Macroeconomic Objectives: Economic Growth

2.3

Learning Objectives:

- Define economic growth as an increase in real GDP.
- Calculate the rate of economic growth from a set of data.

Illustrating econ growth

- Describe, using a production possibilities curve (PPC) diagram, economic growth as an increase in actual output caused by factors including a reduction in unemployment and increases in productive efficiency, leading to a movement of a point inside the PPC to a point closer to the PPC.
- Describe, using a PPC diagram, economic growth as an increase in production possibilities caused by factors including increases in the quantity and quality of resources, leading to outward PPC shifts.
- Describe, using an LRAS diagram, economic growth as an increase in potential output caused by factors including increases in the quantity and quality of resources, leading to a rightward shift of the LRAS curve.

Continued...

Causes of econ growth:

- Explain the importance of investment for economic growth, referring to investment in physical capital, human capital and natural capital.

- Explain the importance of improved productivity for economic growth.

Consequences of economic growth:

- Discuss the possible consequences of economic growth, including the possible impacts on living standards, unemployment, inflation,
  the distribution of income,
  the current account of the balance of payments, and
  sustainability.

Links to ToK

- Is economic growth always beneficial? What could be meant by the word “beneficial”?
- Is there always a cost to economic growth?

Economic Growth

- The third Macroeconomic objective
- Increase in the output of goods and services over a period of time
- Increase in the per capita income of the nation
- Growth in total output:
  - Measures the change in the total output of a nation in two periods of time
  - Per capita economic growth:
    - It measures the changes in the nation’s output and the population
    - it’s a better indictor as to ho and average person is doing

The Formula

- To measure the economic growth, we calculate the % change in the two given period of time.
- Econ Growth Rate=(GDP year 2 – GDP year 1)/ GDP year 1

Actual vs. Potential Output

- Actual Growth:
- If an economy is producing at its level below Yfe and GDP increases, then economy's actual output is increasing.
- This happen during the recovery period of the BC
- Potential Growth:
- If and economy is producing at Yfe and the GDP increases, this results in an increase the economy's potential output. (Long-run economic growth)

Calculating the Economic Growth Rate

HL ONLY

Example

- Consider the data for Switzerland's GDP in the table below.
- Calculate the econ growth rate of Switzerland

	2008	2009	2010
GDP (billions of $)	474	465	499
GDP Growth Rate	-		

Notice:

- Between 2008 and 2009, Switzerland's GDP declined, giving the country a *negative growth rate*.
- If Economic growth is negative, the country is in a recession, as was Switzerland in 2009.
- Between 2009 and 2010, Switzerland's growth rate is much higher, at 7.3%.
- During this year, Switzerland was in the *recovery phase* of its business cycle, since it was just coming out of a recession.
- Since the 7.3% increase in 2010 is greater than the 1.9% decrease in 2009, we can assume that both Switzerland's *actual output* and its *potential output* grew in 2010.

Apply Your Knowledge

- With your NEW partner, answer the following question.
- Define economic growth as an increase in real GDP.

Sources/Causes of Economic Growth

- Growth increases household income and contributes to the standard of living of the average citizen in a country.
- For these reasons, it is considered an important macroeconomic objective.
- But what are the sources of economic growth?
  - **Physical Capital and Technology**
  - **Human Capital and Productivity**

Physical Capital and Technology

- A nation's stock of physical capital is the quantity and quality of technology and infrastructure in a nation
- Physical capital includes computer and communication technologies, high speed internet access, efficient transportation networks, sanitation infrastructure and so on.
- Physical capital is only accumulated through **INVESTMENT**, either by the private sector or by the government.
- The <u>private sector</u> tends to provide ample investment in technologies that can easily be marketed and sold for a profit,
- while <u>the public sector</u> is needed to provide the public and merit goods that are necessary to make an economy grow
- those things that would be under-provided by the free market, such as roads, ports, rail lines, communications infrastructure and so on.

Human Capital and Productivity

- Human capital refers to the quality of the labor force in a nation.
- Human capital can be improved through education and training of the nation's workforce, which may be undertaken by either the private sector or the government, or as is often the case, by both.

- The quality of the education provided by a nation's school system determines the quality of the human capital produced, and therefore the productivity of workers.
- Greater skills among workers, and access to technology, increases the output per worker, and therefore the average income of households in a nation.

Test Your Knowledge

- With your partner, answer the following questions
- Post on edmodo
- Explain the importance of investment for economic growth, referring to investment in physical capital, human capital and natural capital.
- Explain the importance of improved productivity for economic growth.

