



# Refresher on Sources of Growth & Development Strategies

**Financial Programming and Policies**  
**Yangon, Myanmar**  
**February 16–27, 2015**

**Jan Gottschalk**  
**TAOLAM**

IMF-TAOLAM training activities are supported by funding of the Government of Japan

# Outline

---

## I. Sources of Growth

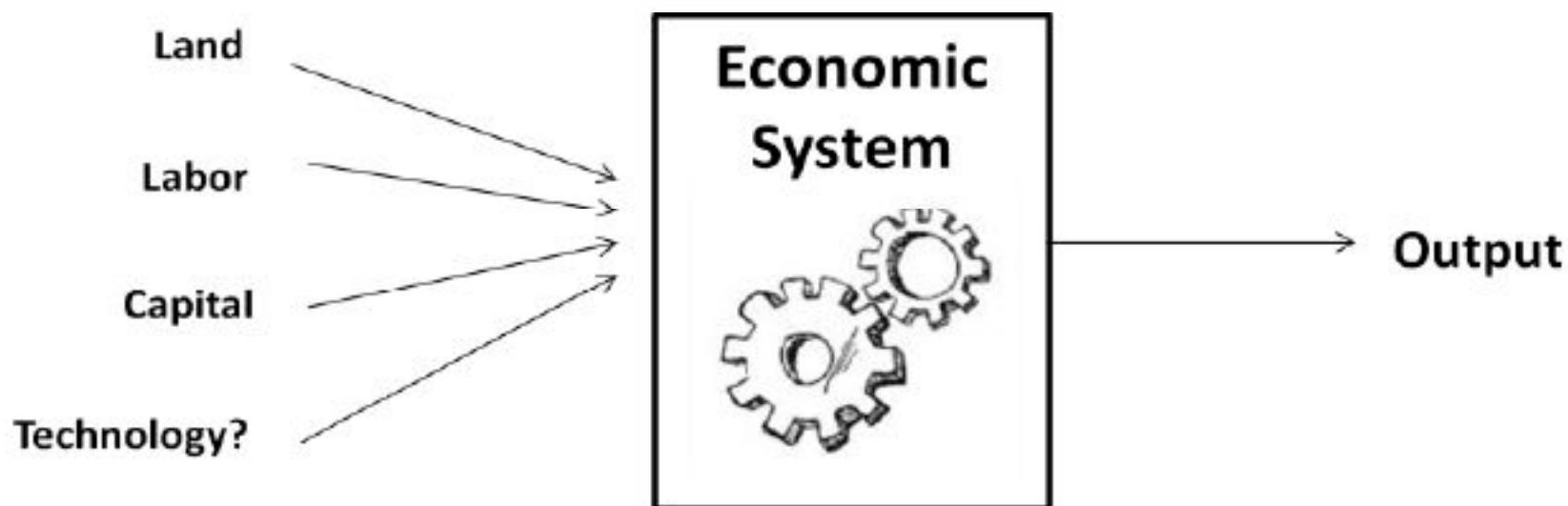
## II. ADB Growth Scenarios

# I Sources of Growth

**A simple metaphor for thinking about growth:**

Economy as a  
machine:

Transforming inputs such as labor  
and capital into outputs such as  
goods and services.



# Sources of Growth

‘Economy as machine’ metaphor suggests ...

... for more growth we either need:

- more inputs (capital equipment, labor, land), or
- make more efficient use of existing inputs through innovation or adoption of best practices and existing technologies (especially in emerging and developing countries)



# Sources of Growth

---

## Growth accounting—quantifying growth factors

Growth accounting is based on production function that typically includes the following growth factors:

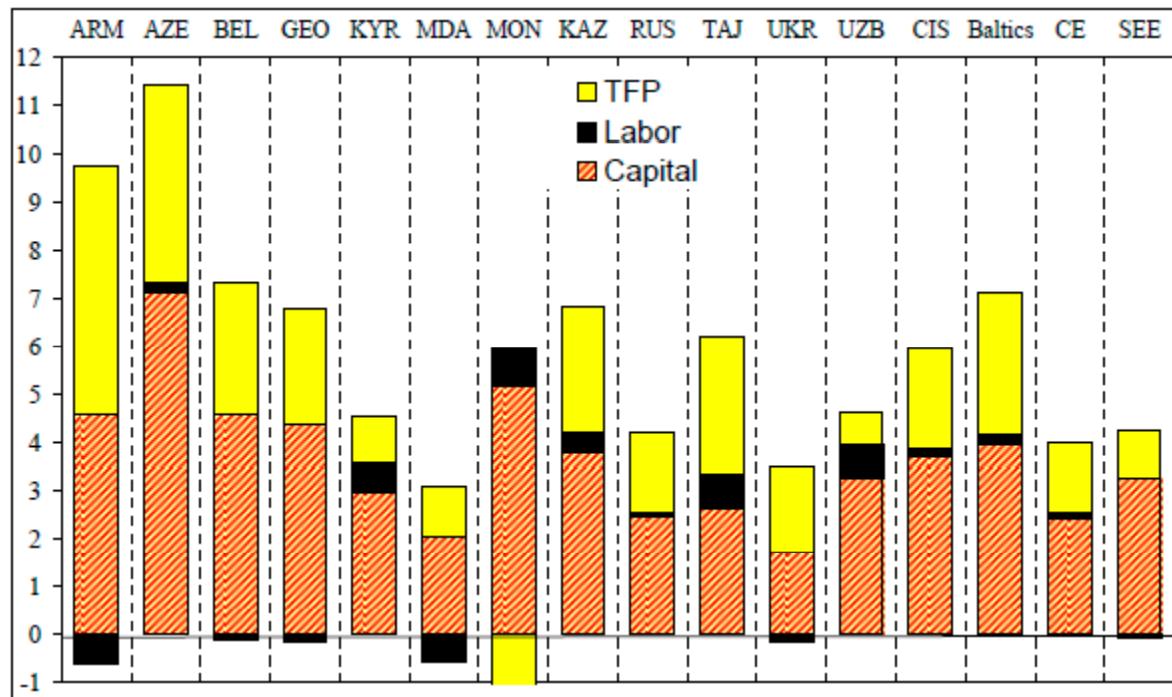
- Growth rate of capital, which is closely linked to a nation's investment rate
- Growth rate of 'Raw' labor, i.e., growth in labor force measured in the *number* of available workers
- Growth of human capital, i.e., growth in the *quality* of individual workers, often linked to schooling
- Technical progress, i.e., increase in efficiency of using above input factors, often called growth rate of *total factor productivity (TFP)*

# Sources of Growth

## Growth accounting—transition economies

- Capital deepening was on average the single most important growth driver
- Closely followed by TFP growth

Figure 4. Sources of Growth in Transition Economies, 1996–2006  
(In percentage points of GDP)



Sources: Authors' own calculations based on the IMF World Economic Outlook database.  
Baltics (Estonia, Latvia, and Lithuania).  
CE: Central Europe (Czech Republic, Hungary, Poland, Slovak Republic, and Slovenia).  
SEE: Southeast Europe (Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Macedonia, and Romania).

# Sources of Growth

## Growth Experience in Asia

- Capital deepening was especially important in Asia, resulting from very high investment (and savings) ratios
- Human capital accumulation was another key factor in East Asia during 1966-90

Table 1-2: Educational Attainment of the Working Population (%)

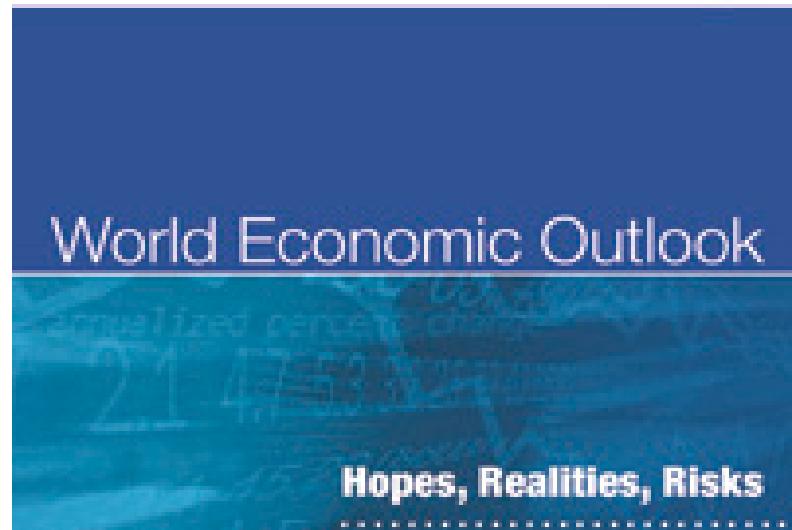
	Hong Kong		Singapore		South Korea		Taiwan	
	1966	1991	1966	1990	1966	1990	1966	1990
None	19.2	5.6	55.1	↓	31.1	6.4	17.0	4.5
Primary	53.6	22.9	28.2	33.7	42.4	18.5	57.2	28.0
Secondary+	27.2	71.4	15.8	66.3	26.5	75.0	25.8	67.6

Notes: Self taught are included under primary. Hong Kong, Korean and Taiwanese data refer to highest level of education "attended" rather than completed. All percentages calculated net of those reported as "unknown".

