

**Exam 2: Version A, T/TH
Spring 2019**

Do not open this exam until instructed to do so.

- You have 75 minutes to complete this exam
- You may use a calculator; you may **not** use any other device (cell phone, etc.)
- You may consult one page of notes (both sides); you may not use books, notebooks, etc.
- Show your work

I understand that the honor code applies: I will not lie, cheat, or steal to gain an academic advantage, nor tolerate those who do.

Signature
Michael

Printed Name
Wagner

For each question below, write the letter of the most correct answer to the left of the question.

1. (3 pts.) Using the model of Chapter 3 (that is a closed economy), when government spending increases and taxes are increased by an equal amount, then:

A. interest rates rise
B. interest rates fall
C. capital in the future will increase as higher interest rates incentivize investment.
D. no change in anything, this policy is deficit neutral.

2. (3 pts.) Starting from trade balance, in a small open economy, if the world interest rate increases

A. there will be a net capital outflow
B. there will be a trade deficit
C. no change because national savings is not affected
D. investment will increase

3. (3 pts.) Real GDP is a better measure of economic well-being than nominal GDP because real GDP:

A. includes the value of government transfer payments.
B. measures changes in the quantities of goods and services produced by holding prices fixed.
C. excludes the value of goods and services exported abroad.
D. measures changes in the prices of goods and services produced by holding quantities fixed.

4. (3 pts.) All of the following are measures of GDP **except** the total:

A. expenditures of all business in the economy.
B. value of all final production.
C. expenditures on all final goods and services produced.
D. income from all production in the economy.

5. (3 pts.) Suppose there are two types of workers, high-skill and low-skill. The idea of diminishing marginal products implies:

A. that less high-skilled workers decreases the real wage for high-skilled workers.
B. that less high-skilled workers increases the marginal product of labor for high-skilled workers.
C. that less high-skilled workers decreases the marginal product of labor for high-skilled workers.
D. that more high-skilled workers decreases the marginal product of capital.

Consider the following information for the next three questions: The technology to produce wheat and beef only use labor and they have constant marginal products of labor. The marginal products are

	Beef/hr	Tons of Wheat/hr	Total Labor Hours
USA	100	300	100
Argentina	20	20	20

6. (3 pts.) The United States has

- A. an absolute advantage in beef, but not wheat
 B. absolute advantage in beef and wheat
 C. a comparative advantage in beef
 D. an absolute advantage in wheat, but not beef

7. (3 pts.) Argentina has a comparative advantage in

- A. wheat and beef
 B. beef
 C. does not have a comparative advantage in either good, because it has absolute disadvantages
 D. wheat

8. (3 pts.) The United States's opportunity cost of producing beef is

- A. 3 wheat
 B. 3 beef
 C. 1 wheat
 D. 1/3 beef

9. (3 pts.) If output per worker Y/L is growing at 3 percent, and $\alpha K/L$ is growing at 2 percent, then

- A. labor is growing at two percent.
 B. total factor productivity is growing at -3 percent
 C. not sure what your are talking about
 D. total factor productivity is growing at 1 percent

10. (3 pts.) If the government of a small open economy wishes to reduce a trade deficit, which policy action will be successful in achieving this goal?

- A. impose protectionist policies, i.e. tax imports, subsidize exports.
 B. increasing investment demand
 C. increasing government spending
 D. increasing taxes

11. (35 pts.) **Trade Imbalances and Immigration.** The President of the United States has taken a hard stance on trade imbalances and immigration. How do these two seemingly different and unrelated issues relate? Let's see. Suppose the following:

- Due to immigration policies, the number of workers, L , in the US **decreases**.

Given this information, please answer the following questions.

a. (7 pts.) How would a decrease in, L , affect GDP? Carefully explain your answer.

$$Y = AK^{\alpha} L^{1-\alpha}$$

lower L

lower Y !!!

Less inputs, less output

b. (7 pts.) How does a decrease in, L , affect real wages? Carefully explain your answer.

$$\uparrow W = MPL \quad \uparrow$$

The idea of diminishing

marginal products implies

that as L becomes scarcer, then

the marginal product increases,

thus less L , makes L more

valuable increasing MPL

increasing wage

- c. (7 pts.) In an OPEN ECONOMY, how does an decrease in, L , affect each expenditure component of GDP? To simplify matters assume that the demand curve for investment does not change and that government spending and taxes are unchanged and that the country's trade deficit initially is zero. Carefully explain your answer.

$$Y = C + I + G + NX$$

$C \downarrow$ why? $C = \beta(Y - T)$ and

we argued that Y is falling...

I is pinned down by the world interest rate... so no change

$G \sim$ Nothing

$NX = S - I$, so savings is falling
as we have less income \Rightarrow trade deficit,
 $NX \downarrow$, becomes negative.

- d. (7 pts.) Answer this question for an OPEN ECONOMY. Suppose that, L , decreases today and remains lower for the indefinite future, **in the future (not today)**, how will wages change. Please carefully explain if they change by more, less, or the same relative to the effect that comes from just the change in L .

Just the ~~1~~ ^{change} ~~percent~~...

Why k is not changing,

Not affect on TFP...

- e. (7 pts.) How would your answer in part D. change (if at all) if the country were a CLOSED ECONOMY. Please carefully explain why or why not?

Way different

$S = I$ in closed economy

So less $S \Rightarrow I \downarrow \Rightarrow$ Less
Capital in the future.

So $L \downarrow$ today $w \uparrow$

But ~~it~~ in the future

K will \downarrow and this will push
wages down !!!