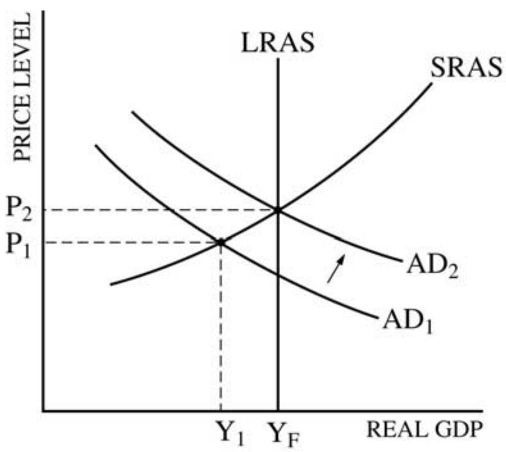
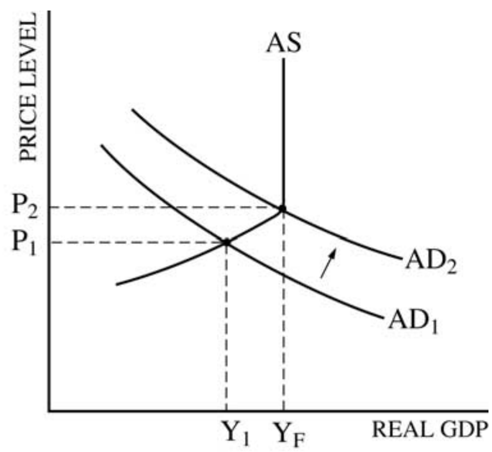
AP® Macroeconomics
2003 Scoring Guidelines
Form B

Question 1

Correct Answers:

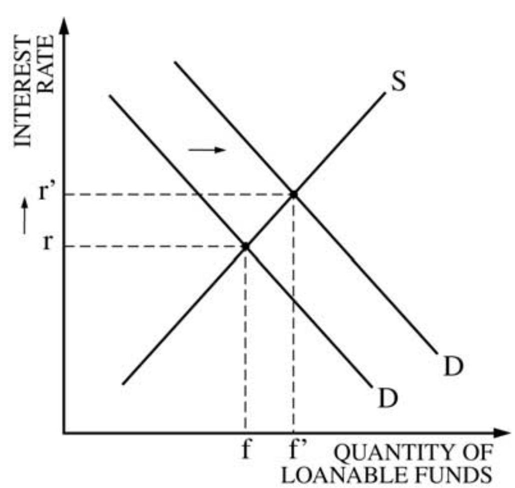


or



(a) In the graph above, the economy is currently operating at real output level Y_1, which is below full-employment output Y_f. The price level is P_1.

(b) With the increase in government spending, AD will shift rightward to AD_2 and the equilibrium price level and real GDP will increase to P_2 and Y_f respectively.



Question 1 (cont'd)

(c) The increase in deficit spending and government borrowing will shift the demand curve for loanable funds to the right, increasing the interest rate as illustrated in the diagram above.

(d) Suppose this country is the United States. An increase in interest rates in the United States will make dollar-denominated financial assets relatively attractive, thus increasing the international demand for the dollar. An increase in international demand for the dollar will cause the dollar to appreciate in value in the international currency market.

(e) The appreciation of the domestic currency makes imports relatively inexpensive and exports relatively expensive. Thus, imports will increase and exports will decrease. This will worsen the country's trade balance.

(f) The increase in real interest rates will reduce investment in capital stock, causing long-run growth to decrease.

Question 1 (cont'd)

Grading Rubric:

Question 1 (**15 points):**

a) 3 points:
1 point - Correctly labeled AD/AS graph.
1 point - Indication of a capacity constraint, as with a vertical LRAS, a labeled full employment output level, or a vertical segment of the AS curve.
1 point - Current output and price level below full employment.

b) 2 points:
1 point - Rightward shift in the AD.
1 point - Output increases and price level increases.

c) 3 points:
1 point - Correctly labeled graph.
1 point - Right shift in the demand for loanable funds (or left shift in the supply of funds, thinking of it as the *private* market for loanable funds) and interest rate increase.
1 point - Positively sloped loanable funds curve (to accurately reflect interest rate sensitivity).

d) 2 points:
1 point – Stating that the dollar will appreciate.
1 point – For explanation: because dollar denominated financial assets become relatively attractive, thus increasing the demand for the dollar.

e) 3 points:
1 point - Imports will increase and exports will decrease.
1 point - The appreciating dollar makes imports relatively inexpensive, OR makes exports relatively expensive.
1 point - The trade balance will worsen, OR the trade deficit will increase.

f) 2 points:
1 point - Long-run growth will decline.
1 point - Higher real interest rates reduce investment in capital stock, causing growth to decrease.

Question 2

Correct Answers:

(a) Luna had an absolute advantage in the production of machines because it can produce more machines using the same amount of resources. That is, with the same resources, it can produce 40 machines while Ashna can only produce 10.