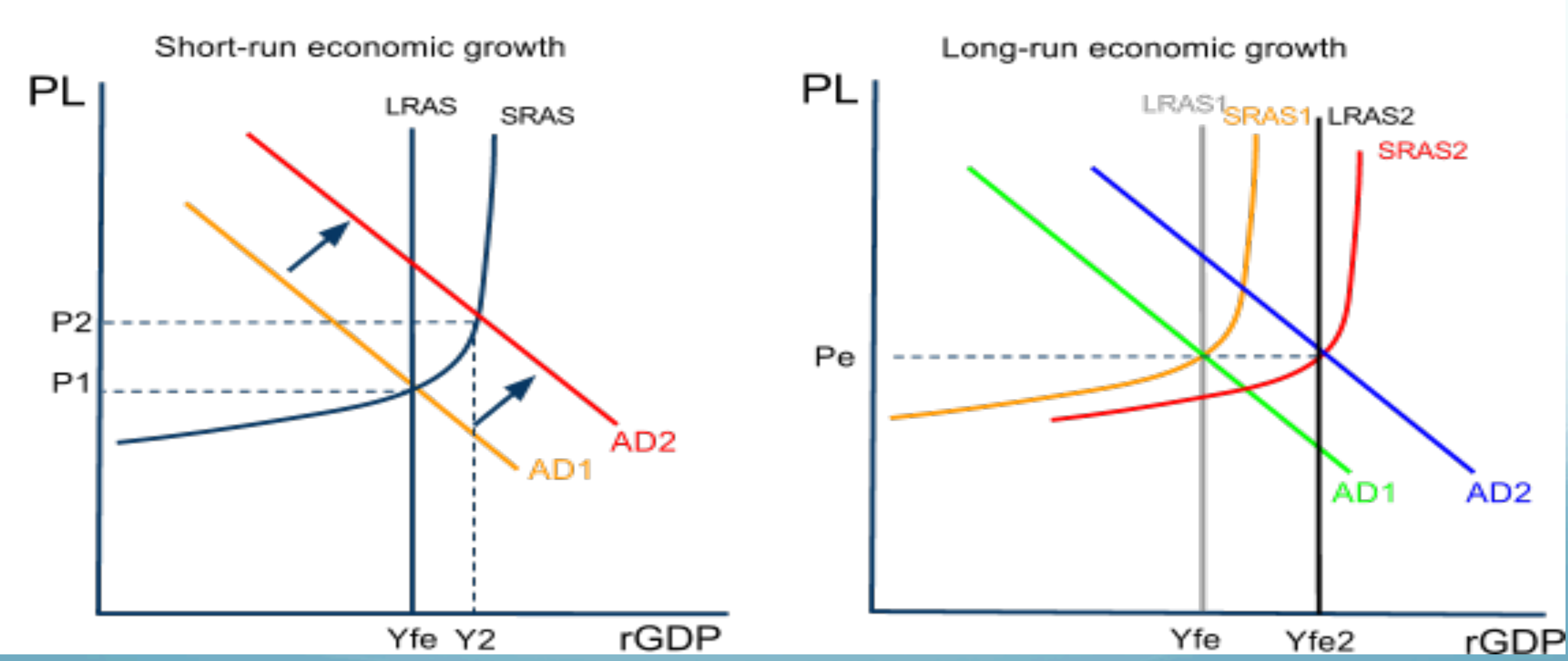
Illustrating Economic Growth

The Three Models

- Economic growth can be illustrated using three models we have learned already:
- the PPC
- the business cycle
- the AD/AS model.

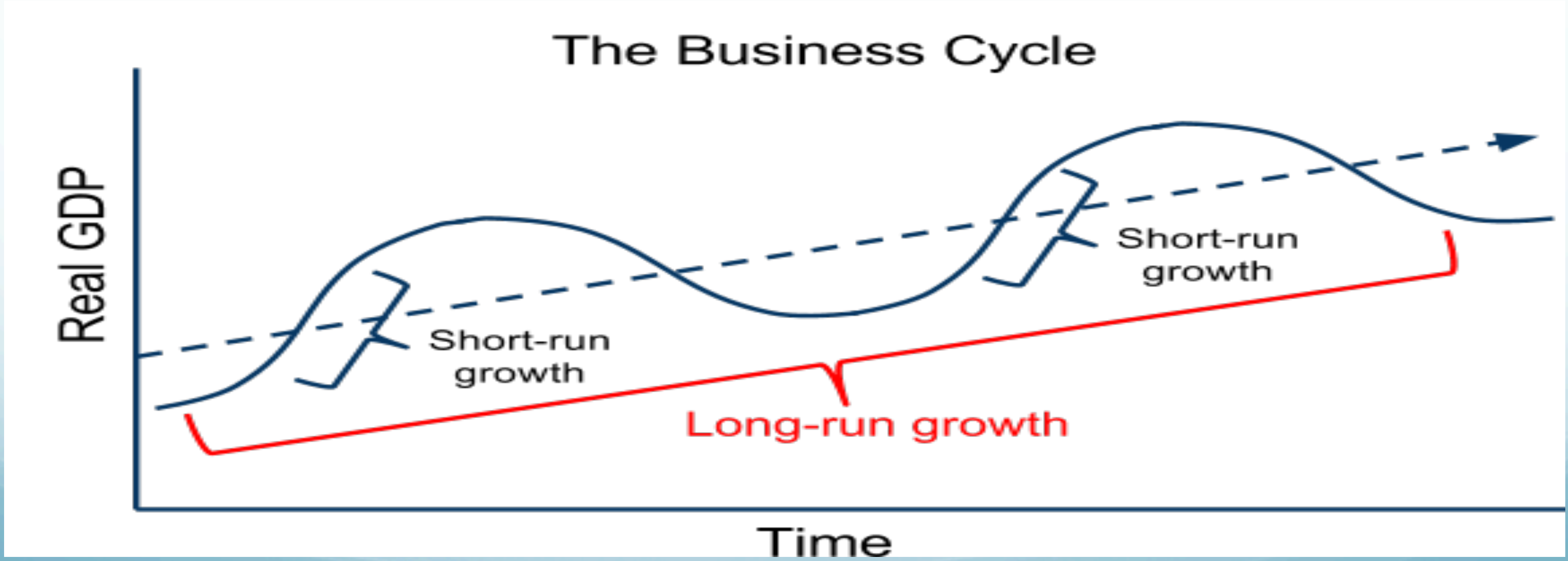
The AD/AS model:

- Short-run growth is shown as an outward shift in AD, long-run growth by an outward shift in AD and AS.



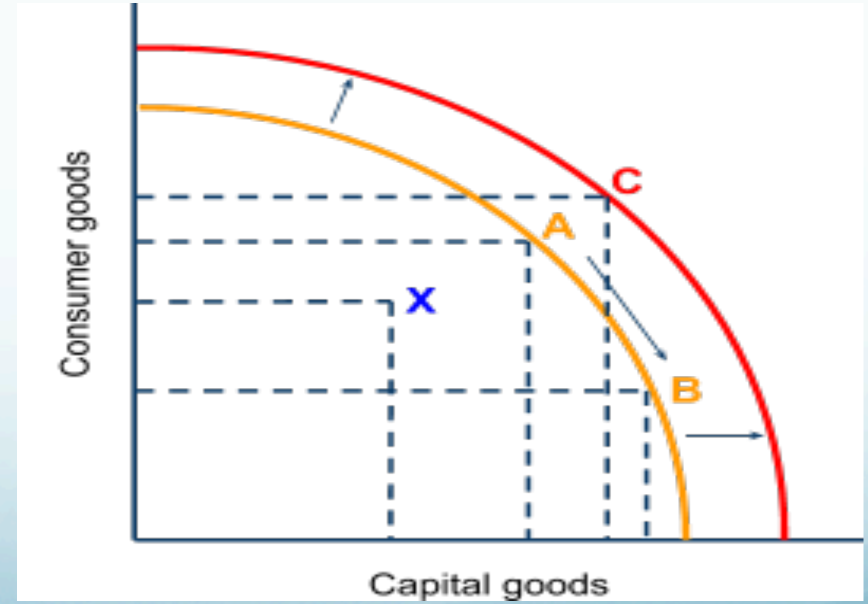
The Business Cycle:

- Short-run growth is shown as periods of recovery and expansion, long-run growth as an increase in output over time



The PPC:

- Short-run growth is shown as a movement from point X to points A or B, long-run grown as a movement of the PPC outwards (from points A or B to point C)



Test Your Knowledge

- With your NEW partner, answer the following questions:
- Describe, using a PPC diagram, economic growth as an increase in production possibilities caused by factors including increases in the quantity and quality of resources, leading to outward PPC shifts.
- Describe, using an LRAS diagram, economic growth as an increase in potential output caused by factors including increases in the quantity and quality of resources, leading to a rightward shift of the LRAS curve.

Consequences of Economic Growth

- The most obvious effect of economic growth is **HIGHER INCOMES** and **GREATER OUTPUT**, both which benefit the households and firms in a nation.
- However, there are several *undesirable* consequences that may arise from the growth in output of a nation over time.

Externalities:

- Economic growth often comes at the expense of the environment.
- If growth is fueled by resource depletion, it may be unsustainable and may result in harmful effects on human and environmental health.

Inflation:

- In economies experiencing rapid growth, high inflation often accompanies it.
- This means that if household incomes do not keep up with inflation, higher incomes may not actually improve standards of living over time.
- To adjust for inflation, it is important to consider the *real economic growth per capita* to determine how much better or worse off the typical household is from growth.

Structural unemployment:

- A common effect of growth in the era of globalization is large numbers of people becoming *structurally unemployed*, as certain skills are no longer demanded in rapidly growing economies.
- An example is the disappearance of manufacturing jobs in the West as Asian nations attracted most new investment by manufacturers due to lower labor costs.

Composition of output:

- If growth is primarily because of higher output in sectors that detract from human welfare (such as the weapons industry), then it may not make the typical household better off.

Unequal distribution of income:

- the benefits of growth may not be shared across all segments of society, particularly if the rich see incomes rise dramatically while the middle class stagnates.

Test YOUR KNOWLEDGE

- Answer the following question
- Post on edmodo
- Reply to one of the responses on edmodo
- Discuss the possible consequences of economic growth, including the possible impacts on living standards, unemployment, inflation, the distribution of income, the current account of the balance of payments, and sustainability.