

Industrial Policy and African Development

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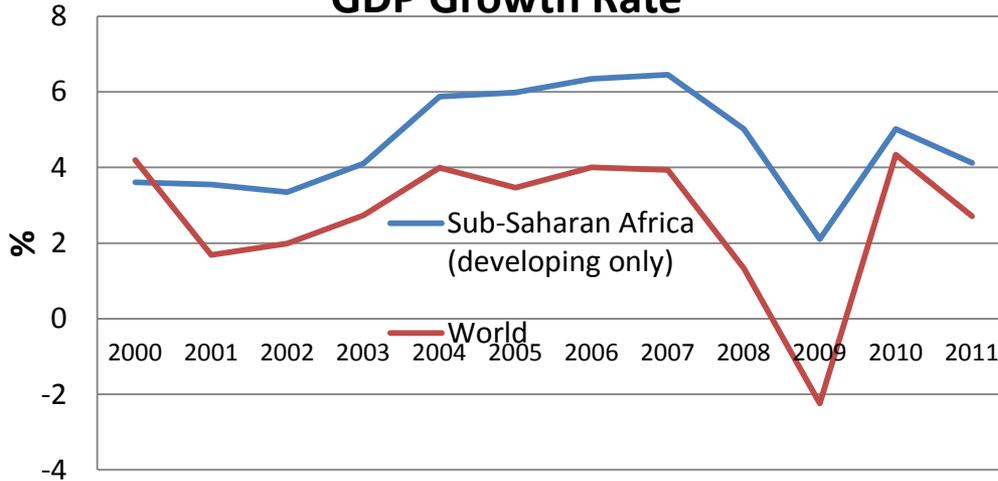
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INTRODUCTION

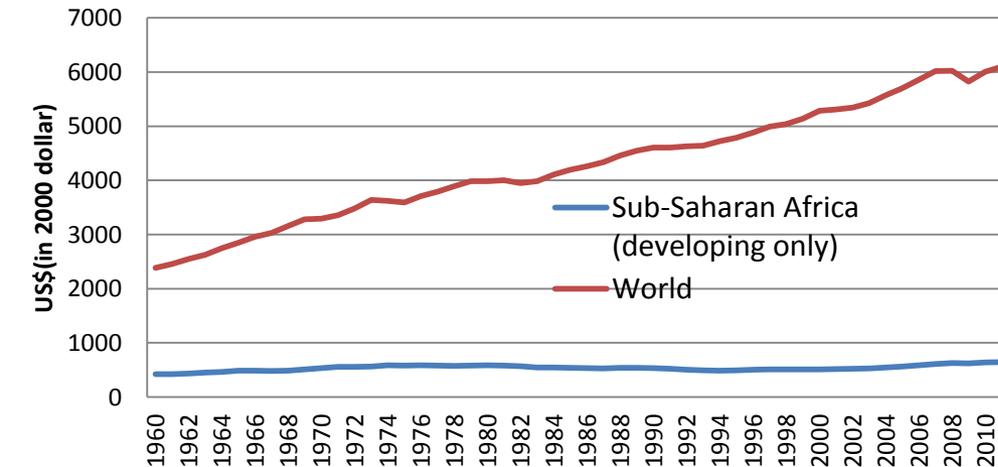
Economic Performance in Africa

GDP Growth Rate



- Africa should be congratulated for its good performance in the new Century.

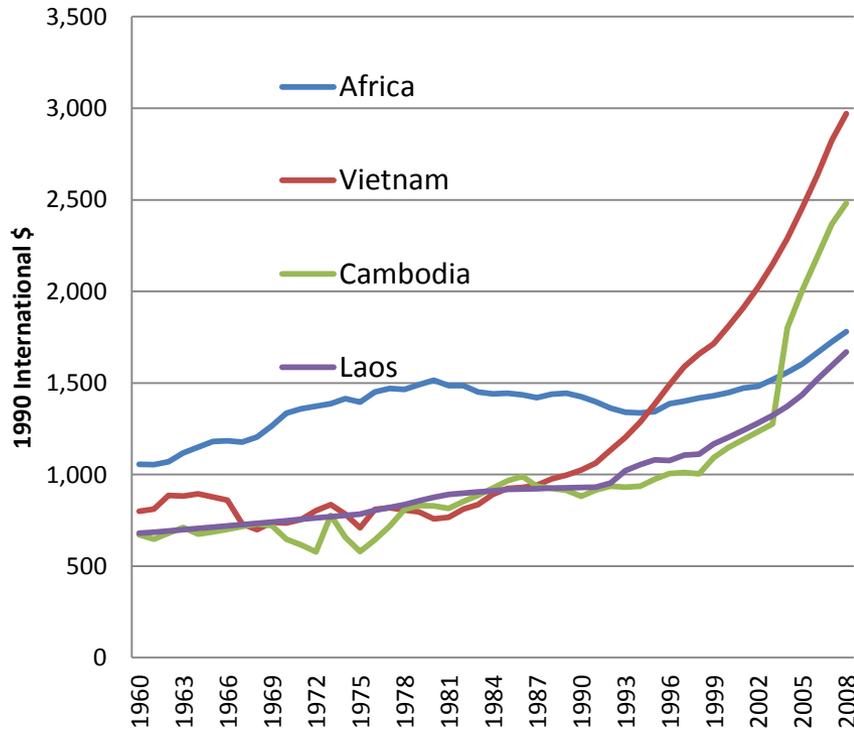
GDP Per Capita



- However, Africa is still the poorest continent in the world. Its per capita GDP declined from 18% of the world average in 1960 to 11% of the world average in 2011.

Poverty is not a Destiny

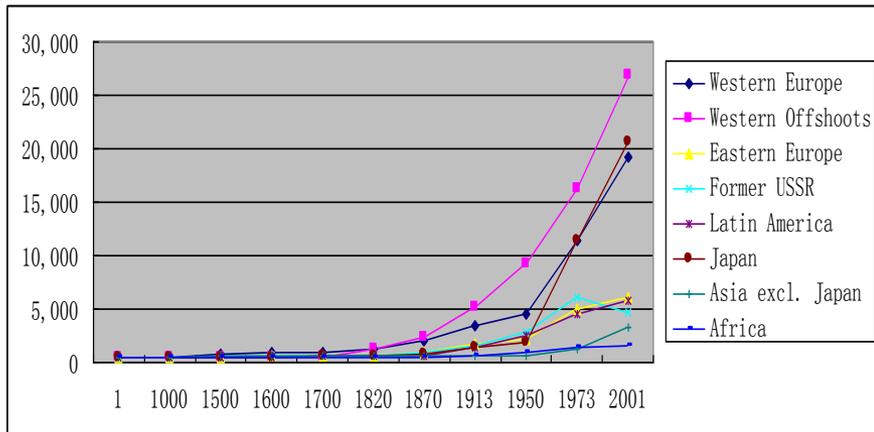
Per Capita GDP in Africa and Some Post Colonial Countries



- Like African countries, Vietnam, Cambodia and Laos were former colonies, stagnant and poorer than African countries before the 1980s. But their economic fate has changed since then.
- Understanding the nature of growth is required for finding a solution to jump start the economy and reduce poverty.

The Nature of Modern Economic Growth

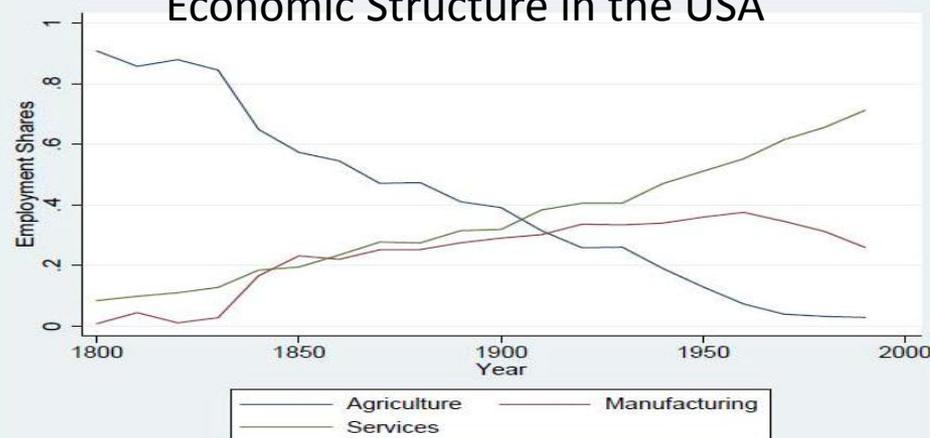
Modern Economic Growth and Great Divergence



- Sustained income growth is a modern phenomenon

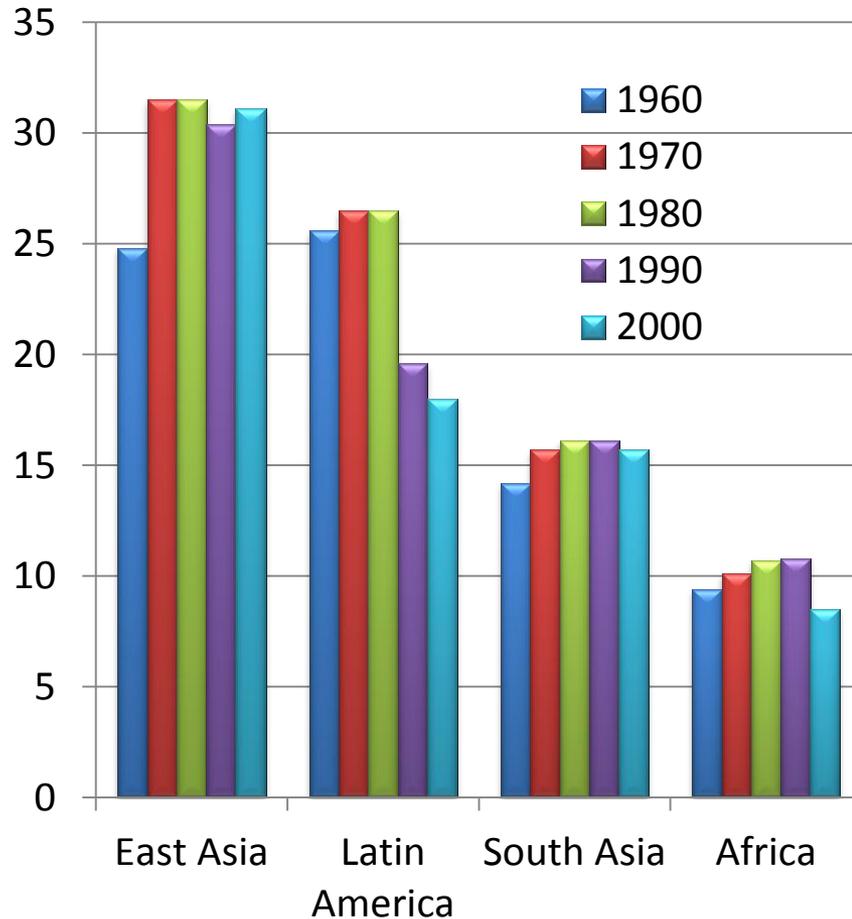
- Modern economic growth is a process of continuous change in the structure of technology, industry, and soft and hard infrastructure in the economy

