Problem Set 6

Multiple choice questions:

1. Aggregate demand will increase if:
   a. Consumption falls
   b. Investment falls
   c. Exports fall
   d. Imports fall

2. Which of the following would decrease aggregate demand?
   a. Increased consumption
   b. Increasing export revenue
   c. Increased taxation revenue
   d. Increased investment

3. Which of the following statements is true about a country with a trade surplus?
   a. Net exports are negative and net capital outflow must be positive.
   b. Net exports are negative and net capital outflow must be negative.
   c. Net exports are positive and net capital outflow must be negative.
   d. Net exports are positive and net capital outflow must be positive.

4. The theory of purchasing-power parity does not always hold in practice because:
   a. many goods are not easily traded across borders.
   b. tradable goods are not always perfect substitutes when they are produced in different countries.
   c. real exchange rates fluctuate over time.
   d. both a. and b. are correct

5. When the French company Airbus sells a new plane to Southwest Airlines in the U.S.:
   a. U.S. net exports fall and the U.S. trade deficit falls.
   b. U.S. net exports fall and the U.S. trade deficit rises.
   c. U.S. net exports rise and the U.S. trade deficit rises.
   d. U.S. net exports rise and the U.S. trade deficit falls.

6. Which component of real GDP fluctuates the most over the course of the business cycle?
   a. consumption
   b. government expenditure
   c. investments

d. net exports

7. According to the wealth effect, one of the reasons for the slope of the aggregate demand curve is that falling prices

a. **increases the value of money holdings so consumer spending increases.**

b. decreases the value of money holdings so consumer spending increases.

c. increases the value of money holdings so consumer spending decreases.

d. decreases the value of money holdings so consumer spending decreases.

8. Suppose there is an increase in net exports. To stabilize output the government could

a. increase government expenditures. The smaller the multiplier, the more it would need to increase expenditures.

b. increase government expenditures. The smaller the multiplier, the less it would need to increase expenditures.

c. **decrease government expenditures. The smaller the multiplier, the more it would need to decrease expenditures.**

d. decrease government expenditures. The smaller the multiplier, the less it would need to decrease expenditures.

9. Which of the following would NOT cause a shift in AD?

a. a reduction in income tax.

b. a reduction in interest rates.

c. an increase in government spending.

d. **a fall in the cost of production.**

10. Suppose the economy is initially in long-run equilibrium. Then suppose there is an increase in military spending. According to the model of aggregate demand and aggregate supply, what happens to prices and employment in the short run?

a. prices rise, employment rises

b. prices rise, employment falls

c. prices fall, employment falls

d. prices fall, employment rises

True/False questions:

1. A real exchange rate is the price of one currency expressed in terms of another, with no other adjustment. (F)

2. A trade deficit exists when imports exceed exports. In this instance, the net capital outflow is negative. (T)

3. If the dollar appreciates relative to the euro, French and German consumers will find American products less attractive. (T)

4. The larger the MPC, the smaller the multiplier. (F)

5. Over time technological progress shifts the aggregate supply curve to the right making the inflation rate higher than otherwise. (F)

Answer the following questions:

1) Define net exports and net capital outflow (net foreign investment). Explain how and why they are related.?

ANSWER: The net exports of a country are the value of its exports minus the value of its imports. Net capital outflow refers to the purchase of foreign assets by domestic residents minus the purchase of domestic assets by foreigners. Net exports are equal to net capital outflow by an accounting identity, because exports from one country to another are matched by payments of some asset from the second country to the first.

2) 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??

ANSWER: The nominal exchange rate is the rate at which a person can trade the currency of one country for the currency of another. The real exchange rate is the rate at which a person can trade the goods and services of one country for the goods and services of another. They are related through the expression: real exchange rate equals nominal exchange rate times domestic price divided by foreign price. If the nominal exchange rate goes from 100 to 120 yen per dollar, the dollar has appreciated because a dollar now buys more yen.

3) Explain why the long-run aggregate-supply curve is vertical. Explain three theories for why the short-run aggregate-supply curve is upward sloping.

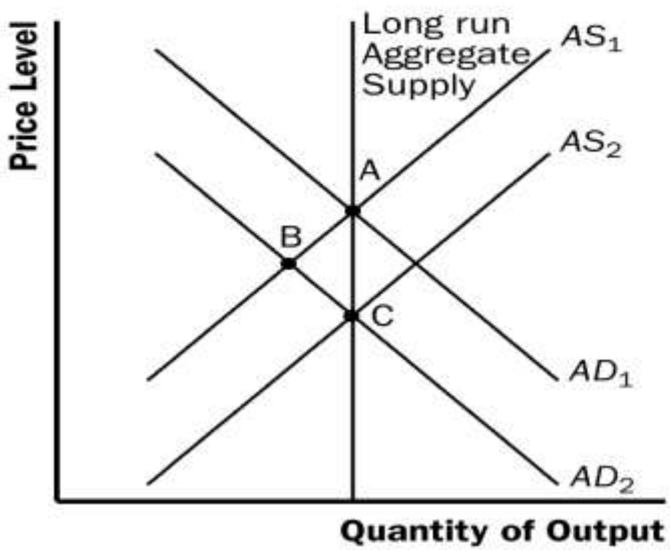
ANSWER: The long-run aggregate-supply curve is vertical because the price level does not affect the long-run determinants of real GDP, which include supplies of labor, capital, natural resources, and the level of available technology. This is an application of the classical dichotomy and monetary neutrality.

There are three reasons the short-run aggregate-supply curve slopes upward. First, the sticky-wage theory suggests that because nominal wages are slow to adjust, a decline in the price level means real wages are higher, so firms hire fewer workers and produce less, causing the quantity of goods and services supplied to decline. Second, the sticky-price theory suggests that the prices of some goods and services are slow to change. If some economic event causes the overall price level to decline, the relative prices of goods whose prices are sticky will rise and the quantity of those goods sold will decline, leading firms to cut back on production. Thus, a lower price level reduces the quantity of goods and services supplied. Third, the misperceptions theory suggests that changes in the overall price level can temporarily mislead suppliers. When the price level falls below the level that was expected, suppliers think that the relative prices of their products have declined, so they produce less. Thus, a lower price level reduces the quantity of goods and services supplied.

4) What might shift the aggregate-demand curve to the left? Use the model of aggregate demand and aggregate supply to trace through the effects of such a shift?

ANSWER: The aggregate-demand curve might shift to the left when something (other than a rise in the price level) causes a reduction in consumption spending (such as a desire for increased saving), a reduction in investment spending (such as increased taxes on the returns to investment), decreased government spending (such as a cutback in defense spending), or reduced net exports (such as when foreign economies go into recession).

Figure below traces through the steps of such a shift in aggregate demand. The economy begins in equilibrium, with short-run aggregate supply, AS_1, intersecting aggregate demand, AD_1, at point A. When the aggregate-demand curve shifts to the left to AD_2, the economy moves from point A to point B, reducing the price level and the quantity of output. Over time, people adjust their perceptions, wages, and prices, shifting the short-run aggregate-supply curve to the right to AS_2, and moving the economy from point B to point C, which is back on the long-run aggregate-supply curve and has a lower price level.



5) For each of the three theories for the upward slope of the short-run aggregate-supply curve, carefully explain the following:

a. how the economy recovers from a recession and returns to its long-run equilibrium without any policy intervention.

ANSWER: According to the *sticky-wage theory*, the economy is in a recession because the price level has declined so that real wages are too high, thus labor demand is too low. Over time, as nominal wages are adjusted so that real wages decline, the economy returns to full employment.

According to *the sticky-price theory*, the economy is in a recession because not all prices adjust quickly. Over time, firms are able to adjust their prices more fully, and the economy returns to the long-run aggregate-supply curve.

According to the *misperceptions theory*, the economy is in a recession when the price level is below what was expected. Over time, as people observe the lower price level, their expectations adjust, and the economy returns to the long-run aggregate-supply curve.

b. what determines the speed of that recovery?

ANSWER: The speed of the recovery in each theory depends on how quickly price expectations, wages, and prices adjust.

6) Give an example of a government policy that acts as an automatic stabilizer. Explain why this policy has this effect.

ANSWER: Government policies that act as automatic stabilizers include the tax system and government spending through the unemployment-benefit system. The tax system acts as an automatic stabilizer because when incomes are high, people pay more in taxes, so they cannot spend as much. When incomes are low, so are taxes; thus, people can spend more. The result is that spending is partly stabilized. Government spending through the unemployment-benefit system acts as an automatic stabilizer because in recessions the government transfers money to the unemployed so their incomes do not fall as much and thus their spending will not fall as much.

7) Suppose government spending increases. Would the effect on aggregate demand be larger if the Federal Reserve took no action in response, or if the Fed were committed to maintaining a fixed interest rate? Explain.

ANSWER: If government spending increases, aggregate demand rises, so money demand rises. The increase in money demand leads to a rise in the interest rate and thus a decline in aggregate demand if the Fed keeps the money supply constant. But if the Fed maintains a fixed interest rate, it will increase the money supply, so aggregate demand will not decline. Thus, the effect on aggregate demand from an increase in government spending will be larger if the Fed maintains a fixed interest rate.