(b) Luna had an absolute advantage in the production of food because it can produce more machines using the same amount of resources. That is, it can produce 40 units of food while Ashna can produce 30 using the same resources.

(c) Luna has a comparative advantage in producing machines because it can produce them at a lower opportunity cost than Ashna. Luna forgoes 1 unit of food for each machine, while Ashna forgoes 3 units of food for each machine.

(d) Luna should import food because it has a higher opportunity cost of producing food than Ashna. Ashna can produce food at a cost of 1/3 machine per unit of food, while it costs Luna 1 machine per unit of food. Thus, Ashna has a comparative advantage in producing food.

(e) If Luna paid ½ machine per unit of food, it would receive food for half the number of machines that it must pay without trade, and Ashna would receive ½ machine per unit of food rather than 1/3 of a machine per unit of food as it would receive without trade.

Question 2 (cont'd)

Grading Rubric:

Question 2: 7 points

a) 1 point (1/2 for identification and 1/2 for explanation)
½ point - Luna has the absolute advantage in machines.
½ point - Because it can produce more machines using the same amount of resources.

b) 1 point: (1/2 for identification and 1/2 for explanation)
½ point - Luna has the absolute advantage in food.
½ point - Because it can produce more food using the same amount of resources.

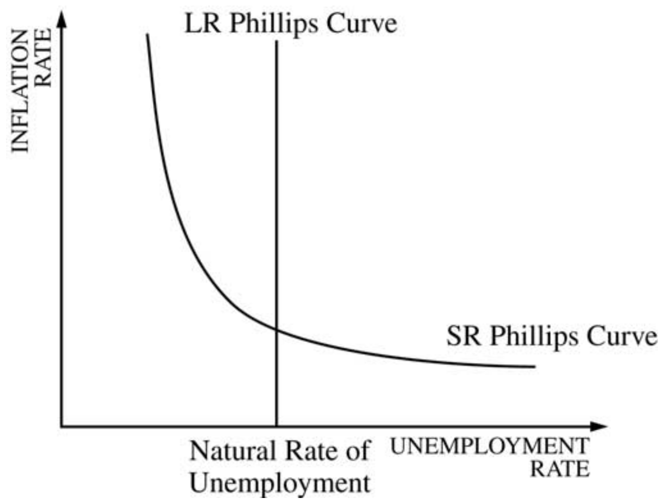
c) 2 points:
1 point - Luna has a comparative advantage in machines.
1 point - Because it has a lower opportunity cost than Ashna.

d) 2 point:
1 point - Luna will import food.
1 point - Because it has a higher opportunity cost of producing food, and Ashna has a comparative advantage in producing food.

e) 1 point:
Any figure between pre-trade domestic opportunity costs is acceptable. Note that Luna would pay between 1/3 and 1 machine per unit of food: F = 1/3 to 1 M, and Ashna would pay between 1 and 3 units of food per machine: M = 1 to 3 F. Acceptable answers thus include 1M = 1.5 F, 1M = 1.75 F; 1F= 1/2M, etc.

Question 3

Correct Answers:



(a) The diagram above illustrates the long run and short run Phillips curves for Country X.

(b) An increase in government spending will shift the aggregate demand curve to the right, which causes inflation to increase and unemployment to decrease. This corresponds with a movement to the left along a stationary short-run Phillips curve.

(c) A drop in inflationary expectations will lead input providers to build smaller increases into their wage and rental contracts. The aggregate supply curve will shift to the right as input prices are moderated. The aggregate supply increase will decrease the inflation and unemployment levels for any given level of aggregate demand, and shift the short-run Phillips curve to the left.

(d) Increased unemployment insurance benefits will lead unemployed people to invest more time in the job search process, and more people will be unemployed at any given time. This will increase the natural rate of unemployment and shift the long-run Phillips curve to the right.

Question 3 (cont'd)

Grading Rubric:

Question 3: 10 points

a) 3 points:
- 1 point - Correctly labeled graph of the Phillips curve (inflation or % change in wage and unemployment)
- 1 point - Short-run Phillips curve (negative slope)
- 1 point - Long-run Phillips curve (vertical)

b) 6 points: (3 points for each part)

(i) 3 points for effects of government spending:
- 1 point - Inflation up
- 1 point - Unemployment down
- 1 point - No change in Phillips curve, or movement along the curve

These changes result from a rightward shift in AD. However, just an AD/AS graph is insufficient for any of these points. A clearly labeled Phillips curve can indicate all three elements, as can words.

(ii) 3 points for effects of inflationary expectations:
- 1 point - Inflation down
- 1 point - Unemployment down
- 1 point - Phillips curve shifts to the left

A drop in inflationary expectations results in a rightward shift in AS, thus lowering inflation for any given unemployment level and shifting the Phillips curve to the left. Just an AD/AS graph is insufficient.

c) 1 point: The Phillips curve shifts to right

When unemployment benefits increase, unemployed people invest more time in the job search process, meaning that more people are unemployed at any given time. This increases the natural rate of unemployment and shifts the long-run Phillips curve to the right.