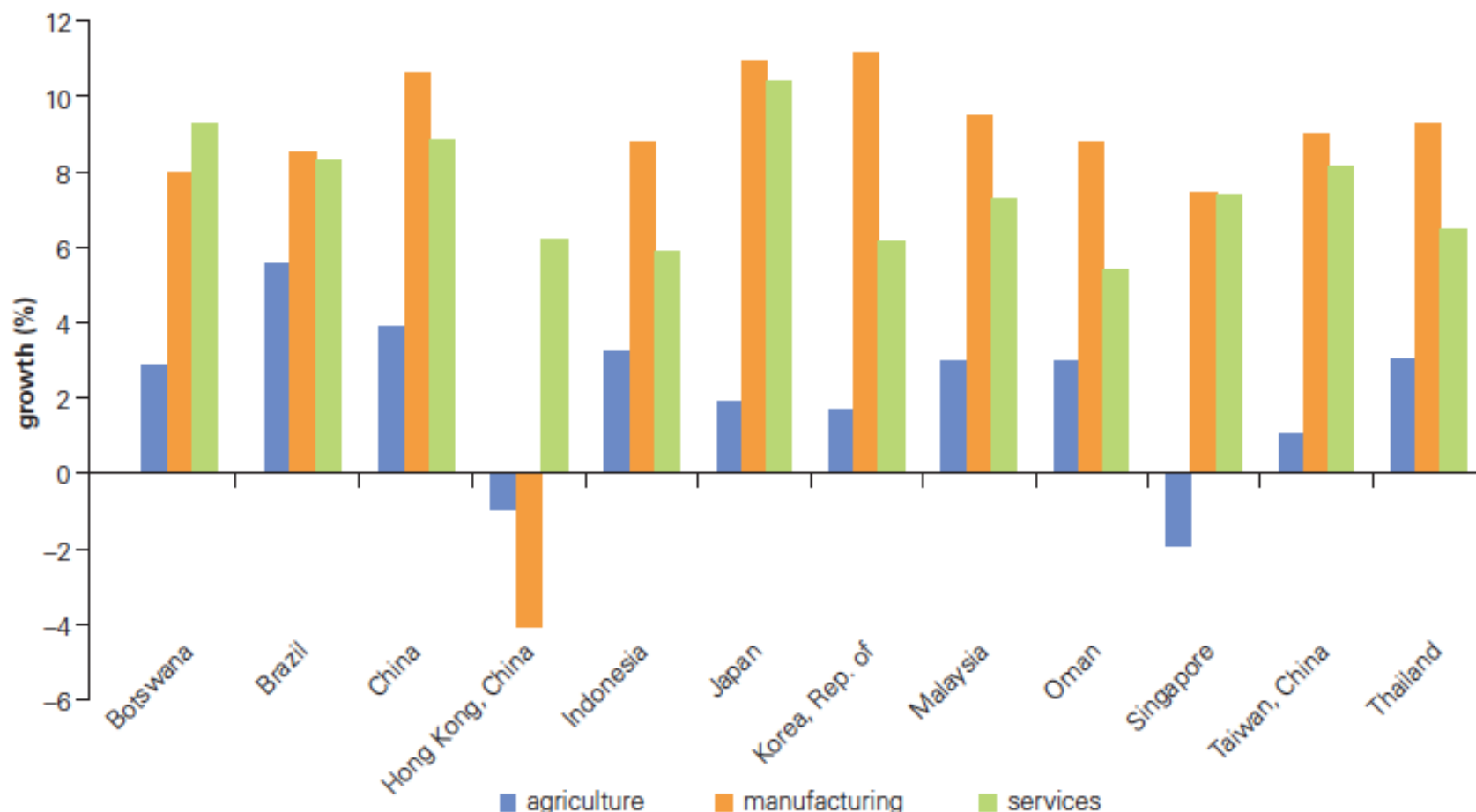


Economic development process: structural change



Note: Countries included are China, Cambodia, Indonesia, Japan, Korea, Lao PDR, Malaysia, Mongolia, Philippines, Thailand and Viet Nam.

To sustain high growth, manufacturing and services sectors are the key



Sources: World Bank, World Development Indicators 2007; for Brazil: World Bank calculation using data from World Tables 1976, World Bank, and Institute of Applied Economic Research (IAER), Brazil (<http://www.ipeadata.gov.br>); for Japan: World Bank calculation using data from World Tables 1976, World Bank, and Maddison, Angus, 2001: *The World Economy: A Millennial Perspective*. Paris: OECD.

Note: The calculations apply for different periods indicated in parentheses because of different degrees of consistent data availability: Botswana (1965–2006); Brazil (1955–73); China (1965–2006); Hong Kong, China (2000–06); Indonesia (1960–2005); Japan (1955–73); Korea, Rep. of (1970–2006); Malaysia (1970–2006); Oman (1988–2004); Singapore (1975–2006); Taiwan, China (1965–2006); and Thailand (1960–2006).

