MACROECONOMICS

Section II

Planning Time—10 minutes

Writing Time—50 minutes

Directions: You have fifty minutes to answer all three of the following questions. It is suggested that you spend approximately half your time on the first question and divide the remaining time equally between the next two questions. In answering the questions, you should emphasize the line of reasoning that generated your results; it is not enough to list the results of your analysis. Include correctly labeled diagrams, if useful or required, in explaining your answers. A correctly labeled diagram must have all axes and curves clearly labeled and must show directional changes.

1. Assume that the United States economy is operating at less than full employment.

(a) Using a correctly labeled aggregate demand and aggregate supply graph, show the following.

(i) Full-employment output

(ii) Current output

(iii) Current price level

(b) Identify an open-market operation that could restore full employment in the short run.

(c) Using a correctly labeled graph of the money market, show how the open-market operation you identified in part (b) affects the interest rate in the short run.

(d) Explain how the change in the interest rate you identified in part (c) will affect aggregate demand.

(e) Show on the graph in part (a) how the change in the interest rate you identified in part (c) will affect output and price level.

(f) Instead of the open-market operation in part (b), suppose that no policy actions are taken to address the unemployment problem. With flexible prices and wages, explain how each of the following will eventually change.

(i) Short-run aggregate supply

(ii) Output and price level

2. (a) Assume that national saving in the United States increases. Explain the effect of this increase on the real interest rate in the United States.

   (b) Suppose that real interest rates in the rest of the world remain unchanged.

      (i) Explain the effect of the real interest rate change in the United States that you identified in part (a) on the demand for the United States dollar in the foreign exchange market.

      (ii) As a result of the effect you identified in (i), what will happen to the international value of the United States dollar?

   (c) Given your answer in part (b), indicate how each of the following will change.

      (i) United States imports

      (ii) United States exports

Question 1

Correct Answer:

(a) Draw a correctly labeled AS/AD graph illustrating an economy operating below full employment and showing current price level and output as shown below in the rubrics section.

(b) The Fed should purchase government bonds to move the economy towards full employment.

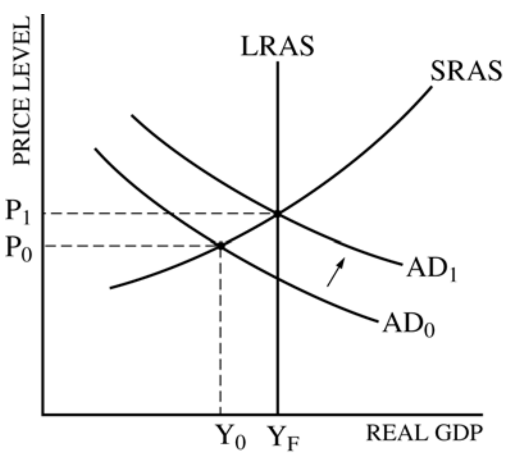
(c) A correctly labeled money market graph is shown in the rubrics section. The purchase of bonds by the Fed would increase the money supply, shifting the money supply curve to the right and resulting in a decrease in the interest rate.

(d) The resulting decrease in the interest rate would cause interest-sensitive expenditures (consumption and investment) to increase. Aggregate demand would increase, resulting in an increase in output and price level.

(e) The increase in AD should be shown as a rightward shift of the AD curve toward full-employment GDP on the original AS/AD graph in part (a).

(f) According to classical economic theory, if no action were taken by the Fed to mitigate the recession, wages or other production costs would eventually fall. As a result, the SRAS curve would shift to the right resulting in an increase in output and a decrease in the price level.

Scoring Guidelines: 13 points (3+1+3+2+1+3)



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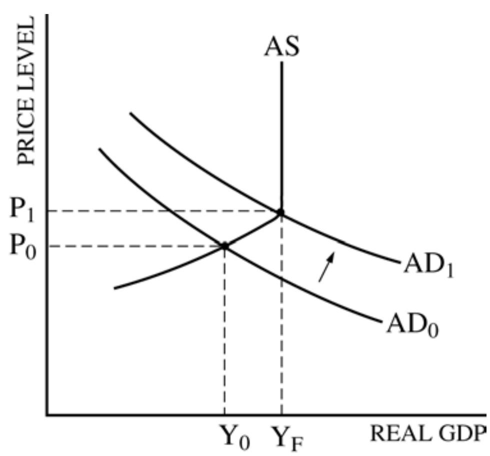


(a) 3 points:

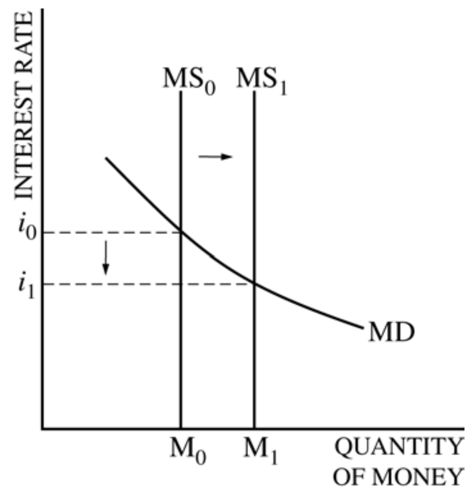
1 - AD/AS graph with full-employment output shown

1 - showing below full-employment equilibrium

1 - current price level and output

Question 1 (cont'd.)

(b) 1 point: for identifying correct monetary policy: buy bonds



(c) 3 points:

1 - correct graph of the money market

1 - for the rightward shift of the money supply curve

1 - for showing the resulting decrease in the interest rate

(d) 2 points:

1- the decrease in the interest rate causes an increase in I and/or C

1- AD increases as a result of change in C and/or I with a link to the interest-rate change in (c)

(e) 1 point: for the increase in the price level and real output as a result of the AD shift

(f) 3 points:

1 - wages or other production costs would fall

1 - AS curve would shift to the right

1 - price level would fall and real output would rise