

# Intermediate Macroeconomics

## Review session

ECON 3311 – Fall 2024

UT Dallas

# Question #1

Suppose a production function displays decreasing return to scale. Which of the following statements is correct?

- a. If both inputs increase by 50%, output will decrease by less than 50%
- b. If only labor increase by 50%, and capital stays the same, output will increase by 50%
- c. If only labor increase by 50%, and capital stays the same, output will increase by 25%
- d. If only labor increase by 50%, output will stay the same because only labor increased and capital did not
- e. None of the above answers are correct

## Question #2

Suppose that real GDP has increased. Which of the following statements is true?

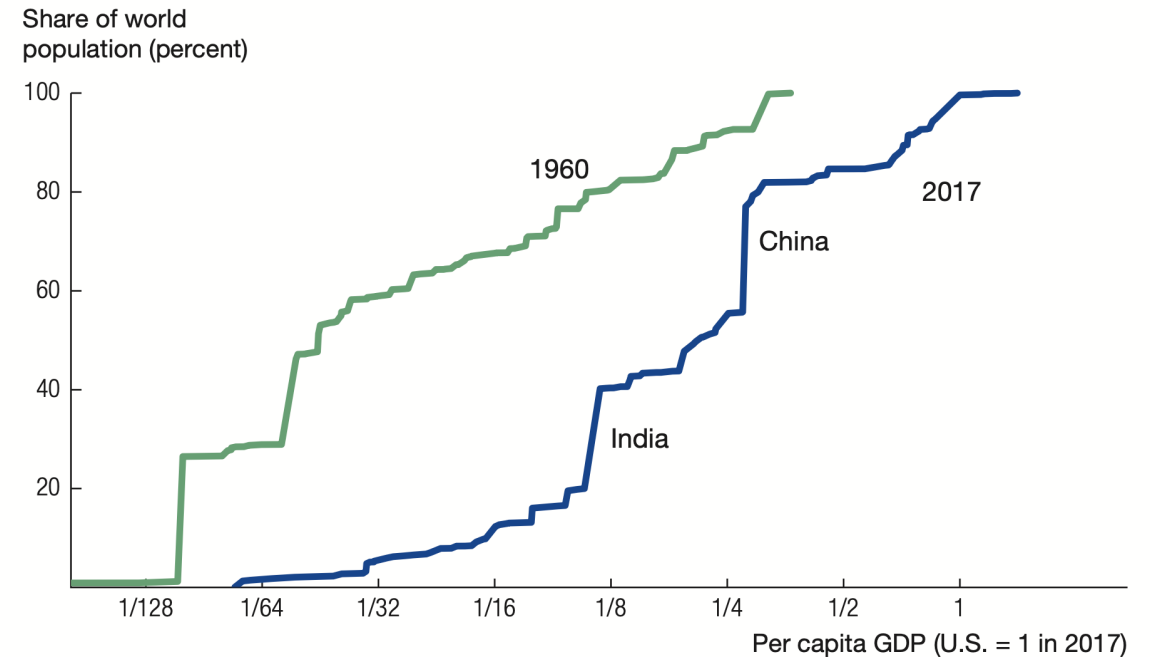
- a. Nominal GDP must have increased by more than real GDP
- b. The country is producing more of every single good and service
- c. The change in real GDP is equal to the sum of  $C+I+G+EX$
- d. Prices may have decreased

# Question #3

Which of the following can be concluded from the graph?

- a. The income of every single country has increased from 1960 to 2017
- b. The GDP of all countries is lower than that of the US
- c. On average, countries have increased their real GDP from 1960 to 2017

The Distribution of World Population by Per Capita GDP, 1960 and 2017



## Question #4

If real GDP is growing at a faster rate than the money supply, then the quantity theory of money predicts that there will be inflation.

- a. True
- b. False

## Question #5

If the consumer price index was 110 in 2023 and 120 in 2024, this means that the inflation rate from 2023 to 2024 was:

- a. 10%
- b. 12%
- c. 9.09%
- d. 8.33%

# Question #6

The CPI measures the increase in all prices in the economy.

- a. True
- b. False

# Question #7

Which of the following is true regarding a production function with only two inputs  $Y=F(K,L)$ ?

- a. If it displays constant returns to scale, then there will be diminishing marginal product of labor and diminishing marginal product of capital
- b. If it displays constant returns to scale, then if there is diminishing marginal product of labor then the marginal product of capital is increasing
- c. If it displays constant returns to scale, then the marginal product of labor and the marginal product of capital are both constant



## Question #8

GDP will decrease if people started eating at home more and eating at restaurants less

- a. True
- b. False

## Question #9

Suppose a country growing at a constant growth rate had GDP grow by 120% in 35 years. What can we conclude about its growth rate?

- a. Greater than 2%
- b. 2%
- c. Less than 2%

# Question #10

Most of the difference in GDP per capita between countries can be explained by:

- a. Differences in Total Factor Productivity
- b. Differences in capital per person
- c. Differences in the marginal product of capital
- d. Differences in the amount of labor in each country

# Question #11

In the context of the basic Solow model, how can a country that's already at their (steady state) long-run capital level induce further growth?

- a. This is given, investment is always positive and thus capital keeps on increasing.
- b. By implementing technological improvements.
- c. By increasing their depreciation rate.
- d. By consuming more and saving less.

# On the Solow Model: The case of an improvement in Technology

Remember the key condition to determine  $K^*$  is: *Investment = Depreciation*

Naturally (given our assumption  $I = sY$ ), features affecting  $Y$  can also push  $K^*$  **towards a higher level  $K^{**}$**

For example, a technological improvement: