

# 2000 AP® MACROECONOMICS FREE-RESPONSE QUESTIONS

## MACROECONOMICS

### SECTION II

**Planning Time—10 minutes**

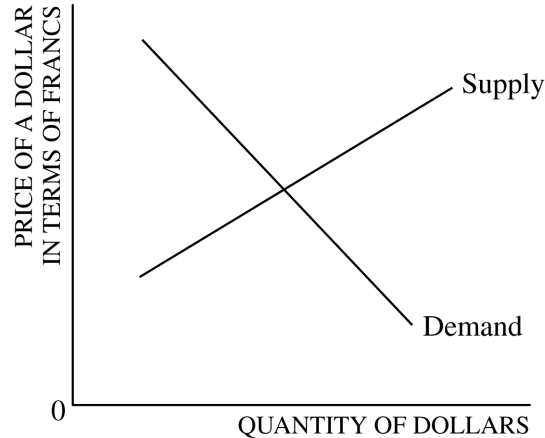
**Writing Time—50 minutes**

**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. Suppose that the United States economy is in a deep recession.
  - (a) Using a correctly labeled aggregate demand and aggregate supply graph, show the equilibrium price level and real gross domestic product.
  - (b) There is a debate in Congress as to whether to decrease personal income taxes by a given amount or to increase government purchases by this amount. Which of these two fiscal policies will have a larger impact on real gross domestic product? Explain.
  - (c) Explain how a decrease in personal income taxes will affect each of the following in the short run.
    - (i) Consumption
    - (ii) Real gross domestic product and the price level
    - (iii) Imports
    - (iv) Exports
  - (d) Explain the mechanism by which an increase in net investment will cause each of the following to change.
    - (i) Aggregate demand
    - (ii) Long-run aggregate supply

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2. Assume that the United States and France are the only two countries in the world and that exchange rates between the two countries are flexible.



- (a) Assume that there is an increase in the United States demand for French goods. Explain how this increase in demand will affect each of the following.
- (i) The supply of dollars
  - (ii) The international value of the dollar
- (b) Assume that there is an increase in real interest rates in the United States, but not in France. Explain how this increase in interest rates will affect each of the following.
- (i) The international value of the dollar in the foreign exchange market
  - (ii) The quantity of dollars supplied in the foreign exchange market
3. Assume an economy with no international sector.
- (a) Using a correctly labeled money-market graph, show how a decrease in the money supply will affect interest rates.
- (b) Explain how the change in the interest rate you identified in part (a) will directly affect each of the three components of aggregate demand for this closed economy.
- (c) Using a correctly labeled aggregate demand and aggregate supply graph, show how the change in the interest rate you identified in part (a) will affect each of the following in the short run.
- (i) Output
  - (ii) Price level

**END OF EXAMINATION**

**Scoring Guideline for Macroeconomics Question 1:**

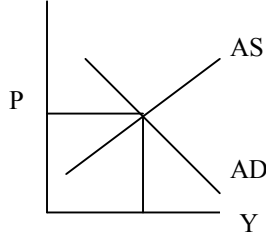
**[2+2+4+2 = 10 Points]**

**Part (a): 2 Points**

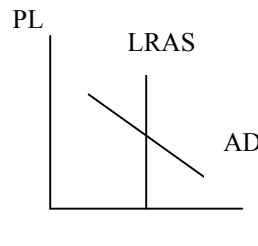
(1 point) AD-AS graph with a real output (Q or Y) and a price level shown

(1 point) Showing that the real output is below the full-employment or potential income

Some **one point only** graphs:



Absence of Full employment



Absence of Recession

**Part (b)**

(1 point) G increase has greater impact than the T decrease

(1 point) Reason: part of the T decrease is saved and does not contribute directly to an increase in income

**Part (c): 4 Points**

No Assertions!

i. (1 point) Consumption increases because disposable income increases  
(May draw on part b if  $Y_d$  or money income increase is clearly stated)

ii. (1 point) Because AD increases, GDP and P level increase  
[If the student operates in the perfectly elastic range of AS curve, P level would not need to increase.]

iii. (1 point) Imports increase with an explanation:  
a) higher income/real GDP increases imports  
b) higher domestic price level increases imports  
c) higher interest rate leads to appreciated \$ which will increase imports  
[Note: if only assert \$ increases vs. other currencies, no point in part iii.]

iv. (1 point) Exports decrease with an explanation:  
a) higher domestic price level decreases exports  
b) appreciated dollar reduces exports  
(Note: Exports “do not change” if P does not change in ii. is acceptable)