Economic Structure in the USA



Level of Industrialization in Africa is low and Declining

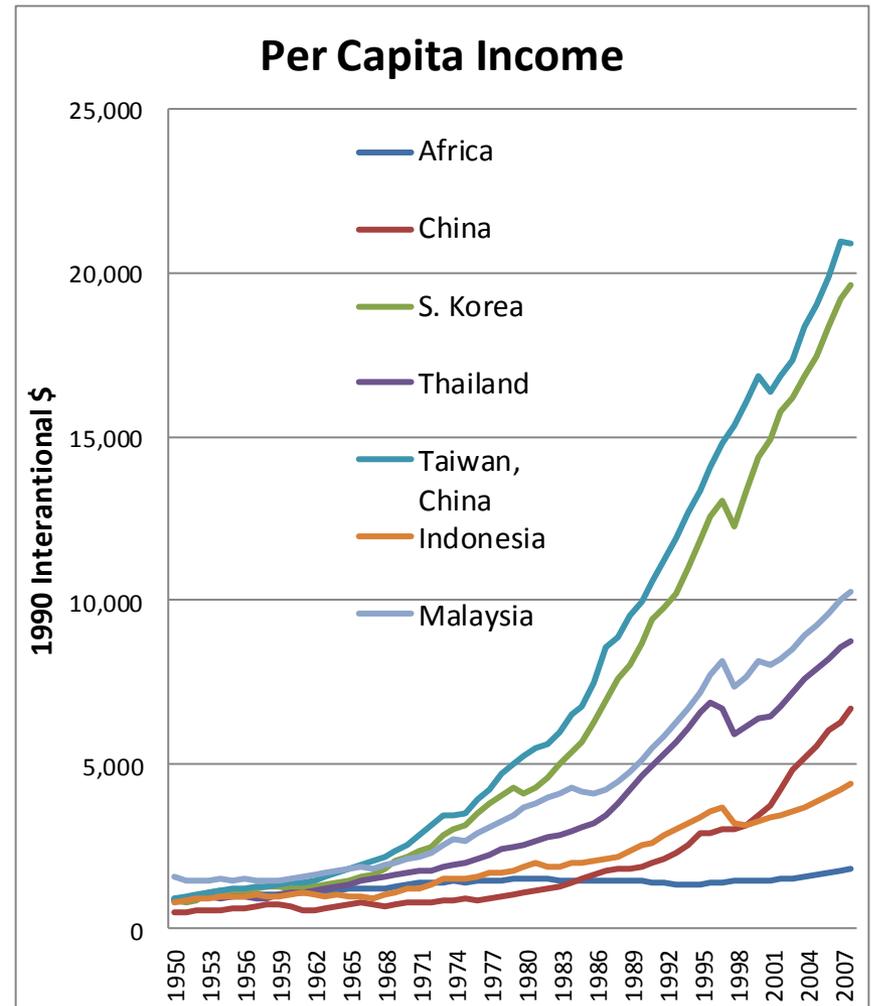
Share of Manufacturing in GDP (%)



- The manufacturing sector in Africa is small and declining
- The poor performance in Africa is reflected in its failure to change economic structure

Is there a recipe for success?

- Thirteen economies in the world achieved an average annual growth rate of 7 percent or more continuously for 25 or more years and became modern industrialized economies in post WWII . Several of them started at the same level of development as Africa in the 1950s
- The Growth Commission Report found that the ingredients for their successes are
 - **Openness**
 - **Macro stability**
 - **High rates of saving & investment**
 - **Market mechanism**
 - **Committed, credible & capable government**
- Is there a recipe for success?



