

University of Johannesburg

New Structural Economics:  
A Framework for Rethinking Development

**Justin Yifu Lin**

Chief Economist and Senior Vice President  
the World Bank

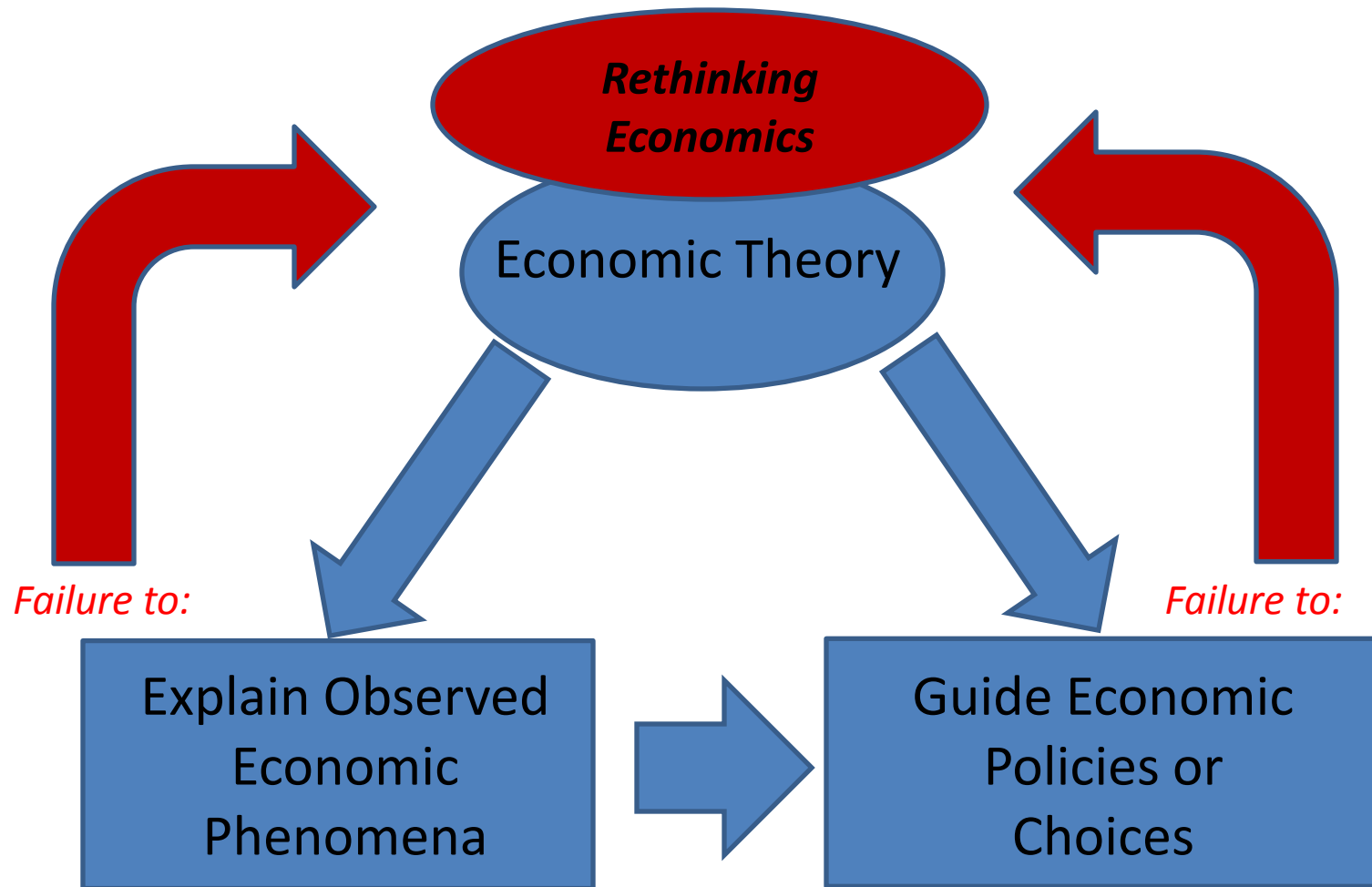
March 16, 2011

# *Overview of Presentation*

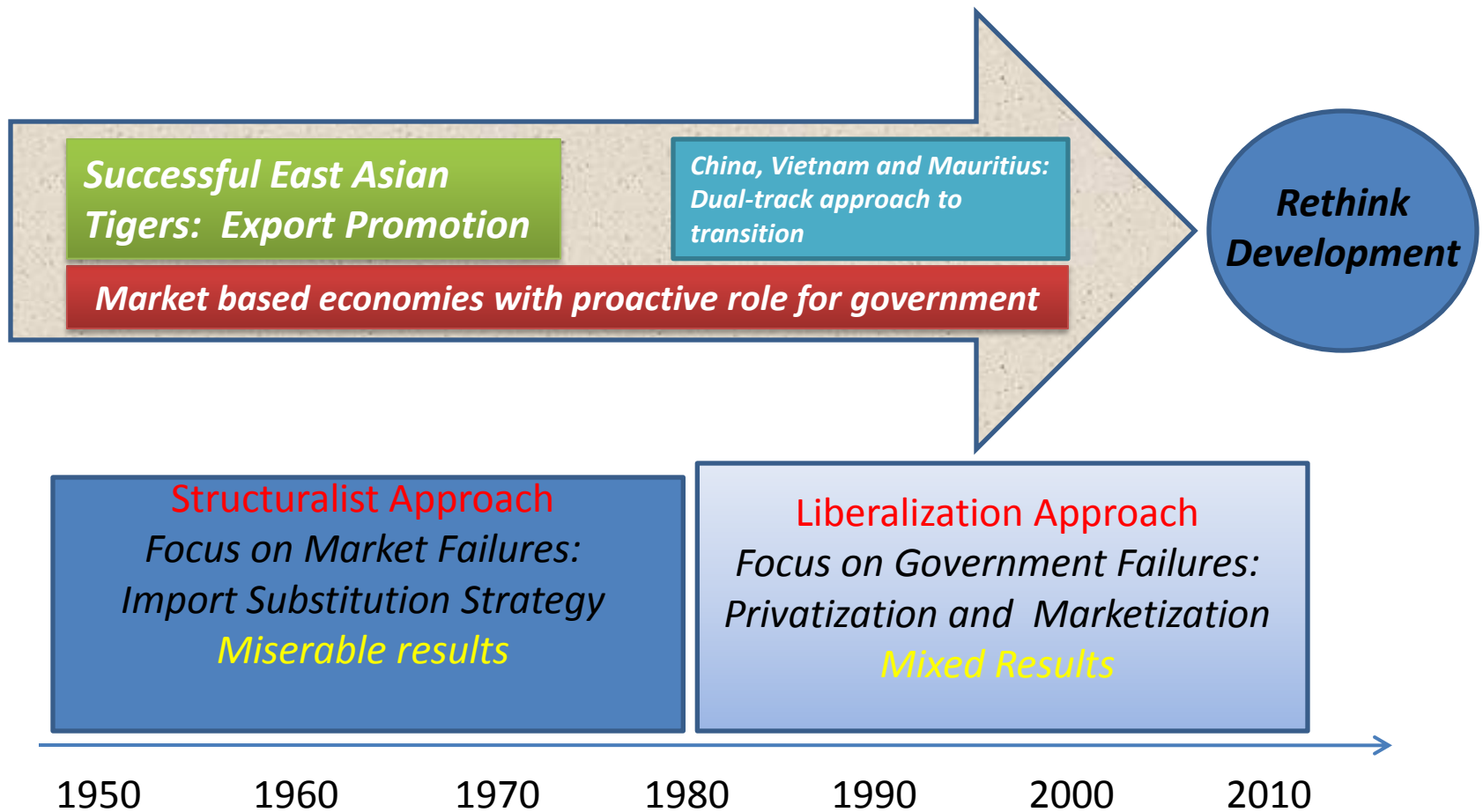
- Why do we need to rethink development
- The New Structural Economics
- Insights for South Africa's development
- Growth Identification and Facilitation: An application of new structural economics to industrial policy

# **WHY DO WE NEED TO RETHINK DEVELOPMENT**

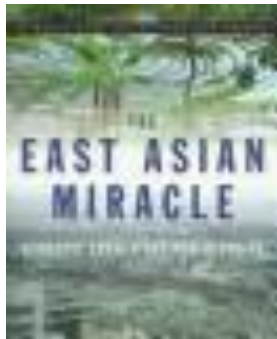
# *Economic Crisis and Crisis in Economics*



# How has economic development theory evolved?



# *World Bank has been in the process of rethinking economic development*



Export  
Orientation and  
Market Friendly  
Government



No one-size fits all



- (i) Openness;
- (ii) Macro stability;
- (iii) High rates of saving & investment;
- (iv) Market mechanism;
- (v) Committed, credible & capable government