# Sources of Growth

## Recent IMF Research Results on Growth Factors

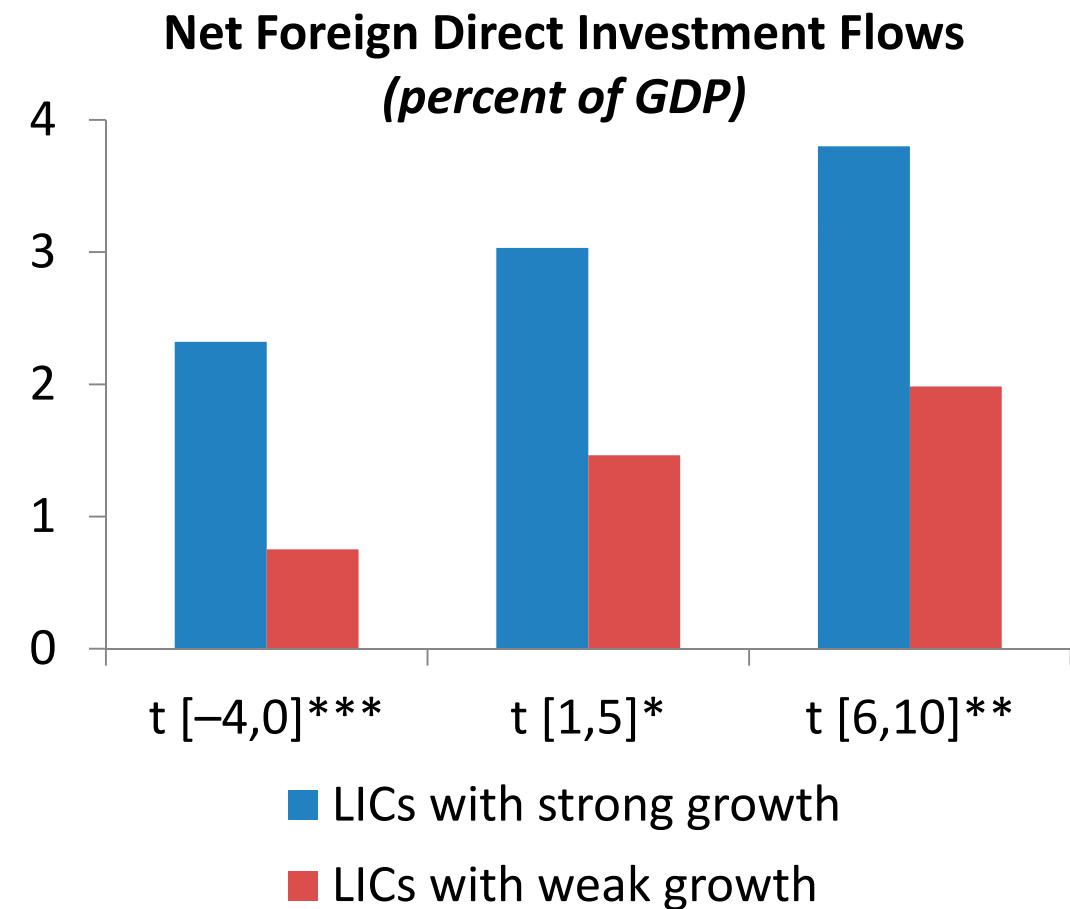
World Economic and Financial Surveys



# Sources of Growth

## FDI is associated with higher growth:

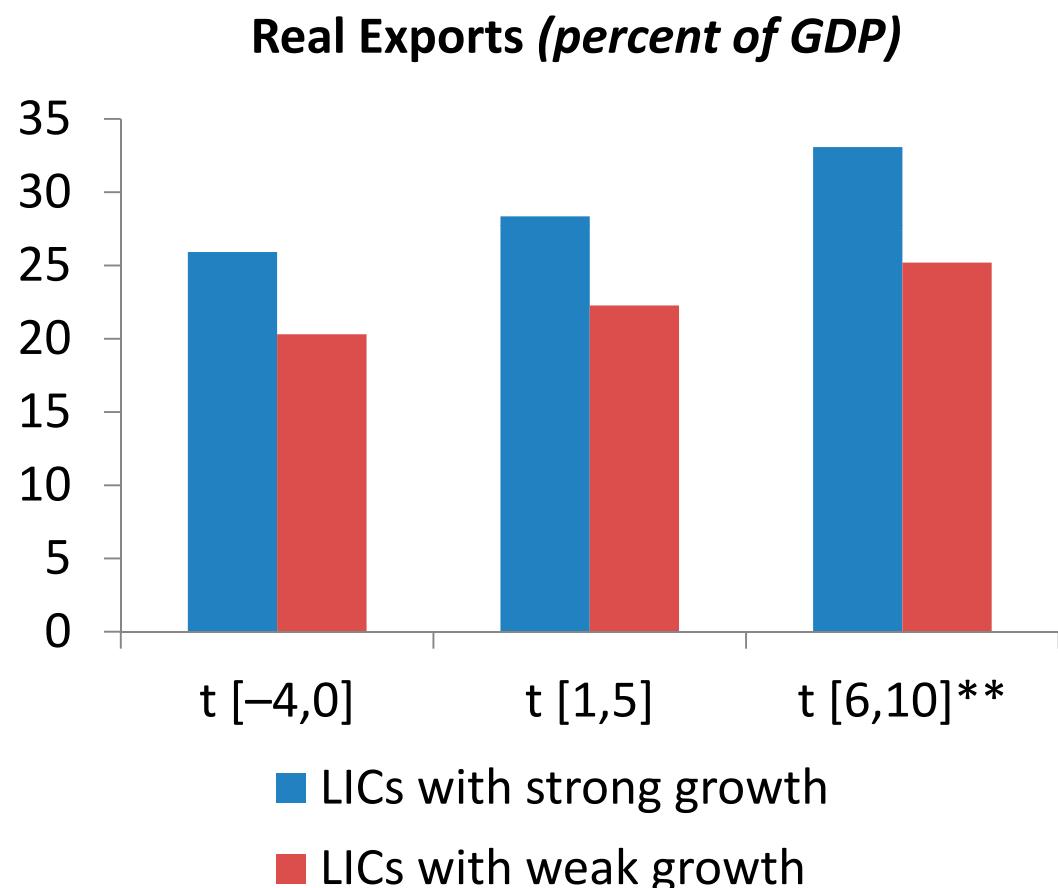
- FDI affects growth through capital deepening, similar to general investment
- More important is probably that FDI helps to adopt best practices and new technology, boosting TFP growth
- Last channel is likely to be especially effective for manufacturing-related FDI



# Sources of Growth

## Growth takeoffs are associated with openness:

- Similar to FDI, trade linkages help to import new technology and adopt best practices
  - Trade linkages also allow a greater degree of specialization, which also helps with efficiency and innovation
- both of these factors help boost TFP growth