UNDERSTANDING THE PROCESS OF STRUCTURAL TRANSFORMATION

Evolution of Development Thinking

- The development policy, adopted by a country and international development institutions, is inevitably shaped by prevailing development thinking.
- Structuralism-the first wave of developing thinking in post-WWII
 - Aimed to support the development of modern industries.
 - Focused on market failures and advised the government to directly intervene in resource allocation
 - After a short-period of investment-led growth, the countries following this strategy encountered stagnation and frequent crises
- Washington consensus-the second wave after 1970s
 - Aimed to introduce the modern institutions and governance
 - Focused on government failures and proposed a structural adjustment program of privatization, marketization, and liberalization
 - The developing countries encountered “lost decades” in the 1980s and 1990s
- There is a need for rethinking development and policy and a call for a third wave of development thinking

What Determines Structure and its Change?

- Industrial structure is endogenous to endowment structure, which is given at any specific time and changeable over time
- **CURRENT endowments.** Determine the economy's total budgets and relative factor prices at time t .
 - Comparative advantage
 - Optimal industrial structure (endogenous)
- **Dynamics.** Income growth depends on:
 - Upgrading industrial structure
 - Upgrading of endowments
 - Improvements in “hard” and “soft” infrastructure
- *Following comparative advantage (determined by the endowment structure) to develop industries is the best way to upgrade the endowment structure and to sustain industrial upgrading, income growth, and poverty reduction.*

The Market and the State

- 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

NSE and The Growth Commission's Stylized Facts

Growth Report

Stylized Facts:

- Policy Recommendation from NSE
 - Following comparative advantage : Conditions
 - Market economy #4
 - Facilitating State #5
- The results:
 - Openness and advantage of backwardness #1
 - Competitiveness and strong external as well as fiscal accounts: fewer home-grown crises and larger scope for countercyclical fiscal policies. #2
 - Large economic surplus and high returns to investment: high rate of savings and investment. #3

NSE and the Failure of Structuralism

- The structuralism advised the government to develop industries which were too far advanced compared to their level of development and went against their comparative advantages
- The firms were non-viable in competitive markets and required government policy supports for their initial investment and continuous operations.
- This led to rent-seeking, corruption, and political capture.

Country	Industry	Time	Main producer at Time	Real GDP pc Latecomer Country	Real GDP pc Leading Country	Income Ratio Follower versus Leader
China	Automobile	1950s	USA	577	10,897	5%
DRC	Automobile	1970s	USA	761	16,284	5%
Egypt	Iron, Steel, Chemicals	1950s	USA	885	10,897	8%
India	Automobile	1950s	USA	676	10,897	6%
Indonesia	Ships	1960s	Netherlands	983	9,798	10%
Senegal	Trucks	1960s	USA	1,511	13,419	11%
Turkey	Automobile	1950s	USA	2,093	10,897	19%
Zambia	Automobile	1970s	USA	1,041	16,284	6%

Source: Author's calculations based on data from Maddison (1995).

NSE and the Failure of Washington Consensus

- All developing economies started with the existence of many nonviable firms in old priority sectors due to their previous comparative advantage-defying development strategy.
- The Washington consensus failed to recognize the distortions were endogenous in responding to the needs of protecting nonviable firms in the priority sectors and advised the government to eliminate all distortions immediately, which caused the collapse of old priority sectors.
- The Washington consensus also opposed the government to play a proactive role for facilitating the firms' entry to sectors that are consistent with the country's comparative advantages
- The dynamically growing transitional economies adopted a dual-track approach:
 - The government continued to provide transitional supports to nonviable firms in the old priority sectors and removes distortions only when firms in those sectors became viable or the sectors become very small
 - The government facilitated private firms' entry to sectors that were consistent with the country's comparative advantage and were repressed before the transition

GROWTH IDENTIFICATION AND FACILITATION

Industrial Policy in a Market Economy

- Industrial policy is a useful tool for the government to play the facilitation role.
 - Contents of coordination will be different, depending on industries.
 - The government's resources and capacity are limited and need to be used strategically.
- Industrial Policies failed in most countries in the past because they targeted industries which were against the comparative advantages of the countries
- To be successful, the targeted industries should be in line with a country's latent comparative advantages.
- But how to do it?

Growth Identification and Facilitation

Step 1

Find fast **growing countries** with similar endowment structures and with about 100% higher per capita income. **Identify dynamically growing, tradable industries** that have performed well in those countries over the last 20 years.

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, or **organize new firm incubation programs**.

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

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.

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

Three additional points

- Agricultural development is crucial for developing countries:
 - For poverty reduction, and
 - For providing capital and a market for industrial products.
- 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.
- For a post-conflict country, the first step is to create conditions for rejuvenating sectors that used to be competitive and grow dynamically before the conflicts

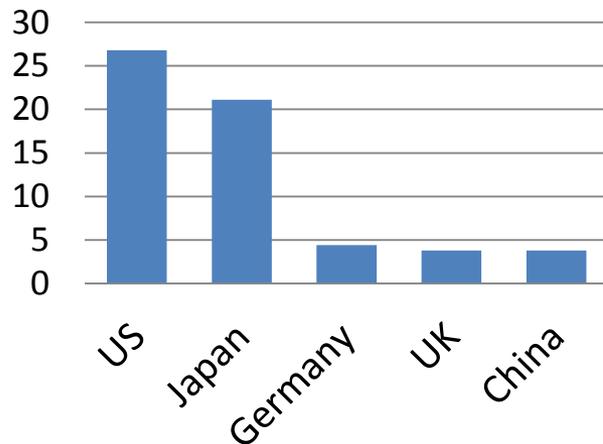
Light Manufacturing:

**An Opportunity for Africa's Structural Transformation
in the Multi-polar World**

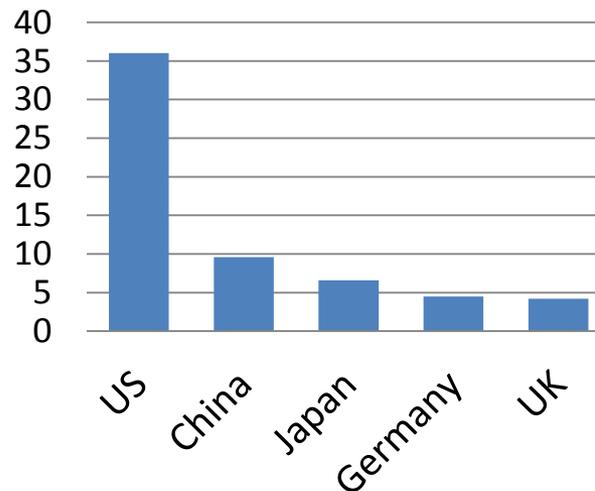
Emergence of a multi-polar growth world

Top 5 Contributors to World Growth by Decade (%)

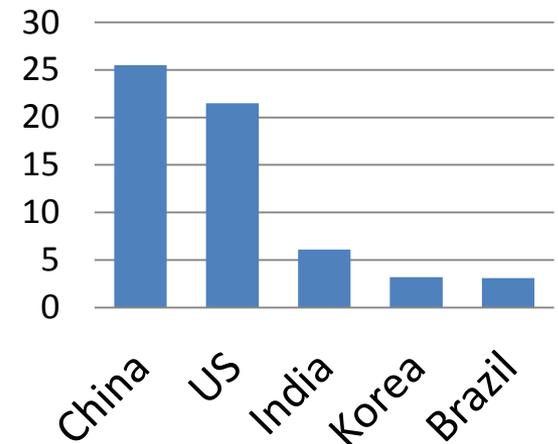
1980-1990



1990-2000

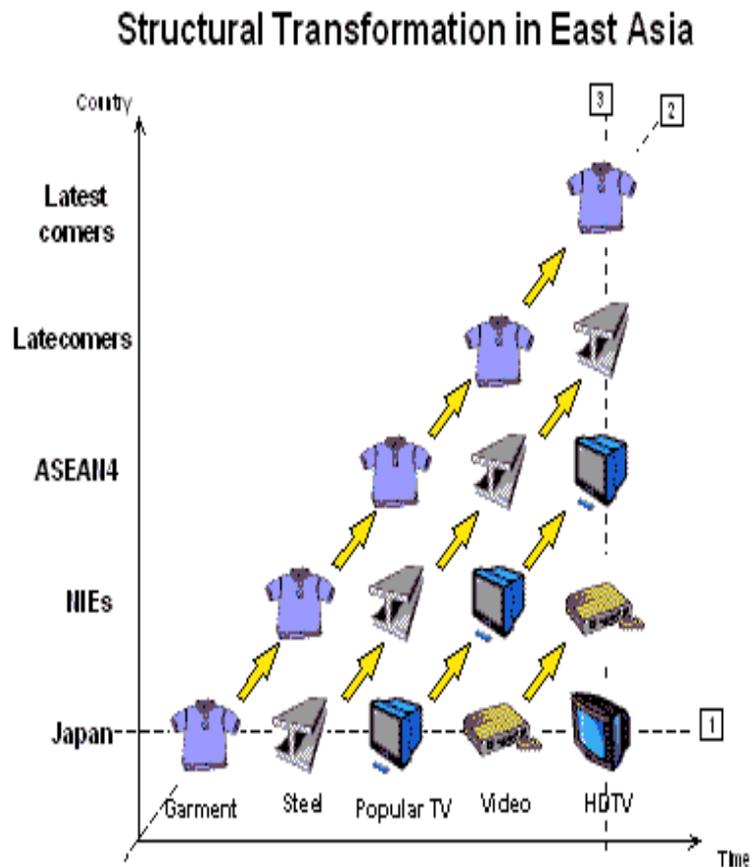


2000-2009



Now, three of the top five contributors to growth are emerging markets (MICs), and one is a newly industrialized country (NIC).

