



**AP[®] Macroeconomics
2004 Free-Response Questions**

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2004 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. 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

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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

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3. The Federal Reserve buys \$5,000 in bonds from Clark Consulting Services, which then deposits the money in a checking account at First Generation Bank.
- (a) As a result of the Federal Reserve's action, what is the change in the money supply if the required reserve ratio is 100 percent?
 - (b) If the required reserve ratio is reduced to 10 percent, calculate the following.
 - (i) The maximum amount this bank could lend from this deposit
 - (ii) The maximum increase in the total money supply from the Federal Reserve's purchase of bonds
 - (c) If banks keep some of the deposit as excess reserves, how will this influence the change in the money supply that was determined in part (b)(ii)? Explain.
 - (d) If the public decides to hold some money in the form of currency rather than in demand deposits, how will this influence the change in the money supply that was determined in part (b)(ii)? Explain.

END OF EXAMINATION