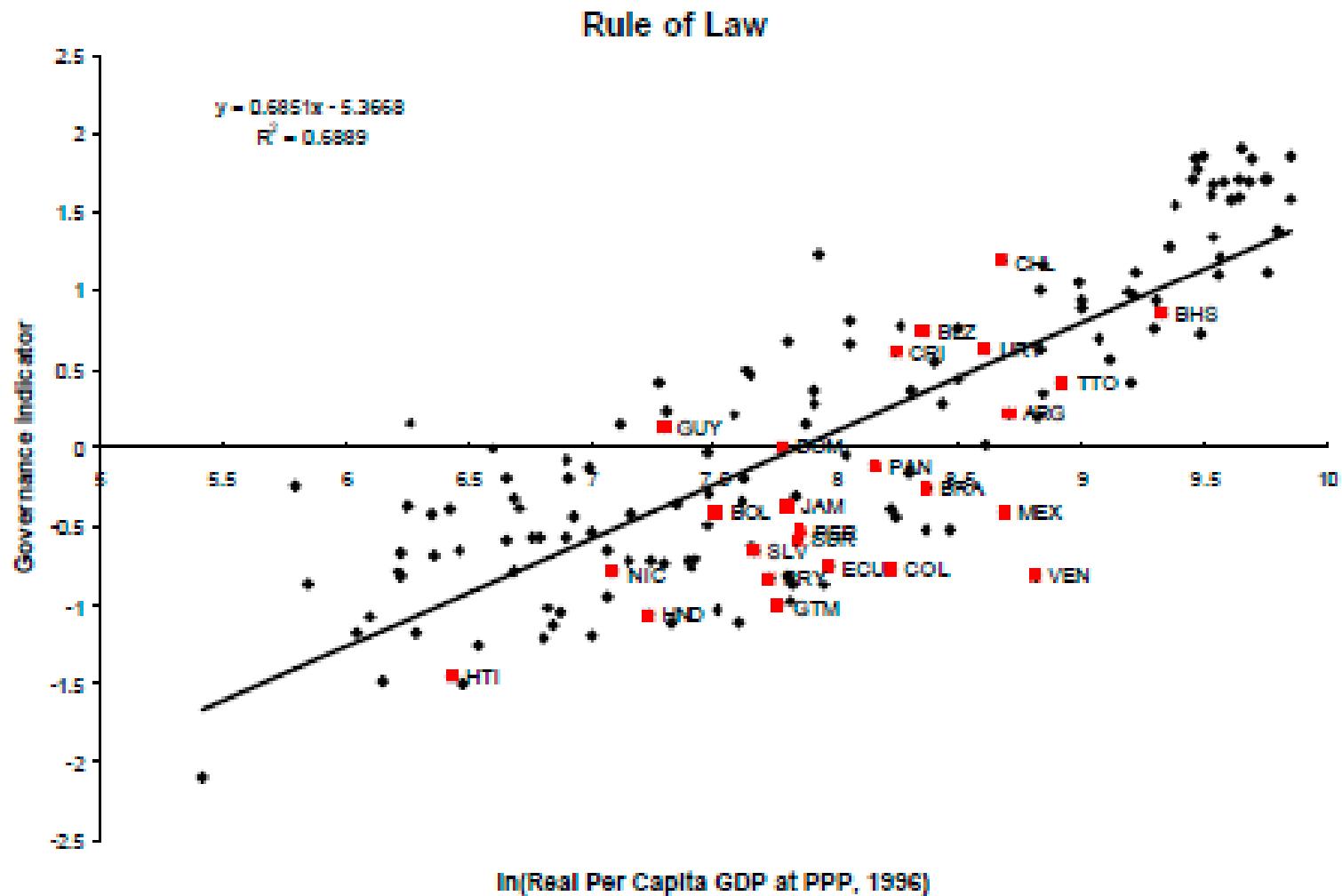


# Sources of Growth

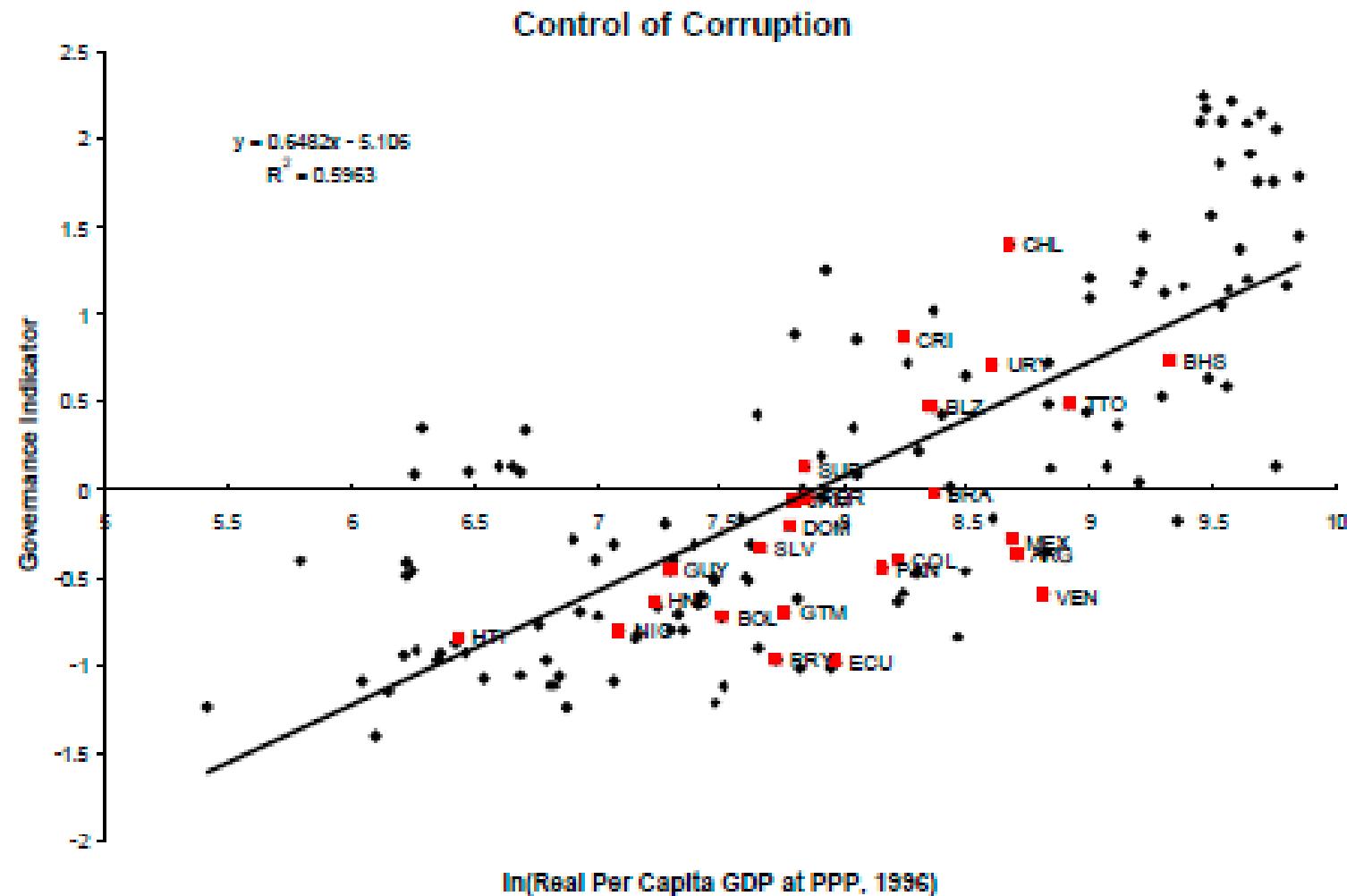
**Quality of institutions and governance is another important growth factor**



# Sources of Growth



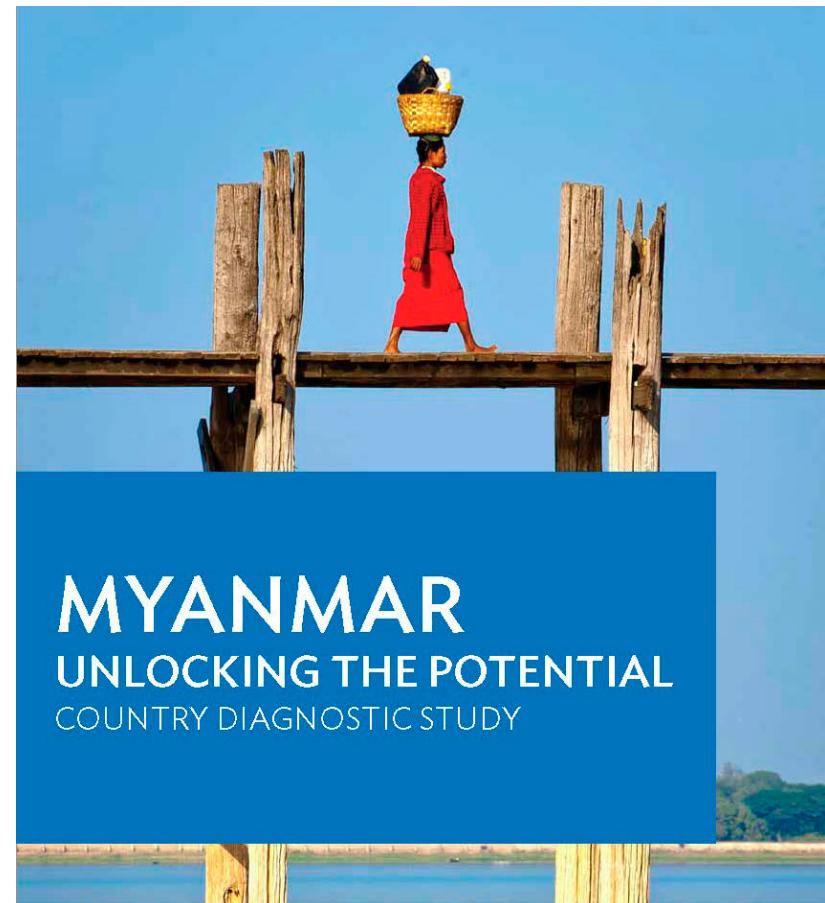
# Sources of Growth



# Sources of Growth

What does this imply for  
Myanmar?

Let's take a look at the  
ADB growth scenarios ...



ASIAN DEVELOPMENT BANK



# Outline

---

I. Sources of Growth

II. ADB Growth Scenarios

# ADB Growth Scenarios

---

## Drivers of growth in ADB scenarios:

Study distinguishes between 'core growth' scenarios and those simulating policies that support growth.