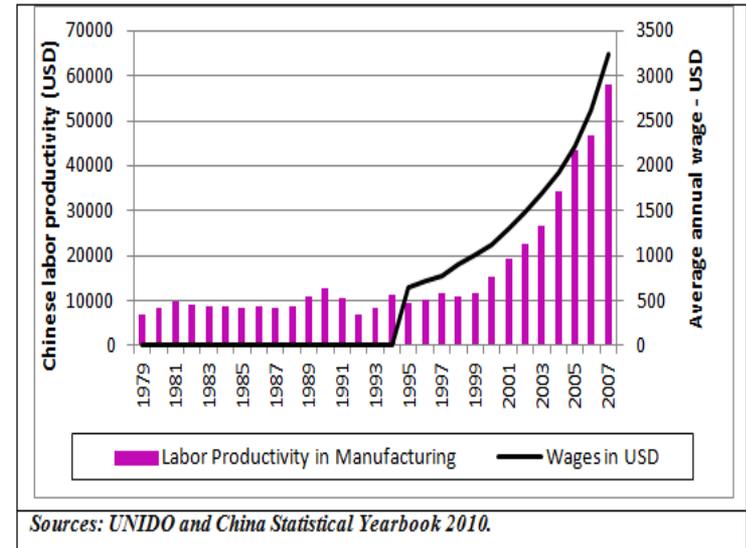
Industrial Development and Flying Geese Pattern



- The “flying geese” pattern describes a successful catching-up process of industrialization in latecomer economies. It focuses on three dimensions.

Leading Dragon(s)

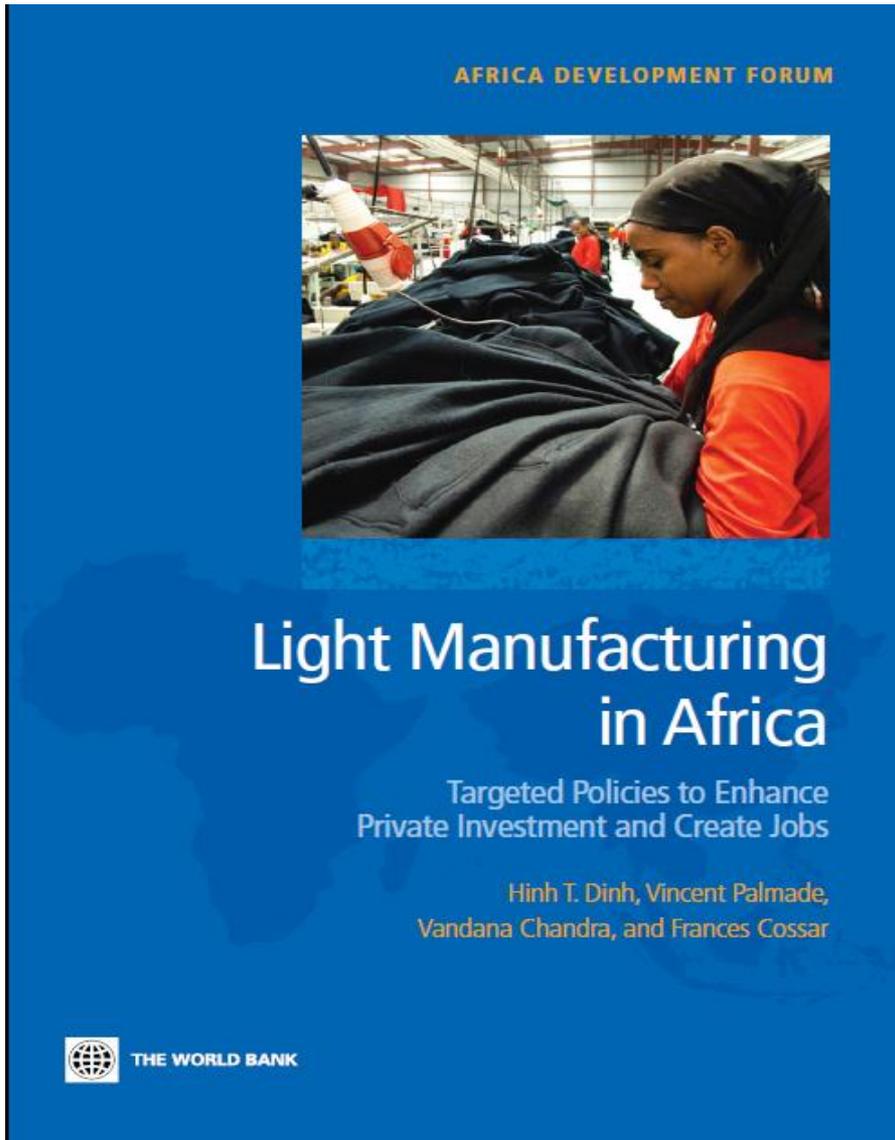
- **China has absorbed the surplus labor. The wage increase in the coming years will induce China to move up the industrial ladder from the labor-intensive industries to more capital-intensive and technology-intensive sectors.**
- **With 85 million manufacturing jobs, China's upgrading to higher industries will leave a huge space for MANY low-income developing countries to enter a labor-intensive industrialization development phase. This new phenomenon can be referred as a leading dragon pattern.**
- **If India, Brazil, Indonesia and other large MICs continue their current pace of growth, a similar pattern will arise.**



	year	GDP per capita, constant USD		Manufacturing		
		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						24

