

Macroeconomics

Final exam

14.05.2020

Part 1: Multiple choice questions (20 points)

Circle the correct answer clearly.

1) Which answer is not a way to promote economic growth?

- a. Good nutrition.
- b. Free trade.
- c. **Minimum wage.**
- d. Funding research.

2) In 1991 a median home cost \$122,000 and CPI = 137. In 2016, the median home cost \$219,400 and CPI = 237.7. In real terms

- a. Houses were more expensive in 1991.
- b. **Houses were more expensive in 2016.**
- c. Houses were the same in both years.
- d. Not enough information to answer.

3) The aggregate demand curve is

- a. the total quantity of an economy's intermediate goods demanded at all price levels.
- b. the total quantity of an economy's final goods and services demanded at a particular price level.
- c. **the total quantity of an economy's final goods and services demanded at different price levels.**
- d. none of the above.

4) If economists want to gauge economic wellbeing it is appropriate to look at

- a. nominal GDP. If they want to look at economic growth it is also appropriate to look at nominal GDP.
- b. nominal GDP. If they want to look at economic growth it is appropriate to look at real GDP.
- c. real GDP. If they want to look at economic growth it is appropriate to look at nominal GDP.
- d. **real GDP. If they want to look at economic growth it is also appropriate to look at real GDP.**

5) A depreciation of the U.S. dollar, causes

- a. both U.S. exports and U.S. imports to rise.
- b. U.S. exports to rise and U.S. imports to fall.**
- c. U.S. imports to rise and U.S. exports to fall.
- d. both U.S. exports and U.S. imports to fall..

6) Which of the following does not cause the aggregate demand curve to shift to the left?

- a. A decrease in taxes.**
- b. A decrease in the money supply.
- c. A decrease in net exports
- d. A decrease in government spending.

7) In the language of macroeconomics, a higher interest rate induces people to

- a. save more, so the supply of loanable funds slopes upward.**
- b. save less, so the supply of loanable funds slopes downward.
- c. invest more, so the supply of loanable funds slopes upward.
- d. invest less, so the supply of loanable funds slopes downward..

8) According to the theory of liquidity preference, an increase in the price level causes the interest rate to

- a. rise. So the aggregate quantity of goods and services demanded rises.
- b. rise. So the aggregate quantity of goods and services demanded falls.**
- c. fall. So the aggregate quantity of goods and services demanded rises.
- fall. So the aggregate quantity of goods and services demanded falls.

9) If over time the nominal wage rises and the real wage falls, then

- a. dollar wages rose but the price level rose by a smaller percentage.

b. **dollar wages rose but the price level rose by a larger percentage.**

c. dollar wages fell but the price level fell by a smaller percentage.

d. dollar wages fell but the price level fell by a larger percentage.

10) Suppose the money supply grows faster in Mexico than Canada. Other things constant,

a. **the Canadian dollar will appreciate relative to the Mexican peso.**

b. the Canadian dollar will depreciate relative to the Mexican peso.

c. the Canadian dollar will maintain constant value relative to the Mexican peso because of purchasing power parity.

d. the Canadian dollar will maintain constant value relative to the Mexican peso because of the theory of one price.

Part 2: True/False questions (20 points)

Indicate whether the statement below is true or false, no need for explanation.

1) Frictional unemployment is often the result of changes in the demand for labor among different firms. (T)

2) According to the theory of liquidity preferences, the long-run aggregate supply curve is upward sloping. (F)

3) In the national income accounts, GDP can be measured as production, income, or expenditures. (T)

4) In an open economy, when NCO (net capital outflow) increases, NX (net export) decreases. (F)

5) The Crowding-Out Effect is the additional shifts in AD that result when fiscal policy increases income and thereby increases consumer spending. (F)

Part 3: Explanation of concepts (30 points)

Answer the following questions. Use graphs when necessary.

1) List three theories for why the short-run aggregate-supply curve is upward sloping and explain only one of them.

Answer: Sticky wage, sticky price, misperceptions:

2) Draw the AD-SRAS_LRAS diagram for the Czech economy starting in a long-run equilibrium. Suppose that economic boom occurs in Germany. Use the diagram to determine the short run and long run effects on the Czech GDP, the price level and unemployment.

Answer: Lecture Note 9, Active learning exercise 2, page 46-47.

3) Define the nominal exchange rate and real exchange rate and explain how they are related. If the nominal exchange rate goes from 100 to 120 yen per dollar, has the dollar appreciated or depreciated?

Part 4: Solve the problem (30 points)

Solve the following problem. Show your work, no points will be granted to solutions without explanation.

Suppose the government reduces taxes by \$20 billion, that there is no crowding out, and that the marginal propensity to consume is $3/4$.

a. What is the initial effect of the tax reduction on aggregate demand? Draw AS-AD diagram and show the changes.

ANSWER: The initial effect of the tax reduction of \$20 billion is to increase aggregate demand by $\$20 \text{ billion} \times 3/4$ (the MPC) = \$15 billion. Therefore, AD curve shifts right.

b. What additional effects follow this initial effect? What is the total effect of the tax cut on aggregate demand?

ANSWER: Additional effects follow this initial effect as the added incomes are spent. The second round leads to increased consumption spending of $\$15 \text{ billion} \times 3/4 = \11.25 billion . The third round gives an increase in consumption of $\$11.25 \text{ billion} \times 3/4 = \8.44 billion . The effects continue indefinitely. Adding them all up gives a total effect that depends on the multiplier. With an MPC of $3/4$, the multiplier is $1/(1 - 3/4) = 4$. So the total effect is $\$15 \text{ billion} \times 4 = \60 billion .

c. How does the total effect of this \$20 billion tax cut compare to the total effect of a \$20 billion increase in government purchases? Why?

ANSWER: Government purchases have an initial effect of the full \$20 billion, because they increase aggregate demand directly by that amount. The total effect of an increase in government purchases is thus $\$20 \text{ billion} \times 4 = \80 billion . So government purchases lead to a bigger effect on output than a tax cut does. The difference arises because government purchases affect aggregate demand by the full amount, but a tax cut is partly saved by consumers, and therefore does not lead to as much of an increase in aggregate demand.