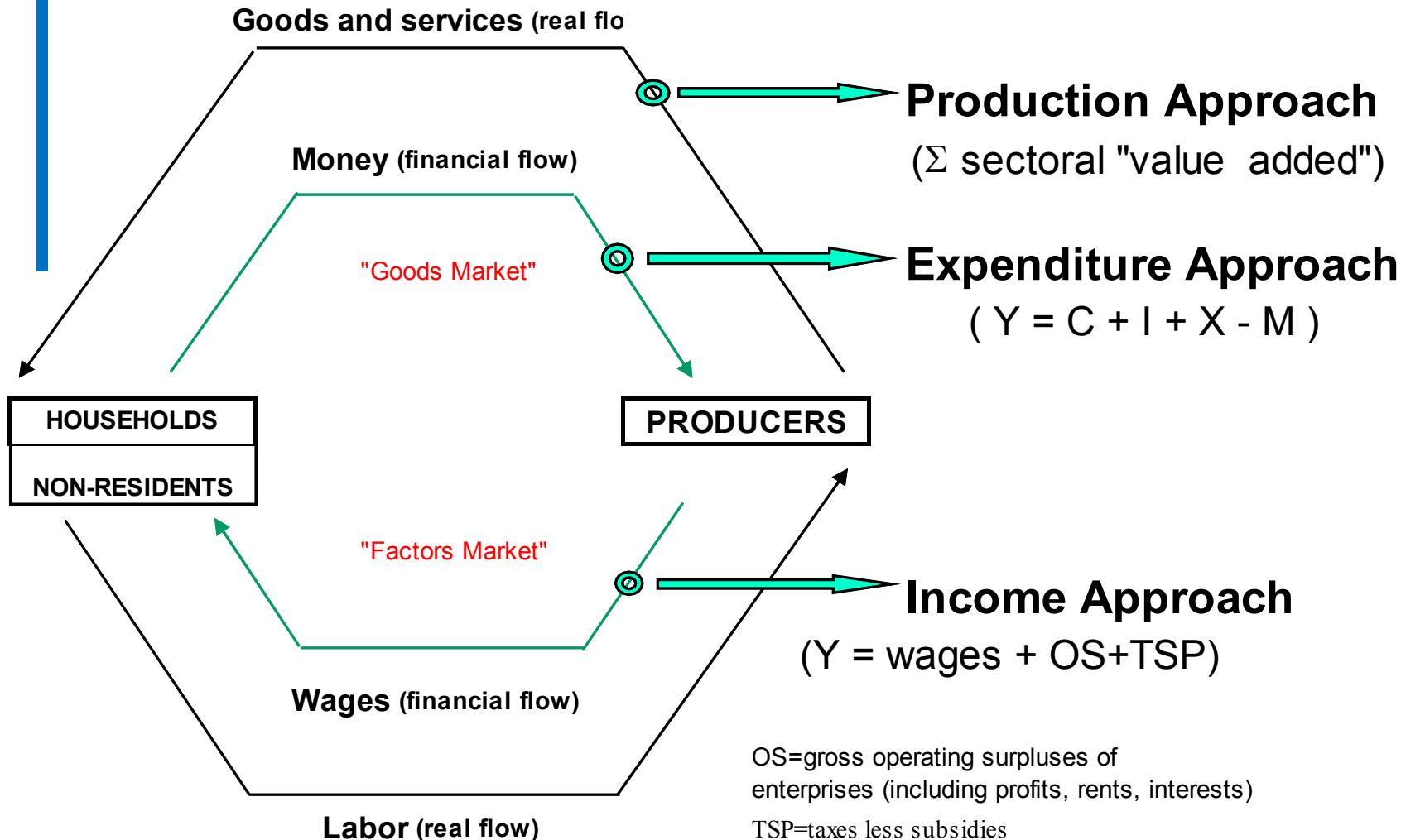
Beginning with 'core growth' scenarios, growth is driven by different sectors, especially:

- Agriculture (scenarios 2-4)
- Industry (scenarios 5-7), distinguishing between resource sectors and manufacturing
- Services (scenarios 8-9)

These sectors should look familiar: they represent the production approach to measuring GDP.

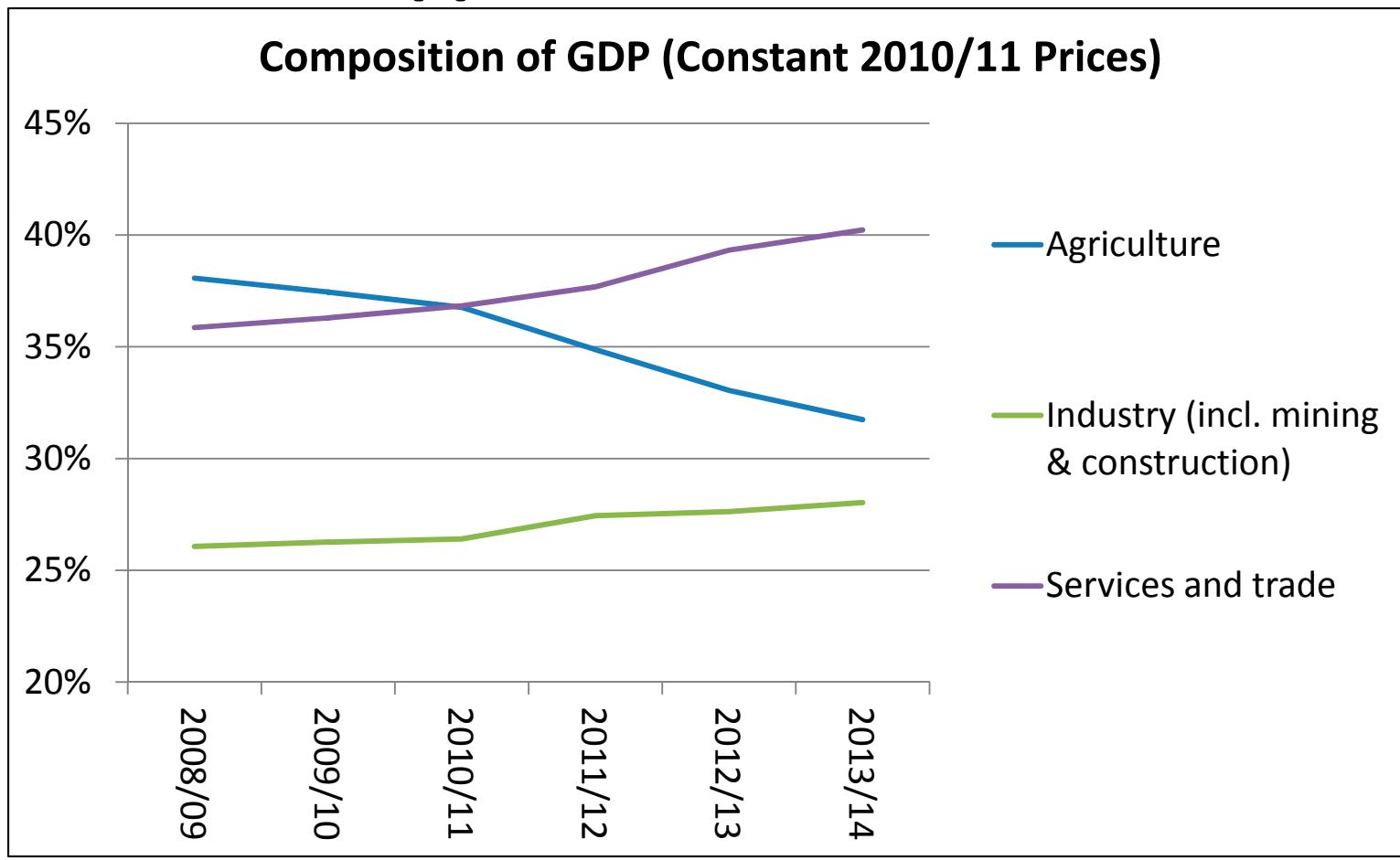
# Excursion: Measuring and Analyzing GDP