What we observed in the process of industrialization?

According to Aj. Peera's lecture, to be in the 5th stage, the government need to be a facilitating state to help rapid technological innovation, industrial upgrading, and economic diversification in a market economy.

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

Why failed? The main 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 misallocation of resources, a lack of competition, rent-seeking, and political capture.
- 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 lowest factor costs of production in the world 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 externality and coordination issues to reduce the risk and transaction costs.

Latent Comparative Advantage and Picking Winners

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

Roles of FDI in industrialization

- For latecomers, we can adopt already existing mature technologies if the government facilitates correctly.
 - >> FDI is one of the tools
- However, 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.
- Technology spillovers from FDI
 - Intra-industry (horizontal) spillovers: demonstration-imitation effect, competition effect, labor mobility effect
 - Backward linkages: increased demand for intermediate products due to MNE entry (e.g. food industry > upstream raw material suppliers)
 - Forward linkages:
 - Investments in outsourcing brand name related activities
 - Investments in maintenance and repairing services

Productivity and Competitiveness

- **Productivity** = ratio of output to input
 - How efficiently and effectively a business or an economy uses inputs, such as labor and capital, to produce output
- **Labor productivity** measures the value added per worker
- An increase in productivity means that more good and services are produced with the same amount of labor and capital
- Why productivity is important?

Productivity and Competitiveness

- Side note: **Total Factor Productivity (TFP)**
- TFP = the portion of output not explained by the amount of inputs used in production
- Its level is determined by how efficiently and intensely the inputs are utilized in production
- Residuals from the production function estimation

Productivity and Competitiveness

- Competitiveness:
- “Ability of a firm or a nation to offer products and services that meet the quality standards of the local and world markets at prices that are competitive and provide adequate returns on the resources employed or consumed in producing them.”
 - <http://www.businessdictionary.com/definition/competitiveness.html>
- “The set of institutions, policies and factors that determine the level of productivity of a country”
 - <https://www.weforum.org/agenda/2016/09/what-is-competitiveness/>
- Competitiveness → productivity → growth → income level → well-being

Competitiveness Index



Institutions

Concepts related to protection of property rights, efficiency and transparency of public administration, independence of the judiciary, physical security, business ethics and corporate governance

- Public institutions
- Private institutions



Infrastructure

Quality and availability of transport, electricity and communication infrastructures

- Transport infrastructure
- Electricity & telephony infrastructure



Macroeconomic environment

Fiscal and monetary indicators, savings rate and sovereign debt rating



Health & primary education

State of public health, quality and quantity of basic education

- Health
- Primary education



Higher education & training

Quality and quantity of higher education, and quality and availability of on-the-job training

- Quantity of education
- Quality of education
- On-the-job training



Goods market efficiency

Factors that drive the intensity of domestic and foreign competition, and demand conditions

- Competition
- Quality of demand conditions



Innovation

Capacity for, and commitment to technological innovation



Business sophistication

Efficiency and sophistication of business processes in the country



Market size

Size of the domestic and export markets

- Domestic market size
- Foreign market size



Technological readiness

Adoption of the technologies by individuals and businesses.

- Technological adoption
- ICT use



Financial market development

Efficiency, stability and trustworthiness of the financial and banking system

- Efficiency
- Trustworthiness and confidence



Labour market efficiency

Labour market efficiency and flexibility, meritocracy and gender parity in the workplace

- Flexibility
- Efficient use of talent



Doing Business

- Measuring business regulations (by WB)
 - Starting a business
 - Dealing with construction permits
 - Getting electricity
 - Registering property
 - Getting credit
 - Protecting minority investors
 - Paying taxes
 - Trading across borders
 - Enforcing contracts
 - Resolving insolvency

<http://www.doingbusiness.org/methodology>,

<http://www.doingbusiness.org/ranking>

Data information

- World Bank: <http://data.worldbank.org/>
- World Development Indicator (WDI): <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators>
- UNESCO: <http://data.uis.unesco.org/Index.aspx>
- IMF: <http://www.imf.org/en/Data>
- ADB: <https://www.adb.org/data/statistics>
- Penn World Tables (PWT): <http://cid.econ.ucdavis.edu/pwt.html>
- Study the definition of such indicator before analyzing/using !

Group Activity

- Pick one pillar of Inclusive Development Index
 - Education and skills
 - Basic services and infrastructure
 - Corruption and rents
 - Financial intermediation
 - Asset building and entrepreneurship
 - Employment and labor compensation
 - Fiscal transfers
 - <http://reports.weforum.org/the-inclusive-development-index-2018/>
- Compare results for CLVT + Singapore