# THE STRUCTURAL ECONOMICS

*Introducing...*

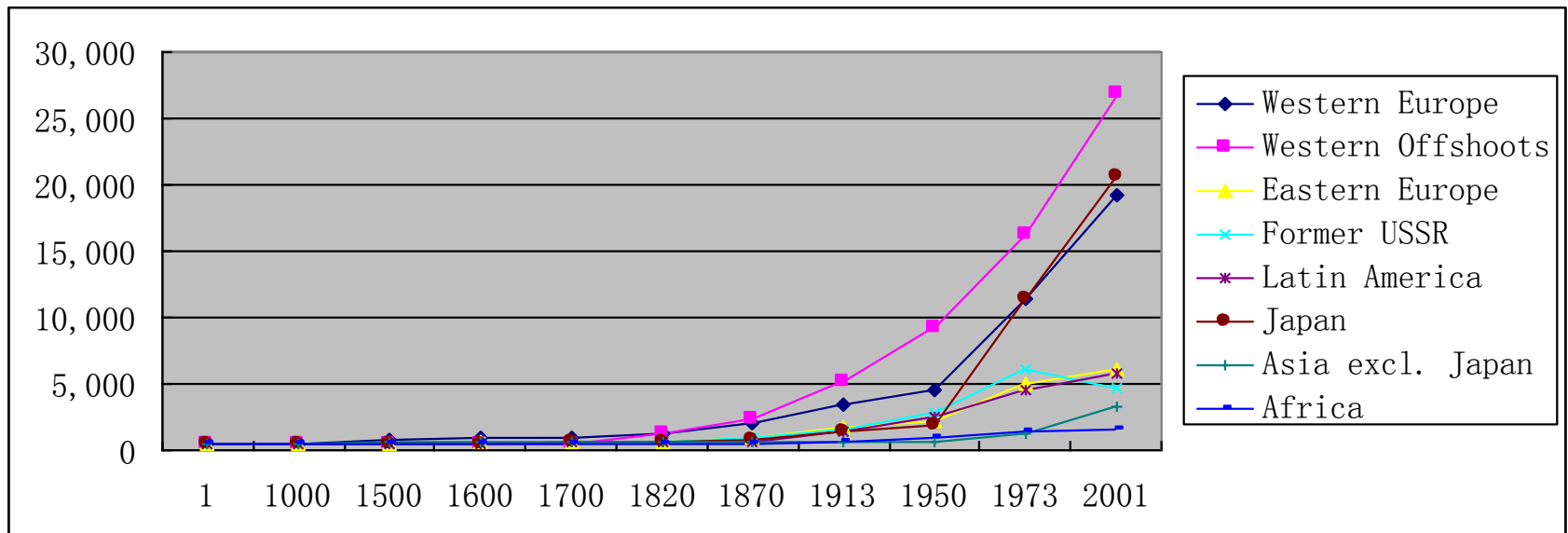
## New Structural Economics

- Application of neoclassical economic approach to understand the determinates of **economic structure and its evolution** in development
- Provides a consistent framework for the **five stylized facts** of *Growth Report* as well as the findings from the *East Asian Miracle* and *Lessons from the 1990s*
- Contributes to **new theoretical and policy insights** for economic development

# Introducing...

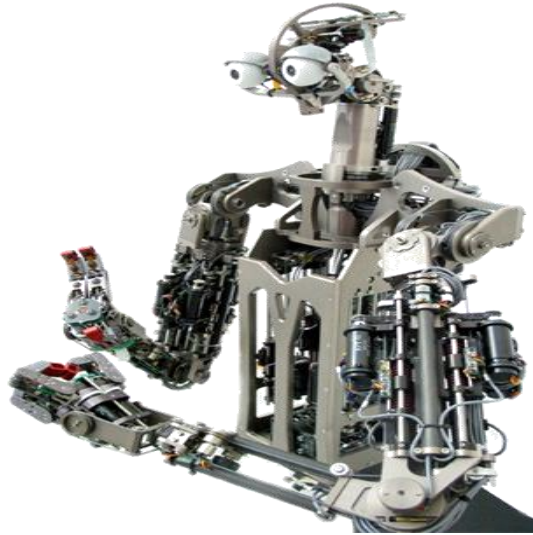
## New Structural Economics

- *Sustainable income growth is the foundation for poverty reduction and development*
- *Sustainable income growth is a recent phenomenon*