## Estimate of GDP



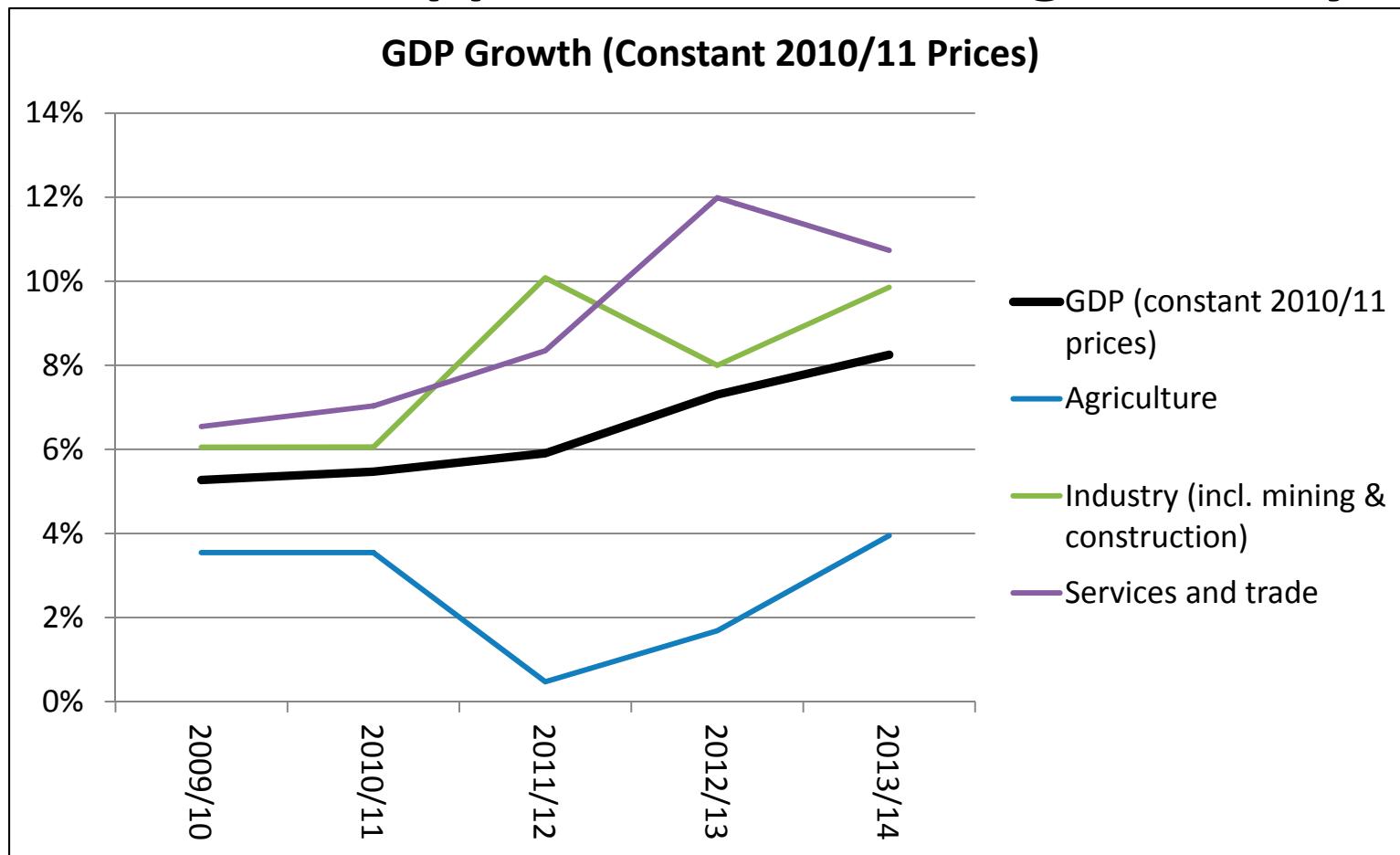
# Excursion: Measuring and Analyzing GDP

## Production approach: GDP Shares



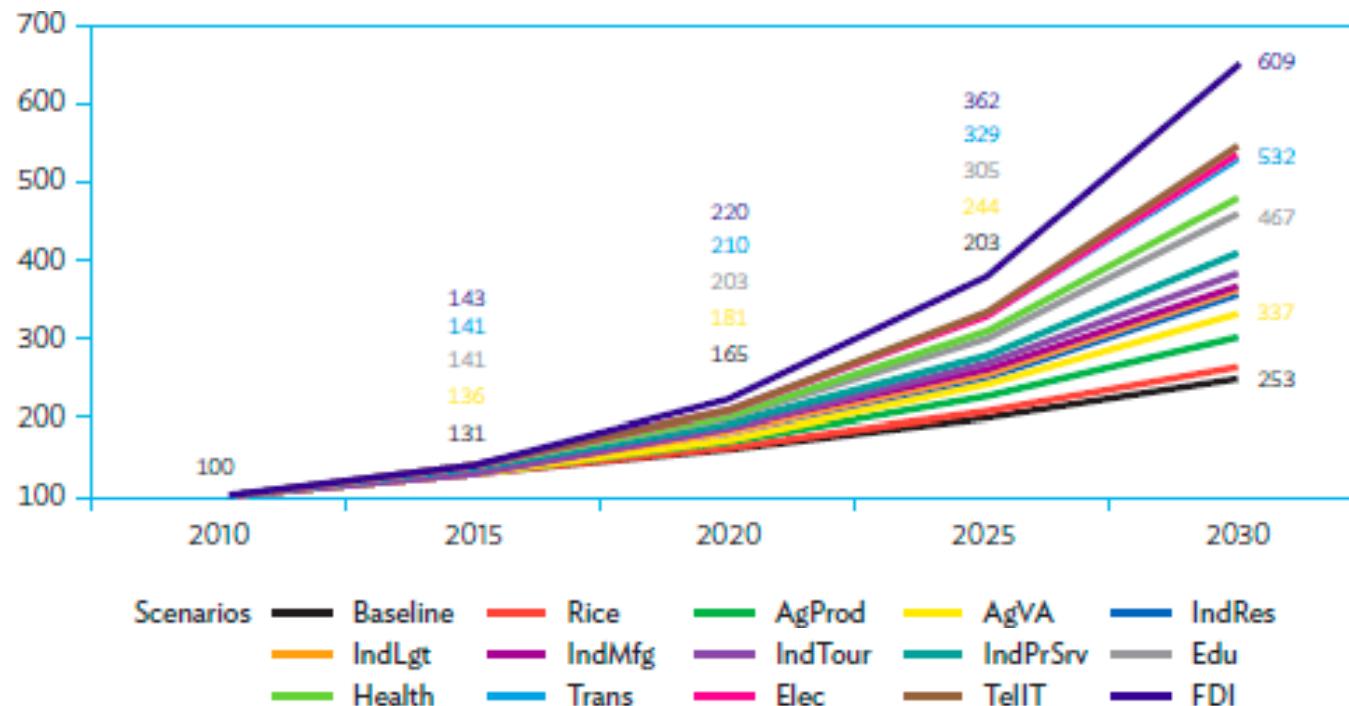
# Excursion: Measuring and Analyzing GDP