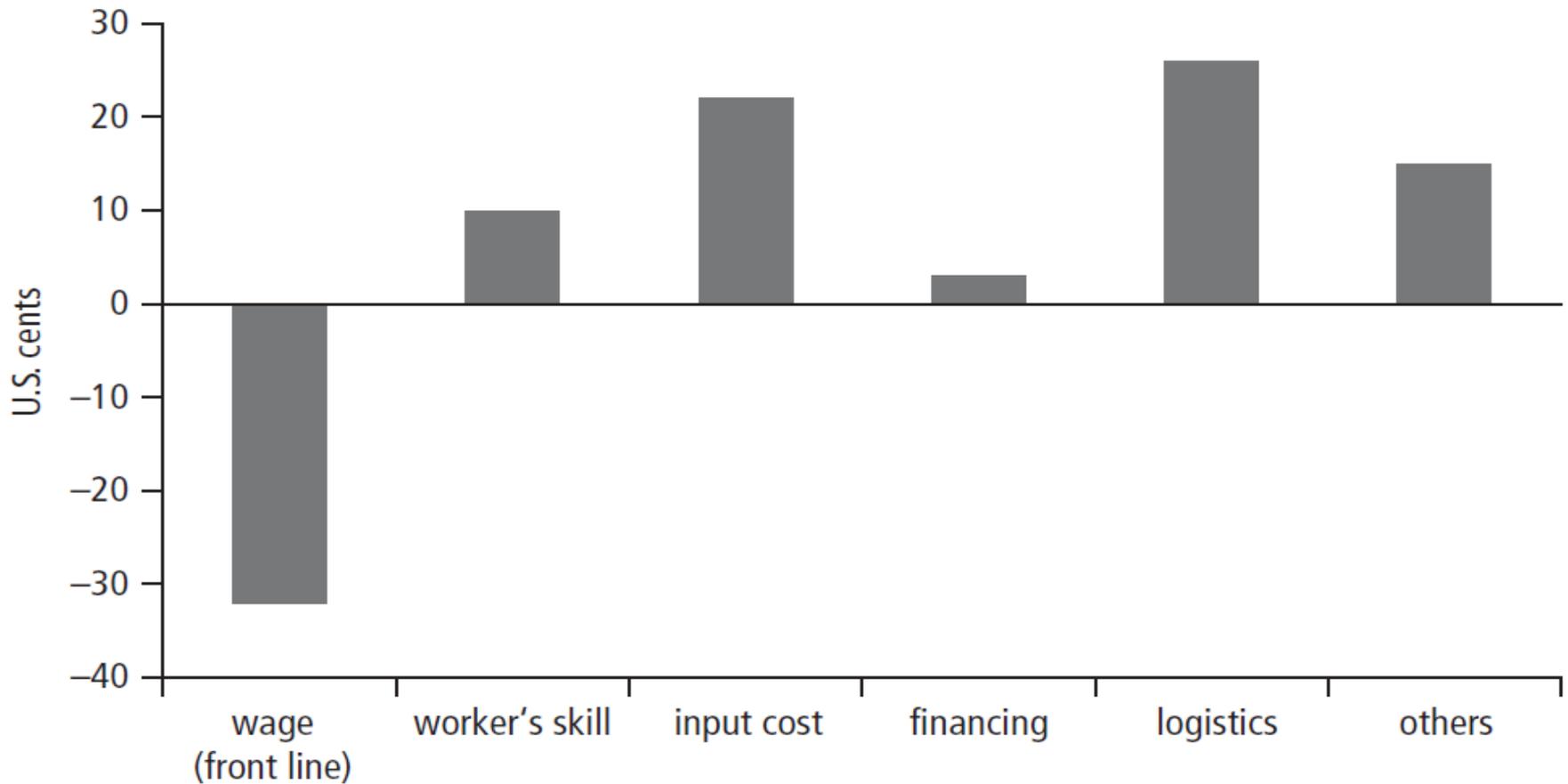
**An Example:
Light Manufacturing in Ethiopia**

Garment and leather Sectors in Ethiopia



- According to the World Bank's Light Manufacturing in Africa's findings:
 - Ethiopia's wage rate in garment and leather is about 20% of China and 50% of Vietnam
 - Ethiopia's labor productivity in these two sectors is about 70% of China's and the same as Vietnam
- China employed several million workers each in garment and leather, Vietnam employed over 1 million in garment and 650,000 in leather; and Ethiopia employed 9000 in garment and 8000 in leather sector

Cost Of Producing a Polo Shirt in Ethiopia Compared to China (US cents)



Source: Global Development Solutions 2011.
Note: Here, worker skills cover labor efficiency.

Cost of Producing Leather Shoes in Ethiopia compared to China (US cents)



Source: Global Development Solutions 2011.

Note: Here, worker skills cover labor efficiency.