- *The fast and sustainable income growth in industrialized countries is a result of continuous technological innovation **as well as structural change***

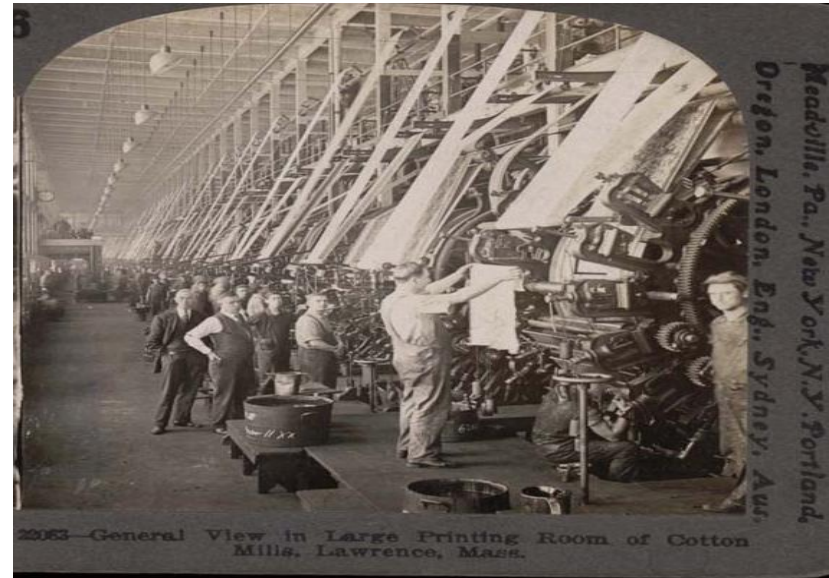
# USA, Now



# USA, 1600s



# USA, 1800s



**SPECIALTIES.**

The light, fine shoes manufactured by the  
**BOSTON MANUFACTURING COMPANY**

The finest class of goods manufactured by this Company has received  
the highest award, in shoes better than quality of "Boston" style.  
The assortment of their lightness, they are all packed in cartons.

**Men's LIGHT MANUFACTURING**  
Oxford Upper, Wood Sole

These shoes represent our class of work  
which is superior in every respect to  
any other shoe made. The sole is made  
of rubber, and is light.

**Men's LIGHT MANUFACTURING**  
Plain Upper, Rubber Sole

A beautiful and comfortable shoe  
which affords excellent protection of  
the foot. The sole is made of rubber,  
and is light.

Pringle

Manhattan





Manhattan

Manhattan

The shoes shown above are made of the finest  
lightest class of goods, and are made in  
Boston, Mass. The sole of these shoes are  
made of rubber.

For the Complete List of Styles of These and Men's and Women's Shoes, see page 11 and 12.

# *New Structural Economics (NSE): Key Concepts*

- The main hypothesis: Industrial structure is endogenous to endowment structure
- Initial 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 of endowments 
  - Upgrading industrial structure 
  - “hard” and “soft” infrastructure
- *Following comparative advantage determined by the endowment structure to develop industries is the best way to upgrade endowment structure and to sustain industrial upgrading, income growth and poverty reduction.*

# *New Structural Economics (NSE): Key Concepts (2)*

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

 *Need for competitive market system*

- Industrial upgrading needs to
  - Solve coordination problems
  - Address externalities

 *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 #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
- The NSE's recommendations are consistent with the *East Asian Miracle's* findings.

*“No one size fits all” then “What size fits what?”*

## *New theoretical insights from the NSE:*

- New structural economics emphasizes that countries at different levels of development have different optimal industrial structures, firm sizes, capital requirements and nature of risks, therefore, many institutions and policies should be different accordingly.
- For example, financial institutions:
  - For low-income countries, small, local financial institutions should be the core of financial structure as the industrial structure is dominated by small firms/operators in agriculture, manufacturing and services. The technology for production in general is mature.
  - Big banks and equity market will play increasingly important role as the economic development and firm size and risk increase.

# **INSIGHTS FOR SOUTH AFRICA'S DEVELOPMENT**

# New Structural Economics and New Growth Path

- The new structural economics recommends a country to develop its industries according to its comparative advantages
- President Jacob Zuma adopts a New Growth Path for South Africa for
  - Generating jobs
  - Achieving inclusive, dynamic growth
- Will the goals be achieved by the New Structural Economics' policy recommendation?