## Production approach: real GDP growth by sector



# ADB Growth Scenarios

Figure 1.1: Growth Trajectory of Real Gross Domestic Product to 2030 by Scenario  
(indexed to 2010 = 100)

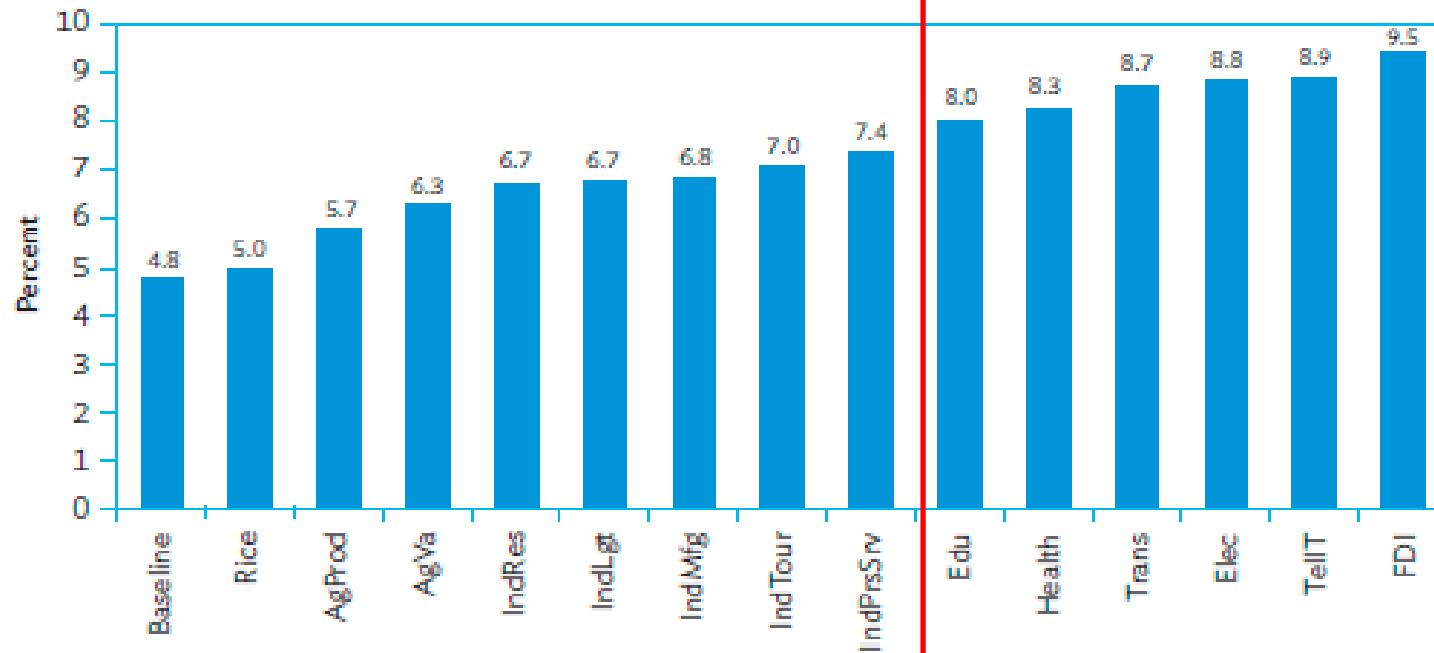


AgProd = agricultural diversification, AgVA = value-added growth, Edu = education, Elec = energy, FDI = foreign direct investment, IndLgt = light industries, IndMfg = manufacturing, IndPrSrv = private services, IndRes = resource-based, IndTour = tourism, TelIT = telecom/information technology, Trans = transportation.

Source: Roland-Holst and Park (2014).

# ADB Growth Scenarios

Figure 1.2: Average Annual Gross Domestic Product Growth Rates for Each Scenario, 2010–2030



AgProd = agricultural diversification, AgVa = value-added growth, Edu = education, Elec = energy, FDI = foreign direct investment, IndLgt = light industries, IndMfg = manufacturing, IndPrSrv = private services, IndRes = resource-based, IndTour = tourism, TelIT = telecom/information technology, Trans = transportation.

Source: Roland Holst and Park (2014).

# ADB Growth Scenarios

---

## A few observations:

- Range of long-term growth rates is approximately between 5% and 9.5%
- Baseline growth based on historical experience is only 5% (which is still substantial)
- Growth strategies based on agricultural sector have limited growth impact
  - ✓ On the one hand, this should not be surprising because the relative importance of this sector has been declining over recent years
  - ✓ On the other, many people depend on agriculture, so this sector matters for lowering poverty
- Growth strategies targeting industry and services have broadly similar impact

# ADB Growth Scenarios

## What drives growth in these scenarios?

### Industry

In each of the following three scenarios, TFP growth for sector groups is comparable to other lower-income Greater Mekong Subregion economies