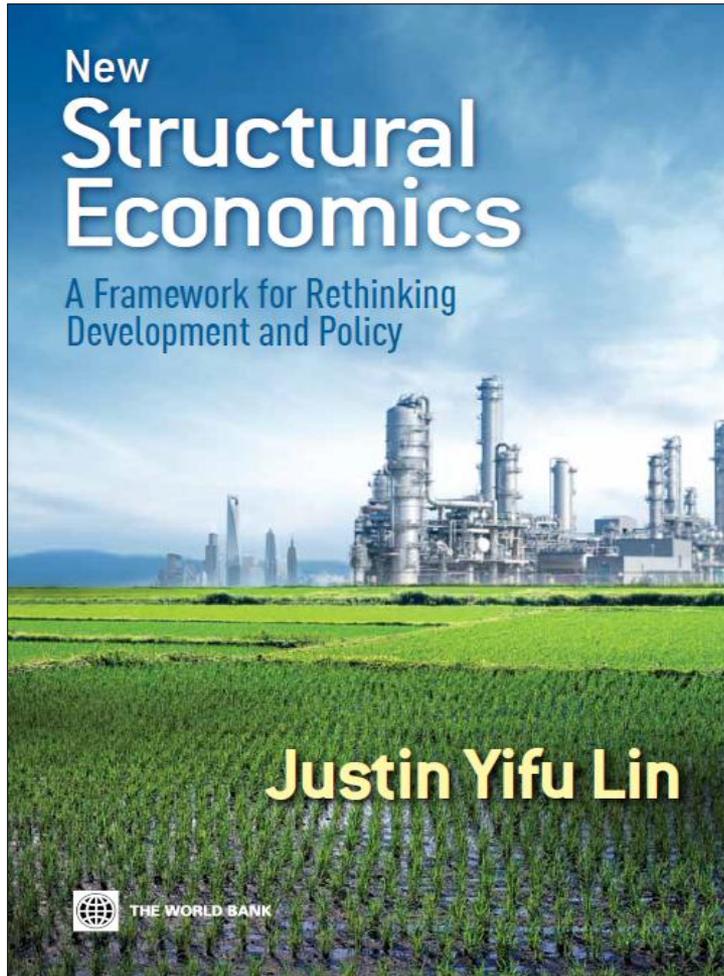
Policy Implications

Because the binding constraints vary by sector, policy makers need to:

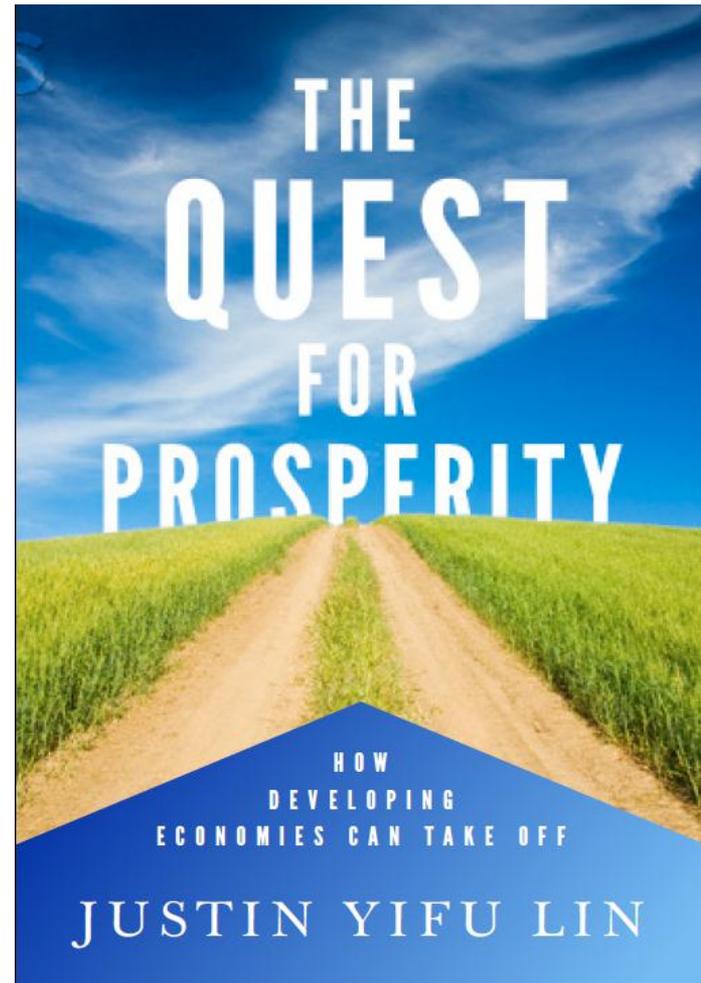
- Identify clearly the most promising manufacturing sectors, then prioritize and remove the most serious constraints in those subsectors
- Target policies selectively, in line with comparative advantage and the country's fiscal, financial, human capital, and institutional capabilities
- If follow comparative advantage and allow competition, no need for subsidies – a point noted) in New Structural Economics

Concluding Remarks

- **Every developing country has the potential to grow dynamically for decades, and to become a middle-income or even a high-income country in one or two generations, as long as the government has the right policy framework to facilitate the development of the private sector along the line of the country's comparative advantages and tap into the latecomer advantages.**
- **In addition to resources, light manufacturing is also Africa's comparative advantages. The dynamic growth in China and other growth poles gives Africa a golden opportunity for light manufacturing development.**
- **Hope the New Structural Economics and the presentation today will contribute to the realization of Africa's dream of industrialization and modernization.**



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 and can be ordered on Amazon.com now.