# Comparative advantages and inclusive growth in a labor abundant country

- For a labor abundant country, to develop industries according to its's comparative advantages is inclusive and pro-poor
1. It facilitates the development of labor-intensive industries when the economy is relatively labor abundant, upgrading the economy to more capital-intensive industries only when capital become more abundant.
  2. There will be more jobs for the poor and the wage rate will increase when the economy upgrades to more capital intensive industries.
  3. On the development process, capital turns from relatively scarce to relatively abundant and labor from relatively abundant to relative scarce. The returns to the poor's specific asset, labor, increase and the returns to the rich's asset, capital, declines .The result will be growth with equity as the case in East Asia.

# Economic Development in a resource-rich and labor-abundant economy

- How does South Africa, a resource-rich and labor abundant country, develop its economy?
- A resource-rich country should follow its comparative advantages in developing resource-intensive industries, including extraction, forestry, and agriculture
- Should South Africa also develop labor-intensive manufacturing industries? The answer is “YES, because
  - Most labor forces are in agriculture or unemployed, and are poor.
  - Labor intensive industries
    - Provide jobs
    - Can be competitive
    - Pave the basis for continuous upgrading to higher value-added industries
- Example: Finland’s Nokia started as a logging company, diversified to producing rubber boots, and later to assembly of household electronics for Holland’s Phillips, and finally becomes world leader in mobile phone.

# Resources: A blessing or a curse?

- If the wealth from natural resources is used to invest in human capital and infrastructure, and the government play a facilitating role in the industrial upgrading, such as the case in Scandinavian countries, the resource is a blessing. The country's development performance will be better than a labor-abundant and resource-poor economy,
- If the wealth from natural resources is captured by powerful groups, such as the case in Nigeria, the resources will be a curse. The country's development performance will be poorer than a labor-abundant and resource-poor economy

**THE INDUSTRIAL POLICY  
&  
GROWTH IDENTIFICATION AND  
FACILITATION**

# The role of Industrial Policy

- Industrial policy is a useful instrument for the state to play the facilitating role
  - Contents of coordination will be different, depending on industries.
  - The government's resources and capacity are limited. The government needs to use them strategically.

# Failures of Industrial Policy

- Most governments in the developing world used industrial policies but failed.
- The reason was:
  - Attempt to develop industries that were too far advanced compared to their development and went against their comparative advantages
  - The firms in the industrial policy's targeted sectors were non-viable in competitive markets and required government policy supports for their initial investment and continuous operations.
  - The supports were implemented through price distortions. As a result, planning and administrative allocations were required.
  - This led to rent-seeking, corruption, and political capture.
- Aim before fire: From the new structural economics, for an industrial policy to be successful, it should target sectors that conform to the economy's latent comparative advantage. But how to do it?

# What Can Be Learned From History

- Historical experiences show that successful countries' industrial policies, in general, targeted dynamic industries in successful countries with a similar endowment structure and somewhat higher per capita income:
  - Britain targeted the Netherlands' industries in the 16<sup>th</sup> and 17<sup>th</sup> century, its per capita GDP was about 70 % of Netherlands'.
  - Germany, France, and USA targeted Britain's industries in the late 19<sup>th</sup> century, their per capita income were about 60 to 75 % of Britain's per capita GDP
  - In Meiji restoration, Japan targeted Prussia's industries, its per capita GDP was about 40% of Prussia's. In the 1960s, Japan targeted USA's industries, its per capita GDP was about 40% of USA's per capita GDP
  - In the 1960s-1980s, Korea, Taiwan, Hong Kong, and Singapore targeted Japan's industries, their per capita income was about 30% of Japan's per capita GDP
  - In the 1980s, Ireland targeted information industries, its per capita income was about 45% of the USA's.
- Unsuccessful industrial policies in general target industries in countries where their per capita GDPs were less than 20 per cent of those targeted countries.
- A new approach for industrial policy: Growth identification and facilitation

# *Growth Identification and Facilitation*

## *Step 1:*

Find fast *growing countries* with a similar endowment structure and with about 100% higher per capita income. *Identify dynamically growing tradable industries* that have grown well in those countries for the last 20 years.

## *Step 2:*

See if some *private domestic firms* are already in those industries (of which may be 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 the successful private innovations in new industries

# *Growth Identification and Facilitation*

## Step 5

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

## *Step 6:*

The government may compensate pioneer firms in the listed identified above with

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

**THANK YOU**