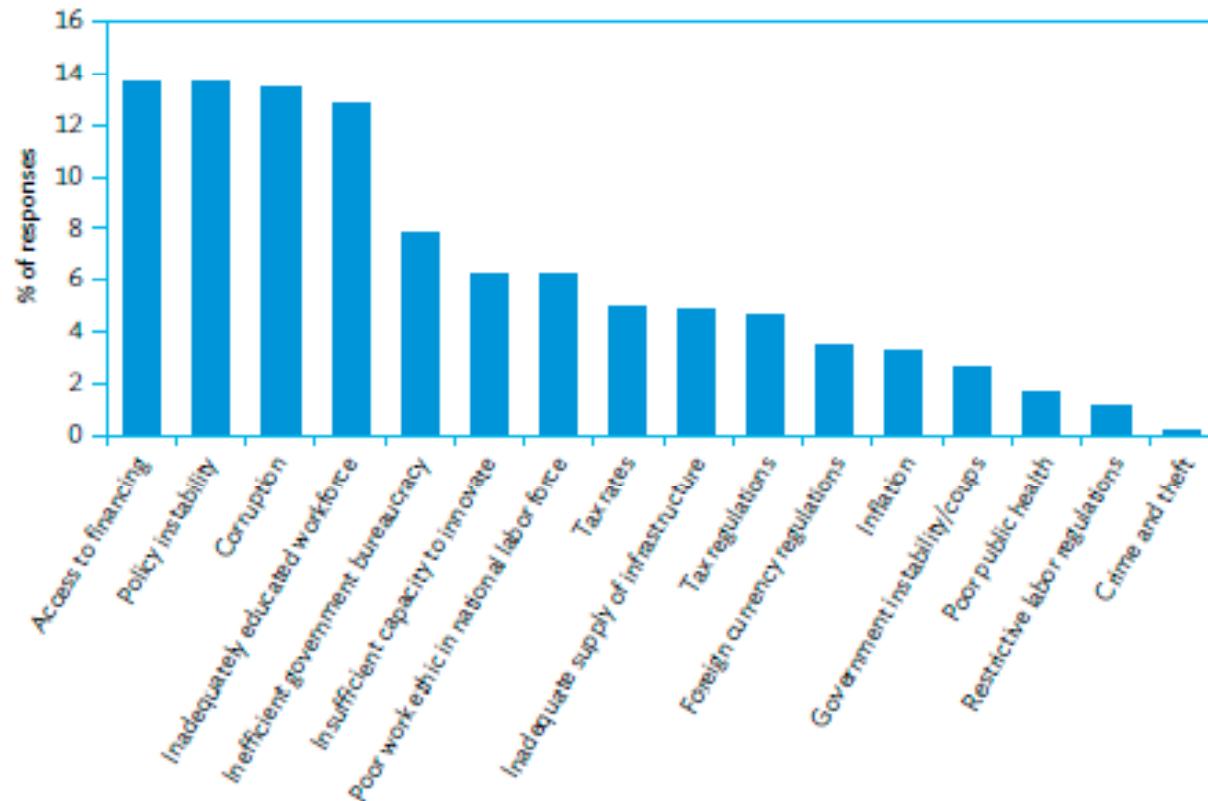
TFP growth is driving growth, i.e., making more efficient use of inputs! Investment and labor inputs (amounts of inputs) will adjust in these scenarios as well, but driving force is efficiency gains.

This has a number of implications for growth strategy:

- Growth can't be raised just by increasing investment
- Private sector typically is the source for efficiency gains, so growth strategy would need to be based on private sector development
- What are constraints for private sector economic development? World Bank's Doing Business Survey is a good source

# ADB Growth Scenarios

Figure 2.1: The Most Problematic Factors for Doing Business in Myanmar



Note: From the list of factors, respondents were asked to select the five most problematic for doing business in their country and to rank them from 1 (most problematic) to 5. The bars in the chart show the responses weighted according to their rankings.  
Source: World Economic Forum (2013).

Governance matters indeed for growth in Myanmar!

# ADB Growth Scenarios

---

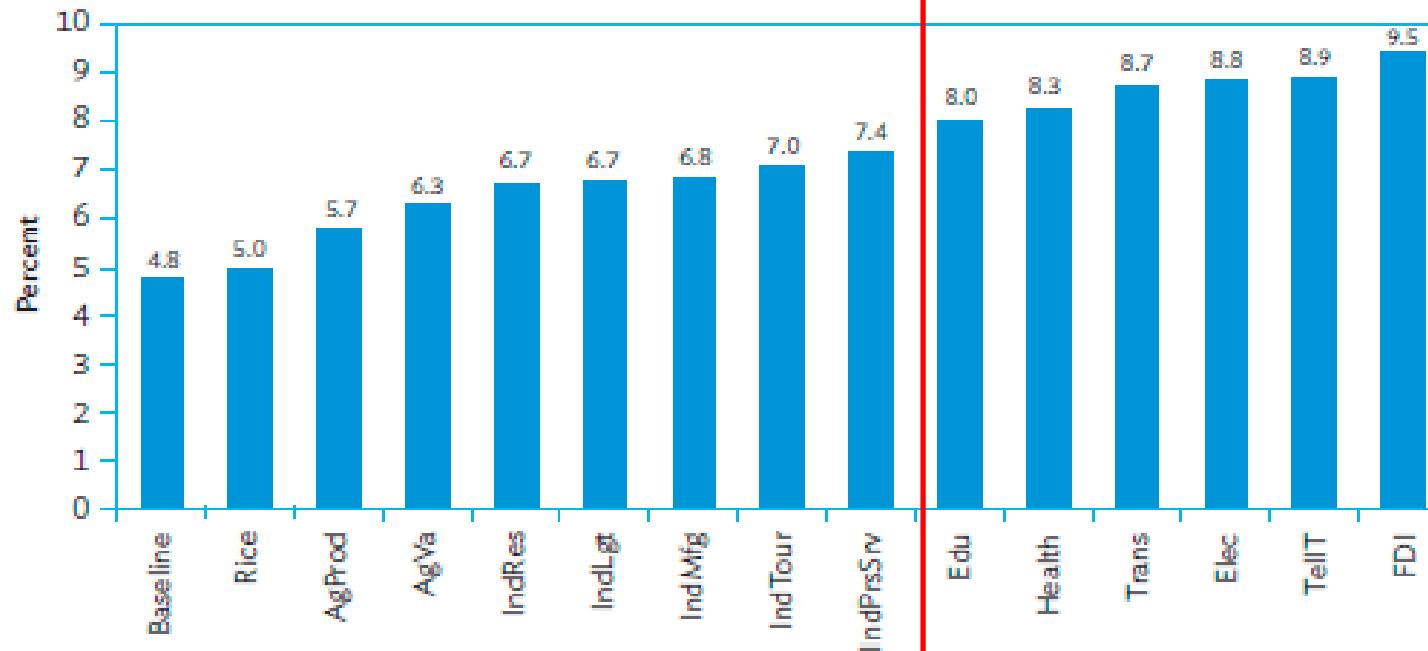
## Supporting policies in ADB scenarios:

Scenarios distinguish between two types of supporting policies:

- Human capital development through education and health policies (scenarios 10-11)
  - ✓ Remember that building up human capital played a large role for the economic success of the original Asian 'Tigers'
  - ✓ Note that 'inadequately educated workforce' is a key constraint for private businesses in Myanmar
- Infrastructure development (scenarios 12-15), through
  - ✓ Investing in transportation and electricity generation, which lowers costs of doing business in Myanmar,
  - ✓ Investing in telecommunication, which raises productivity (TFP growth, i.e., it helps the economy to make more efficient use of its resources), and
  - ✓ FDI, which increases the available resources and simultaneously raises productivity

# ADB Growth Scenarios

Figure 1.2: Average Annual Gross Domestic Product Growth Rates for Each Scenario, 2010–2030



AgProd = agricultural diversification, AgVa = value-added growth, Edu = education, Elec = energy, FDI = foreign direct investment, IndLgt = light industries, IndMfg = manufacturing, IndPrSrv = private services, IndRes = resource-based, IndTour = tourism, TelIT = telecom/information technology, Trans = transportation.

Source: Roland Holst and Park (2014).

## Your Task

---

**In the following workshop session, you could consider the following questions:**

- What is a feasible real GDP growth rate?
- Which sectors are going to drive growth (agriculture, industry, services)?
- What will be the drivers of growth?  
What growth strategies will you pursue?
- What will be the role of FDI?
- What will be the role of the public sector in general and fiscal spending in particular?

